



LEADERSHIP AND INNOVATION

PROJECT

REPORT

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0. Executive summary

Banca Mediolanum S.p.A. is a major Italian financial institution operating mainly in Italy, Spain and Germany and offering a wide range of banking, insurance and asset management services.

In recent years, the Bank has also focused on technological progress and the need to meet customers' demands. In fact, it offers several digital services, including 'Mediolanum for you', 'Selfy' and 'App Mediolanum'. These solutions represent a response to the market, which is constantly facing periods of change and innovation.

In light of these considerations, our project consists of trying to develop an innovative solution, using current technologies, to improve Selfy's customer acquisition.

The company's core competencies were identified through an initial internal analysis, followed by an assessment of the context in which it operates.

Market research and customer needs surveys revealed some major problems, namely the low engagement of banking applications and the desire for more financial education, which is a growing need.

Our idea alleviated this customer pain by responding to customer preferences. Play-to-Learn will allow users to interact with financial education content through quizzes and a gamified environment. The user'll no longer use the banking app just to make transfers or check their expenses, but it'll be used as a source of information and entertainment. Furthermore, following the trend of personalisation, the implementation of machine learning'll allow Selfy to be tailor-made for each customer in order to serve them with the right content, the right service for their interests.

In order to offer reliable and personalised content Selfy would have to enter into a partnership with a financial disclosure company that is used to dealing with these topics with a young target group, such as Selfy itself. To make our offer even more attractive and increase customer acquisition, a wide range of personalised rewards will also be offered through partners close to the interests of customers.

After defining the characteristics of the new application, the focus of the report shifts to development and economic feasibility, and then concludes with team dynamics.

1. Analysis

1.1. Brief presentation of Selfy

SelfyConto is Banca Mediolanum's online current account that allows you to access to all the services of a traditional bank comfortably and securely directly from your smartphone. The Selfy mission is to provide a digital banking platform that satisfy the needs of young adults who prefer a "do-it-yourself" approach, creating deep-rooted relationships with them.

The application was born in February 2021 to respond to these needs and to explore a target not yet penetrated by the bank. Since the launch, Selfy acquired more than 31,000 customers.

1.2. Internal analysis

1.2.1. VRIO analysis

Firstly, we have performed a VRIO analysis to understand if the application's heterogeneous resources, capabilities, and core competencies in exams are a source of competitive advantages.

In practice, it is checked whether the distinctive characteristics of the product comply with the following requirements:

- **Valuable:** is it value adding for customers?
- **Rare:** do your competitors have this feature?
- **Inimitability:** is it easily replicable by your competitors?
- **Organized:** is Selfy's team organized to take advantage of this strength?


	 Valuable	 Rare	 Inimitability	 Organized
Speed of use and intuitiveness	✓	✓	✓	✓
Assistance	✓	✓	✓	✓
Strong brand	✓	✓	✓	≈
Low cost	✓	✓	✓	≈
Social media presence	✓	✓	✓	✗
Customers engagement	✓	✓	✓	✗
Do-it-yourself approach	✓	✗		
Offer diversification	✓	✗		
100% online banking	✓	✗		

Table 1: VRIO analysis¹

Legend




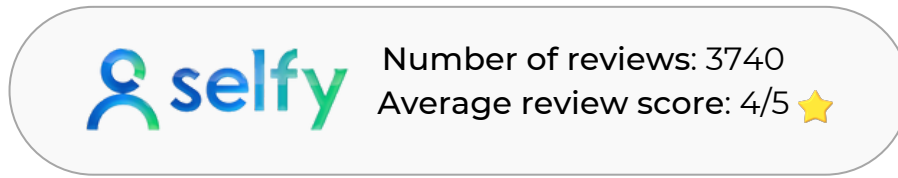
-  Yes, the characteristic respect the property
-  Not completely exploited
-  No, the characteristic doesn't respect the property

Figure 1: Legend of VRIO analysis

Note 1: To read further explanation on VRIO classification go to Appendix, Exhibit II

1.2.2. Customers' perception of Selfy

In order to better highlight the main strengths and weaknesses of the Selfy's current offer, we listened to the customer's voice through the latest and most relevant reviews by the app's users. As reported by *Trustpilot.com*:



Giovanna ★★★★★

The account is very convenient, especially for those under 30, as I can make many transactions without additional costs. The app allows me to perform many operations, and when I needed to speak to an operator, the service was quick and efficient.

Enrico ★★☆☆☆

The app and the website are not very intuitive.

Michela ★★★★★

The bank is serious and helpful, offering different solutions that meet the needs of its customers. I would recommend others to become part of this community.

Cesare ★★★★★

The app needs improvement, although it starts from a good base. It is easy to use, although the analysis of expenses can be improved. In addition, another aspect to improve is that the platform is not yet smooth and fast, especially in simple operations such as transfers.

Francesco ★★★★★

The account was opened with ease, and the process was completely online without the need to visit a branch.

Figure 2: Selfy reviews on Trustpilot

Basically, these few mentioned considerations help to understand how convenience and efficient are services that add values for Selfy; while the ease of use, although not perceived by all users, represents a feature appreciated by 4 out of 5 customers.

1.3. External analysis

Now it's important to examine the competitive landscape which is constantly growing and changing, pointing out different components that are part of the external company's ecosystem to understand opportunities and threats.

1.3.1. PEST analysis

- Fintech companies must comply with different laws and regulations, including licensing and authorization requirements, capital adequacy requirements, anti-money laundering, and anti-terrorism financing, consumer protection, and data protection policies. In recent years, the regulator has focused on two trends: how to deal with new technologies, such as AI. And on social aspects such as financial education to encourage broader and more conscious access to financial services
 - International institutions are increasingly advocating digitization in the banking system.
 - The system is registering a huge commitment to sustainability issues, financially supporting activities specifically ESG factors are becoming crucial in the landscape.
 - The new trend "RegTech" is a key in automating the process to verify the correctness of data and the legality of the business.
-
- The Italian and International financial contexts are influenced by the geopolitical landscape and the ongoing crises of financial institutions. These are the main aspects that need to be highlighted:
 - The inflation increase caused a rise in the interest rate, reducing money circulation and holding and liquidity.
 - The higher interest rates are affecting the average cost of outstanding loans and the share of financially vulnerable households might increase this year.
 - Public finance conditions improved in 2022. Net borrowing as a percentage of GDP and the debt-to-GDP ratio fell (-5%).
 - As reported by "l'Osservatorio Fintech Pwc", the Italian fintech market exceeded the value of 882 million euros in 2022, while investments conducted by venture capital funds grew by 240% compared to 2021.
 - Growing investments for the integration of ESG factors in the business model of banks.

- The spread of digital payments is changing the customers' behaviour, shifting from credit/debit cards to digital wallets.
- Regarding the awareness and rationality of consumer choices, as reported by OCSE, Italy in 2020 was in 25th place out of 26 countries. The study also reports how, however, interest in financial topics has grown in recent years, from 27% in 2021 to 35% in 2022, especially among young people (18-34). However, the overall knowledge is still low, only 34% of the interviewees declare to have a reasonable level of knowledge of the subject.
- The advent of technology has also raised some concerns, such as the protection of personal data, the security of transactions and access to financial information.
- Increasingly younger generations in Italy are approaching the world of investments: in about five years, the average age of investors in our country has dropped from 49 to about 34.

- Technology is evolving at an extraordinary rapid pace and thus resulting in critical changes in almost every industry. In Italy contactless and innovative payments (Mobile and wearable) have seen a relevant growth during the last two years (In 2022 +122%).
- Blockchain and metaverse are opening new opportunities in the market. The first helps to increase the transparency, the second to exploit digital currencies and cryptocurrencies.
- The metaverse is opening new opportunities for the banks with digital currencies and cryptocurrencies.
- The deployment of AI and Machine Learning is becoming increasingly widespread. In the financial sector, AI solutions for example is used to personalised services on each risk profile.

1.3.2. User analysis

The definition of customers' needs is essential to implement a user-centered innovative idea. The analysis will focus on Selfy's target. We have tried to understand their expectations and feelings, extracting this information from their behaviors.

In recent years, the digitalization of processes has affected the client's perceptions, giving more importance to the customers' engagement and experience. Some studies, like Salesforce, showed that 80% of people interviewed say the experiences provided by a company are as important as its products and services. In the banking industry this trend led to more and more purely digital solutions, enabling users to access their accounts through smartphones. In fact, the backbone of Fintech companies is based on next-gen and user-friendly interfaces, personalized customer support, secure online banking platforms, and mobile banking applications. Experience is fundamental for this sector because it's related to customer retention that leads to a profit increase: Bain & Company, through a study, shows that improving customer retention by 5% can increase profits by 25%. Engaged clients who feel their needs are being met are more likely to remain loyal to a company, reducing the churn rate.

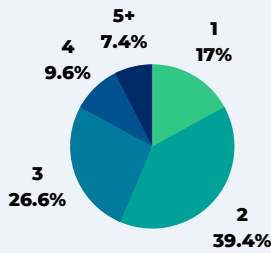
Another critical issue in Italy is financial illiteracy. A study proposed by OCSE in 2020 focuses on three main aspects: financial knowledge, behavior, and attitude. Italy, among other 26 countries involved, ranked in the last positions with an average score of 11.2 out of 21. Although this dramatic situation, over the past two years the interest in this world has grown exponentially, especially in the youth generation. In fact, for example, as reported in an analysis by XTB, the average age of investors in Italy has dropped from 49 to around 34.

The third aspect we decided to focus on concerns the tendency of consumers to share their banking data. An Experian study from 2021 sought to shed light on the decision-making process people follow when asked to share their data to access a service. The result is that 46% of Italians are willing to share their financial information if asked. Most people are initially reluctant, but are willing to reconsider their decision if there is a real exchange of value, such as a faster process. This opens up the possibility of increasing user confidence through personalisation, in the form of a range of services that speak directly to them, without boringly advertising financial products that are completely out of their reach and going straight to the heart of their specific needs.

1.3.3. Survey²

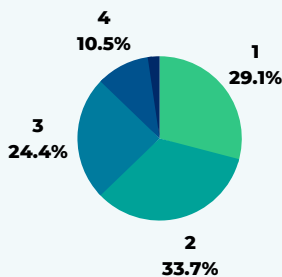
We also carried out a survey to see if the realities confirmed what emerged from the analyses. The sample size was 112 people, and we concentrated on customers younger than 35, which represent 84% of responses. The following questions provide the most interesting insights:

How many services (e.g. money transfer, check expenses, etc.) do you usually use on your banking app?



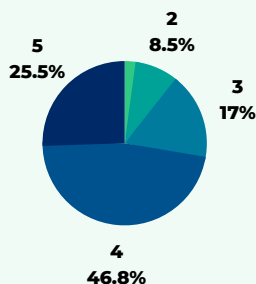
The usage of the sample under analysis suggests that a large part of our target group uses no more than 3 services. This emphasizes that users don't demand a wide range of offerings but focuses only on a limited number of services in which they are interested.

From 1 (lowest) to 5 (highest), how much are you engaged by your banking app?



Engagement appears to be a critical point of digital banking solutions. Only about 15% of the interviewees state a high level of engagement, about 25% rate it medium, while 62% propose a low result. The figure underlines a lack of interaction between the two parties. This opens opportunities to improve the relationship with customers and to satisfy their real needs.

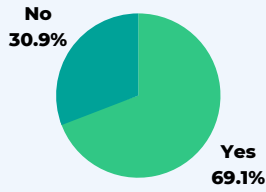
From 1 (very complex) to 5 (very easy), how easy to use do you think your banking app is?



In general, the ease of use is evident, in fact more than 72% are satisfied, however there is still a proportion of dissatisfied customers. This feature is essential for a successful banking app.

Note 2: To view the whole survey go to Appendix, Exhibit I

Would you be interested in financial education on your banking app?



These answers confirm the previous trend: 70% of respondents are interested in financial education and would like to access it from their bank's app. This result shows that young people want to increase their decision-making capabilities regarding managing their savings.

