Teesside University

Teesside University Business School/Prague

College

Post - Graduate (M.S.c) Studies

Dissertation

Project Report Certification

1. I confirm that the work in this Project Report is original and has been carried out by me as part of my programme of study.
2. I confirm that all secondary material has been properly acknowledged by me and referenced in this work.

Signed:Francesco Palmieri

Name: Francesco Palmieri

Date: 29th of January 2021

Course/Programme of Study:

MSc International Management

MSc International Management

Potential for Creating Fintech Startup as a Robo Advisor and Bank

Postgraduate Dissertation

(Palmieri Francesco)

Date Submitted:

29/01/2021

Acknowledgments

This research project is attributed to my parents who have always supported me and spurred me but mostly have paid for my studies. When I arrived in Prague for work reasons I was not entirely convinced that I wanted to pursue a Master's because I was well aware of how much commitment it would have required but they were sure I would have successfully made it, and they were right.

A special thanks go to my supervisor – Bruce Gahir who has patiently reviewed my research has helped me with a lot of advice and who was always available for support. Moreover, a big thanks go to all my professors at Prague College, who, during these two years, made me grow a lot and helped me be a better student, and a better person.

I would also like to thank you my brother that keeps on being an anchor in my life and who always listens to my crazy plans for my future.

A big thank you goes to my girlfriend that during many months, during a worldwide pandemic, has supported me in achieving this important goal.

For sure no the biggest thanks but the biggest applause goes to me, that despite a full-time job I have made through a tough but amazing journey during which I discovered a lot about myself and during which I managed to find a lot of new passions.

Abstract

The main focus of this project is to investigate whether there is a potential for a fintech startup that provides both the services of a fintech bank and Robo advisor in the European market. The need to investigate the feasibility of this product comes from the high competition in the fintech ecosystem, from the high risk of the project, and from the fact that most of the early-stage startups fail. Moreover, it is important to understand, from a regulation point of view, if such a product is allowed or two different companies need to be created to provide two different services.

The aims and objectives of this research were achieved by surveying potential customers around Europe in more than ten countries and interviewing experts in the fintech ecosystem such as professors and people that work in the industry. The findings were analyzed using Pest, Porter Five Forces, Lean Canvas Model, and the Nicosia Model, to explore the theory regarding the viability of the new fintech startup option.

The key findings of this research implicate the need for a service that could integrate both the services that a fintech bank provides united with the services offered by Robo advisory companies. Utilizing a product from which people can manage all their financial needs is fundamental mostly for younger generations. Moreover raising awareness and creating a financial education on how to manage savings and how to better spend money is a need found on the market and one of the trends of 2020.

Contents

Table of Figures

1.1 Background

According to Geng Dan (2017, p.14), technologies have always fueled and driven the revolution in all aspects of people's lives. In the financial sector, progress has impacted and revolutionized the “Bank 1.0” that provided a branch service-based. The scene was taken over by the “Bank 2.0” that (King.2010) has changed the way customers interact with their banks and make transactions thanks to mobile payments, the digital and online banks, and the social networks. Afterward, the lack of trust for financial institutions and the whole financial system brought by the financial crisis of 2008 has been widening the gap between customers and traditional banks.

New technologies and services have tried to redefine the mindset of people by creating a new financial mentality by building trust (Shermin Voshmgir, 2019, p 294). The process of building trust was passed by important events such as the release of the first Bitcoin in 2009 and the introduction of blockchain technology in the following years. Decentralization and democratization of technologies are helping and shaping this transition. These forces are on one hand revolutionizing the user experience and on the other hand, creating and increasing efficiency in the financial system. This so-called “peer to peer” revolution fostered the “Bank 3.0” stage (King 2012) where traditional banks are experiencing one of the most complex periods of their existence. On one hand, they see the raise of thousands of new fintech services that are operating more efficiently and they are faster in reacting to the market changes, and on the other hand, they are not able to react properly because of their rigid business models and the bureaucracy.

One of the themes at the 2019 Innovate Finance Global Summit, according to a report from Deloitte, was turning around how fintech impacted society. It is considered, by Mark Boleat, a revolution because it is supporting the economy and society by creating

fairer, more transparent, and more inclusive financial services.

The fintech ecosystem has seen many companies that have been raising popularity in their sectors because they are bringing innovative solutions to democratize the entire financial system. Digital banks on one hand they are meeting the change in consumer expectations (Fawthrop, 2019) that are switching to different channels. According to Fawthrop (2019), 71% of all the banking interactions in the UK are happening online. Since 2018 the demand for digital banks has raise because of the inability of traditional banks to meet customer expectations and needs. According to a study lead by Mastercard, convenience is one of the key advantages of digital banks and this is leading many citizens, mostly youngsters, to adopt such a service. The democratization that digital banks are bringing is the key point that makes the young generation adopt their services.

On the other hand, in the wealth tech industry, there are Robo advisor companies that are making an investment in the financial market easier and more accessible to everyone. Until 2008, to invest in the financial market was extremely expensive (Deutsche Bank Research, 2017) and with high entry barriers. People would need to contact wealth funds who would charge up to 5% yearly and would require a minimum initial investment of circa 100.000 euros. Companies such as Money Farm or Scalable Capital made investment accessible to everyone, without entry barriers and with fees that decreased drastically reaching a maximum of 1% yearly.

According to Eurostat (2017) in the years 2016 and 2017, European countries have been investing € 3100 billion. This number accounts for circa 20.1% of the GDP of European countries compared with 22.4% of ten years ago just before the financial crisis. Among the EU states in 2019, the Czech Republic investment accounts for ¼ of the annual GDP (26.2%) followed by Norway (26.1%), Sweeden (24.5%) and

Finland (23.6%), and Denmark (22%). Is it interesting to notice that among the last 10 years between 2010 and 2019 all of these countries, besides the Czech Republic, have experienced a growth in their investment as % of GDP.

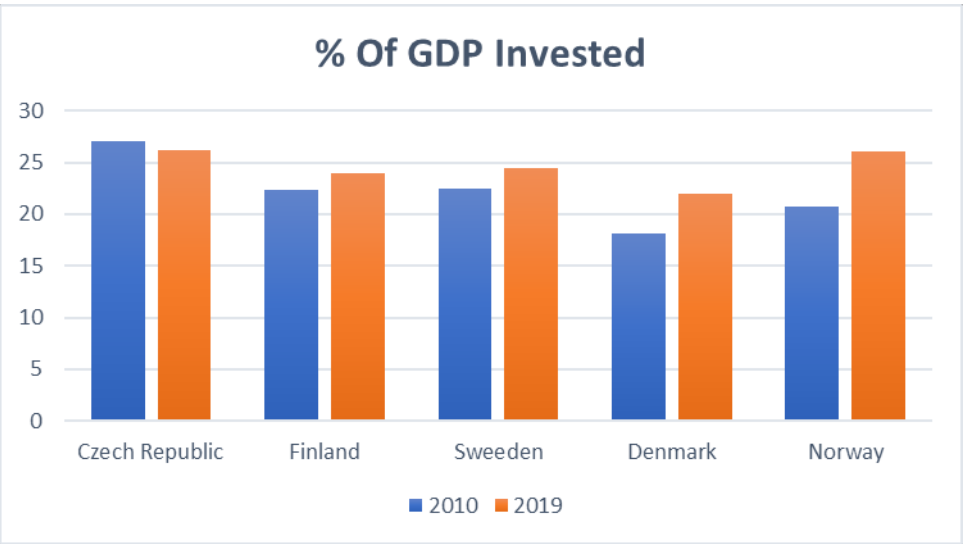

Figure 1: % of GDP Invested

According to Eurostat (2019), the Czech Republic has experienced a slight decrease in their investment as % of GDP of -3 pp while remaining the country with the biggest investment as % of GDP. Finland, Sweeden, Denmark, and Norway have experienced respectively +7 pp, +9 pp, +22 pp, and +26 pp confirming the inclination of the northern countries to invest.

According to The Digital Economy and Society Index, Finland, Sweden, and Denmark have the most advanced digital economies in Europe. The countries are measured among many parameters and early adoption of new technologies and the willingness of their citizen to adopt such technologies. These countries rank at the top for 5G readiness, digitalization of public infrastructure, IT security, supercomputing, artificial intelligence, and blockchain. A proof of this is the fact that the biggest fintech company in Europe Klarna(Riley de León, CBNC,2020), was born and founded in Sweeden and

strongly leads in all the Nordic countries as a demonstration of the openness of these populations towards technology.

A study lead by Visa on the cashless cities defines Helsinki, Copenhagen, and Stockholm as digital leaders in the world, with the highest-ranking as a demonstration that these cities are leading the digital revolution around the world. Oslo is defined as a digital advanced city while Prague is digitally maturing. All these cities are either already fully digitalized or are in the process of doing so.

Therefore, this project will validate the feasibility of creating a fintech startup that provides services of a fintech neo bank and of a Robo advisor at the same time. The idea to be validated is of a company offering online automated investment advice, services proper of a Robo advisor, combined with a cash management account, services proper of a fintech bank. The company will offer several online services without any physical location. The target of this service is the most technologically developed countries in Europe. The study is going to be a focus on the city of Prague. Prague is one of the fastest-growing cities in Europe and is aiming to become one of the most advanced in terms of advancement in the use of technology.

The most important thing to understand is if people are willing to use this type of service if they are interested in it and would trust a company to manages from A to Z all the financial aspects of people's life. It is also important to understand the feasibility of this project in terms of competition and the assessment of the associated risks. As already mentioned, the third phase of the fintech revolution already started some years ago and therefore there are hundreds of fintech startups in the European ecosystem. Winning the competition and understanding how to do it is the key to the success and the realization of this project.

2. Aim

To investigate whether there is a potential for the creation of a fintech startup that combines services from a fintech bank and a Robo advisor.

3. Research Objectives

3.1 To explore the literature of market assessment and technologies

First of all, it is important to assess the feasibility of the business, searching if there is a window into the market where the application can be introduced and if not, it is also necessary to understand where it is possible to create such a fintech startup. Analyzing the market and the fintech industry is important because could give an overview picture of which are the main actor in this sector and which could be the new potential competitors. After this, it is fundamental to explore the literature of the different technologies to understand how these could help and support the project: in these years technology is the main topic around which most of the startups are focusing on.

3.2 To assess potential consumer demands for such a service

After the feasibility of this project into the market is assessed, the next objective helps to understand where the business should be developed. The research proposes one city: Prague. It has the relevant characteristics that can fit with this idea of business: it is an international multicultural, and developed city. To Study, the city means to study the citizens and how they behave in their lives, which are their interests and which are their needs. Is important to understand the financial availability of a different group of people and their willingness to use online services. This project aims to provide a service that is not offered by any other company.

3.3 To gain an industry perspective on the potential of the proposed app

As a final step, after the feasibility of the project is proved, the city where start to develop is explored and the type of customer is captured, is important to understand the fintech industry and its environment: how many startups are developed in this field, how did they develop their business to capture their strength and weaknesses and use them to improve the project and to face up with possible competitors/suppliers. Understand their business models, how most of the fintech startups failed and how some of them managed to disrupt the market is a fundamental step to do.

3.4 To draw a relevant conclusion

Once all this objective has been achieved, a complete view of the feasibility of this project will be clear. If this project will be feasible which is the best place to develop it, and what are the needs that the service will fill.

4. Research Questions

Objectives	Research Questions
1) To explore the literature of market assessment and the technologies	How can a market potential be assessed? What tool can be used? Which could be the advantages? Which could be the disadvantages? What models of technology use exist? When are they applicable? What are their challenges? What are its advantages?
2) To assess potential consumer demands in the target cities for such a service	Which are the potential consumers? How much do they earn? How much savings do they have? How willing are to save money? Which is their average age? Which is their job? Are they familiar with cashless life? Are they willing to make investment? Where do they live? Which are the common links between those cities? Which are the differences between those cities?
3) To gain an industry perspective on the potential of the proposed app.	Does the tech industry see potential in the app? Is there competition in the market? Which are the main competitors into the market? How the sector is developed? Is the sector full? Are there still opportunities for new entrants? How the offer could be made?
4) To draw conclusions	Is this business feasible? If yes, why? If no, why? Are there other similar business? Which could be the next steps to develop this project? Which could be a small term plan? Which could be a medium term plan?

Figure 2: Research Question

5. Literature Review

5.1 PEST

To assess the potential of a new fintech company that offers services of both a Neo bank and a Robo advisor, it is, according to Abhishek Gupta (2013), first necessary to assess the model with which the PEST model offers critical insight. By assessing the macro-environmental factors, it may be possible to determine whether a fintech bank that provides also the service of a Robo advisor, is feasible. This is a useful tool for understanding market growth or decline and potential direction for a business. Any startup, as argued by (CIPD,2018) at the beginning of its life, needs to understand the market and the sector in which is going to compete. Is important for a startup to understand whether there is some regulation to be respected, such as tax obligation to be followed or economical aspect such as barriers to entry in a new market to be taken into account. In the fintech industry, there are many competitors in both the Neo Banks market and on the Robo advisor. The market is not yet in the mature stage but companies need to consolidate the trust acquired so the entrance barriers are not too high. At the same time, the regulation is not yet fully determined and is often changed and updated because of the continuous changes in the market.

One of the most critical aspects that PEST analysis is helping with is the social aspects. As stated by Alessia Camera, (2017) to understand the habits, needs, and wants of society, where the trends are bringing people, is fundamental for getting their approval. Being a startup means that there is an idea that needs to be tested and needs approval from potential customers. An important point raised by Lawrence Carr and Alfred Nanni (2009) is that Pestle analysis allows making this type of

researches/study before any type of resource is committed. The product will be offered for testing after a clear understanding of the market needs. As assert by Scalable Capital CEO (2020), one of the Robo advisor leaders in Europe, to win in the market is important to study the potential customers and then specifically target potential users. The company for example decided to target people with an age between 25 and 40 years old with slightly above the average salary that they would be willing to allocate a part of it to investment. Only by targeting specifically their customer base, they became in less than 10 years the leaders of this innovative technology in Europe.

Furthermore, according to Pestleanalysis.com (2019), social aspects revolve around many factors such as demography, culture, and the external environment such as education, gender, geography, and demography. All those aspects heavily influence the social environment of each market and create different trends. Considering societies are continuously changing and shaping differently, PEST analysis would be good to embrace all of these social factors and use them to narrow down all the types of customers.

Understanding the customer base for a startup is crucial because is important not to sell a product but to find a problem that a certain category of people have and try to sell a solution (Haje Jan Kamps,2017). In the fintech ecosystem, there are no companies that offer a full experience of spending, saving, and investing and this is the problem the startup wants to meet.

However, as Grieves (2010) notes, this analysis is static while the world in which the startups are living is one of the fastest-growing. Developing such a deep and complex analysis requires a big amount of time (Rastogi and Trivedi, 2016, pp. 386-388),

therefore some important changes may occur when the whole analysis is finished, and it should be necessary to start it again from the scratch. Environmental changes and updates in regulations might occur (Thompson and Martin,2006) and these might affect the business and its business model. Regulation for the fintech world is still under development and almost every month the ESMA (European Security Market Authority), updates many aspects on how to run any type of business that has to deal with managing the finances of European citizens. Being careful and always in the respect of the regulations and cooperate with them is crucial for a fintech startup.

According to a publication of Sidharth Thakur (2010), one of the key limitations of this method might be the fact that there is a big amount of information and many difficulties to gather updated ones and this could be important friction that could occur. Especially since most of the pertinent data must be collected from external agencies, this makes PESTLE analysis not only time-consuming but costly as well. In case not enough data will be collected and consequently, the analysis might be wrong or inaccurate and it might drive incorrect reading of the result. This piece of research will need to analyze the Neo Banks and Robo advisor market and their competitors. To gather information about non-public companies is extremely complex, and not reliable and this might be a big limitation for this project.

A confirmation on the possible limitation of this analysis comes from Frue (2018), that believes that being this model static, it cannot respond quickly to environmental changes and so consequently it required rigid constraints. Gathering data is time-consuming and expensive. Refreshing and actualizing the data according to the change that occurs is going to be a big challenge. Is needed, then, to prioritize how

often and how to refresh data. Being a static model enables us to have short term information but it does not allow any company to make a long term plan because of the changes that happen in every environment. This risk for the fintech startup could lead to sudden changes in strategic priorities and in error in implementing the company vision.