1.3.4. Pyramid of needs

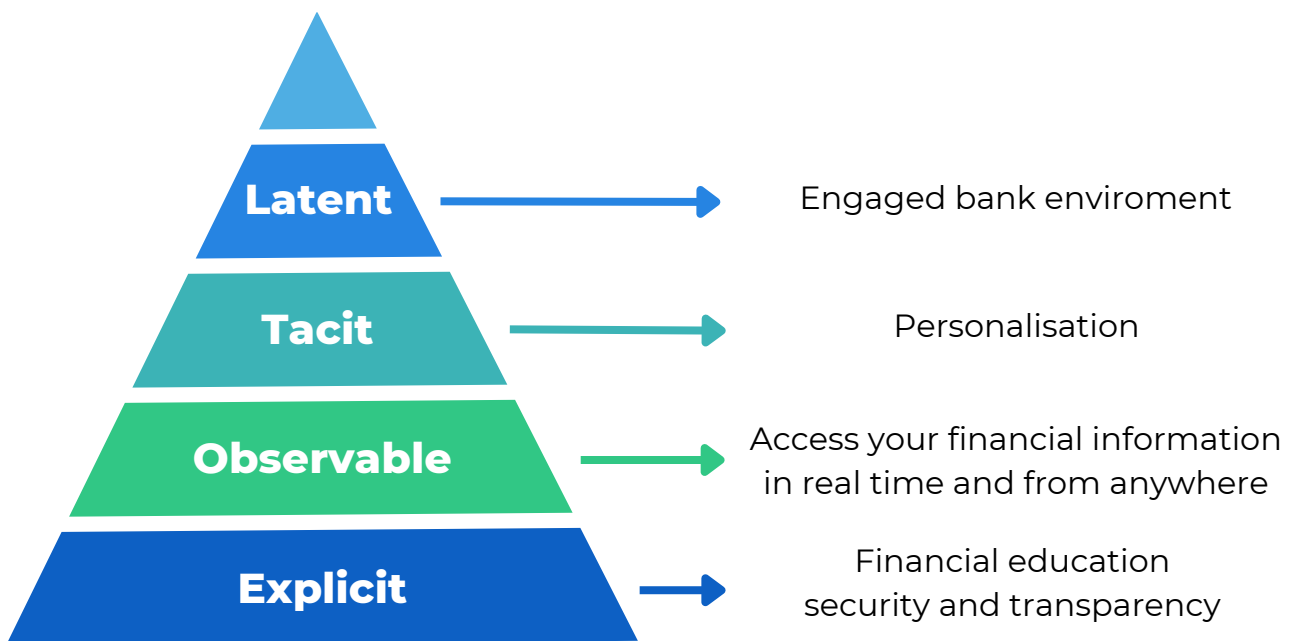


Figure 3: Pyramids of needs

1.4. SWOT

In order to sum up the main aspects that emerged from the internal and external analysis, we use the Swot analysis as a tool to better highlight the key characteristics of Selfy and the market.



- Low cost
- Speed of use, intuitiveness, and efficiency
- 100% Online banking
- Do-it-yourself approach
- Good offers diversification
- Assistance available 24/7



- Strong brand recognition of Mediolanum little exploited by Selfy
- Lack of high-level engagement
- Scarce presence on social media (only 23,6 k followers on Instagram)
- Lack of differentiation



- Growing Fintech market
- Growing investments for ESG factors
- Need for financial education
- Decrease in the average age of investors
- Cutting-edge technology in the financial sector
- Need to increase banking apps engagement and personalize them



- Increasing need for regulation
- Increased competitiveness in the sector
- Difficult economic situation for banks
- Challenges regarding the processing of personal data

Figure 4: SWOT analysis

1.5. Existing solutions

In this analysis, we have tried to understand how, nowadays, a customer interested in financial education can respond to this need by analysing existing solutions.



The Banking Academy offers free of charge courses to individuals and businesses (customer and non customers) on matters of banking, finance, savings, business creation.

The educational program consists of lessons that are offered in various formats (streamed, in the classroom, on digital platforms) and are held by highly qualified bank personnel and external professionals who are experts in the topics proposed.



BANCA D'ITALIA
EUROSISTEMA

The Bank of Italy's financial education projects aims to promote informed economic choices by customers and increase their financial well-being through the fruition of dedicated webinars. The bank pursues this aim with events and meetings and through a dedicated website where there are videos and audio books on economic fundamentals and calculation tools for money management on the site.



The Intesa Sanpaolo Group proposes, to encourage financial education, the "Museo del Risparmio": a multimedia and interactive laboratory dedicated to families, adults and children, which aims to explain the concepts of savings and investment.

Another project carried out in this sense is "Youth factor project", that wants to support critical reading and economic-financial literacy in young people.

BPER:

Banca

BPER Banca has launched an illustrated book for families and young children to promote financial education. They also engage primary school children in financial innovation projects and provide financial education through websites and social networks for teenagers. Additionally, they offer a training course called "Donne al quadrato" to enhance women's economic and financial skills. These initiatives aim to empower individuals to make informed and sustainable financial choices.

To offer a more efficient and personalized financial education service, it is essential to address the shortcomings and inefficiencies of existing market proposals. Many financial education programs provided by banks are impractical to access, with webinars, downloadable platforms, and in-person lectures being inconvenient for users. However, utilizing smartphone technology allows for flexible and convenient access to financial education content anytime, anywhere.

Existing financial education offers are often generic and not tailored to individual needs.

Relying mainly on in-house experts, the variety, quality, and commitment could be affected because it is not the core activity of the company, and especially the communication methods used may not be the most suitable for addressing a young target audience.

2. Innovation process

We decided to apply a "Market Pull" approach to pursue innovation. In order to attract new customers we start from the current needs of the users, highlighted by our analysis, to create the most suitable solution for them. The whole process of identifying the best idea is summarized in the Innovation Funnel below.

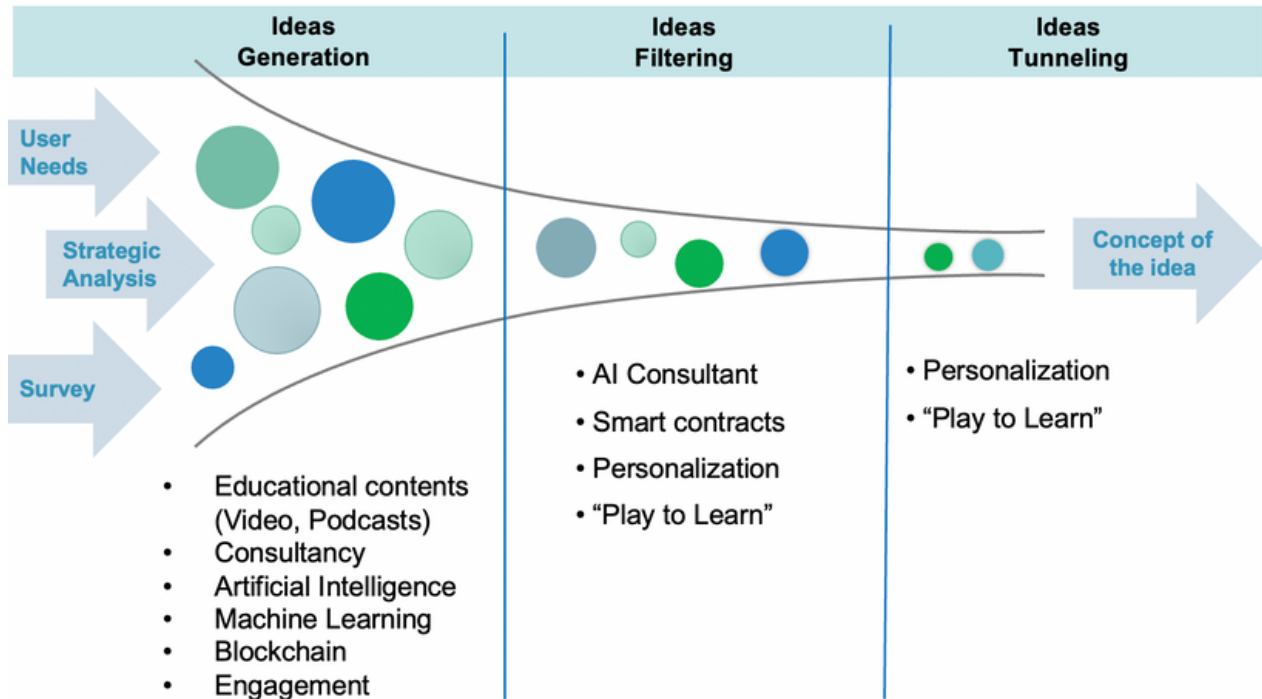


Figure 5: Innovation funnel

2.1. Brainstorming

In order to generate ideas and choose the most promising ones, avoid missing relevant perspectives, in the Brainstorming phase we used the "Six Thinking Hats", a model by Edward De Bono.

2.1.1. "Six Thinking Hats" model



Factual hat

First, we made an analyze of the market, gathering information about the following topics:

- Technological trends
- Customisation trend
- Young target
- Education
- Engagement
- Security issues



Creative hat

After analyzing the facts, we started to brainstorm new ideas to bring innovation for Selfy:

- Financial consultant
- Make the Banking App more engaging
- Make Transactions more secure

and then we came up with this possible solutions:

- **AI Consultant:** provide technical consultancy to young investors.
- **"Play to Learn":** provide the users with contents concerning different topics on financial education and try to gamify the environment of the app, in order to increase user engagement and boost customers acquisition.
- **Personalisation through machine learning:** provide the right services to the right customer at the right time, and this is possible by adopting a Machine Learning algorithm to study the preferences and behaviour of the users of the app.
- **Smart Contracts:** implement this type of transaction because since it automates the actions that would be completed by the parties in the agreement, it removes the need for both parties to trust each other.



Value hat

Then, we looked at the positive, value bringing and benefit of the possibilities:

- **AI Consultant** offers 24h service, is rapid, efficient and it cuts costs.
- **Personalisation** and "**Play to Learn**" concepts addresses a younger target, increase customer acquisition, increase engagement.
- **Smart Contracts** increase transaction transparency, since people do care of their financial security.



Judge's hat

Now, we looked at the risks, difficulties and problems of each possibility:

- **AI advisor** could have some problems: lack of trust, worsening of brand image, legal issues.
- **Personalisation** and "**Play to Learn**" are generic ideas, not detailed enough.
- **Smart contracts** needs blockchain which is extremely complicated and difficult to implement even from a legal point of view.



Hat for the heart

We also had personal feelings, hunches and intuitions regarding the options to consider:

- **AI consultant** is convenient and create benefits, but it brings possible legal implications and brand damage.
- **Personalisation** and "**Play to Learn**" are appreciated from the majority of the team.
- Most of us didn't consider **smart contracts** feasible because our knowledge was not enough solid to implement an innovative idea related to this subject.



Conductor's hat

At the end, just **Personalisation** and "**Play to Learn**" options reached the Tunneling Phase, and we started to structure the idea:

- The chosen technology is Machine Learning, also because it's already implemented in different digital contexts.
- Rewards' system will increase customer acquisition.
- Search for partnerships will be engaging and can give the Bank greater solidity.

2.2 Innovation Strategy

From the very beginning of this project, our team started by trying to understand the voice of the customers. In fact, in our opinion, Selfy's offering was a good starting point in itself but needed some incremental innovation so that it would appear better than its competitors in the eyes of clients. By putting the person at the centre, we were able to understand their pains and desires, we understood the best technological means and the most promising trends to meet the customers' needs and ultimately achieve a positive outcome in terms of profit. For all these reasons we have certainly used market pull strategy extensively.

Furthermore, focusing on the great potential that financial education has in a country like Italy, we wanted to go even further by trying to attract new customers not only by responding to their needs but also by changing the primary reason why they will use the application: the user will no longer open his banking app to just check his expenses but it will become part of his daily life, becoming a source of news, education through financial contents and entertainment through quizzes. The purpose of the app will change and broaden the reasons for its utilization, changing the concept that users attach to a banking app today, fully constituting design-driven innovation.

OUR IDEA



OUR VISION

*Banking as a game where
you can learn how to take
control of your financial
future*

Our main idea is 'Play to learn'. The concept of banking is totally changed: the bank will not only be used to manage money but will be a source of education that will allow customers to learn how to manage their financial future in a "fun way". In fact, following the desire of our target customers, we will provide contents and games about financial education. In addition to this, by exploiting the clustering capabilities of machine learning, we will be able to offer a personalised experience to each user, according to their interests.

3. Our idea

3.1. Main features

The explanation of the two main and distinctive features of "Play to Learn" is now presented in more details:

PLAY TO LEARN

How not to bore users while providing financial education?

The solution is using gamification to make the whole banking environment, and especially the educational part, simple, engaging but above all fun to use. In practice, we will offer video lectures, podcasts, daily news, tips on every financial aspect, from how to manage savings, to how to invest, to macroeconomic news. To make banking like a game, we will introduce a points leaderboard, obtained through financial education quizzes, which will allow for rewards.

PERSONALISATION

The introduction of personalization through a machine learning algorithm will allow us to clustered customers and understand their interests, habits, and likes. Personalization will be pervasive throughout the application, highlighting the best services for the specific user, providing financial tailored education, and suggesting rewards based on the interests of individuals. Even the home page will be different for each user. This technology will make it possible to put the customer and their needs at the center, enhancing the user experience.

3.1.1. Value proposition

The survey and customer needs research show how the young adults share some common interests, such as the need for financial awareness, personalised advises and contents.

We also realised that there are three main reasons why people are interested in financial education:



A Value Proposition Canvas was developed in order to present the value of our solution. Furthermore, the team considered, among the positive aspects, possible pains the clients may encounter adopting the proposal, with the aim of understanding if this issues represent a threat or they are irrelevant in comparison to the benefits of our offering.

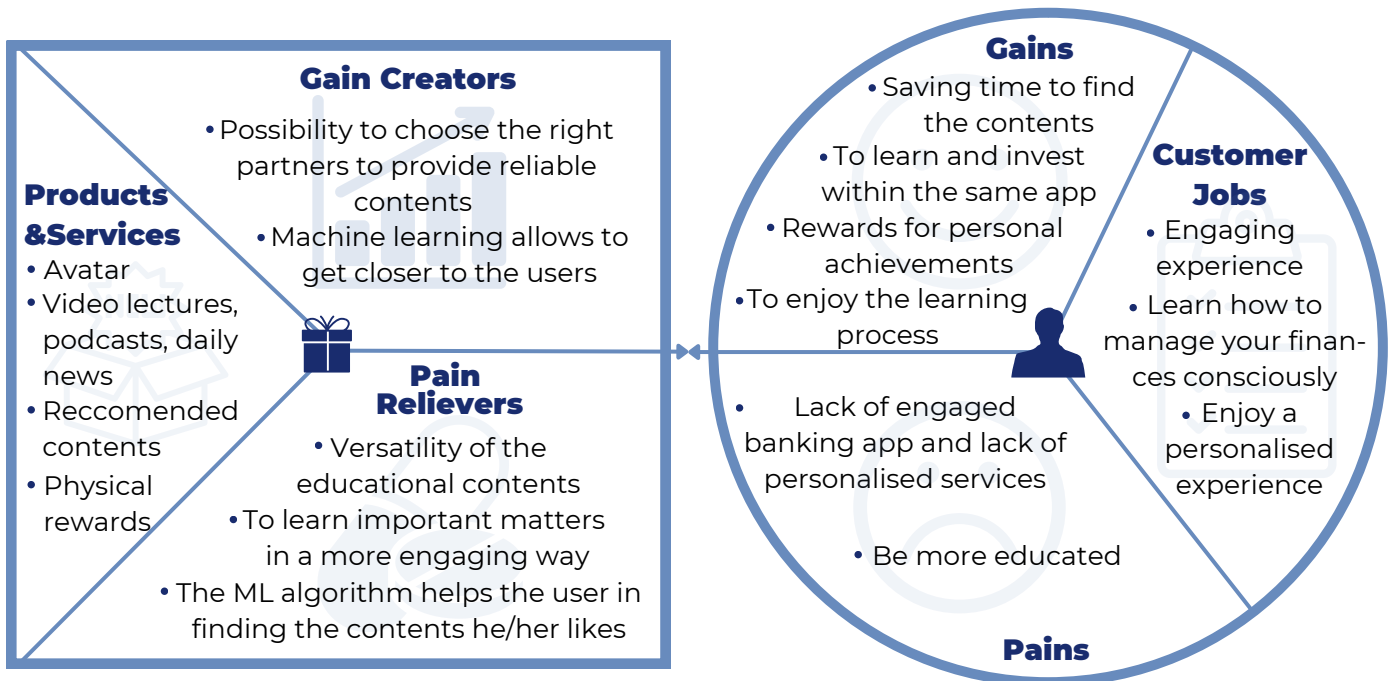


Figure 6: Value proposition canvas

4. Idea implementation

4.1. Customer journey

We want to provide our customers with an intuitive user interface and reliable educational contents. We now present the journey of a real user in our application.

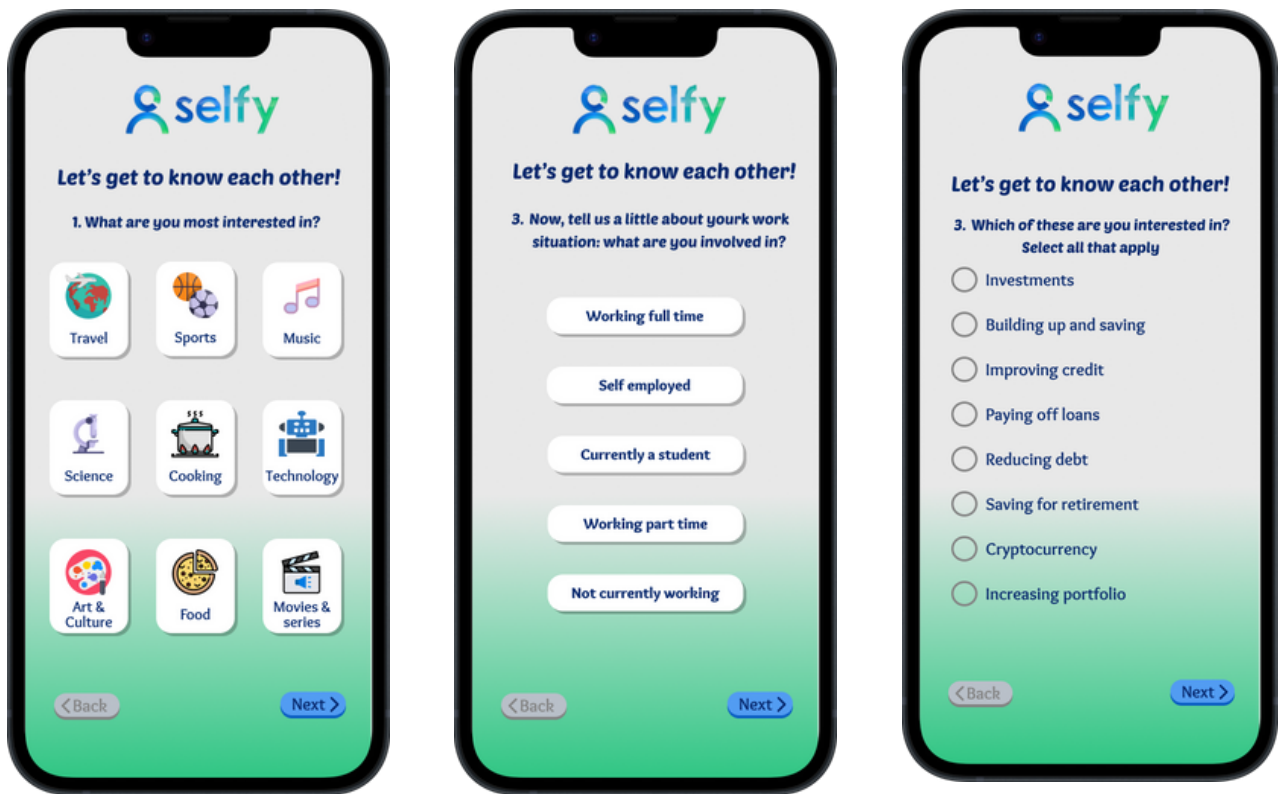


Figure 7: Profile baseline acquisition

The initial step of the customers journey through the application is to create an account. This is the first time the users interact with the platform, they will be posed few straightforward questions in order for the algorithm to gather the first information about the user's behaviour and preferences.

To understand the personalization of the app's interface, we will analyze different personas with unique concerns and requirements. By understanding their priorities, the app designs personalized home pages that provide relevant content and tools. This approach ensures a user-centric experience and enhances engagement with the app.



Lidia

Age: 25
Occupation: MSc student
Location: Bologna
Income Range: 2500€ - 5000€

Lidia is a master of science student in architecture, she likes concerts and shopping. She has been living alone for a few years, and since the early years as independent person she has found very difficult to manage her savings rationally and efficiently. She is trying to get informed to be able to self-manage her savings. Furthermore, she grows up in a digitalised world, and so she desires a banking app smart to use and to interact with, that shows contents she could like and new functionalities.

INTERESTS

- Sports
- Art
- Music

GOALS

- Independency
- Feel engaged
- New content discovery

FRUSTRATIONS

- She doesn't know how and where get informations
- Her application doesn't reflect her interests

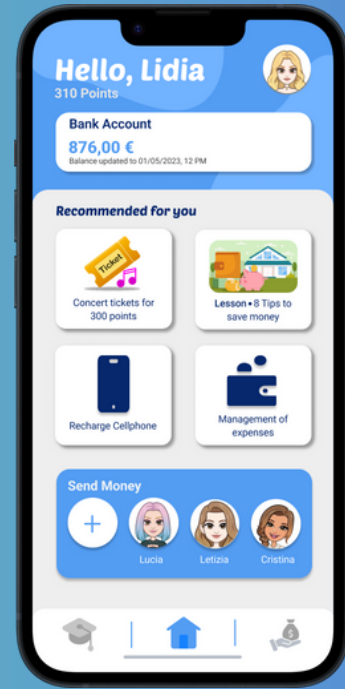


Figure 8: Lidia buyer persona and personalised home page

Since Lidia wants to better manage her few savings, the app suggests her a video lesson with simple tips to save money in her daily life. According to her interests, a concert ticket in Bologna is recommended to her.



Mario

Age: 29
Occupation: History teacher
Location: Rome
Income Range: 25000€ - 35000€

Mario finished his studies in history a few years ago and now, with passion, teaches history to children in a high school in Rome. In general, he is a curious man who wants to keep himself informed about the main political and economic events.

He also devotes part of his time helping the needy and tries to make a small monthly donation to an association dear to him. Since he has no economic training, he does not invest much, but given his eagerness to learn, he would like to start learning the basics of finance and become responsible for the financial management of his savings.

INTERESTS

- Charity
- Politics
- Football

GOALS

- Keep updated on general economic trend & news
- Sustain donations
- Invest safely his savings

FRUSTRATIONS

- No financial background
- He doesn't trust economic news on social app

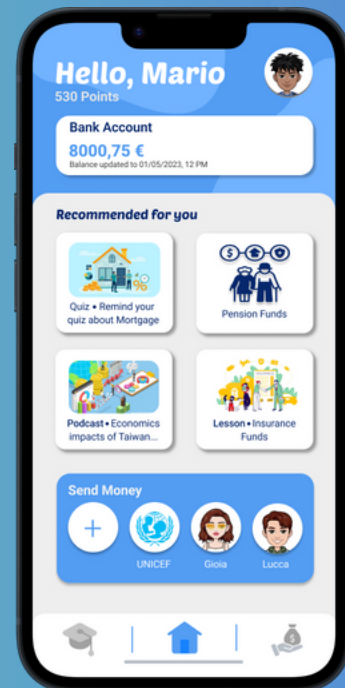



Figure 9: Mario buyer persona and personalised home page

Being very interested in staying up-to-date, the app suggests Mario a podcast on the impact of a possible war between China and Taiwan. To safely invest a portion of his salary a pension fund is shown in the foreground.

From now on we will focus on Cristina, a person interested in investing her hard-earned savings, as an illustrative example to showcase the various features of the application. Through Cristina's journey, we will demonstrate how the app caters to her investment needs, providing insights and tools to guide her investment decisions effectively.



Cristina

Age: 34
Occupation: Head of marketing
Location: Milan
Income Range: 82000€ - 97000€

Cristina has been working in the same company for some years and managed to become the head of the marketing team. During her studies she has always been passionate about economics and interested in the finance world, but now that she earns more money she would like to start investing. She knows more or less how to do it but she would prefer to get more informed before starting. However, she doesn't know many reliable sources of information and she has not time to look for it.

INTERESTS	GOALS	FRUSTRATIONS
<ul style="list-style-type: none"> Travel Theatre Asian cuisine 	<ul style="list-style-type: none"> Discover new financial instruments Open her marketing firm 	<ul style="list-style-type: none"> She doesn't have time to do financial courses She doesn't know how to invest her savings

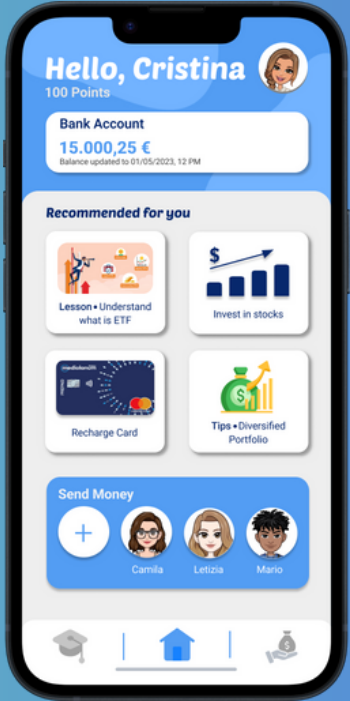


Figure 10: Cristina buyer persona and personalised home page

In order to discover new financial instruments, Cristina, will choose to understand what is exchange traded funds (ETF).



Figure 11: Example of video-lesson on ETF

This 5 minute video will explain the concept of ETF in an interactive way with many graphics. We can say that these videos are an online audio-visual experience understandable by everyone.

After the video ends, Cristina can chose to rewatch it, go to the home page or challenge herself with a quiz in order to get points and validate her new learnings.