PEST offers a comprehensive technique for performing an environmental analysis on external forces for a project. However, this analysis has several limitations that need to be taken into account. Being a static model, that considers only the present, might limit its utility for future decisions. Although considering that its effectiveness depends on the quality of data gathered, timely changes and updates might trim and reduce the risks carried by this analysis.

Despite these limitations, it might allow for a good piece of research. However, it needs to be complemented by porter's five forces.

5.2 Porter Five Forces

When a new business is approaching the market, one of the most important things is to understand how the company positions itself into it. As Seth Godin asserts (Millionaire, 2019), when someone wants to do business is important to put the focus on the problems that this new business wants to fix. Michael E. Dobbs, professor at Eastern Illinois University, department of management, studied deeply this model, its application, and how to use this model in business research in certain industries. He found out, in his research, that this model, which is conducted with analytical thinking can give a good insight into an industry. Is important to understand for an early-stage startup where to position into the market and how the company stands against the other competitors (Porter, 2008, pp. 79-93/ 133-50). Is important, as well, to understand even how is the market structured: new entrants, substitutes, bargaining power of customers, bargaining power of suppliers, and competitive rivalry. One of the hardest topics to analyze is if are there any barriers to the entrance that could affect the project or if is it easy to enter that specific sector of the market (Jason Chou-Hong Chen, P. Pete Chong & Ye-Sho Chen). Is as well, important to understand if the product /service the startup is launching is easy to substitute or is itself a substitute product. And last but not least is important to analyze the relationship with suppliers and who is the bargaining power into the market (Porter, Harvard Business Review, 2006, p.2). The startup, at the center of this research, will need to face a market that is growing fast, where tech companies are driving the changes in our lives. Understanding where to position into the market an already existing product that is offered in a new and innovative way is the key to possible success. As well, learning the costumers to target (their age, their job, their passion, their aims in life), which cities to target, are themes that need to be treated when the project is still in its initial phase.

To support this thesis, Andrews (1980) reassures that each force existing in the environment is inversely proportional to the profit that might be achievable in the business; this means that in the case of a strong competitor taking place, it becomes harder for new entrants. On the other side, weaker competitors may attract other companies and can be seen as opportunities. This is important for the launch of any type of business. Understand the competition is crucial because most of the new companies entering a certain market are not the pioneers but they try to improve what was on the market that was not working. Most of the fintech companies that are disrupting the financial market did not introduce anything new they just updated a market that was operating with old systems and an old mindset. In the Neo bank market, few competitors are very strong and with a big customer base while in the Robo advisor market there are not companies that have full leadership but the customer base is pretty much spread among multiple players. The innovative business model of the startup object of this research has the potential to enter both markets and play an important role in there.

This model could allow the company's management not only to analyze and study the potential competitive forces on the markets the company wants to compete in but could also allow the understanding of the position of the firm inside the industry. Porter (1979) asserts that if the management knows the weaknesses and strengths of its business can develop strategies to win into the market. By knowing both the market, its competitors, and the own company the management can understand which are the areas to develop. According to the study lead by Deloitte (2015), the Robo advisor market is well known to have high acquisition costs. Thanks to its innovative business model, the startup object of this research, has a competitive advantage within that

market and this might enable it to become one of its biggest players.

As (Nilofer Merchant) explains in her article in Harvard Business Review (2018) the underlying theories assume a classic perfect market. Some limitations on the usage of this model come because in most of the case there is no such a perfect market as Porter Five Forces model assumes to be. The model assumes that the market is perfect in the sense that is following certain established rules. As (Nilofer Merchant) explains in her article, the point is that this model is no more suitable and useful for the actual conditions of the market. The fintech industry is still developing and did not reach its total maturity yet. In particular, the Robo advisor market is pretty young in Europe considering the oldest company started to operate around 2015. Many changes occur under multiple aspects such as new companies that are entering the market and new types of regulations that are ruling it. The static of this model might therefore threaten the development of a correct analysis.

Also, as stated by Beattie (2018), the model looks at the industry as a whole, not at individual players, and tends to be more appropriate for larger organizations and not for early-stage startups. Gathering data that give information on the market is extremely important for the creation of a business plan as it will be analyzed further with Lan Canvas. If data might be inaccurate most of the efforts spend to develop a Porter five forces analysis will be useless and the result for the startup might be the failure. Moreover, for this piece of research, two markets need to be analyzed and so is important not only to look at the whole fintech industry but try to understand how most of the competitors can be present in each market and under which conditions.

Support of this criticism comes from Moriarty (1983) that argued that understanding and study the industry as a whole does not provide the capabilities to find the differences among the companies operating in the market and how do they perform within the industry. Some false ideas could be built over the market functioning and its competitors, if the data gathered, are not sufficient or incomplete. The fintech and Robo advisory market may show a possibility for new entrants but Porter's five forces analysis may fail to detect some well-established competitors that could not allow in that specific market any type of new entrants. Being able not only to apply different models to the research conducted but as well, being capable to combine multiple tools and resources is fundamental for this piece of research.

Despite these limitations of Porter's five forces model, it still provides good insights into the industry as a whole and its structure; what are possible winning strategies, and some threats. The tools thank to their analytical nature helps to capture the competitive structure of the market and its functioning. It may help the founders of the startup in understanding if the situation on the market allows new entrants and in which measure. However, it needs to be complemented by the Lean Canvas Model.

5.3 Lean Canvas

The main goal of every business is to create value. As Ash Maurya says in his publication (2012), a startup, considering that is not an affirmed business, needs to focus firstly on understanding the needs and wants of the product/service it is proposing to want to fix, and consequently on the solution it will propose. This model focuses its attention on the action, on the product, and tries to figure out which are the riskiest and uncertain factors in a startup. The model is efficient because helps startups to create a business model and to understand the business in which they want to focus through the definition of 9 steps (Steve Mullen): identification of the problem, identification of customer segment, understanding of unique value position, creating a solution, detection of channels key metrics, prices, advantages, and revenues stream.

The Neo banks and the Robo advisors manage to have a strong business model because they offer a product/service that is meeting the consumer's expectations and needs. Offering new and innovative services in markets where the competition is high, is fundamental; studying the market, knowing the competition, and trying to differentiate is the key to succeed in a competitive environment.

This model might help this research if connected and used with the Porter Five forces and Pestle analysis (Ash Maurya, 2012) because it helps the startup to have an overview of the market trends and its customer. Moreover, it gives insights on some aspects such as channel metrics, value position, creating solutions, prices that other models might ignore. As stated by Alessia Camera (2017), the creation of a business model is one of the first things a startup needs to realize. This model indeed helps the startup to have a simple but clear idea of the circumstances and helps to understand which is the direction to take. It is a famous model because in reverse of the Canvas

business model it reduces time and useless complexity at this stage of the works.

Moreover, in a study lead by János Vecsenyi and Attila Petheő (2017), they assert that after the model started to be known many founders have been using it with different results. It has been found that this model is a good option for somebody that wants to study and describe an existing business. It helps to identify the major elements and does not require deep digging and research. The fintech market has plenty of innovative startups that are disrupting and revolutionizing the industry. To excel among them is important to study the biggest companies and try to offer on the market something new, innovative.

The most important key why so many startups use this type of business model is because is very easy, customizable and it does not require following strict rules (Ash Maurya, 2012). Moreover is a good tool for comparison: it enables the study of other competitors business models and understand their strength and weaknesses. Having the possibility to compare your idea with already existing companies that might not be identical but very similar is fundamental for the validation phase.

In addition to this, the Lean Canvas model enables founders to interact closely with stakeholders. Usually, custom models and tools fit better to user needs. In the startup ecosystem is crucial not to be rigid with the initial idea but to validate it with possible customers. Understanding consumer's needs and adapt and sew the product on them is the key to the success.

Although it can be extremely helpful as a framework for organizing and researching

the considered market and its players, there are some limitations to this model. Firstly it lacks a strategical approach. Ted Ladd (2016) published an article in the Harvard Business Review where asserts that too much feedback from the customers might cause the entrepreneurs to change the idea so frequently that they become disheartened. This can cause, moreover, the problem of producing "false negatives" meaning that some good ideas might be discarded because there is not a clear approach to doing the business. For the startup of this research when the product will be ready, it will be fundamental to receive feedbacks on MVP (minimum valuable product) but those need to be collected and carefully analyzed with statistical methods to avoid the creation of false negatives.

According to János Vecsenyi and Attila Petheő (2017), another criticism of this model is its static, and its inability to follow and study the market trends. This problem recurs in many of these models/analysis approaches because in the startup ecosystem this is the key that makes 90% of startups fail, their inability to react and respond to quick changes.

On the other hand, the model needs to be sustained and integrated with the Pest and Porter five forces models because it lacks the market study and its potential growth. Understanding only the market but not focusing on its player could be as misleading as studying only the competitors and not the market.

For a startup that wants to enter the fintech ecosystem, one of the fastest-growing industries in the world is fundamental to be able to react and change as the market does. A startup cannot be static but, to attract clients, it needs to sell the most up-to-date product that meets consumer's needs.

A final criticism that has been leveled at the Lean Canvas Model, János Vecsenyi and Attila Petheő (2017), is that it does not put too much attention on some crucial elements for startups like investment needs, competitive and comparative advantage and it does not have a list of actions that the founders should follow.

The startup object of this research has an innovative business model that combines the services offered by a Neo bank and the ones offered by a Robo advisor. By doing so it manages to drastically reduce some fixed costs and creates a competitive and comparative advantage in both markets. Highlighting these advantages that this business model has is the key to present the project to investors and incubators that are usually looking for startups that have strong competitive and comparative advantages.

Despite the limitations of the Lean Canvas model, it still provides a good understanding of the competitors that are playing on the market and their business models. It is useful to compare the competitor's business model with the one developed and try to understand the possible improvement and weaknesses of your business model. However the Lean Canvas model alone is not sufficient and this is why needs to be integrated with the Pest, Porter's five forces model, and the Nicosia model.

5.4 Nicosia Model

The Nicosia Model (Nicosia, 1966, p. 17) offers the opportunity to study consumer's motivation and behaviors as it concentrates on the buying decision towards a new product or service. The model studies how the message that the company transmits affects and influences the predisposition of the consumer towards the product or service. The model (Nicosia, 1966, p.41), is based on a gradual process of four phases towards the purchase decisionmaking process – attitudes, search and evaluation, decision-making, and postpurchase. As Milner and Rosenstreich (2013, p. 6) state, the first phase starts when the customer faces the need for the product/service the company has exposed them to. Then, a certain idea and attitude are developed towards the product. So it might be useful and productive to understand the attitude of the possible customers and users of the product; if they need such a product that provides multiple services if they are partially interested in the product or some of its aspects.

The product offered, by the startup subject of this research, is innovative because is a combination of some existing services that would be offered in one single platform. This would enable clients to be able to manage all their financial products in one single application that would enable them to save, invest, and manage their finances with one single provider.

The process continues with the second phase, the search and evaluation one. According to Prasad and Jha (2014, p. 338), at this stage consumers decide to start evaluating the market by gathering information not only about the company but also about its competitors. He/she tries to understand the similarities and differences of the different brands/companies and match them with his/her preferences. This model,

then, could be useful for the company to understand how consumers evaluate the different options offered on the market to increase awareness of the product/service offered and win the competition. The finding could be that among the most important drivers for choosing between different fintech banks the ranking preferences are, design of the app and its accessibility, fees charged and costumers support. Understanding consumer's preferences are fundamental. Customizing marketing strategies and management decisions by understanding consumer's priorities could be the winning move for the startup. Being aware of the continuous changes in the market, being able to capture consumer's needs, and make a product that positively differs from the ones on the market because meets all the customer's needs is the key to start a business.

According to Walters (1974, p. 6), consumer behavior represents specific types of human actions that concern with the purchasing decision of a product or a service. Understanding consumer behaviors towards a product, why they decide to buy one rather than another, is a useful tool for companies to market their products/services to influence customer decision. Is an interactive model where both parties influence the other. As explained by Schiffman and Kanuk (1987, p. 653), on one hand, the company tries to influence customer decisions through its marketing actions that are driven by the customer itself. He or she influences the company's marketing strategy with his purchase action. Only by understanding what are the financial needs of customers, the startup could create a product that fit them. Interacting with clients, asking for feedback is fundamental through the life of a startup but crucial at the beginning when the MVP still is in a development phase.

Despite all the positive aspects this model has, Lilien and Kotler (1983, p. 205) point out that consumer behavior models can have also disadvantages that sit on the way the analysis is performed, to its estimation and measurement. Runyon and Stewart (1987, p. 698) criticize the Nicosia model because in their opinion is inefficient in behavioral predictions.

They also state that the assumptions that consumers do not have experience, awareness, and knowledge of the product/service offered are questionable and not realistic. In this case, the startup will offer services that are existing and so, possible clients, might have a previous idea, and understanding of the services offered.

Moreover, the model lacks a structured flowchart that reflects the different factors that could influence the consumer's behavior. The model does not evaluate properly the different variables and their impacts on the consumer's behavior. In doing so, poorly targeted materials might not meet the expectation of influencing customers.

According to Engel & Blackwell (1982, p. 678), the Nicosia model includes many variables and this does not allow it to explain the details of consumer behavior in all specific situations. Engel & Blackwell (1982, p. 678) therefore suggest that a functioning model should outline the variables associated with the consumer's decision-making process, the general relationships that exist between the variables, and the general principles that express the model in particular purchasing situations.

However, despite the limitations the model may have, it is a useful tool to deeply study the customers and their behavior and it provides an opportunity to create an efficient and dynamic framework that might be used to understand whether there is a potential

for a service like the one proposed and based on consumers needs. The model alone would not have any relevance if not integrated with insights from the other three models that study both the market and competitor's side.

6. Methodology

6.1 Research Philosophy

“Ontology”, according to Hegel and Kant, is one of the fundamental branches of philosophy: is the study of being as such, as well as of its fundamental categories. There is a different possible interpretation of the world that deals with the reality of nature (Saunders, Lewis and Thornhill 2007): a subjective one, where the reality is subjectively interpreted, and an objective one where the reality is independent of the interpretation of the subject. Objectivism, as stated by Burrell and Morgan (1979), is where there is an external point of view from which it is possible to visualize elements such as the organization, that need to be tested through hypothesis; instead in a subjectivist point of view, an organization is a socially constructed product, a tag used by people to make sense of their social experience, to explain those.

Considering that the research will focus on whether there is the possibility to create a fintech bank that provides, among its services, the Robo advisory one, the main research philosophy that it is going to be used is an objectivist one while the supporting philosophy is going to be a subjectivist one. According to Bryman and Bell (2011), when research is conducted is important to formulate objectives for the overall research project. Considering that the possible success of this startup is based on consumer's needs of this service, an objective strategy, through the use of real and proven facts is preferable. Understanding the real needs of the possible users of the service may help and provide useful in-depth information about how the product should look like, what should be the features/services included.

Indeed, according to Crotty, 1998, the objective approach implies that the meaning of the reality that surrounds us already exists in the objects that are waiting to be discovered and so are not influenced by people's consciousness. So only by observing the people's behavior, is it possible to discover the meaning of the things, that is static, it is objective, and needs only to be studied and discovered. The only way how reality can be discovered is by carefully observing the social actors, in the case of the research, the possible users of the service.

The supporting ontology will be subjective: the creation and implementation of service are based, in the beginning, mainly on data collection and on their understanding. Therefore, like Saunders, Lewis, and Thornhill (2009, p. 110) highlight, the study will analyze the interactions between social actors, the possible users, and how the service proposed might influence them.

The basic units (Blaikie, 2012, p. 13) of the research are the interactions between the researcher and the objects of studies. The result of the interaction with the social actors investigated will be fundamental. The result will define the supporting ontology of the research.

Epistemology, according to Research methodology (2019), deals with the sources of knowledge. Is a branch of philosophy that concerns scientific knowledge and the condition through which is it possible to get to this knowledge. Epistemology is about the issues concerning the creation of knowledge in particular areas of inquiry (SEP, 2005). This theory explains how humans manage to have awareness of the world that surrounds them.

The main epistemology will follow the critical realist approach; the assessment of the feasibility of a startup will be based upon the assumption that, if are realized, are the base from which to start the creation process. The other approach that will be used is

the realist one because in an early-stage startup the proven needs of this service will allow the startup to begin and maybe to be able to start a fundraising project: lenders need proof such as several purchases and subscribers to start to financially support a project. The supporting approach will be the interpretivism one. According to Tuli (2011, p.100) interpretivism concern the real-world situations; to understand the reality, according to Myers (2008), is important to study and have knowledge about human habits such as their needs. A startup burns with a core idea, but this will be modified many times and customized following consumers' needs and wants, through this approach it is possible to study the habits and behaviors of the consumers.