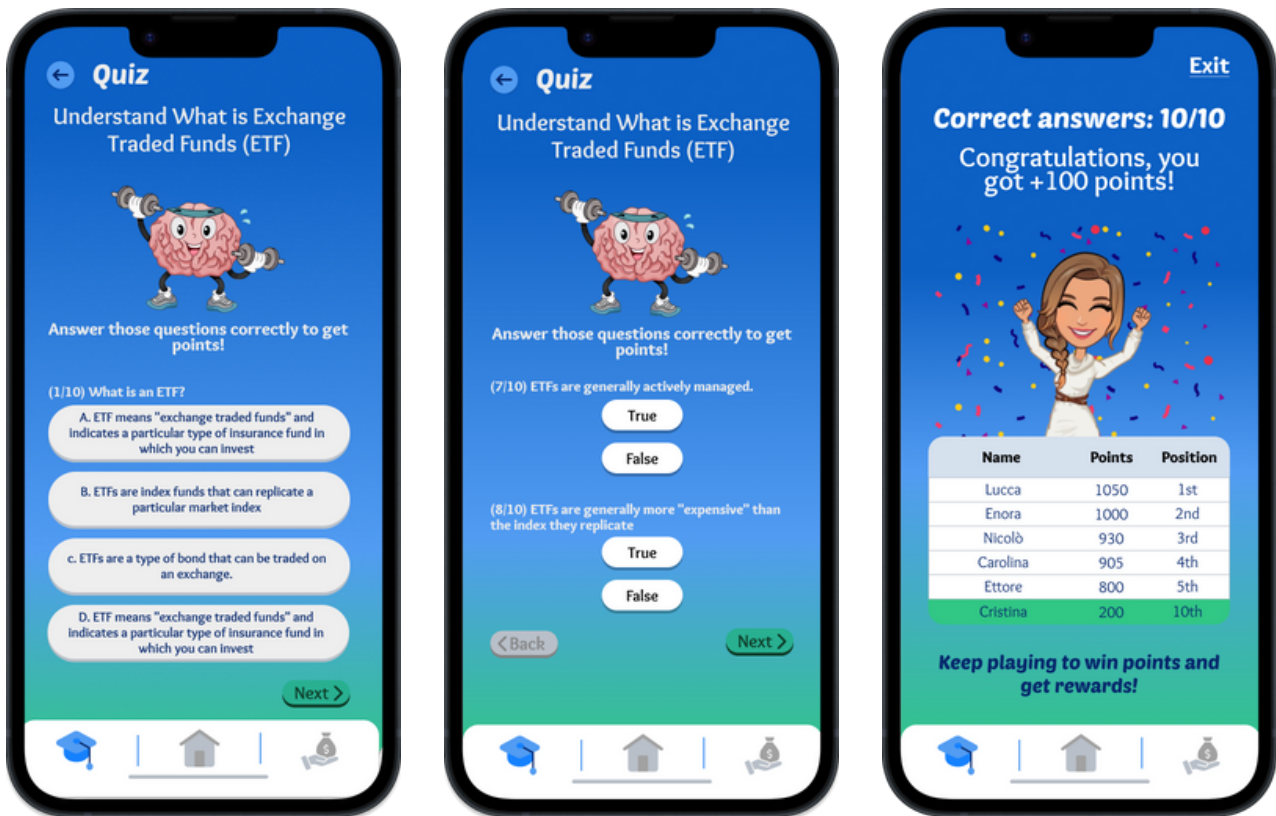


Figure 12: Example of a possible quiz presented after video-lesson

To further customize the experience, the user can choose the level of difficulty for each quiz, ranging from easy to difficult. The level of difficulty determines the time required to complete the quiz, the complexity of the questions and the final reward in terms of points.

This gamified approach encourages users to engage with the content and motivates them to continue learning and achieving their financial goals.



Figure 13: Example of a possible Tip

Every morning, Cristina reviews her daily tips, and today's advice revolves around the benefits of maintaining a well-diversified portfolio to minimize risk. Thanks to that, Cristina accumulates points.



Usually, she will find everything she needs on her home page thanks to the machine learning algorithm. However, if she wants to explore other types of content or other topics, she can always swipe left and access the educational screen. There Cristina will discover additional tips, video lessons and podcasts.

Figure 14: Educational page

If she would like to access a banking service that doesn't see on the main page, she can swipe to the right and access Selfy's complete list. The application offers a wide range of standard banking services, including money transfers, loans, and a comprehensive set of features to assist with financial management. For example Cristina, at the end of each month, wants to check her expenses in detail, classified by type, and she can find this feature here.



Figure 15: Services page



Figure 16: Personal page, avatar, rewards and leaderboard

Finally, by clicking on her avatar, Cristina will access her personal screen. Here there is the possibility to edit the avatar, collect rewards and see points.

A rewards system based on points is also introduced by the application. These points can be exchanged for discounts and exclusive deals from our sponsors. In this way users are encouraged to take an active role in the process, learn new things, and go further in achieving their financial objectives.

The app will provide users with the option to add their friends and challenge them to quizzes related to financial education. This feature creates a competitive environment that motivates users to learn more and engage with the app. A ranking system will display the number of correct answers and rank each user based on their performance. This allows users to compare their progress with their friends and track their own progress over time.

4.2. The role of machine learning

As mentioned in the description, a key resource for the implementation of "Play to learn" is machine learning technology. This algorithm, extrapolating and elaborating a series of customer data on their habits and preferences, is able to create personalized user profiles, update them and provide a more engaging and customized application.

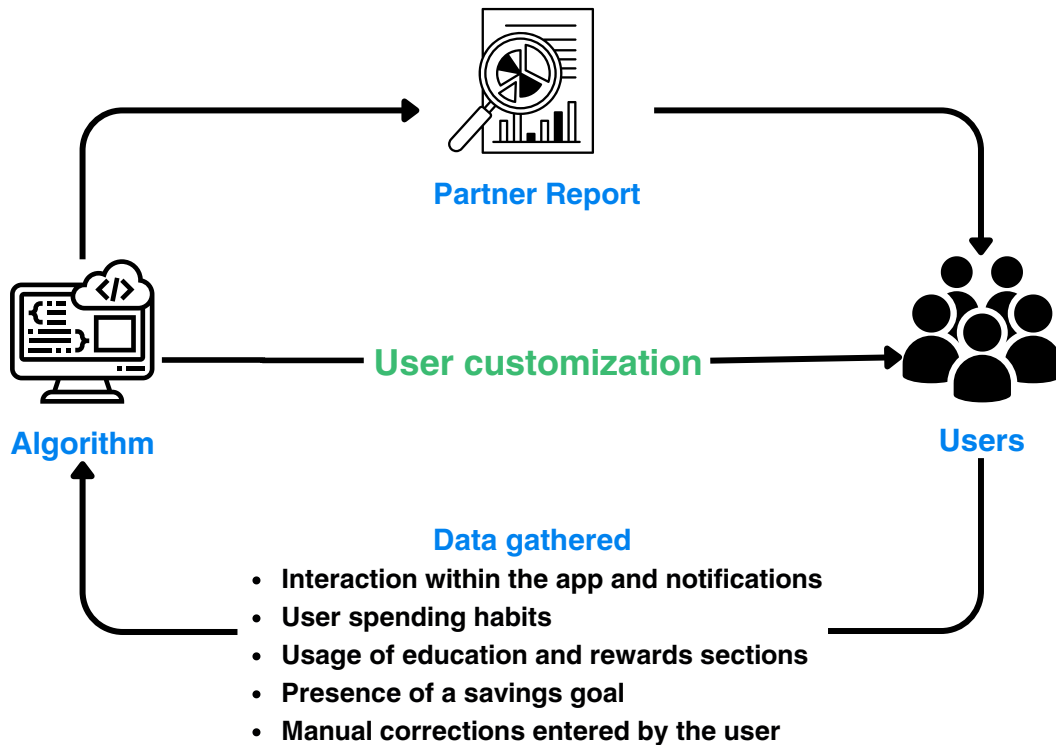


Figure 17: Machine Learning process

4.2.1. Outputs of the machine learning algorithm

Customization of the app interface and notifications

Based on user interaction with the application, the main screen of Selfy will show services and contents more suitable for each client, based on the usage but also on the likelihood of appreciating it.

Notifications will also be customized to attract users, as every user will receive alerts for events, promotions, or new videos in the education section that are relevant to his profile created by the algorithm.

Recommendation of videos for education section

When users enter the education section, the first videos they are presented will be suggested by the algorithm, based on previously watched videos and used services.

Moreover, during normal use of the App, some pop ups, related to different financial topics, will appear on the usage screen. By analyzing which pop-ups are typically clicked and chosen by the clients, the machine learning algorithm can discern the users' preferences and interests.

Creation of reports for rewards section

Through data collection using the algorithm, it becomes feasible to generate reports on users' frequent purchases and preferences. This data can then be utilized to carefully choose suitable partners who can provide rewards that align better with customers' preferences.

4.3. How to provide education and rewards

In this section, we have focused on how best to highlight education and rewards for our idea. Firstly, we designed some criteria to select the best education content provider and, secondly, we conduct an analysis on the most suitable rewards for our audience, thus incentivizing customer acquisition, loyalty and encouraging reaching the target.

4.3.1. Educational contents and partnerships

Since the main purpose of our Innovative Idea is to provide Selfy customers with the skills to take their financial future into their own hands by enhancing their education, the choice of content provider is essential.

Targeting a young audience, educational content will be provided in ways they appreciate such as videos, podcasts and tips and with a wide range of topics. For this reason, the provider will also have to be able to use these means in order to be effective in communicating with our audience through dynamic and engaging explanations. Certainly, given the centrality and impact on content performance, the relationship will have to be of medium to long duration and, to provide uniformity, it will have to be exclusive.

The following table shows the key criteria considered to the selection of collaboration:

Driver	Weight	Explanation
Notoriety	30	Considering the presence of our target on social platform, a well-known partner makes the offering more appealing, ensuring a communication style suitable for the young target.
Reliability	30	It is a key aspect to increase the customers' confidence and to be attractive.
Coherence	20	It represents how aligned the partner's vision is with ours. The more aligned they are, the greater the level of synergies to be leveraged
Versatility	20	The partner must be capable of addressing all customer needs, capturing their attention and interest.

Table 2: Drivers for the choice of educational contents

This procedure allows us to limit the options available. The potential partners are three: Starting Finance, Gli Ingegneri in Borsa, and Bank Station.



Starting Finance is the major financial community for Millennials in Italy, which was founded in 2017. Targeting young individuals, it was created with the purpose of sharing and developing knowledge and connections.



Gli Ingegneri in Borsa, is a website primarily present on YouTube and Instagram, where two engineers passionate about finance and investments strive to clarify many complex topics. Their goal is to raise awareness about a discussed and complex topic in Italy.



Bank Station was founded in late 2019 by industry professionals who left their jobs to fully dedicate themselves to this project. It is a company specialized in creating financial education content in video, written, and podcast formats.

The ranking will be constructed by assigning a score from 1 to 5 to each characteristic. The weighted average will represent the final result, and the institution with the highest score will be the most suitable for our needs. To assign each score, searches were carried out through direct comparison of contents provided on their websites, Instagram profiles, and reviews.

Potential partners	Notoriety	Reliability	Coherence	Versatility
Starting Finance	5	5	5	4
Gli Ingegneri in Borsa	4	4	4	3
Bank Station	5	3	5	5

Table 3: Points allocation

In summary, the two main financial informations providers are Starting Finance, which has a score of 4.8, and Bank Station, which has a score of 4.4. The third provider focuses more on specialized fields such as investments and global markets. Both potential candidates offer versatile contents and have professional creators who produce reliable information. However, since we are looking for a well-known institute, Starting Finance would be a good choice due to its consistent presence across various platforms.

4.3.2. Rewards and partnerships

The introduction of rewards for Selfy involves engaging clients through a gamified app, where they can earn points by completing educational financial activities. These points can then be redeemed for discounts and prizes from a customized catalog within the app. To personalize the experience, a Machine Learning algorithm suggests prizes based on each user's preferences. This dynamic system adapts and monitors the partner network to align with customer needs. In order to ensure flexibility, it is recommended to establish short to medium-term contracts with collaborating firms, allowing for periodic changes in the offered rewards based on frequent data reports.

The following analysis show the customers preferences for discounts and prizes.:

- **Sports:** Statistics from the "Osservatorio sullo sport" di Banca Ifis show that around 35 million Italian adults follow at least one sport, with 15.5 million regularly engaging in sports activities.
- **Travel:** Young Italians allocate a portion of their savings for travel. According to "Demoskopika," approximately 68% of individuals aged 18-35 expressed interest in taking a vacation in the following year.
- **Entertainment:** Experiences such as cinema, concerts, festivals, and events are highly popular. Streaming services for movies, TV series, and music also gather considerable success. For instance, "ANSA Lifestyle" reports that 91% of Millennials watch at least one movie per week, with about 60% using streaming platforms. In the music sector, Spotify's "Culture Next" annual report reveals that subscribers aged between 18 and 34 represent 55% of the total users in Italy.
- **Food and Dining:** The food delivery sector is experiencing significant growth, and our target audience plays a crucial role in its success. Just Eat's recent study indicates that 70% of its users belong to the Millennial group.
- **Technology:** as reported by a study from Esolutiongroup.it, 97% of the target owns at least one computer, while 94% owns a phone. This demonstrates how one of the predominant interests is related to the technological field, representing a sector where a significant portion of Millennials' budget could be allocated.
- **Education and culture:** technology has radically changed the habits of the people, including the methods of learning. In fact, It has been proven that Millennials prefer interactive and group activities, which is why visits to museums or cultural events are highly appreciated.

Hence, to satisfy the preferences presented above, we have thought to create an initial partners' network, which has to be monitored and updated, as anticipated, through the technology implemented.

For some categories, our proposal consists in exploiting existing relationships of Mediolanum which could represent a point of favour to create a reliable partnership.

From the extensive team of sponsors at the Forum, we have indeed identified some suitable partners such as Olimpia Milano, Alpitour, Ticketone, and RDS.

Other potential opportunities are Spotify, Netflix, Just Eat, local cinemas and museums.

4.3.3. Benefits for both sides

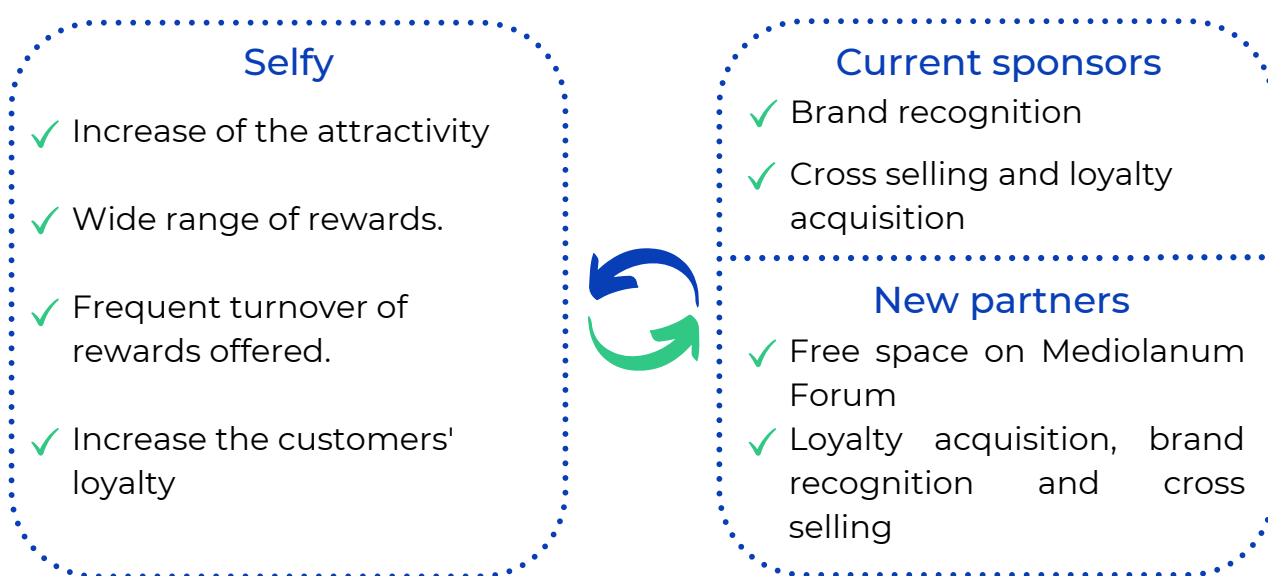


Figure 18: Reciprocal benefits

4.4. Marketing strategy

Once the new features are implemented in Selfy's application, the next step is to attract customers through a marketing strategy.

The target of the application was already defined, and it is a group of customers completely immersed in the digital world.

We have designed a marketing campaign by taking into account the personas profiles created before in order to highlight a customized marketing implementation.

The project's goal is to increase customer acquisition, so different strategies are applied to make the leads go through the marketing funnel, which is represented below.

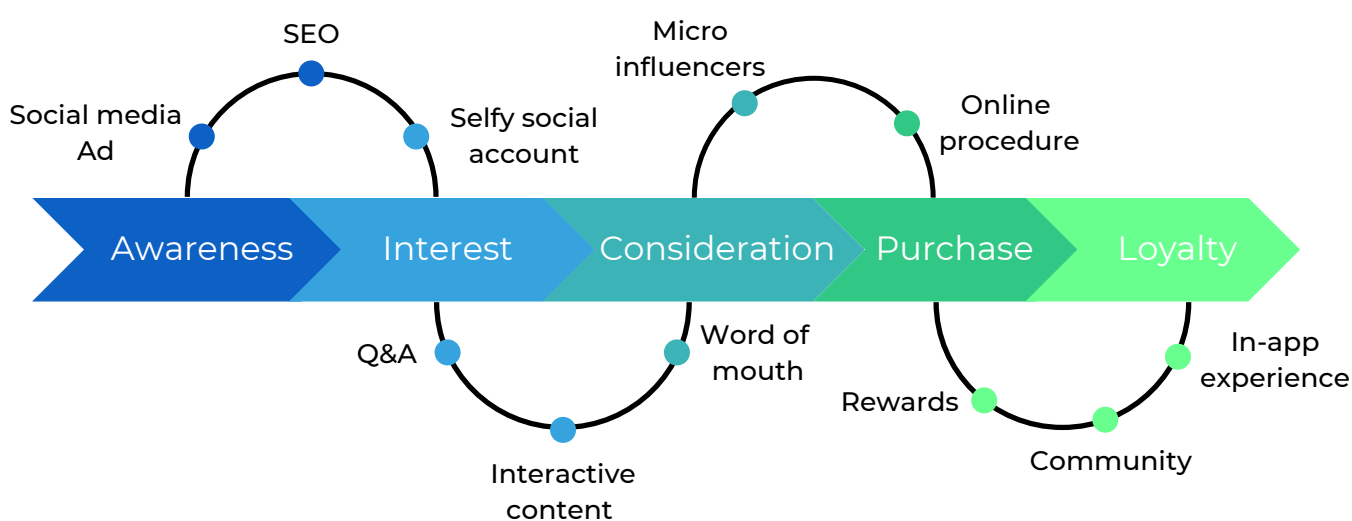


Figure 19: Customer touchpoints

Awareness

The objective of this initial stage is to make people aware of the Selfy existence and explain what the app is. Therefore, in order to reach a broader audience, advertisement is the best strategy.

Taking into consideration that the target spends most of their day on social media watching videos, these will be our main advertising channels. Short dynamic videos showing that Selfy is a bank designed for the digital generation, personalized, with gamification features, and amazing rewards is the best way to increase awareness. The awareness can also be supported with SEO on Google to boost visits to the website.

Interest

After becoming aware that Selfy exists, the target needs more in-depth information about it. Considering that a significant portion of Millennials use Instagram and TikTok for search instead of Google, Selfy should have active accounts on both platforms. These channels can be used for creating content that explains how to use Selfy and what it offers to young audiences. Additionally, they can be used for customer interaction through live sessions to address questions and curiosities.

Consideration

In this step, the focus is on convincing the lead to join Selfy. An effective strategy is to establish partnerships with small/medium influencers. The power of word-of-mouth and positive feedback about Selfy from someone the lead trusts represent a crucial aspect of this phase.

Purchase

Furthermore, it is crucial that in this step, the ease of account opening is perceived, immediate and without wasting time, as well as the cost advantages that our target can benefit from. In fact, the customers could open the account directly online, following a specific procedure.

Loyalty

Now the key point is to create a lock-in effect, through the fidelization. The content customization through the technology and the system rewards allow the offer to be competitive in the market. Moreover, the customers will increase their knowledge by participating in quizzes from the comfort of their home, or office. Selfy will become an occasion to engage your free time intelligently and constructively, representing a point of reference for many users. This could lead to building a network of trust among young adults, also attracting their family members.

Specifically, we have designed a campaign divided into two phases: the pre-launch and the post-release.

The first phase aims to capture initial interest by engaging a large number of audience. The process requires a higher financial commitment and involves spreading the project's objectives and message. In line with Selfy's new mission, we will launch a contest in collaboration with Starting Finance. Potential customers will be invited to participate in quizzes similar to those found in the app. By clicking on the link on the advertisements, they can play and have a chance to win 50 free accounts for 20 years, becoming members of the Selfy community. This contest will also serve as an opportunity to promote the product launch event, where staff members and Starting Finance instructors will answer questions from users.

On the other hand, the second approach involves a standard advertising campaign to facilitate recall among potential clients, primarily utilizing social media channels and creating tailored content to target young audience.



Figure 20: Example of social media advertising

4.5. Project plan

The following GANTT chart shows the duration of each different task needed to accomplish the development of the idea. The activities have been clustered in four different phases by following the product life cycle of a software: pre-alpha, alpha, beta and release.



Figure 21: Project plan



The MVP will consist of a less detailed version of the game. Customers will be able to evaluate its basic features by interacting with a minimal design.



Early adopters:

- Partners: they could help to discover the inaccuracies and to allow consistent improvement.
- Already clients: they could highlight the app value-added, knowing what is the starting point.

The most important and critical stage of the project entails developing the algorithm, starting with information gathering and culminating in the testing phase which includes making subsequent modifications to address any issues. Considering the complexity of the information that the algorithm must process, we estimate a timeframe of approximately 12 months to complete this process.

Concurrently, by Month 4 (M4), we will commence two crucial activities. Firstly, the search for partners will begin, which involves identifying and establishing contractual agreements with potential collaborators. Secondly, we will initiate the preparation of the app for seamless integration with the system. Both of these activities must be concluded prior to the release of the MVP version.

Following the improvement phase, incorporating valuable user feedback, we have allocated around one month for app redesign. During this time, we will also embark on the pre-launch phase, strategizing our marketing approach.

By the conclusion of Month 15 (M15), we will be fully prepared to launch the product into the market. Nonetheless, it is essential to continually monitor the product's performance from its initial release and implement necessary modifications as required.

5. Feasibility of the solution³

5.1. Customer acquisition

First of all, we estimated the customer acquisition resulting from our solution. We identified two main groups with different growth rates and motivations. The first group represents our target, young adults. They will be acquired directly through the implementation of our solution. The second group consists of individuals over 35, who might be drawn in by word of mouth from the younger generation or may be interested in some of our innovations.

Under 35 acquisition Year 1

Initially, we estimated the potential market, which is the total number of individuals under 35 in Italy. Then, we focused on young people who are interested in financial education and who do not feel engaged by their current banking app (penetrability rate). Additionally, to account for competition, we narrowed down the target audience based on Mediolanum's current market share, adjusting the final value for Selfy's growth.

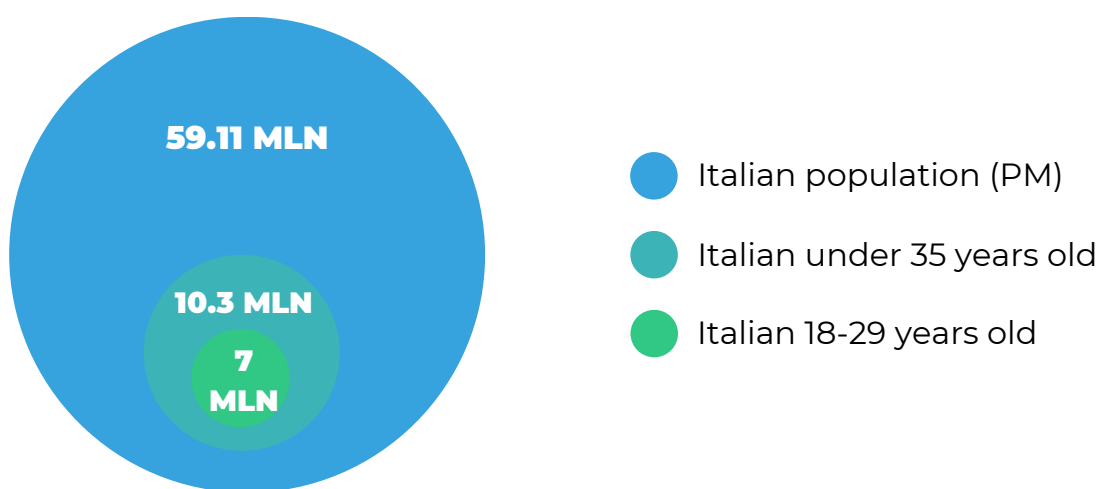


Figure 22: Potential markets and sub-divisions

Customers

$$\text{Customers acquired (18-34)} = \text{PM} \times \text{Market Share} \times \% \text{ Low engaged} \times \frac{\% \text{ Education interest rate}}{1 + \text{IGR}}$$

Formula 1: Customer acquisition under 35 Year 1

Note 3: In Exhibit III there is a detailed explanation of all the computations related to the feasibility of the solution

Data	Source	Value
% Market share	1	0,91 %
% Low engaged	Survey	60 %
% Education interest rate	Survey	70 %
IGR	Exhibit 3	5 %
Old-young-ratio	Exhibit 3	10 %

Table 4: Data customer acquisition under 35 Year 1

Under 35 acquisition following years

Starting from the second year, the personalisation and improvements we make will be perceived by users and will lead to continuous annual additional growth, estimated at around 15% according to a McKinsey report.

$$\text{Customers acquired} = \text{Customers acquired Previous year} \times \left(1 + \frac{\text{Personalisation effect (\%)}}{100} \right)$$

Formula 2: Customer acquisition under 35 following years

Total customer acquisition

As anticipated, the evaluation also includes indirect growth outside our target group. We supposed, through old-young-ratio, that for every ten young users we acquire one user over 35. The table below shows the approximated customer base in the years analysed:

# Customers acquired	Year 1	Year 2	Year 3	Year 4
Customers under 30	28403	32664	37563	43198
Customers 30 - 35	12906	14842	17068	19628
Customers over 35	2840	3266	3756	4320

Table 5: Total annual customer acquisition

5.2. Economic analysis

In this section, we have evaluated the economic feasibility of the idea presented. Specifically we have evaluated the initial investment, variable and fixed costs and yearly revenues.

5.2.1. Investment costs

These costs are mainly related to developing the machine learning algorithm, the new design, to adding new features within the application and launch marketing campaign.