The research process can be interpreted as pragmatic: there are many different ways of understanding and interpreting reality and the world and undertaking researches. A single point of view cannot give the entire picture of the thing, of the reality (Saunders, M., Lewis, P. & Thornhill, A. 2012). In fact, with this approach is it possible to tackle every research problem with different methods and techniques. The main method used is the questionnaire combined with the semi-structured interviews and this will help the researchers gather qualitative and quantitative data, combine them and draw conclusions.

6.2 Research Approach

The research approach, following the taken path, will be deductive: understanding how the fintech world is working, what customers want in this type of sector, and what could be their needs; from that, it is possible to deep dive into the startup sector and the specific service the startup should provide. As stated by Bryman and Bell (2011, p.11), where the deductive approach goes from theory to case, the inductive approach goes from case to theory as the research examines their findings and connects them to the theory that was analyzed before. According to Wilson (2010, p. 1-10), the deductive approach turns around a hypothesis, based on already existing theories, that need to be developed and used for the research. Bryman and Bell, (2012, p. 26) support the thesis that concepts embedded in the hypothesis need to be deciphered into researchable contents. This research is based on the hypothesis that the already existing fintech market needs a service that combines the ones of neo banks and the ones of a Robo advisor. This hypothesis will be tested with possible clients by understanding if there is a need for a service for financial inclusion, where all the financial services are included in one single application.

The supporting approach, based on the statement made by Bryman and Bell (2011, p. 11) will be inductive. Information regarding the fintech market and the possible new technologies and services that could be introduced are gathered and must be empirically scrutinized and connected to the study that is being conducted. According to Goddard and Melville (2004), this approach, also known as inductive reasoning, starts with the observation that starts during the research process, and in the end, based on these, theories are formulated. As stated by Bernard (2011, p.7), conducting inductive research means following a pattern based on observation and develop explanations, based on the hypotheses. According to Saunders, Lewis, and Thornhill

(2009, p. 112), this approach represents the opposite of the deductive one due to involving induction. This approach is not used to describe what happened but is used to understand the reason why/how things happen (Bryman and Bell 2012, p. 26). This approach could be useful to understand the reason why people need such a service. Having one phone application to manage investments, one to manage small savings and one to perform normal payments could be not comfortable for the users, time-consuming and confusing. People might want to adopt such an innovative platform because is more user-friendly and more inclusive.

6.3 Research Strategy

When starting a research project, is important to design it by being able to give answers (Blaikie, 2012, p.8) to the research questions and then chose the research strategy suitable for the research. The strategies might be different for different researches because some might belong to a deductive approach and some others to an inductive one. Saunders, Lewis, and Thornhill (2012, p.144) affirm that deductive strategies are related to quantitative researches where statistical methods and the usage of objective measurement are used while for qualitative researches, the strategy is more inductive where new theories are generated by the study of the data. The approach used for this project will be deductive (Saunders, Lewis and Thornhill 2009, p.144), the research strategy will be conducted through surveys using a questionnaire because of the need of explaining observations by measurable data and because with them it is possible to reach more people and a more heterogeneous group. To understand and analyze this quantitative data some statistical and mathematical methods will be employed. Will be used tools to try to forecast the possible movement of the market, possible future needs of the consumers as well a draw conclusions of the survey result (Saunders, Lewis and Thornhill, 2009, p.144).

On the other hand, the supporting strategy used will be grounded theory. According to Charmaz (2006, p. 69), the Grounded Theory was first introduced by two sociologists Glaser and Strauss as they searched for a way to be able to move from data to theory. According to Saunders, Lewis, and Thornhill (2009, p. 499), grounded theory aims to discover problems in the business environment and how the people involved were able to deal with them. This approach is applied for theories that are grounded in or developed inductively from a series of data.

7. Secondary Data Needs

7.1 Data need 1:Popluation Numbers

To investigate the potential for a startup that offers both the services of a Neo bank and the ones of a Robo advisor, it was needed to conduct the research in the city of Prague. It was important to understand more about the city, in terms of the number of citizens, the number of expatriates, where were they from, their habits and their needs, their financial status, and how do these people spend their money. The most important thing was to target the potential consumers and then try to understand what he/she needs, and which could be the customized adjustments, to be made on the services offered, to attract him/her. Reliable sources such as a statistical database were used. One of the most reliable ones, for such information, was UNdata. It is a product of the United Nations Statistics Division (UNSD) developed in partnership with Statistic Sweden and the Swedish International Development Cooperation Agency (SIDA). Another important statistic data provider, for Czech Republic data, was the Czech statistical office portal.

For the Czech Republic, some data used for this research were stored in the data set “population” in the section “demographic” and some in the data set “Employment, Unemployment”.

According to Saunders Lewis and Thornhill (2009) government statistics can be considered reliable because they have a lot of support documentation, they are clearly defined in their intention and the quality of the research is high. Considering that, statistics are based on a percentage of the population, are not 100% reliable but gathering data from more sources and compare them gave the research much reliable

data on which base the research on.

Moreover, statistic are not up to date continuously so is important to verify them against reliable sources, according to Bryman and Bell (2012, p. 394), that in the case of this research was OCED website. This can be considered one of the most reliable websites on the internet according to Saunders, Lewis, and Thornhill (2012, p.258).

7.2 Data need 2: Number of fintech startups

It was necessary to investigate the number of tech startups in the fintech market, their power in it, and the competition in those markets. The fintech market in Europe, according to a study conducted by the European Parliament (2019), is the sector where firms, technology-based, provide more efficient financial services to the customers. It is the fastest growing market in Europe with 26 billion EUR investments only in 2018. On one hand, fintech brings innovation and new job creations but faces many challenges such as data protection and regulations.

It was important to understand the market composition, where the startup should compete on: which were the main players, which were the main possible competitors, and substitutes if the market was saturated or there was some space for entering it. Statistical databases, as a resource for the research, were used.

First of all, was important to understand these dynamics and how they developed all over Europe. The first step was to gather data from sources such as Undata.

United Nations Statistics Division (UNSD) was developed in partnership with Statistic Sweden and the Swedish International Development Cooperation Agency (SIDA). Another important statistic data provider, for Czech Republic data, was the Czech statistical office portal.

For the Czech Republic, some data used for this research were stored in data set “services”, “industry, energy”, and “information technology”.

According to Saunders Lewis and Thornhill (2009) government statistics can be considered reliable because they have a lot of support documentation, they are clearly defined in their intention and the quality of the research is high. Although, as already

mentioned, considering that statistics are based on percentages of the population, these are not 100% reliable. Gathering data from more sources and compare them gave the research much reliable data on which base the research on.

Moreover, statistics are not up to date continuously so it was important to verify them against reliable sources, according to Bryman and Bell (2012, p. 394), that in the case of this research was OCED website. This is considered one of the most reliable websites on the internet according to Saunders, Lewis, and Thornhill (2012, p.258).

8. Primary Data Needs

8.1 Main method: Survey with the use of a questionnaire

To fulfill the needs of the Survey strategy, according to Saunders, Lewis, and Thornhill (2009) surveying the use of questionnaire allows to gather information in a standard way and using big samples; this allows, having a lot of data, to approach the problem with mathematical and statistical analysis. Considering that a big sample was needed because the research was based on two different cities, the best and easier way to have a reliable number of responses such as 384 that give the result 95% reliability was to run a questionnaire. According to Saunders, Lewis, and Thornhill (2012), the questionnaire allows for the gathering of large amounts of data from a target group, which may allow for wide distribution throughout the cities.

The following figures explain the relationship between object 2 of the research and the question conducted in the questionnaire. Figure 3, relates the second objective of the research with the general questions conducted in the questionnaire. Figure 4, relates the second objective with the model used to answer and analyze it. Figure 4, as well relates the different questionnaire questions with the different models used. It explains how every model will tackle the different questions and how they will be used to analyze the second objective of the research.

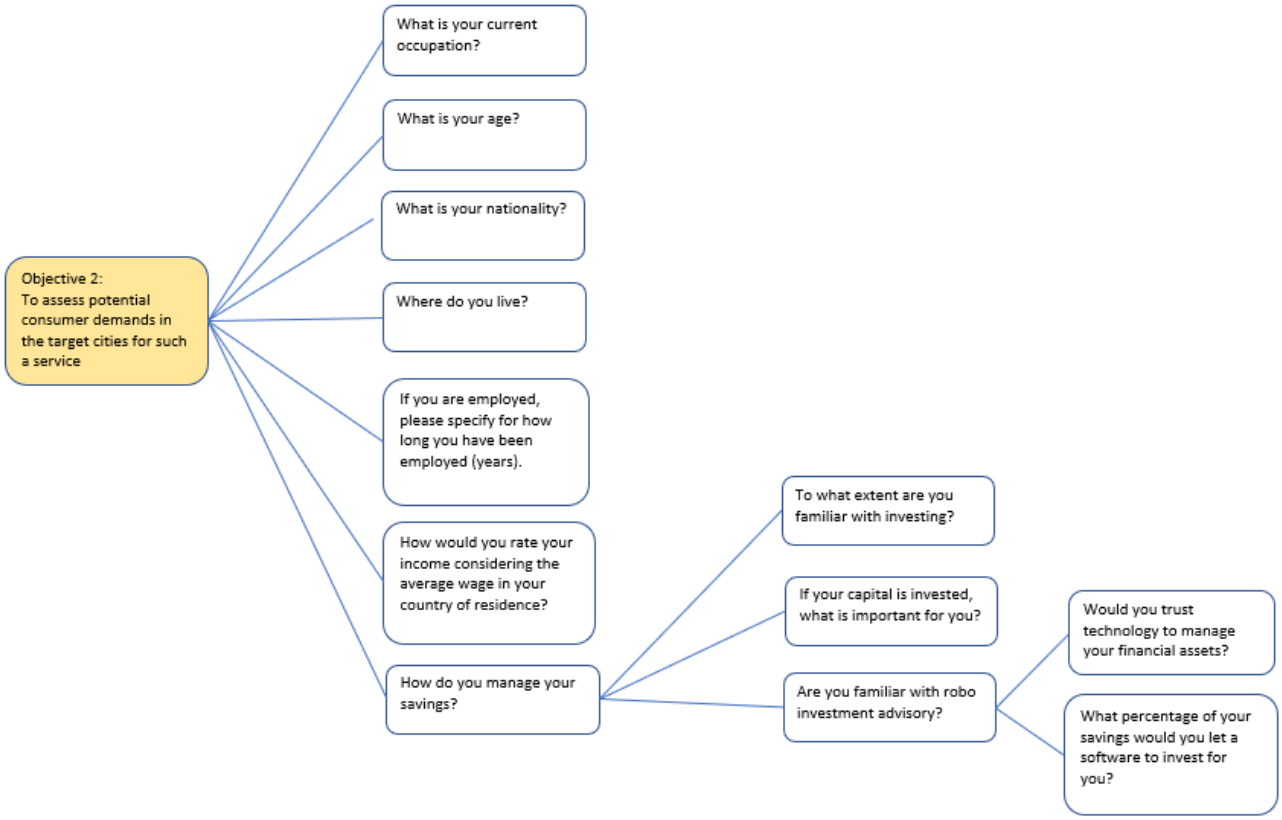

Figure 3: Objective 2 general questions

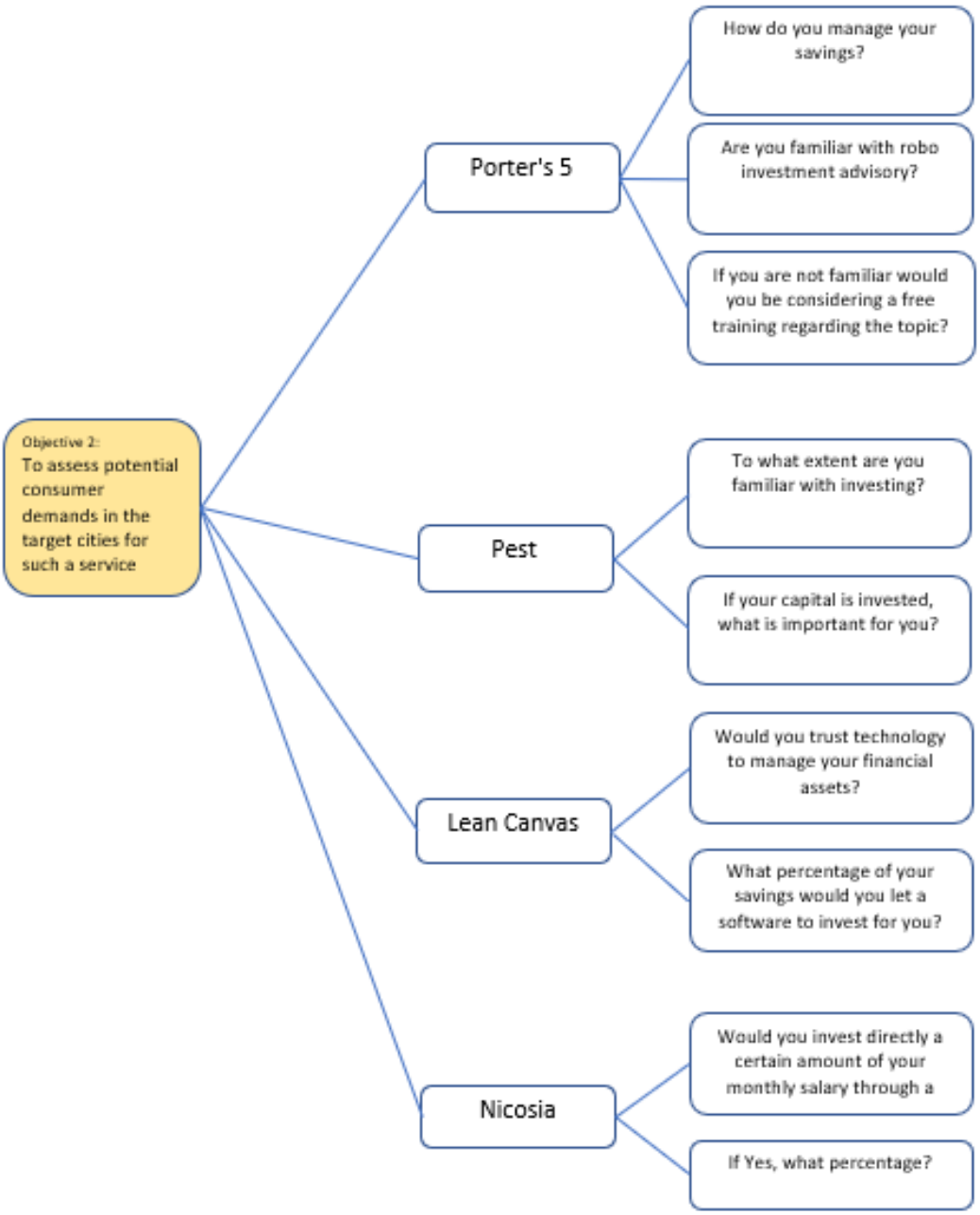

Figure 4: Objective 2 specific questions regarding the models used

For the questionnaire, the snowball sampling method was adopted (Bryman and Bell, 2012, p.424). As Saunders, Lewis, and Thornhill (2009) assert, this method is useful as the process is simple and cost-efficient: to gather data by traveling in different cities might have been complex and expensive. According to Bryman and Bell, (2012, p. 424) snowball sampling enables to reach the specific subject of study, for this piece of

research people with an age between 25 and 60 years old. Moreover, using this sampling method may allow gaining an overview of different attitudes and experiences.

After collecting data, to analyze them, according to Saunders, Lewis, and Thornhill (2009) inferential statistics and mathematical approach were used. Chi-square test and correlation test were also used because they allow establishing - after fixing the maximum tolerated error - whether the discrepancies between the observed and the theoretical frequencies are entirely attributable to the case or whether it is instead possible to assume that the data are made up. This statistical tool was useful to test the reliability of the data gathered by fixing a tolerance level and was a good way to test for significant relationships and differences (Saunders, Thornhill, and Lewis 2012, pp.141-142).

8.2 Supporting Method: Semi-structured interviews

To fulfill the needs of the grounded theory strategy, semi-structured interviews were the most suitable method, because, like Saunders, Lewis, and Thornhill (2012,p.149) stated, they allow gathering a large amount of detailed data through one standardized conversation. According to Bryman and Bell (2012, p.201), the aim of this tool is for the interviewees to be given the same questioning framework. Same questions, already prepared upfront were used for every interview. For the conducted research, this method could be useful because it will allow gathering information from people leaving in different cities and from different backgrounds. The aim is to ask the same question to people that have different habits and living standards to have a large sample included. Conducting interviews in the Czech Republic, where there is an important investment culture, is crucial for understanding the possible viability of the project.

This method according to Alessia Camera (2017) is a good approach to test the “minimum valuable product”. Interviews were used to understand if early adopters of the product were willing to use it, they needed it and what did they think about it. According to Cohen and Manion (2000), conducting interviews with people of different backgrounds allows a better understanding of human behavior and the feasibility of the project by studying the case from different points of view. A minimum of three interviews per city need to be conducted for triangulation purposes, that according to Cohen and Manion (2000) is necessary to map out or explain more fully the richness and complexity of human behavior by studying it from more than one point of view. Moreover, different types of samples were collected to assure the validity and feasibility of the project. Coding (Dudovskiy, 2018) is the categorization of data and three types were used. The open coding, enabled an initial organization of raw data to

make sense of it, the axial coding, enabled the creation of links among the categories of codes, and selective coding was used to formulate the story through connecting the categories.

The following figures explain the relationship between objects 1 and 3 of the research and the question conducted in the questionnaire. Figure 5 and 6, relates the first and the third objective of the research with the general questions conducted in the questionnaire. Figures 7 and 8, relate the two objectives with the models used to answer and analyze them. Figures 7 and 8, as well relate the different questionnaire questions with the different models used. They explain how every model will tackle the different questions and how they will be used to analyze the objectives of the research.

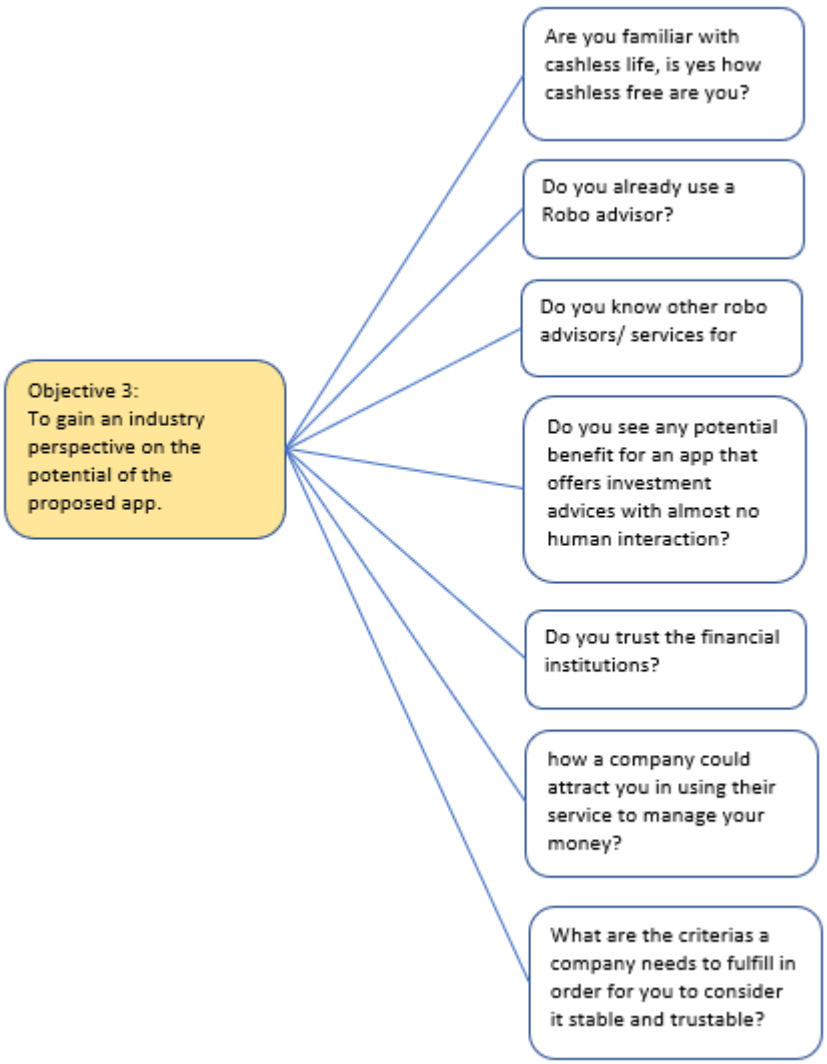

Figure 5: Objective 3 general questions

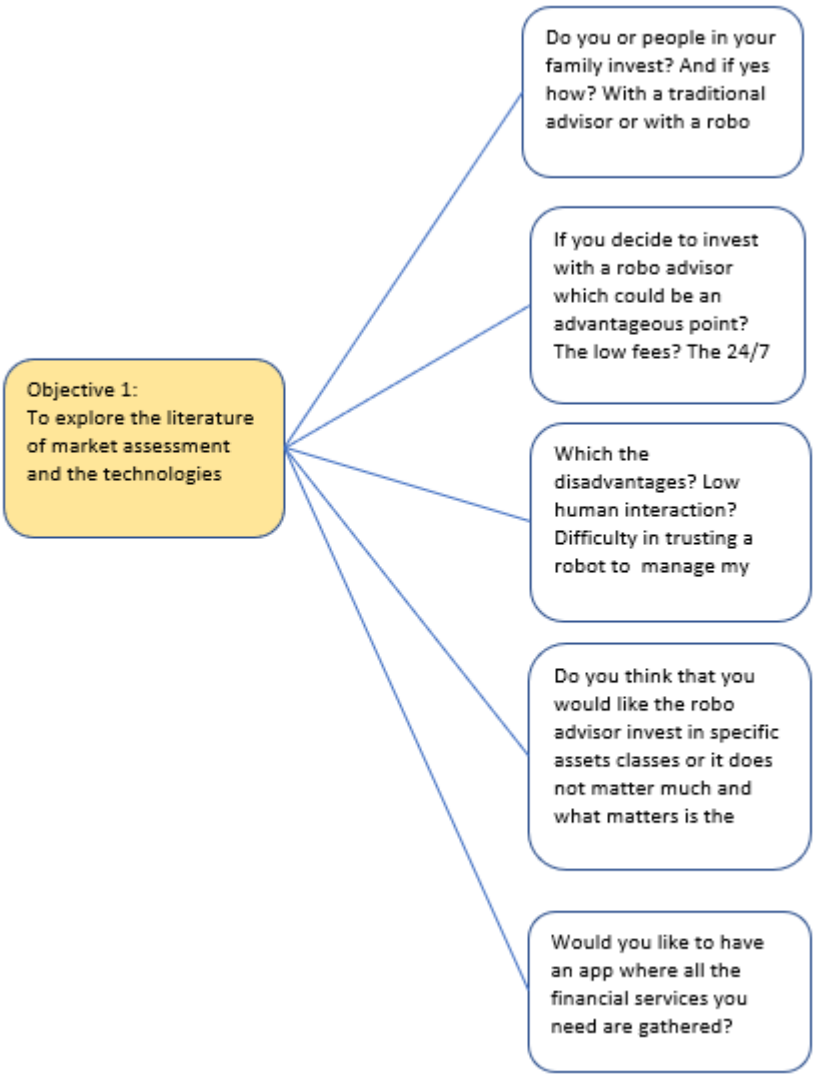

Figure 6: Objective 1 general questions

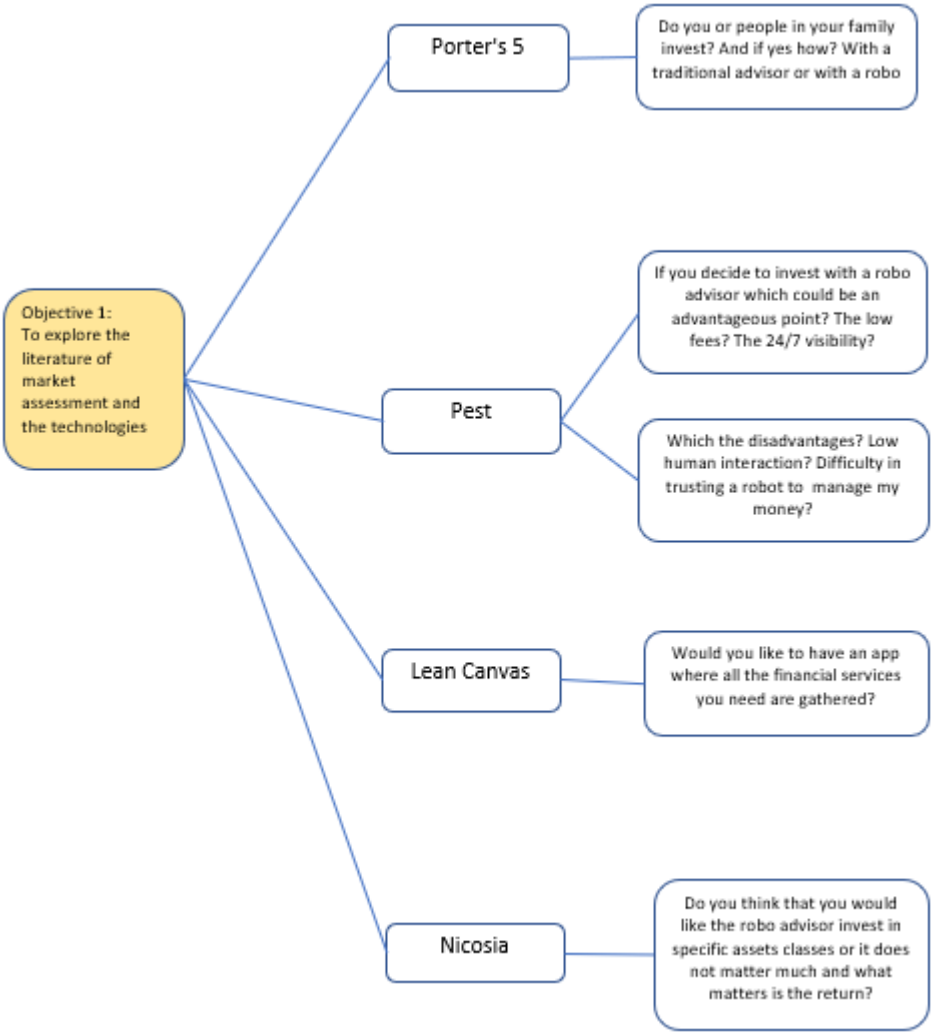

Figure 7: Objective 1 specific questions regarding the models used

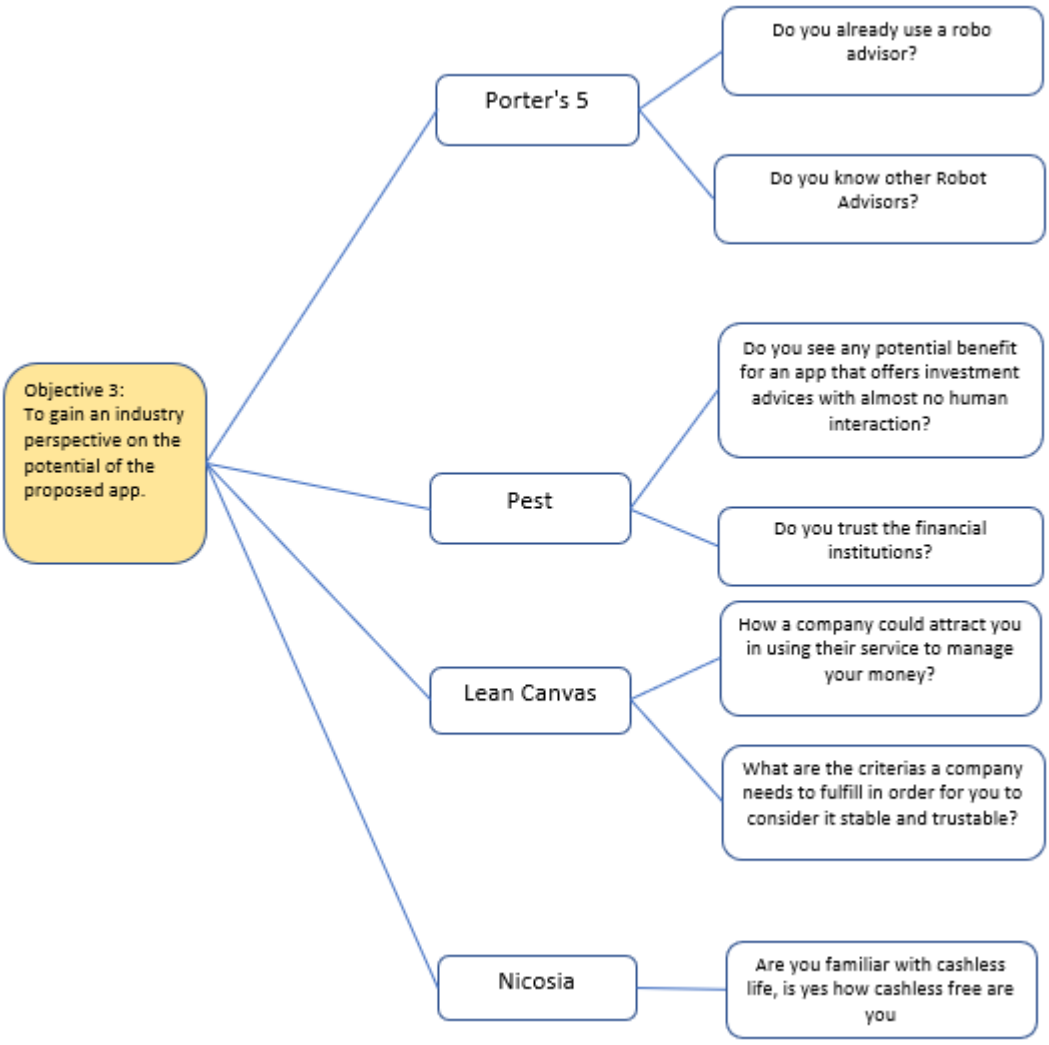

Figure 8: Objective 3 specific questions regarding the models used

9. Project Management

9.1 Piloting

The study conducted by Blessing and Chakrabarti (2009, p114), asserts that the aim of piloting is to test and verify that the planned research approach and identify any possible issue that might impact and negatively affect the validity and quality of the gathered results. Moreover (Lancaster e Williamson, 2004, pp. 307-312), it is useful for evaluating the feasibility of some aspects in large-scale research. Therefore, before the research has begun, a small study with smaller samples was conducted for both the questionnaire and the interviews. The piloting participants were three managers from different industries, an expert in market researches, and this enabled me to gain useful insights on both the questionnaire and interviews.

The process included the collection and analysis of the raw data as well as the drawing conclusion part and the feedback session together with the piloting participants. During the piloting process, some issues regarding both the questionnaire and the interviews emerged. The pilot study on the questionnaire revealed that some questions were not coherent with the purpose of the research and some of them were unclear and might hurt the reader. Whereas, the piloting for the interviews revealed that there was not a sufficient amount of questions that would cover all the aspects of the research. Consequently, this feedback enabled the research to be effective and efficient.

9.2 Ethical Considerations

In accordance with Teesside University's research ethics policy and also due to the research design of the proposed resource, the ensuing information identifies the potential issue and strategies that may be conducted to either avoid or reduce the effects of these issues.

Taking into consideration the secondary data that was collected, might have occurred some issue regarding the usability of the data: some information might not have up to date because of the age of the source. In this research, to understand if the city where the research was conducted was the right one, data needed to be up to date. Moreover, data needed to be cited by a reliable source as stated by Bryman and Bell (2012, p.495), to be as accurate as possible to be accountable for the research.

The questionnaire was the primary method used to gather information regarding the feasibility of a Neo bank that offers also the services of a Robo advisor. During the distribution of the questionnaire, many issues might have occurred. Being the sampling method, a snowball type, according to Punch (2014, p. 238), a letter of informed consent was attached to the questionnaire to prevent any possible ethical issues.

The attached letter (Saunders, Lewis, and Thornhill,2012) informed about the aim of the research, the estimated time required to complete the questionnaire, the way how the research is conducted, and how the data will be processed.