- The development of machine learning was supposed to be three models on a bare-bone structure. While the redesign phase comprises of the implementation of a simple graphical interface. There is also the creation of basic functionality to enable the solution to function. In conclusion, we have estimated to assure a certain level of performances through 3 servers.
- Pre-launch campaign consists of spreading the contest across the five main social platforms, reaching around 10 mln views.
- Educational content costs represent the expenditure required to secure 50 pieces of content as an initial offer.

Resources	Cost	Time	References
Machine learning develop	115,000 €	1920 h	2
App redesign	22,500 €	300 h	3
App Architecture	105,000 €	720 h	4
Server	45,000 €	-	Company data
Educational content	100,000 €	-	5
Pre-launch marketing	432,717 €	-	Exhibit 3
Total	820,217 €		

Table 6: Investment costs

5.2.2. Fixed costs

These costs are mainly related to maintaining the machine learning in the early stage of its development, to monitor the functioning of the server, to the standard advertising activities and to keep a certain level of contents variety.

- Marketing expenses are related to the management and creation of content on social pages. Other cost items are given by normal advertising practices, on mainly three socials and the engagement of micro-influencers, which have the highest engagement rate.
- To increase the offered contents, the partner will create 12 new pieces of content every month.
- We have assumed a TCO spread over five years for the algorithm maintenance, 3 servers to ensure optimal data management and 24/7 service, and also 3 employees to monitor the performances

Resources	Cost	Refernces
Machine learning maintenance	36,500 €/year	1
Employee	116,100 €	6
Server maintenance	108,000 €	Company data
Content creation for education	240,000 €	5
Marketing	532,760 €	7
Total	1,033,360 €	

Table 7: Fixed costs

5.2.3. Variable costs

Variable costs depend on the number of users who redeem the rewards offered within the application.

We calculated the average price of the products in the rewards catalog, taking into consideration the type of partners chosen.

Subsequently to this number, we must also add the amount of added data that the user will generate (assumed 1 GB of data per month per user)

Resources	Cost	References
Storage Price	0.022 € / user	1
Rewards	10 € / user	Exhibit 3

Table 8: Variable costs

$$\text{Storage cost} = \text{n}^\circ \text{ of customers} \times \text{Storage price}$$

Formula 3: Total annual storage cost

$$\text{Reward cost} = \text{n}^\circ \text{ of customers} \times \text{Average reward value} \times \text{Redemption probability}$$

Formula 4: Total annual reward cost

Data	Sources	Value
Average reward value	Based on our partners products	100 €
Redemption probability	Exhibit 3	10%

Table 9: Data variable costs

Cost voices	Year 1	Year 2	Year 3	Year 4
Reward	560k €	1,035k €	1,581k €	2,209k €
Data	1k €	2k €	4k €	5k €
Fixed	1,033k €	1,033k €	1,033k €	1,033k €
Total	1,594k €	2,070k €	2,618k €	3,247k €

Table 10: Total annual costs

5.2.4. Revenues

In this chapter we have analysed four revenue sources: credit cards, royalties from those who buy a course from one of our partners, the fee paid by users over 30 and the deposit margin.

Resources	Price/margin	References
Credit card fee	12 € / year	Company data
Over 30 fee	45 € / year	Company data
Royalties	5 €/course	Exhibit 3
Deposit margin	1%	Company data

Table 11: Revenues

Credit card

$$\text{N}^\circ \text{ of credit card} = \text{n}^\circ \text{ of customers} \times \% \text{ of credit card in Italy}$$

Formula 5: Number of credit card

$$\text{Credit card revenues} = \text{n}^\circ \text{ of credit card} \times \text{credit card fee}$$

Formula 6: Credit card revenues

Royalties

$$\text{N}^\circ \text{ courses purchased} = \text{n}^\circ \text{ of customers} \times \% \text{ probability to be purchased}$$

Formula 7: Number of partner courses purchased

$$\text{Royalties revenue} = \text{n}^\circ \text{ of courses purchased} \times \text{Average course cost}$$

Formula 8: Royalties revenues

Over 30 fee

$$\text{Over 30 fee revenues} = \text{n}^\circ \text{ customers over 30} \times \text{Over 30 fee}$$

Formula 9: Over 30 bank account fee

Deposit revenues

$$\text{Deposit revenues} = \text{n}^\circ \text{ customers} \times \text{average deposit} \times \text{deposit margin}$$

Formula 10: Deposit revenue per age

Data	Sources	Value
% credit card in Italy	9	25%
% intrested customer	Survey	70%
% to be purchased	Exhibit 3	1%
Average course cost	4.2.1.	250 €
Average deposit	Exhibit 3	1400 €

Table 12: Revenues data

Total revenues	Year 1	Year 2	Year 3	Year 4
Credit card	132K€	285K€	460K€	661K€
Fee	0K€	708K€	1,523K€	2,461K€
Royalties	1K€	2K€	3.6K€	5K€
Deposit revenues	530K€	1,140K€	1,840K€	2,600K€
Total	663K€	2,134K€	3,826K€	5,772K€

Table 13: Total revenues

$$\text{Variable revenues} = \text{Credit card revenues} + \text{Over 30 Fee revenues} + \text{Royalties revenues} + \text{Deposit revenues}$$

Formula 11: Variable revenues

$$\text{Variable costs} = \text{Rewards cost} + \text{Storage cost}$$

Formula 12: Variable costs

$$\text{Annual operating profit} = \text{Variable revenues} - \text{Variable costs} - \text{Fixed costs}$$

Formula 13: Annual operating profit

# Total operating profit	Year 1	Year 2	Year 3	Year 4
Total	-931K€	64K€	1,208K€	2,524K€

Table 14: Total operating profit

5.2.5 Investment evaluation

We have evaluated three different scenarios better to understand our idea's economic impact over time. To do this, we have supposed different penetrability rates for the first year by examining how different values affect the profitability and the evolution of the investment. The normal scenario shows the data carried out by the survey, the worst and the best are computed considering the normal scenario as their mean.

To evaluate the potential of the idea, we have proposed the trend of the operating profit and the NPV.

Scenario	Penetrability rate
Best	52.5%
Normal	42%
Worst	31.5%

Table 15: Scenario analysis

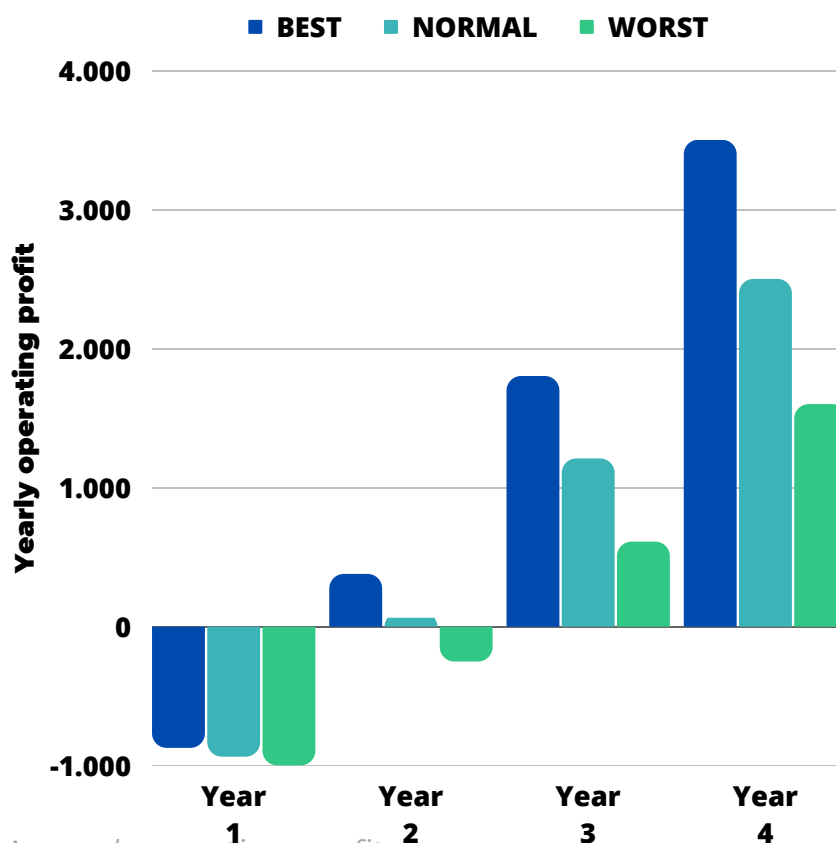


Figure 23: Annual operating profit

It is possible to infer that in the worst-case scenario, the losses incurred are near investment costs, and still achieve positive cash flow in the third year. On the other hand, in the best-case scenario, we could break even on costs as early as the second year. By placing ourselves in the middle of these two scenarios the results obtained would still be satisfactory and the NPV also shows this.

Worst Scenario NPV	Medium Scenario NPV	Best Scenario NPV
-548,771.00 €	669,571.00 €	1,887,914.00 €

Table 16: NPV in different scenarios

6. Business model canvas

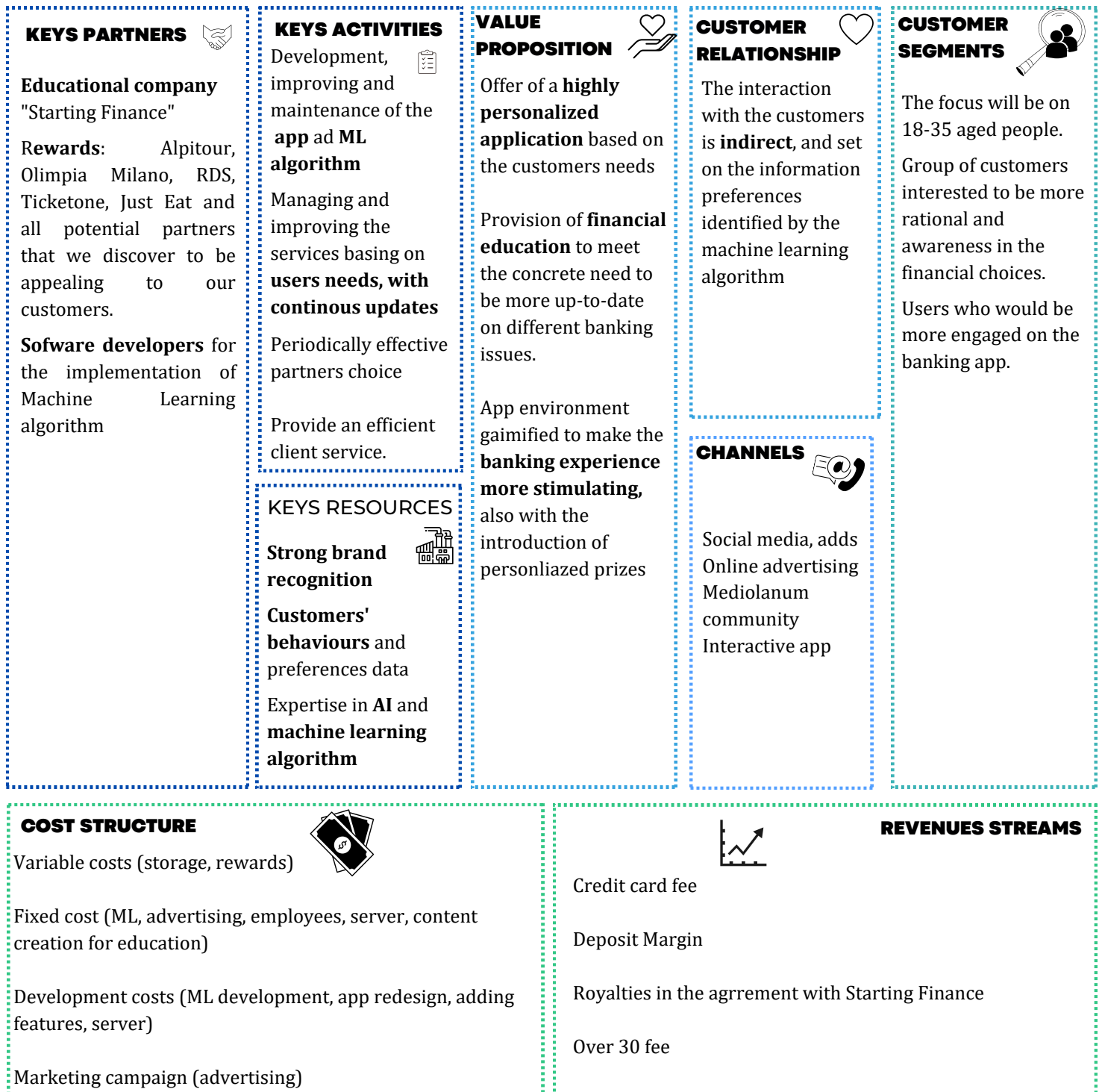


Figure 24: Business model canvas

7. Group organization

The final chapter of the report shows the team's journey, summarizing their performance, project execution, and group organization. It offers a perspective on the team's dynamics, identifies areas for improvement, and presents valuable insights from the members themselves.

7.1. Personalities and attitudes of the team

The group consisted of six members from different parts of Italy, one from Brazil, and one from France, resulting in a relatively homogeneous composition. To fully grasp the group's organization, it is crucial to consider the diverse personalities of team members and how they were perceived by their colleagues.