In the letter was stated that not all the questions need to be answered if the interviewee is not feeling comfortable or does not want to answer some of them. This is important to protect the interviewed but it might have produced some issues regarding the accountability of the data collected.

Finally, the analysis was conducted with analytical and critical thinking (Bryman and Bell, 2012) and in a way that it kept independence from the researcher's opinion intending to be unbiased and objective.

Ethical guidelines were defined before conducting interviews. When an interview was conducted many personal data were collected about the person. This is why it was important to clarify (Ritchie and Lewis, 2014, p.87) with the interviewed some guidelines about privacy and treatment of personal data: data were used only for an academical purpose and kept confidential. Another issue that might have occurred is that the interviewed did not want to be recorded: in that specific case the interview would have needed to be handwritten. An official letter of informed content was used and signed by both parties: this is the agreement between the parties that the data were only used for academic purposes. When the interview took place, and after recording, the interviewer has sent the interview recorded back to the interviewer in order him to confirm that what was recorded reflected the reality and what was discussed during the interview.

10. Budget

Item Description	Proposed Costs	Actual Costs
Printing of the final project Printing of several drafts	1500 CZK	0 CZK
Professional Proofreading Service	3500 CZK	
Project hardcover binding	400 CZK	0 CZK
Trips & Transportation	10000 CZK	0 CZK
Total	**15400 CZK**	**0 CZK**
	Variance	**-15400 CZK**

Figure 9:Budget

The figure 9, above, shows the estimated expenses that were initially allocated for this project. It was expected that the final cost would be 15400 CZK due to the high cost of travel to conduct interviews. Due to the COVID-19 pandemic and the restriction of movement related to it and for the safety of the researcher and the interviewed people, the interviews were conducted in a telematic way and therefore there was a consistent saving

Due to the COVID-19 pandemic, no printed copies of the research will be needed and everything has been submitted online. This generates a saving of 1500 CZK that needs to be added to the saving coming from the hardcover binding of 400 CZK.

The expense for the professional proofreading was not sustained because the supervisor of the thesis proofread it.

11. Timeline

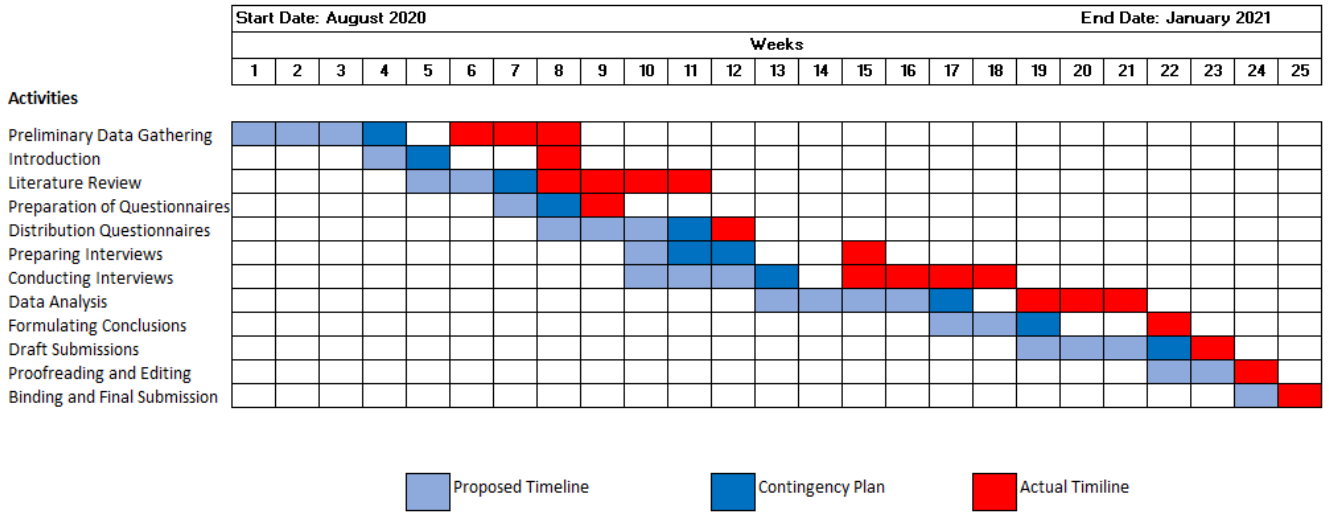

Figure 10: Possible Timeline for Project

12. Findings

12.1 Country: Czech Republic first interview

The research aims to understand the feasibility of a Robo advisors service combined with a fintech bank. To gain insights from possible users and various experts from the financial industry and the technological point of view, three interviews were conducted in the Czech republic. The first is with a software engineer that studies and works in Prague whose job focuses on security and fintech.

To understand the feasibility of a business that aims to provide financial integration by offering multiple financial services in one single app, the starting point needs to be the understanding of how much people are financially and technologically open. Understanding if they already use a phone application to pay and or to manage their savings/investment is an important starting point. The first person interviewed is very familiar with cashless life. He uses Google pay as a secure way of payment daily and withdraws cash only if there's no possibility to pay by card/phone. This shows high openness from the technological point of view and for sure this is due to his young age considering he belongs to the Millenials generation (Alexa Delbosc, 2017). Despite he is very open to technology, by using and working with it, he has some concerns about the possibility of having a place where to manage all the financial aspects of people's life. The main concern regards the lack of security that could derive from having all the financial services in one place and the lack of trust in financial institutions. Aggregation allows people to be faster in having information but allows, as well, hackers to steal more easily sensible data.

From the aspect regarding the trust in financial institutions is important to underline that centralization of services might discourage customers because they could fear the possibility that if their financial institution fails, their financial activities will be compromised and they might be financial impacted; thus diversification might be the solution that people might adopt.

To better understand and characterized the targeted customers, is important to analyze the result of the survey. The majority of the people interviewed, 80.6%, is up to 35 years old, 73.3% has a low/average income and 65% is employed for less than 8 years.

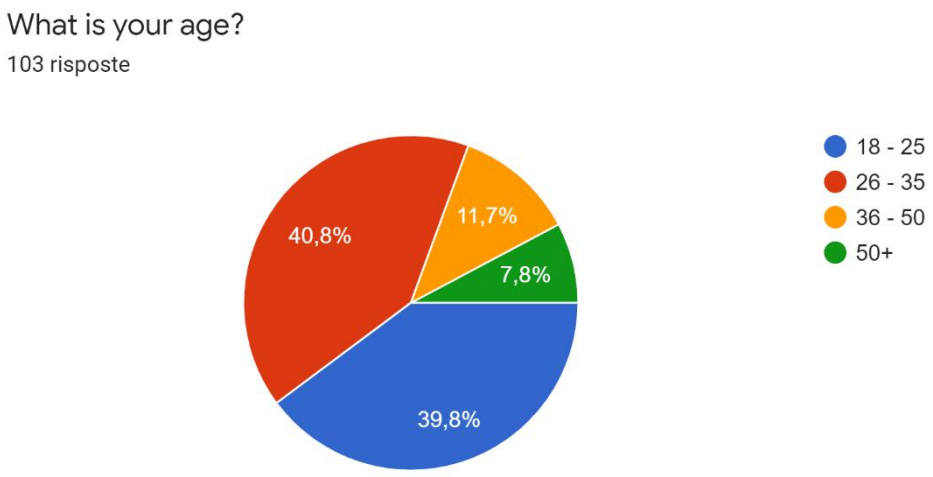

Figure 11: Respondent Ages

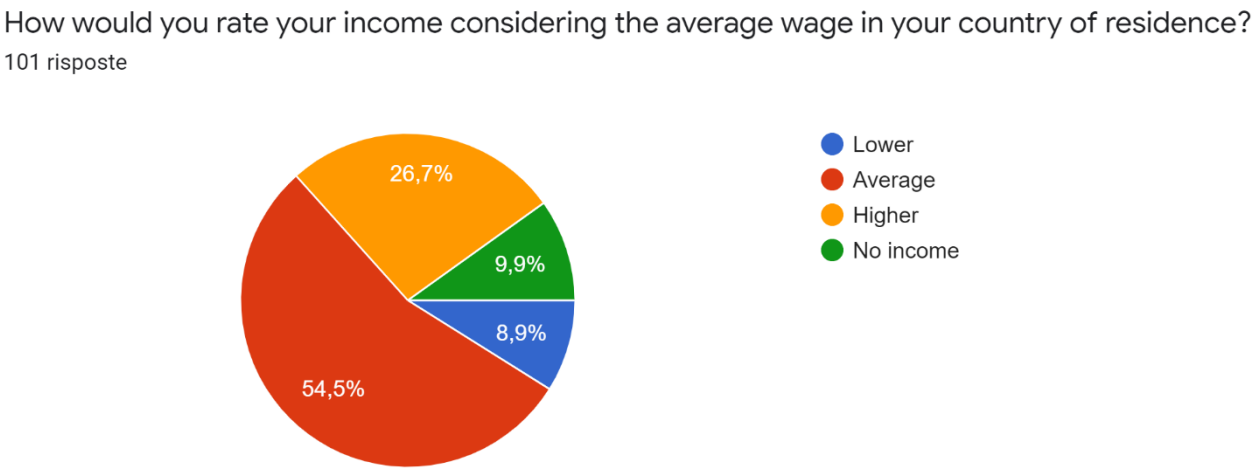

Figure 12: Average Income

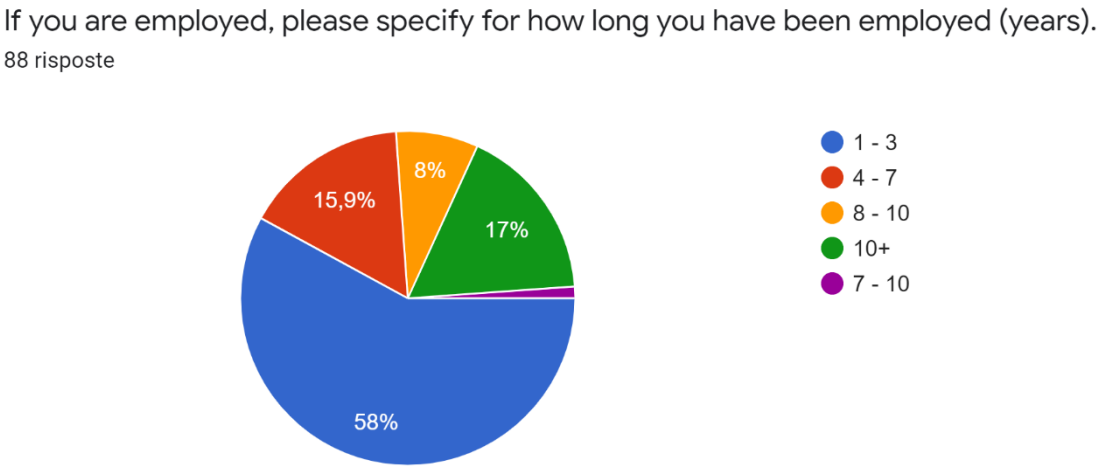

Figure 13: Employment time

All these three graphs are important to understand and start defining the identity of the possible targeted customers. Is it interesting to notice that the majority of the respondents are employed for less than 8 years and they believe to have a medium-low income. The person interviewed reflects the tendency noticed in the survey where young people have a medium-low income and are employed for less than 8 years: he

is 22 and has a low income because he is still studying and he's working as a freelancer and during the summer breaks he is employed with some internship contracts.

Despite being a software engineer, he is slightly familiar with financial markets investment because nobody in his family is active in such a market and he started in the last months using a demo of a Robo advisor where he is investing with virtual money to understand how the services work and if it meets his expectations. The information gathered seems to match what is understandable from the survey where the majority of the people, 64%, have their savings in their bank account and they leave them there without investing and risking to lose money because of inflation (Richardson Kojo Edeme, 2015).

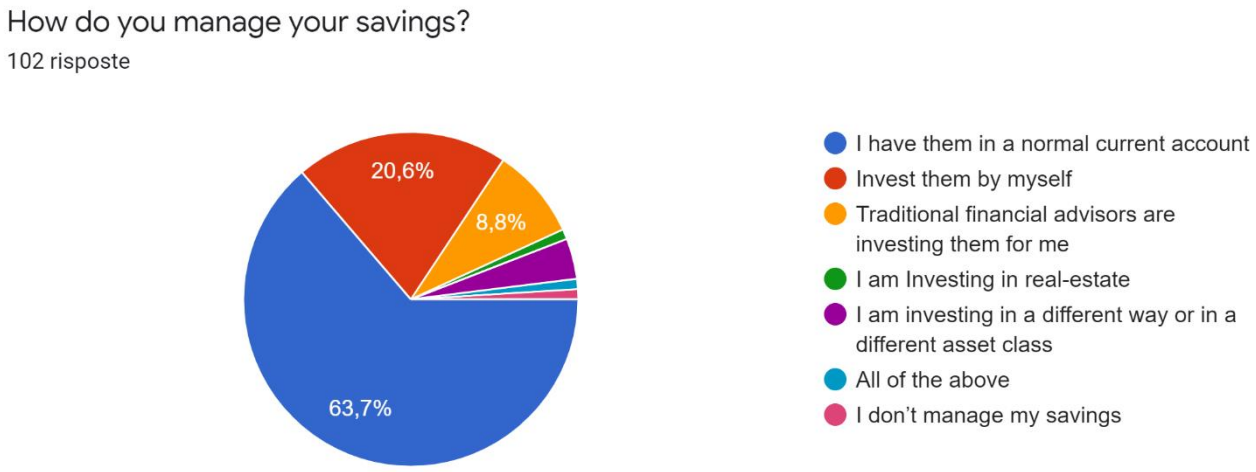

Figure 14: Savings Management

The low willingness of European people towards investment is reflected as well in figure 15 where is it visible how familiar people are with investments. European people by nature are less willing to invest than USA citizens for many reasons that imply

culture, habits, and financial availability (EIB report 2019,2020). The very surprising thing is that, despite the new technologies, the connectivity present in the world, the majority of the respondents, are either not familiar or slightly familiar with investments. There is a clear correlation between the figures because if on one hand, 64% of the respondents keep their savings in their current accounts, on the other hand, 76% of them are not or slightly familiar with investments as shown in figure 15.

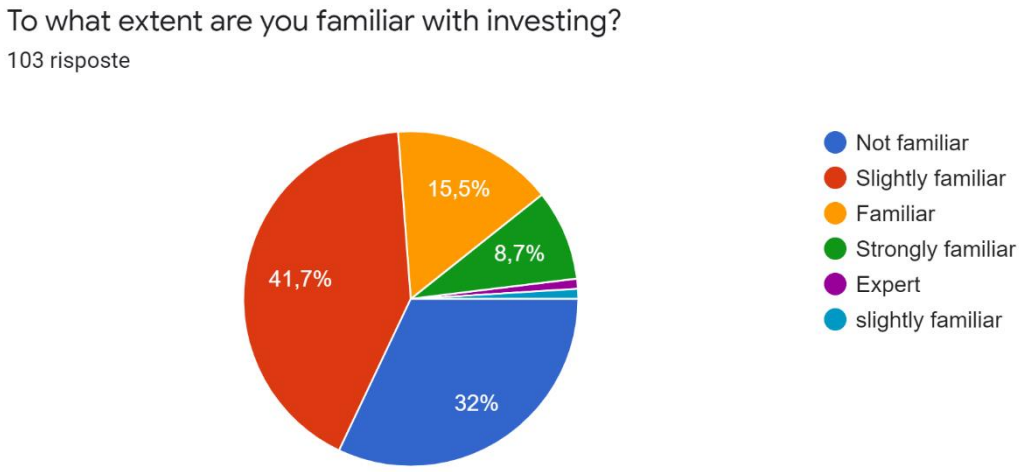

Figure 15: Investment familiarity

Moreover, it would be interesting to see if there is a correlation between how people manage their money and their familiarity with investment. To examine this association between familiarity to invest and how people manage their savings, a Chi-square test (Curwig, Slater, and Eadson, 2013) was made.

	Managing Savings							
Investment Familiarity	I have them in a normal current account	I Invest them by myself	Traditional financial advisors are investing them for me	I am Investing in real-estate	I am investing in a different way or in adifferent asset class	All of the above	I do not manage my savings	**TOT**
Not familiar	33							**33**
Slightly familiar	22	21						**43**
Familiar	7		9					**16**
Strongly familiar	3				4	1	1	**9**
Expert				1				**1**
TOT	**65**	**21**	**9**	**1**	**4**	**1**	**1**	102

Figure 16: Chi-square test, correlation table

To apply the hypothesis test, the hypothesis (H) is stated as the following:

H0: There is no association between how people manage their savings and their investment familiarity.

H1: There is an association between how people manage their savings and their investment familiarity.

Since the cross-tabulated data is tested, Chi-square distribution is used. The significance level (Curwig, Slater and Eadson, 2013) used is 5%.

O	E	O-E	(O-E)^2/E
33	21,03	-11,97	6,81
0	6,79	6,79	6,79
0	2,91	2,91	2,91
0	2,26	2,26	2,26
22	27,40	5,40	1,06
21	8,85	-12,15	16,67
0	3,79	3,79	3,79
0	2,95	2,95	2,95
7	10,20	3,20	1,00
0	3,29	3,29	3,29
9	1,41	-7,59	40,79
0	1,10	1,10	1,10
3	5,74	2,74	1,30
0	1,85	1,85	1,85
0	0,79	0,79	0,79
1	0,62	-0,38	0,24
		Test Statistic	**93,63**
		Tabled Value	**36.42**

Figure 17: Table of test statistic and critical value

It is shown that the test statistics are higher than the critical value, this means that the null hypothesis is rejected. Since the null hypothesis is rejected, the other one is proven, which means that there is an association between how people manage their

savings and their investment familiarity.

This means that if there is scarce investment familiarity, most likely people have their money in their bank accounts because they fear the financial market and they do not have enough awareness of it nor to invest nor to trust a financial advisor.

The lack of awareness and trust of the financial market and of all the actors that deal with it is something common through all research and is the key to make such a service working.

An interesting aspect that derives both from the interview and from the questionnaire is that the Robo Advisors are almost unknown by the majority of the people and indeed 83% of the attendees to the questionnaire never heard about it. This information, on one hand, is a big statement because allows us to understand how much awareness needs to be created in this field and on the other hand reflects the trend of both the interview and the survey: low willingness/knowledge about the investment world and its potentials.

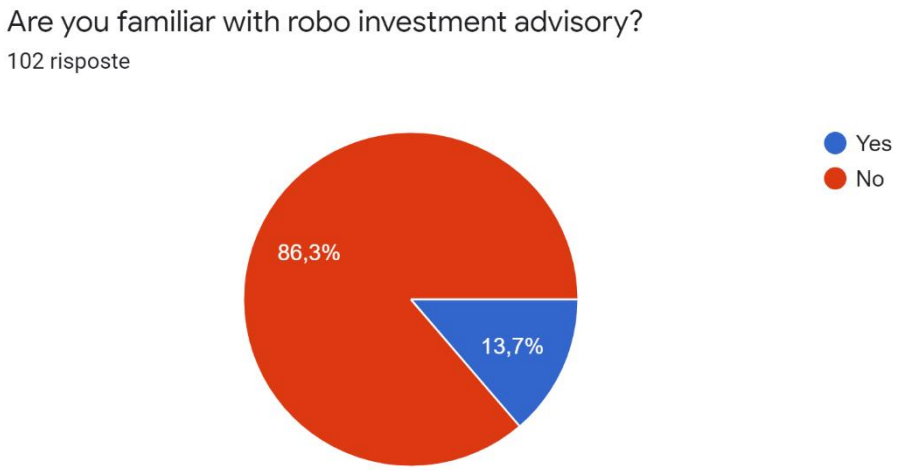

Figure 18: Robo Advisory familiarity

An interesting point to fully understand the situation is understanding the reason why customers might be attracted by such a service and what might discourage them.

From the interview, an interesting point raised is that the Robo advisor, to attract the client, should have low fees considering the low-medium income of the person interviewed. Moreover, clarity from the possible returns/risks and transparency on the fees are fundamental to choose such a service to manage the interviewed savings.

One of the most interesting aspects that are common both in the survey answers and to the first interview is that people still do not fully trust the technology so much to entrust their savings to a “computer” and leave it to manage them. Despite the person interviewed knows the technology behind the Robo advisory companies he still finds it difficult to fully trust it. This is evident as well from the survey as shown below:

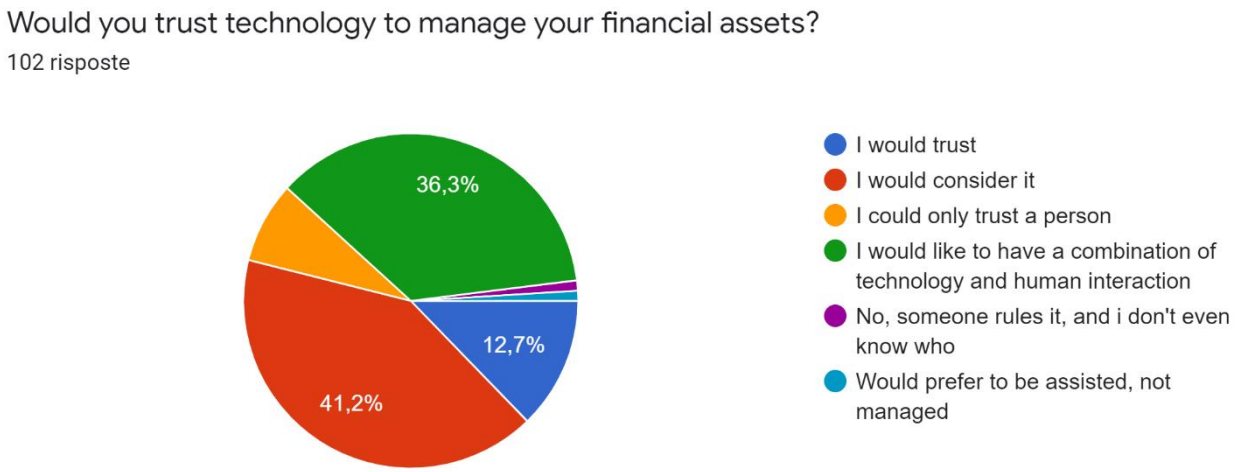

Figure 19: Trust in Technology

Is it clear that most people might think about using a Robo advisory service but that anyway have any doubts. For many people, almost 40% would trust a Robo advisor

that has a combination of technology and human interactions. This is confirmed as well as by Deloitte's study on the Robo advisory industry (2017) where it confirms that by 2030 the majority of assets managed by hybrid Robo advisors will be the majority.

The data gathered are in line with some statistical findings over the question, in the questionnaire, about which percentage of savings would people invest in a Robo advisor.

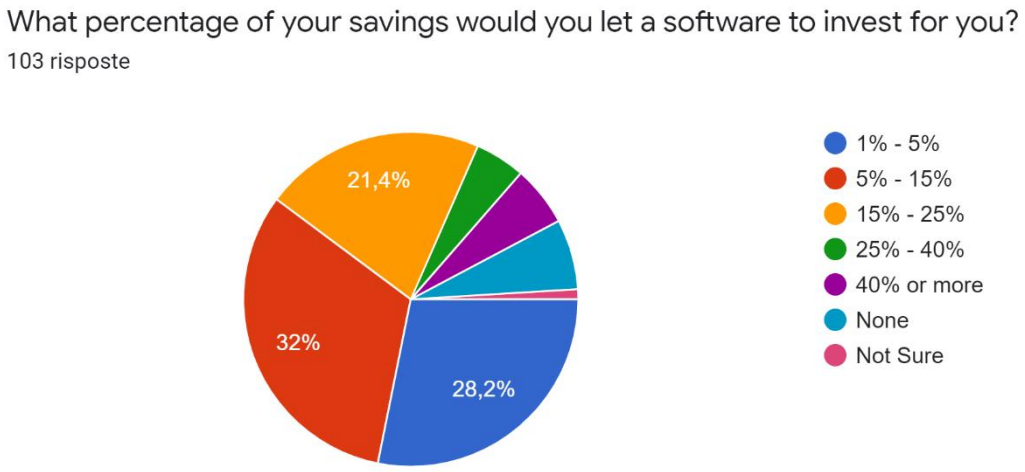

Figure 20: % of savings possibly invested with a Robo Advisor

Considering the majority of the people are young, work for less than 8 years, and have a low/average income their savings will not be very high therefore the majority is willing to invest up to 25% of it. Of the respondents, 28% are willing to invest between 1% and 5% of their savings, 32% between 6% and 15%, and 22% between 16% and 25%. The distribution looks like the following table where it is shown the frequency distribution of the data gathered for the question with a range of values.

What percentage of your savings would you let a software to invest for you?						
Range	LCB	UCB	Mid Point x	Frequency	Fx	Cumulative Frequency
0% - 0,99%	0	1,49	0,745	7	5,22	7
1% - 5%	0,5	5,5	3	29	87,00	36
6% - 15%	5,5	15,5	10,5	33	346,50	69
16% - 25%	15,5	25,5	20,5	22	451,00	91
26% - 40%	25,5	40,5	33	5	165,00	96
41%+	40,5	41,5	41	6	246,00	102

Figure 21: Table of observed and expected frequencies

According to the table the results have the following frequency showed in a chart bar table:

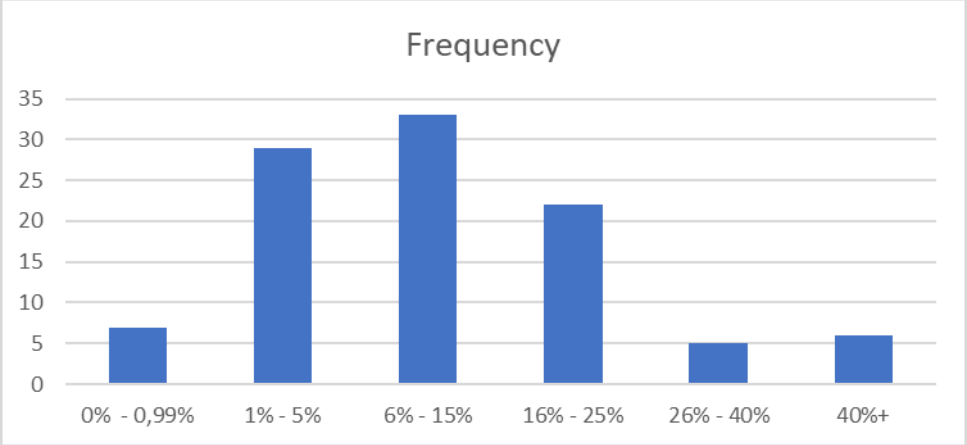

Figure 22: Table of observed frequency distribution

Here is it visible that the numbers are distributed in a positively skewed distribution that is a type of distribution in which most values are clustered around the left tail of the distribution while the right tail of the distribution is longer. This is possible to be seen as well in the box plot in the following figure:

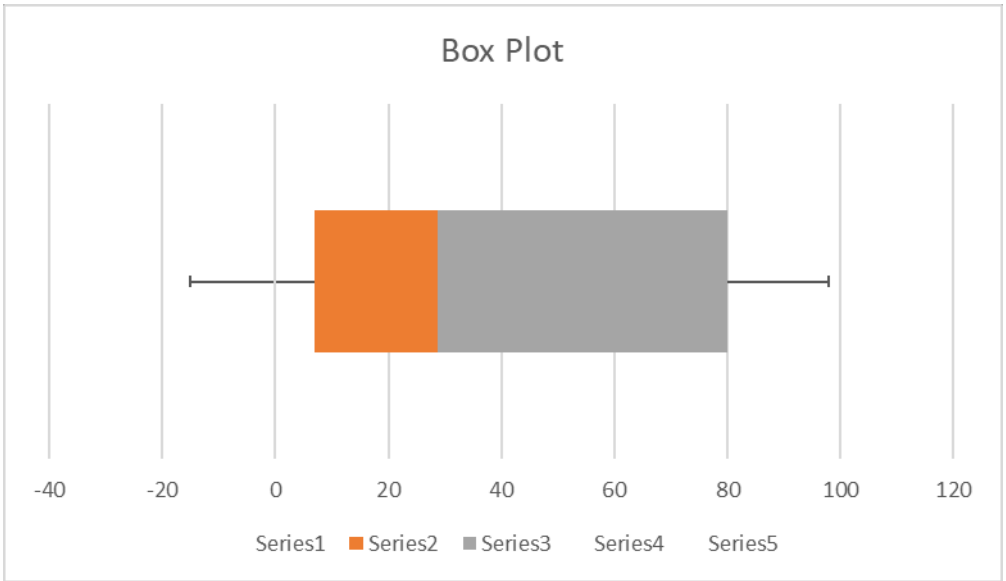

Figure 23: Box Plot

All these graphs show that the majority of the people seat on the left of the distribution and indeed 89% of them are willing to invest up to 25% of their savings in a Robo advisor. This is an interesting result because explains that the younger generation, despite having less money to invest are more willing to take some risks and make some investments.

12.2 Country: Czech Republic second interview

The research aims to understand the feasibility of a Robo advisors service combined with a fintech bank. To gain insights from possible users and various experts from the financial industry and the technological point of view, three interviews were conducted in the Czech republic. The second interview is with a Finance Professor at a university in Prague, a fintech expert, and an ex-investment banker.

To understand the feasibility of a business that aims to provide financial integration by offering multiple financial services in one single app, the starting point needs to be the understanding of how much people are financially and technologically open. Understanding if they already use a phone application to pay and or to manage their savings/investment is an important starting point. The second person interviewed is very familiar with cashless life and positive about it because he is financially educated and he is an expert in the fintech world so he strongly believes that cashless payment should be incentivized and he prefers them rather than to pay with physical money.

The second person interviewed, despite being older than the first person interviewed, and despite belonging to a different generation (Bran Knowles, Vicki L. Hanson,2018), is very open to technology and innovation due to his wide culture and his job. It is not uncommon but unusual that older people are so educated in terms of the fintech world and technology; usually, the younger generation is more keen and open towards new technologies that help them simplify their lives.

Despite he is very much aware of the possibility that financial integration might be a threat from a security point of view he trusts financial institutions most likely because

he has been working in some banks for many years and he is aware of their security measures. The difference between the first two people interviewed relies on the fact that they come from two very different backgrounds and they have big differences in terms of awareness of the financial systém and institutions and here seats the reason for their different response towards an application where gathering all the financial services are needed.

Centralization of services might discourage customers because they could fear the possibility that if their financial institution fails, their financial activities will be compromised and they might be financial impacted; thus increase in regulations in the financial institutions is a positive sign that circumstances like the 2008 financial crisis are possible but unlikely to happen again (UKEssays, November 2018).

To better understand and characterized the targeted customers, is important to analyze the result of the survey. The majority of the people interviewed, 80.6%, is up to 35 years old, 73.3% has a low/average income and 65% is employed for less than 8 years.