7.1.1. Whole brain model

This discourse is primarily based on the questionnaires completed by group members. The Whole Brain Model was used to assess their approaches to achieving goals. The analysis reveals a collective inclination towards a Goal Oriented view, which can be advantageous as it reduces disagreements regarding the chosen approach. However, this also highlights a lack of other perspectives that could have been beneficial, such as a Vision Oriented person contributing to idea development or a Detail Oriented person providing a more thorough analysis.

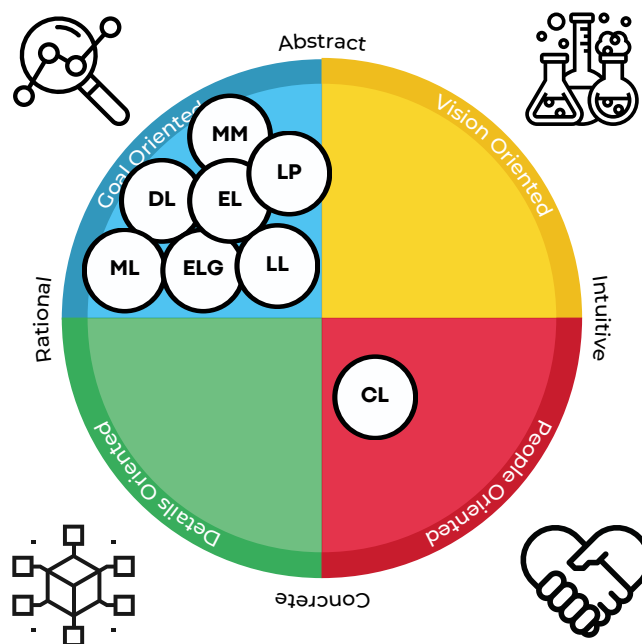


Figure 25: Whole brain model

7.1.2. The big five personalities

The analysis of the Big Five Personalities reveals a significant diversity within the group. This situation presents challenges as the varying personalities can lead to different visions and potential difficulties in collaboration. While diverse personalities can still support and collaborate effectively, the high level of heterogeneity within the group may pose additional obstacles.

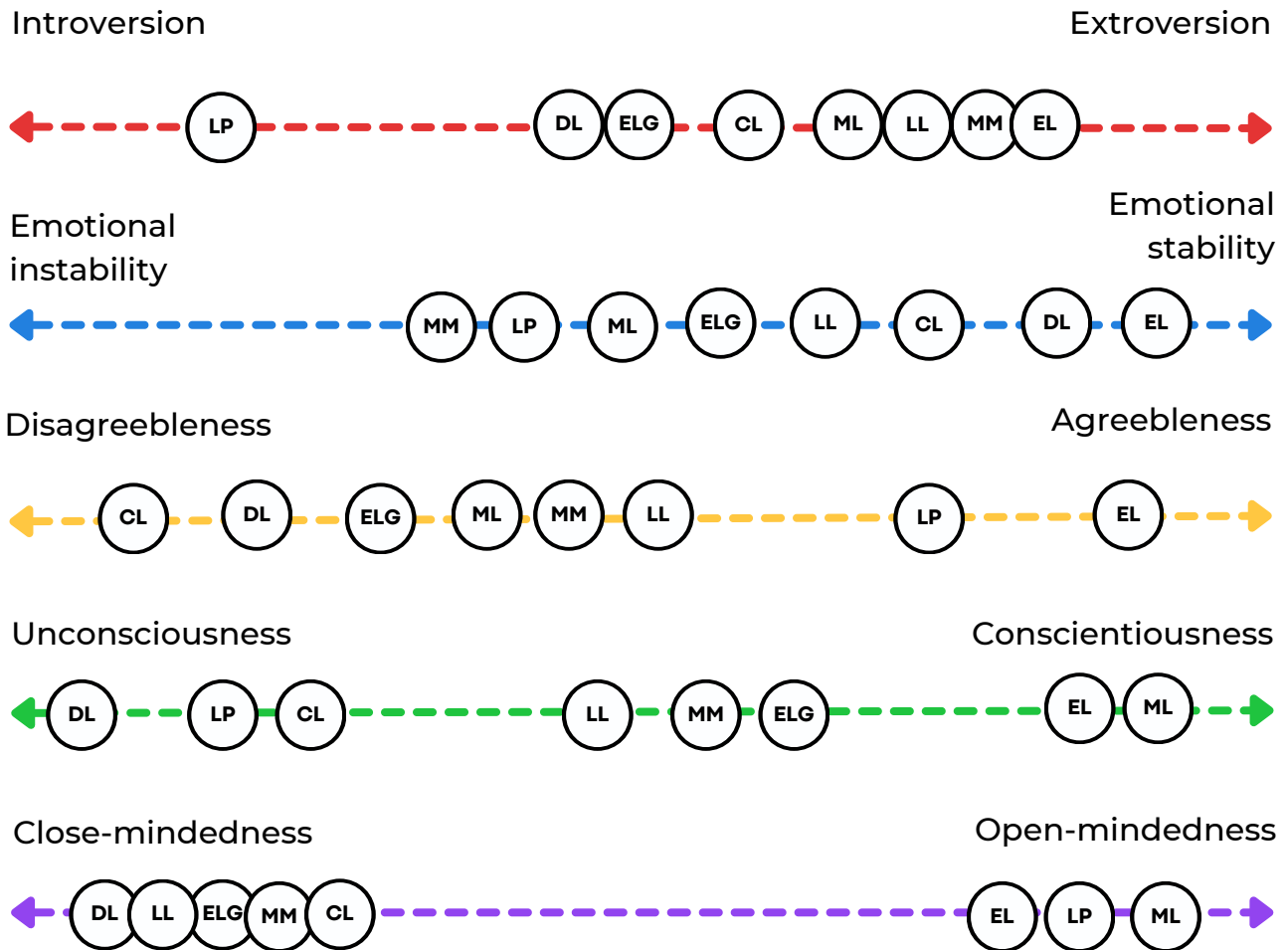


Figure 26: Big five personalities model

7.1.3. Johari's window model

The Johari window, employed as a tool to comprehend diverse personalities, confirms that individuals' self-perception often differs from how they are perceived by others. It is observed that many members have their characteristics in the "Blind Area" or "Hidden Area." This suggests a lack of awareness within the group and indicates that individuals may have different perceptions compared to what they outwardly express.

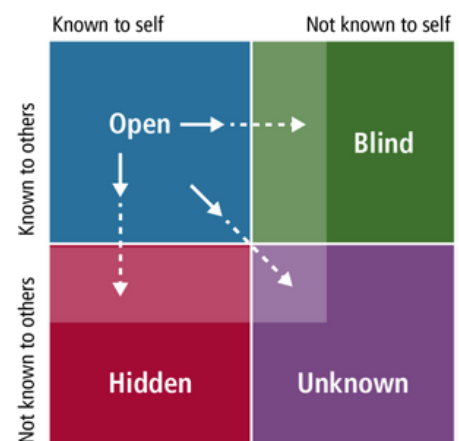


Figure 27: Johari's window model

7.2. Work phases and errors

7.2.1. Work phases

At the conclusion of our project, we collected the group's observations and utilized the Five Stages of Group Development model to analyze the progress of our work.

Formation

From the outset, we established communication channels such as a Whatsapp group, a Webex room, and a shared folder on OneDrive to facilitate information sharing and maintain constant contact.

During our first meetings, we focused in discussing and developing the innovative project idea. We also determined the division of tasks, including the formation of subgroups, while simultaneously striving to understand each member's attitudes and personalities.

Storming

Initially, there was uncertainty regarding the optimal solution and the process of innovation. Intermittent attendance and the transition to online participation created confusion about the final idea chosen. A critical moment arose after the first meeting with the company, demanding additional innovation within a tight timeframe. Despite these challenges, the team successfully achieved a satisfactory solution.

Norming and Performing

As the project deadline neared, the group improved its organization. Meetings became more focused on practical tasks and aligning the project's path. Roles and tasks were assigned to each member, promoting efficient work division. More frequent meetings and feedback aided in the overall productivity. However, due to time constraints, the team was unable to fully excel in their assigned roles, leaving potential for even greater performance.

7.2.2. Leadership style

We selected Davide as leader, mainly to oversee our group and manage the organization. However, regarding the decision-making process, we adopted a shared leadership approach. Different members took on leadership roles based on their capabilities, and no single opinion held dominance in our meetings. Our focus was on reaching a consensus. As none of us had extensive expertise in the banking sector, we made decisions based on clear, practical, and logic reasoning, leaving room for innovative ideas and suggestions from everyone.

7.2.3. 7 pillars of engagement

Commitment was crucial for the group's efficiency in task execution. We evaluated each member's level of engagement using the 7 Pillars of Engagement model.

Pillars	DL	ML	ELG	MM	EL	CL	LP	LL	Pillar average
Clear and defined objectives	6	6	7	10	9	9	8	8	7.9
Continuous feedback	8	6	6	10	7	9	8	8	7.8
Social interaction	5	5	8	9	9	9	7	8	7.5
Balanced challenges	7	5	6	8	8	8	8	9	7.4
Sense of improvement	9	8	6	9	9	8	8	9	8.3
Risk Attitude	6	6	5	8	9	9	8	7	7.3
Sensation of Control	9	9	8	8	9	9	9	9	8.7
Personal average	7.1	6.4	6.5	8.9	8.6	8.7	8.0	8.3	7.7

Table 17: 7 pillars of engagement model

7.2.5. Errors

A number of very common mistakes or pitfalls can occur within a team effort that should be avoided as much as possible.

We had open discussions where we freely shared our ideas and opinions. Our diverse personalities led to different proposed improvements and alternative actions, thus avoiding a risky unanimous **groupthink**. Thanks to this predisposition for discussing different opinions, we have also avoided the Ash effect.

However this doesn't mean that we have not made errors:

- **Lack of structure:** We didn't have clearly defined roles for each member, which caused confusion. Sometimes, we had to switch tasks suddenly, disrupting workflow.
- **Medium engagement:** As shown by the 7 pillars of the engagement model, social interactions are not very high. This could be because we had fewer meetings and a lot of individual work in the project. This is linked also to the **social loafing**, in fact some felt that the project workload was unbalanced.
- **Lack of planning:** we didn't have a clear plan that covered all the tasks. Sometimes two people have done the same tasks.

7.2.5. Tools used

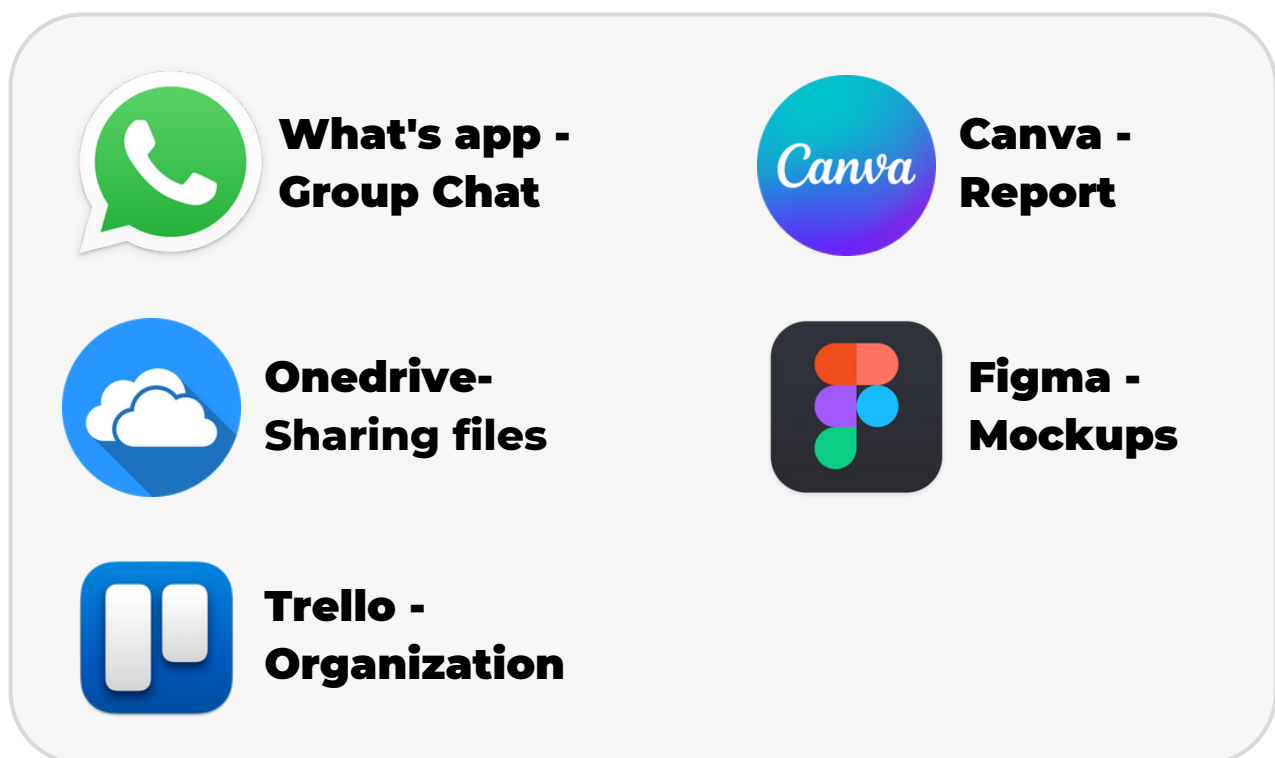


Figure 28: Tools used

7.3. Personal comments



We certainly suffered from social loafing. The little feedback given did not allow us to resolve problems and misunderstandings that we dragged through the project. The approaching deadline and the help of reviews allowed us to perform better.