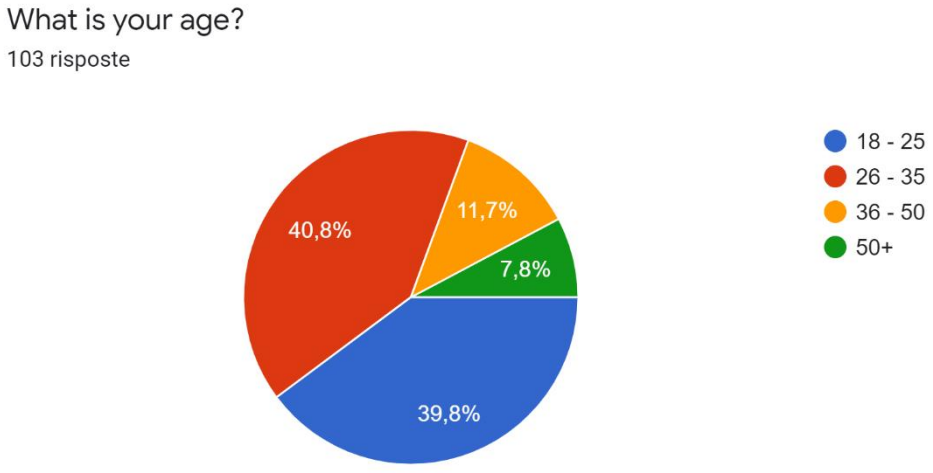

Figure 24: Respondent Ages

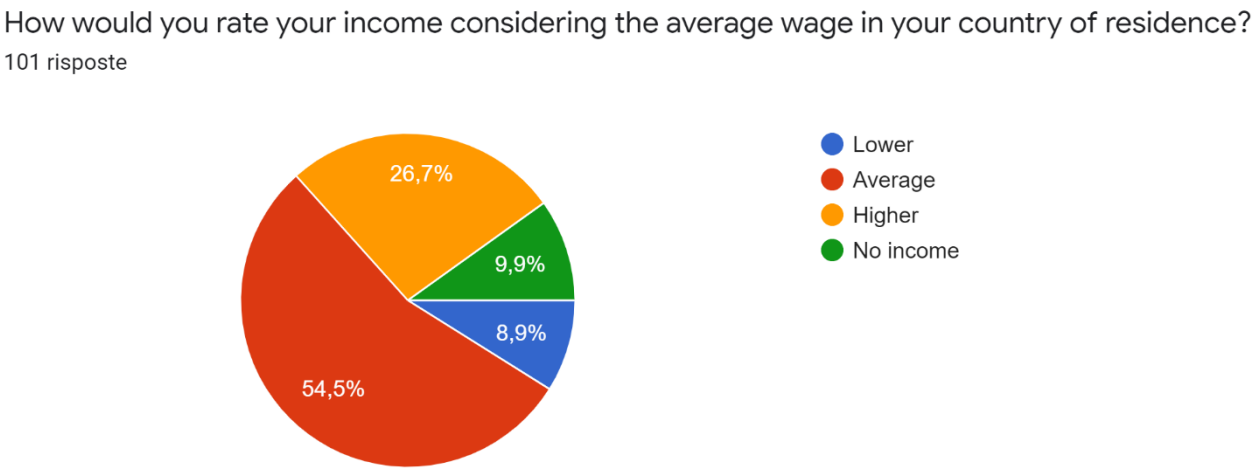

Figure 25: Average Income

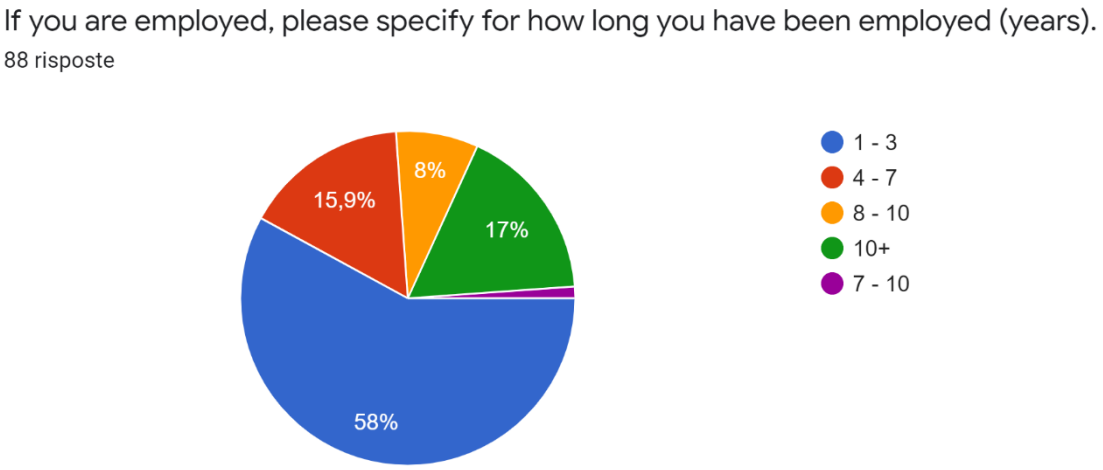

Figure 26: Employment time

Is it interesting to notice that the majority of the respondents are employed for less than 8 years and they believe to have a medium-low income. Despite so, the person interviewed does not reflect the tendency noticed in the survey, and the graphs below where are displayed the frequency distribution of the age of the people and the box plot of their distribution. Both show that the numbers are distributed in a positively

skewed distribution that is a type of distribution in which most values are clustered around the left tail of the distribution. This is possible to be seen as well in the box plot in the following figure.

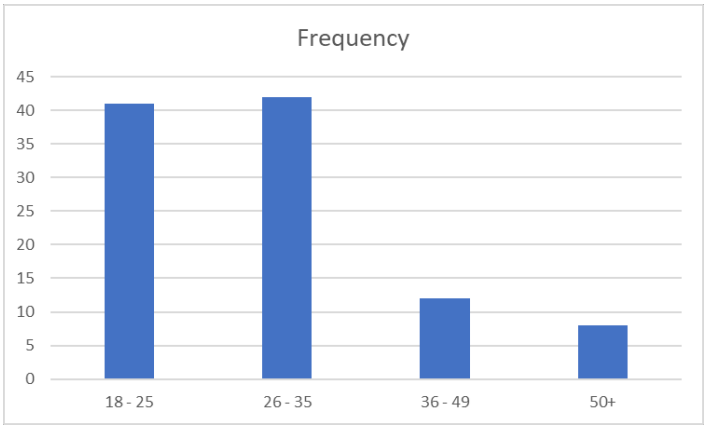

Figure 27: Table of observed frequency distribution

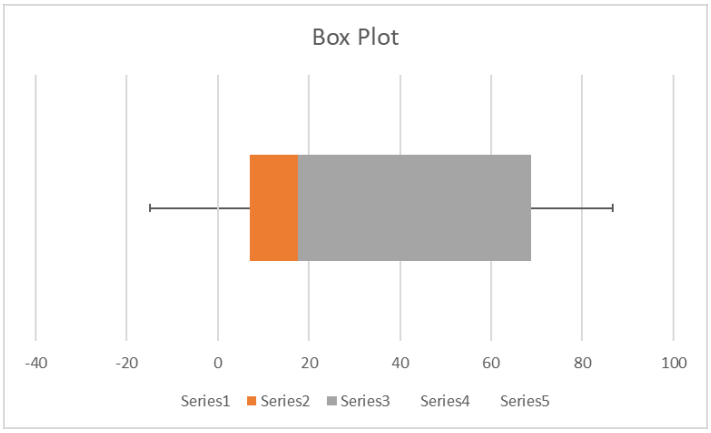

Figure 28: Box Plot

Despite the statistical evidence, the 2nd person interviewed is 50+, works for more than 20 years, and has an income higher than the average. If on one hand, this information differs from the tendency observed in the tables above it is in line with the course of life, the older people get, the more tend to earn. It is also important to have been able to interview someone that differs in some aspect from the other person interviewed and from the result of the survey because the information gathered from

this type of interview will be useful to understand another category of possible users of the product/service offered.

By being a fintech expert, a finance professor the second person interviewed is familiar with the financial market's investment but he does not invest himself while in his family people invest through normal financial advisors. Moreover, he is interested in the Robo advisory market and willing to try and see how it works and compare it with a more traditional way of investing only if he can invest a little amount of money or if he could benefit from a demo trial period were understand functionalities, returns and being able to test it.

The information gathered seems to match what is understandable from the survey where the majority of the people, 64%, have their savings in their bank account and they leave them there without investing and risking losing money because of inflation (Richardson Kojo Edeme, 2015).

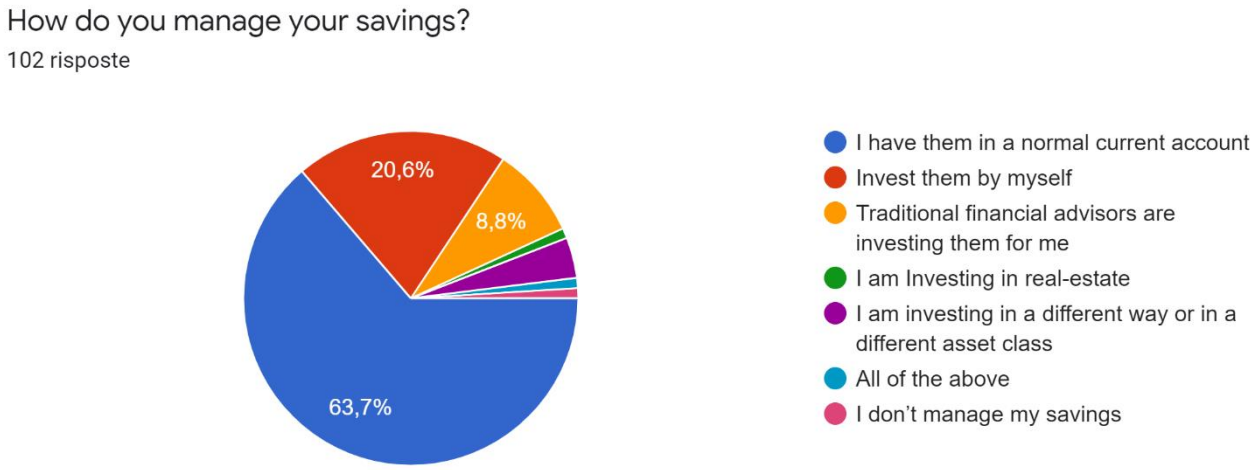

Figure 29: Saving Management

The low willingness of European people towards investment is reflected as well in

figure 31 where is it visible how familiar people are with investments. European people by nature are less willing to invest than USA citizens for many reasons that imply culture, habits, and financial availability (EIB report 2019,2020). The very surprising thing is that, despite the new technologies, the connectivity present in the world, the majority of the respondents, are either not familiar or slightly familiar with investments. There is a clear correlation between the figures because if on one hand, 64% of the respondents keep their savings in their current accounts, on the other hand, 76% of them are not or slightly familiar with investments as shown in figure 31.

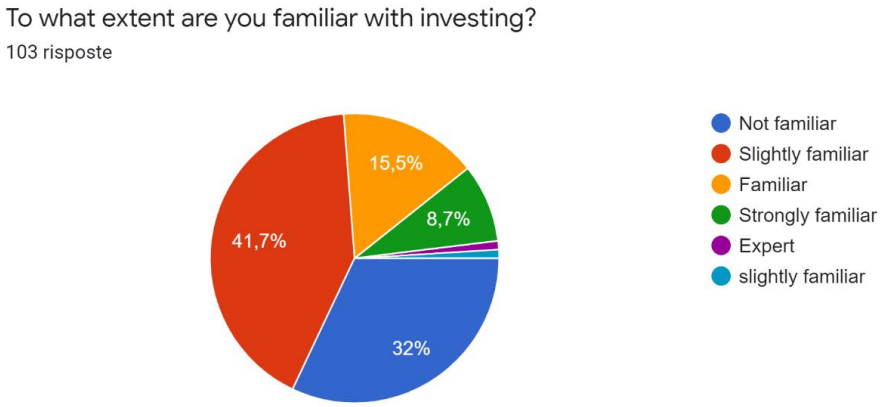

Figure 30: Investment familiarity

As already presented in the first analysis, a Chi-square test (Curwig, Slater, and Eadson, 2013) was conducted to examine the association between familiarity to invest and how people manage their savings.

	Managing Savings							
Investment Familiarity	I have them in a normal current account	I Invest them by myself	Traditional financial advisors are investing them for me	I am Investing in real-estate	I am investing in a different way or in adifferent asset class	All of the above	I do not manage my savings	**TOT**
Not familiar	33							**33**
Slightly familiar	22	21						**43**
Familiar	7		9					**16**
Strongly familiar	3				4	1	1	**9**
Expert				1				**1**
TOT	**65**	**21**	**9**	**1**	**4**	**1**	**1**	**102**

Figure 31: Chi-square test, correlation table

To apply the hypothesis test, the hypothesis (H) is stated as the following:

H0: There is no association between how people manage their savings and their investment familiarity.

H1: There is an association between how people manage their savings and their investment familiarity.

Since the cross-tabulated data is tested, Chi-square distribution is used. The significance level (Curwig, Slater, and Eadson, 2013) used is 5%.

O	E	O-E	(O-E)^2/E
33	21,03	-11,97	6,81
0	6,79	6,79	6,79
0	2,91	2,91	2,91
0	2,26	2,26	2,26
22	27,40	5,40	1,06
21	8,85	-12,15	16,67
0	3,79	3,79	3,79
0	2,95	2,95	2,95
7	10,20	3,20	1,00
0	3,29	3,29	3,29
9	1,41	-7,59	40,79
0	1,10	1,10	1,10
3	5,74	2,74	1,30
0	1,85	1,85	1,85
0	0,79	0,79	0,79
1	0,62	-0,38	0,24
		Test Statistic	**93,63**
		Tabled Value	**36.42**

Figure 32: Table of test statistic and critical value

It is shown that the test statistics are higher than the critical value, this means that the null hypothesis is rejected. Since the null hypothesis is rejected, the other one is proven, which means that there is an association between how people manage their savings and their investment familiarity.

This means that if there is scarce investment familiarity, most likely people have their money in their bank accounts because they fear the financial market and they do not have enough awareness of it nor to invest nor to trust a financial advisor.

In the case of the second person interviewed, this correlation is still useful because he is an ex-banker, and considering his background he is an expert on financial markets. Despite so, he does not invest with a Robo advisor but he prefers a more traditional way of investing and this is in line with the findings of the questionnaire because the more people are financially educated the more use normal financial advisors or invest by themself.

An interesting aspect, already analyzed, is that both from the interview and the questionnaire the Robo Advisors are almost unknown by the majority of the people and indeed 83% of the attendees to the questionnaire never heard about it. This information, on one hand, is a big statement because allows us to understand how much awareness needs to be created in this field and on the other hand reflects the trend of both the interview and the survey: low knowledge about the investment world and its potentials among all the generations.

The person interviewed knows what is a Robo advisor because of his culture and his job but he has never tried it but he is willing to do so. There is a common lack of awareness about this technology that could be compensated with free demo trials to get people more confident/familiar with the service offered. This solution was well welcomed during the second interview and proposed by the 1st person interviewed that is currently using a demo to understand and try a Robo advisory service.

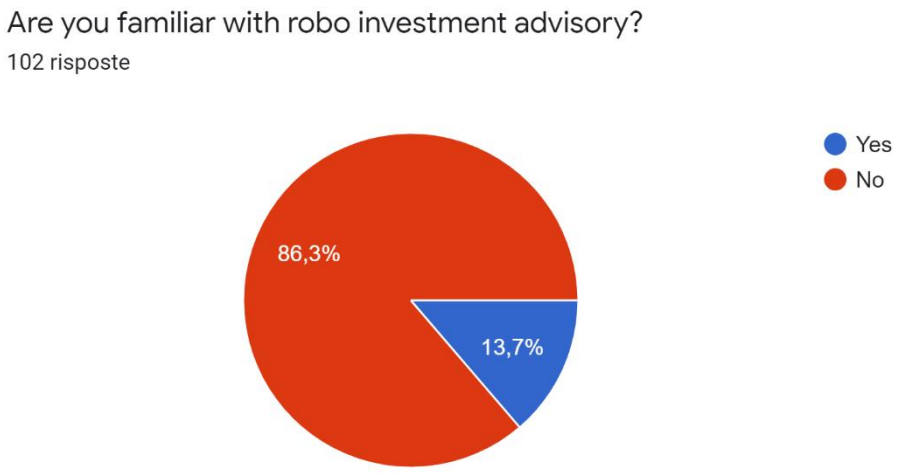

Figure 33: Robo Advisory familiarity

An interesting point to fully understand the situation is figuring out the reason why customers might be attracted by such a service and what might discourage them.

From the interview, an interesting point raised is that the Robo advisor, to attract the client, should have low fees because is what mainly distinguish it from a traditional investment advisor but mostly the person interviewed would like to study the trend of the returns generated by the Robo advisor and compare them with the ones generated by a traditional advisor.

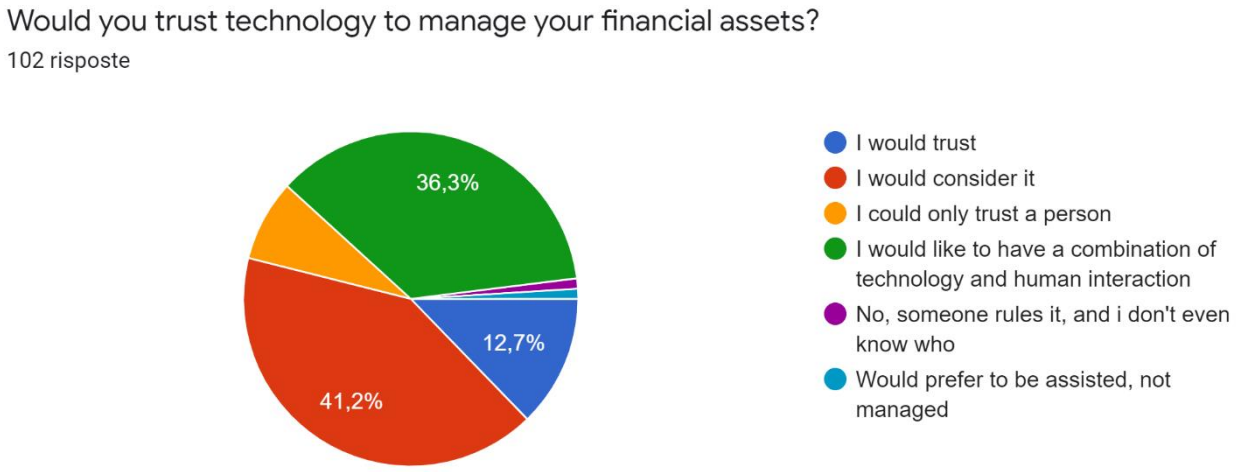

Figure 34: Trust in Technology

This person, as already stated, is willing to use an algorithm for investing but is interested mainly in returns. So if the Robo advisor can guarantee good returns with low fees, after a trial period, the person would be willing to consider to start investing with it.