The project was also interesting because it combined several competencies. On the other side, our group suffered from the excessive separation of tasks to be completed, and there was often a disconnect, which was quite frustrating.



A major challenge we face is the time-consuming process of decision-making due to differing opinions. Nonetheless, this also highlights the commitment of all team members to deliver excellent work and actively participate in the project.

Beneficial project to establish relationships and acquaintances with new people. The path outlined by the project allows you to develop and improve your leadership skills within the group by learning to manage different personalities.





It is challenging for a team of eight student to develop such a project, indeed it requires lot of organisational and communicational skills. Indeed, I really think it will help each of us in growing our team working abilities.

For me, this project was an opportunity to work with different type of people with different backgrounds, which was a very enriching experience. However, we also faced frictions regarding the heterogeneity of people, as a lot of times the members were not aligned about the flow of the project and we had little problems with communication.



The project was useful to improve relational skills, thanks to the collaboration with many other colleagues with different ideas and characters. Another aspect implemented is the ability to manage the work that is assigned in the pre-established times and ways.

The project is an opportunity to work and manage the problem we will face in the future. It is an excellent opportunity to understand and to absorb another point of view.



Appendix

Exhibit 1 : SURVEY

<https://forms.office.com/Pages/ResponsePage.aspx?id=K3EXCvNtXUKAjjCd8ope68Bt8ACVdMBIjLrsnRmGmodUN0xQSkVFNjhLWlRZWFBLO1dZS0dDSUczQS4u>

Questions of the form

Data collected from this survey are anabsolutely anonymous and will be used for the development of a universal "Leadership & Innovation" project for Politecnico di Milano.

1. What is your age?

- Under 25
- 25-35
- 36-50
- 51-65
- Over 66

2. How many services (e.g. money transfer, check expenses, etc.) do you usually use on your banking app?

- 1
- 2
- 3
- 4
- 5 or more

3. From 1 (very complex) to 5 (very easy), how easy to use do you think your banking app is?



4. Do you feel that your bank tries to reflect your personal needs?

- Yes
- No
- I don't know

5. From 1 (lowest) to 5 (highest), how much are you engaged by your banking app?



6. Which would be the best way for the bank to send you a message?

- Email
- Push notification
- In-app notification
- I don't mind

7. Would you be interested in financial/savings tips on your banking app?

- Yes
- No
- Maybe

8. If you want, tell us about any problems you have encountered in your banking app, otherwise just submit the form.

enter your answer

Exhibit 2 : Vrio analysis

	 Valuable	 Rare	 Inimitability	 Organised
Speed of use, intuitiveness and efficiency	Yes, for the customers is extremely important to have a simple interface.	Yes, because even if it's a consistent trend in that market, not all competitors can provide it.	Yes, they are differentials for a company's offer, and it is not simple to replicate an efficient app.	Yes, Selfy's customers appreciate these features.
Assistance	Yes, it is really appreciated by customers.	Yes, because many competitors offer it, but not at the same level.	Yes, a good service comes out from the values of the company itself.	Yes, the response speed and the service are appreciated by customers.
Strong brand	Yes, the brand recognition is extremely important for customers.	Yes, because only few players have this strength.	Yes, it is impossible to imitate it.	Non effectively. Selfy is not completely exploiting this characteristic.
Low cost	Yes, it is value-added.	Yes, because not all players have a competitive offer	Yes, it needs a change in the way to do business.	Non effectively. Selfy is not completely exploiting this characteristic.
Social media presence	Yes, it allows a higher brand recognition.	Yes, in this sector misses the attention towards social media.	Yes, a strong presence is inimitable.	No, Selfy does not explore this opportunity.
Customer engagement	Yes, it responds to a market trend.	Yes, but not at the maximum level.	Yes.	No, Selfy does not explore this opportunity.
Do-it-yourself approach	Yes, for young people it is an important aspect.	No, it is implemented by many competitors.		
Offer diversification	Yes, it allows the customer to satisfy their needs.	No, other offers already possess it.		
100% Online digital Bank	Yes, for the target could be value-added to not go to the office.	No, many competitors offer that		

Exhibit 3: ECONOMIC FEASIBILITY

The customer base and the economic analysis has been based on different assumptions. In this section we will explain more in detail all the calculations, showing the line of reasoning adopted.

Customer base

In this part we have embraced a step-by-step approach, evaluating first of all the potential market, given by the population size in which our solution refers to. Then we have tried to reduce this big slice, supposing a market share that Selfy could acquire for the first year. The estimation has made considering a penetrability rate (PR) which represents the portion of the total market we could achieve. It is calculated evaluating two questions proposed in the survey. Specifically we used the low engagement percentage (0,6) and the rate of people who want to be educated (0,7), to define the PR as the product of the two terms (0,42). Moreover, since the fact that Selfy is a new app in the market, we have added an intrinsic growth rate. In fact, through an interpolation of the data provided by the company, specifically the monthly acquisition numbers for 2022 and 2023, we have estimated an average growth rate for the following years of approximately 5%.

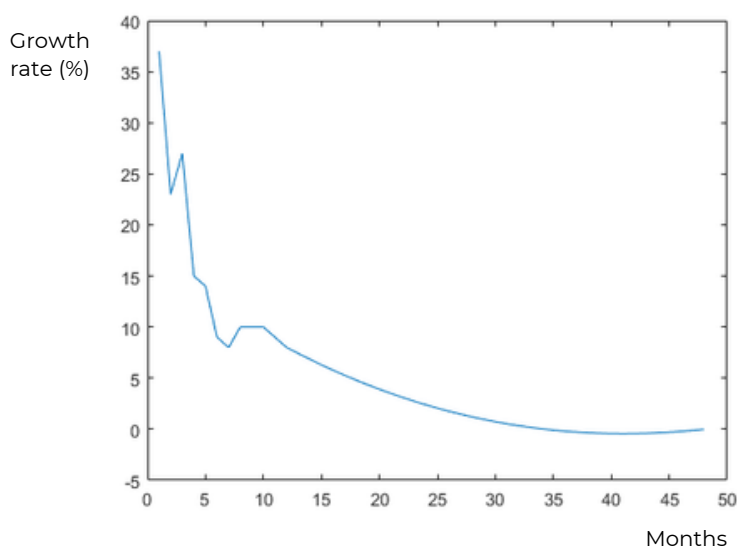


Figure 26: Growth rate estimation

For the following years, we have assumed an expansion rhythm called the "personalization effect." The figure is estimated based on the analysis of various studies, such as the one conducted by McKinsey. The report tells us how a medium-level personalization drives 10-20% revenue lift. Our assumption consists in considering a constant earnings per user overtime, supposing the rate as a measure of a growth index of users.

Furthermore, the concept of the old-young ratio has been used to explain the indirect acquisition index. What does it represent? Firstly, we took the number of customers acquired in the first year between the ages of 18 and 30 as the basis for our study. Then, the National Institute of Statistics (ISTAT) provided us the number of households with at least one member within the same age range (7 million). By applying indices such as financial interest, market share, and low engagement, we narrowed down the numbers and obtained an approximation of young users acquired by Selfy who belong to households, comprising around 94% of the total (26,500 out of 28,400). Moreover, by supporting our analysis with a social study that explored the influence of individual choices within a group (Sociologicamente.it), we were able to confidently estimate that approximately 10% of young users can annually bring at least one family member into the Selfy community.

Costs

Investment costs

The starting point consists in evaluating the machine learning development expenses. The idea is to develop a bare bone structure involving three models which in the initial phase could assure an adequate level of personalization. However, the system need to be further explored, monitored, updated and adapted overtime in order to pursue an higher level of customization. Therefore, considering the phData.com article and some other researches, we have estimated a cost equal to 32k € per model, with a total value of approximately 102k €, and added a 5% of extra costs, resulting in the reported amount of 115k €.

The second step is about the App architecture costs. As reported by SPD LOAD, the development of a moderately complex app typically ranges from 60k € to 150k €. Taking the average value, the total cost would be 105k €.

The third phase is the evaluation of app redesign expenses. According to Addevice.com, on average the activity requires from 100 to 500 hours, while the cost per hour, in Europe, ranges from 50 to 100 €/hour. Therefore, taking into consideration the average values, we incur expenses amounting to 22,5k €.

Then we took into account a crucial stage for the functioning of the app. In fact, it is necessary to build a robust server system. Considering the anticipated significant growth in the number of users (scalability factor) and the volume of data to be processed, we have considered the utilization of three servers to ensure efficiency and reliability. The cost per server, provided by the Company, brings to a total expense of 45k €.

Moreover, in this costs item we have considered also an initial set of contents to support the initial phase of studying user habits. We have supposed, specifically, 50 contents (podcasts, videos, tips and news) and, according to Shopify.com, each video has a cost of 2k €. The total expense is around 100k €.

The last part of the Investment costs analysis concerns the pre-launch marketing phase. As anticipated in the report, the contest will allow 50 individuals to win a free Selfy account for 20 years starting from their 30th birthday. The costs considered are those related to the winners, which is around 45k € ($50 \text{ people} * 45 \text{ €/year} * 20 \text{ year}$) and to the spread of the news. In particular for the latter solution, we have thought to disseminate it across the five major social networks for 3 months (duration of the pre-launch phase). The cost has been estimated through the analysis of potential views achievable which was supposed to be around 2800k € per social. According to Adbrazo.com, the CPM (cost per mille) of Insagram is equal to 9,10 €. So, the overall costs have been approximated to be 820k €.

Fixed costs

For the first part of these costs, we actually evaluated a portion of expenses that still belongs to the initial investment but is spread over multiple years. According to phData, the maintenance of the implemented model requires a Total Cost of Ownership (TCO) of 182k €.

Another voice concerns the salary of hired software engineers. For a simple bare-bones model, we might consider relying on a single employee, but given the focus on continuous process optimization and the complexity of our case, we assume 3 engineers. According to Jobbydoo, the average salary is €38,700 per year, with a total of 116k €.

As anticipated, for the server we have thought to create a system with three entities. The data provided by the Company helps us to carry out a total maintenance of 108k €.

For the updating of contents on the platform we have thought to add monthly 10 different materials. Assuming the previous data of Shopify.com, the entire amount will be 240k €.

The marketing campaign has been planned for a duration of 4 years. It will incur costs related to social media page management, which according to inretedigital.it amount to 46k € per year. Additionally, there will be expenses related to sponsorship through influencers, considering an average of 2 weekly posts, resulting in a total of 216k €. This estimation is based on an average of 2.5k € per post, as reported by IlGiorno.it. We have contemplated also a SEO consultancy to optimize the search processes, which, according to Insidemarketing.it, will incur a cash outflow of 2.5k € per month, totaling 30k € per year. The last point consists in standard advertising on 3 social platforms, taking into account the Cpm seen before and an average monthly click of 100k users, we have estimated a cost of 32.76k € per year.

Variable costs

Firstly, we have presented the storage price. Assuming that each customer occupies 1 GB of memory for years of operation and considering the cost per GB on AWS, we have estimated that the annual expense is equal to the price per GB multiplied by the number of customers.

Then, there is the cost of the rewards. Analysing the offers of our partners, we have estimated an average rewards price which is 100 €. Every year, we have supposed, without any real-world feedback, the minimum probability to winning to make the game appealing, so the 10%. Obviously, this data has to be controlled and adapted overtime to the customers behaviors.

Revenues

The first source of revenue comes from the credit card fee. In order to understand how many customers might possess a credit card, we have studied a [IlSole24ore.com](#) article where is described the total number of credit cards in Italy which is 15,2 million. This data, adjusted for the population who could own it, suggest us a percentage approximately of 25%. For that we have multiplied the number of Selfy users by the value and then by the credit card fee per year.

The second source regards the over 30 fee. Basically, we multiplied the number of customers over 30 by the annual cost.

Another revenue stream, which represent the main one for the banks, has been computed through information provided by the company. In fact, as reported, the 1% of deposit margin is given by the company itself. While for the average deposit per year, as mentioned by [Flowe.com](#), the average income of young people between the ages of 18 and 35 is 15.86k € per year, while the average monthly expense is 1.2k €. Therefore, simplifying the average balance as income minus expenses, the result is approximately 1.4k €.

The last is related to the royalties. Indeed, we have presumed that each Selfy customer who buy a Starting Finance course on their website, will bring to the company a 2% of the course price which is on average 250 €. The data is acceptable according to [Efficaciafiscale.com](#). To approximate a total amount, we assessed the current customer base, which is 5k students, reported by their website. Their activity have started more or less from 4 years, verifying an average of 1 k students per year. It allows us to make the assumption that the community thanks to the partnership could show, in 4 years, an increase of 140% about customer acquisition. It is evaluated, considering that 1% of Selfy User will take at least one lesson on their platform.

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