From the survey, only 12,7% of the respondents would immediately trust the Robo advisor to invest their money while 41,2% is willing to consider it, as the second person interviewed, after trying it and/or understanding it better.

This is key information because a free demo to make people familiar with the product could have double effects: create awareness and trust around this new way of investing.

Another Chi-square test (Curwig, Slater, and Eadson, 2013) was conducted to examine the association between familiarity to invest and which percentage of the people of their savings are willing to invest in a Robo advisor. This test was conducted because considering the investment familiarity and knowledge of the second person interviewed, is it interesting to figure out if more expertise brings people to be willing to invest more money in the financial market, and this case is a Robo advisor.

	Managing Savings						
Investment Familiarity	**0% - 0,99%**	**1% - 5%**	**6% - 15%**	**16% - 25%**	**26% - 40%**	**41%+**	**TOT**
Not familiar		28		5			**33**
Slightly familiar	4	1	32	2	0	4	**43**
Familiar			1	15			**16**
Strongly familiar	3				5	1	**9**
Expert						1	**1**
TOT	**7**	**29**	**33**	**22**	**5**	**6**	**102**

Figure 35: Chi-square test, correlation table

To apply the hypothesis test, the hypothesis (H) is stated as the following:

H0: There is no association between investment familiarity and how much people are willing to invest.

H1: There is an association between investment familiarity and how much people are willing to invest.

Since the cross-tabulated data is tested, Chi-square distribution is used. The significance level (Curwig, Slater, and Eadson, 2013) used is 5%.

O	E	O-E	(O-E)^2/E
28	11,65	-16,35	22,96
0	10,68	10,68	10,68
5	7,12	2,12	0,63
0	1,62	1,62	1,62
0	1,94	1,94	1,94
5	15,18	10,18	6,82
32	13,91	-18,09	23,52
2	9,27	7,27	5,71
0	2,11	2,11	2,11
4	2,53	-1,47	0,85
0	5,65	5,65	5,65
1	5,18	4,18	3,37
15	3,45	-11,55	38,65
0	0,78	0,78	0,78
0	0,94	0,94	0,94
3	3,18	0,18	0,01
0	2,91	2,91	2,91
0	1,94	1,94	1,94
5	0,44	-4,56	47,11
1	0,53	-0,47	0,42
0	0,35	0,35	0,35
0	0,32	0,32	0,32
0	0,22	0,22	0,22
0	0,05	0,05	0,05
1	0,06	-0,94	15,06
		Test Statistic	**194,62**
		Tabled Value	**31,41**

Figure 36: Table of test statistic and critical value

It is shown that the test statistics are higher than the critical value, this means that the

null hypothesis is rejected. Since the null hypothesis is rejected, the other one is proven, which means that there is an association between how much people are willing to invest in % of their savings and their investment familiarity.

This means that if there is scarce investment familiarity, most likely people will be willing to invest no or little amount of money. On the other hand, if people are more aware of the financial markets, they will statistically be more willing to invest a greater amount in it.

12.3 Country: Czech Republic, Third interview

The research aims to understand the feasibility of a Robo advisors service combined with a fintech bank. To gain insights from possible users and various experts from the financial industry and the technological point of view, three interviews were conducted in the Czech republic. The third one is with a University student, a fintech enthusiast who is currently working on creating a fintech startup.

To understand the feasibility of a business that aims to provide financial integration by offering multiple financial services in one single app, the starting point needs to be the understanding of how much people are financially and technologically open. Understanding if they already use a phone application to pay and or to manage their savings/investment is an important starting point. The third person interviewed is not so familiar with cashless life meaning that he pays mainly with cash and if needed with a credit card that are both old payment methods. Despite being young, with an international mindset he is still linked to the old way of paying. This could be since Prague, despite it is an international city, still has a lot of transactions made with cash. Living there might have influenced the person because according to a study lead by Visa (2015) Prague is listed in the “digitally maturing” countries. This means that the city is implementing a lot of cashless initiatives and is developing a lot of technologies to sustain it but cash is still widely used.

The third person interviewed, is 25 years old and is open to technology, he sustains it, and because of his studies/passions and thanks to his family background he is familiar with it but despite that, he asserts that he uses more cash than digital payment

methods because he finds them more suitable for the city of Prague.

Different from the second person interviewed but in line with the first one, he does not trust financial institutions because he was impacted by the 2008 financial crisis and sees them as a possible threat to his financial stability and life. There is an interesting tendency among the three-person interviewed: the first and the third one are young and not too much aware and knowledgable of financial institutions and do not trust them while the second person interviewed, by being a finance professor and thanks to his wide professional experience as a banker, trust them and, despite recognizing their limitations, does not fear them.

Accordingly, centralizing all the financial services in one single application might, on one hand, increase the possibility that if financial institutions fail, customer‘s financial activities will be compromised and they might be financially impacted. On the other hand, if regulations increases, circumstances like the 2008 financial crisis might be avoided (UKEssays, November 2018) and this will bring many benefits to customers. The third person interviewed would positively welcome an application for financial inclusion because it would make his life easier by optimizing his time.

To better understand and characterized the targeted customers, is important to analyze the result of the survey. The majority of the people interviewed, 80.6%, is up to 35 years old, 73.3% has a low/average income and 65% is employed for less than 8 years.

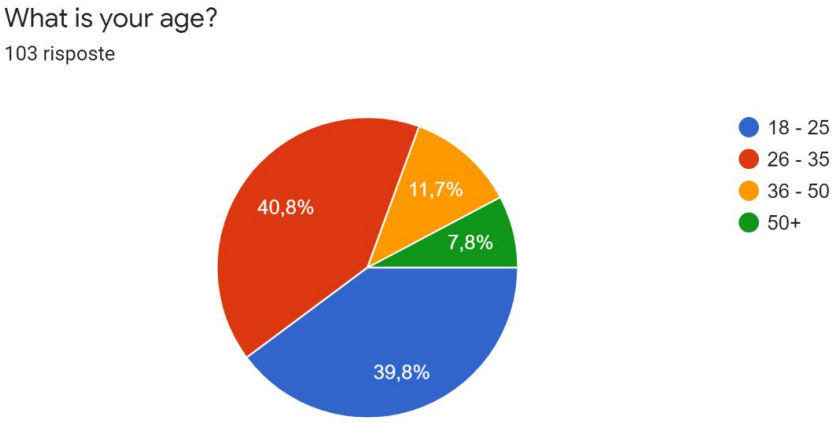

Figure 37: Respondent Ages

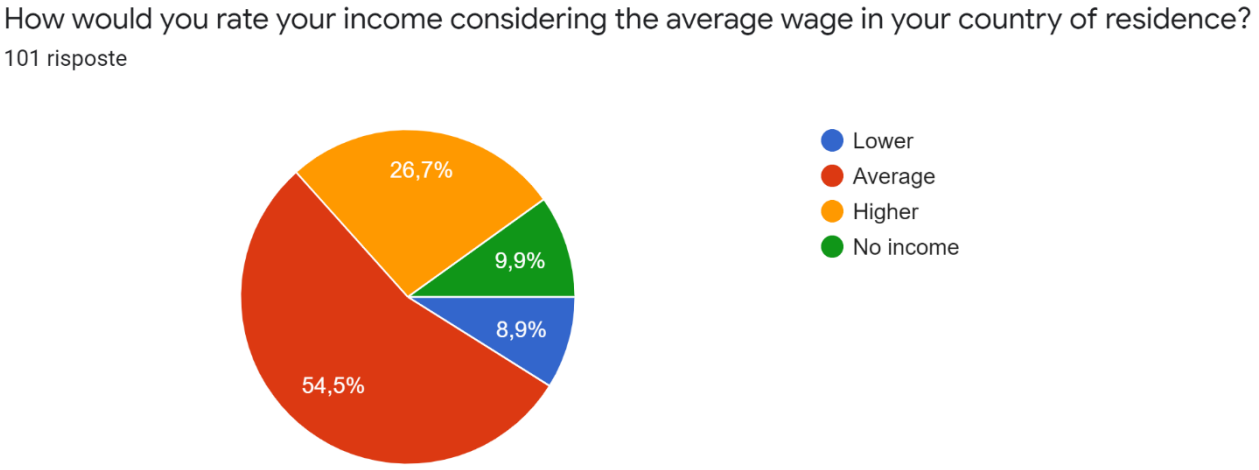

Figure 38: Average Income

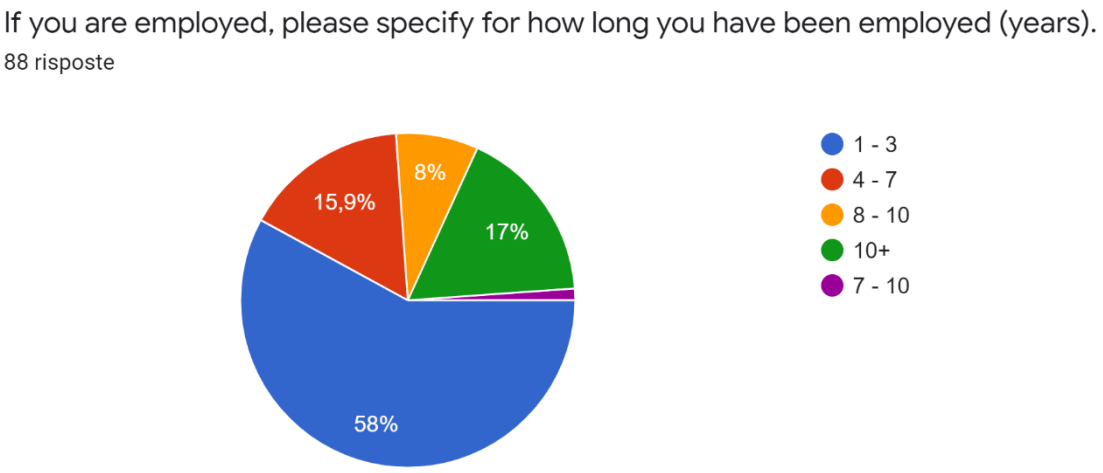

Figure 39: Employment time

Is it interesting to notice that the majority of the respondents are employed for less than 8 years and they believe to have a medium-low income. Despite so, the third person interviewed does not fully reflect the tendency noticed in the survey and the graphs below were are displayed the frequency distribution of the age of the people and the box plot distribution. He, like 15% of the respondents of the survey, is a student and has an age between 18 and 25 years old, and as 9% of the respondents does not have any income from any type of employment.

In the graphical distribution below, is it visible that, despite being most of the survey's respondents between 18 and 35 years old either working or both studying and working, the third person interviewed is 25 years old but he is still a student.

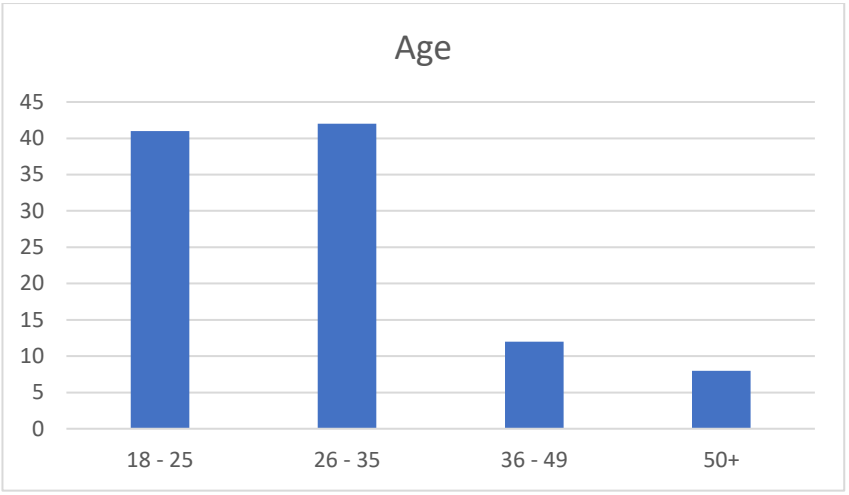

Figure 40: Table of observed frequency distribution, Age

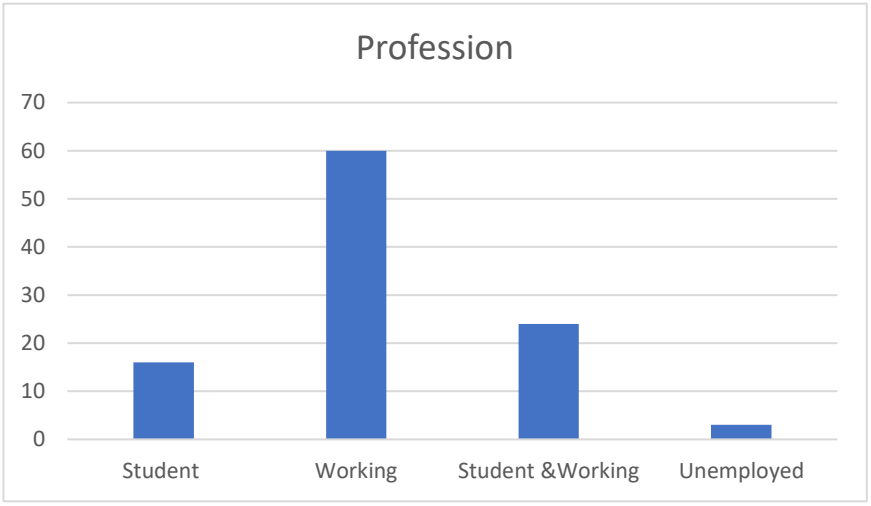

Figure 41: Table of observed frequency distribution, Profession

Moreover, it would be interesting to see if there is a correlation between people's occupation and their age. To examine this association between familiarity to invest and how people manage their savings, a Chi-square test (Curwig, Slater, and Eadson, 2013) was made.

	Occupation				
Age	**Student**	**Working**	**Working and Studying**	**Unemployed**	**TOT**
18 - 25	16	18	7		**41**
26 - 35		42			**42**
36 - 50			12		**12**
50+			5	3	**8**
TOT	**16**	**60**	**24**	**3**	**103**

Figure 42: Chi-square test, correlation table

To apply the hypothesis test, the hypothesis (H) is stated as the following:

H0: There is no association between age and occupation

H1: There is an association between age and occupation

Since the cross-tabulated data is tested, Chi-square distribution is used. The significance level (Curwig, Slater, and Eadson, 2013) used is 5%.

O	E	O-E	(O-E)^2/E
16	6,37	-9,63	14,56
18	23,88	5,88	1,45
7	9,55	2,55	0,68
0	1,19	1,19	1,19
0	6,52	6,52	6,52
42	24,47	-17,53	12,57
0	9,79	9,79	9,79
0	1,22	1,22	1,22
0	1,86	1,86	1,86
0	6,99	6,99	6,99
12	2,80	-9,20	30,30
0	0,35	0,35	0,35
0	1,24	1,24	1,24
0	4,66	4,66	4,66
5	1,86	-3,14	5,28
3	0,23	-2,77	32,86
		Test Statistic	**131,53**
		Tabled Value	**16,92**

Figure 43: Table of test statistic and critical value

The results of the Chi-square test shows that there is a clear statistical correlation between age and occupation. The normal cycle of people's life implies that up to 25 years old the majority of the people study and build the base for their future employment. According to Eurostat data, most of the people between 15 and 24 years old are unemployed because are occupied with their studies. The third person interviewed is in line with this data from the European authorities and in line with the test conducted. Of course, the majority of the people up to 25 years old are unemployed and so they do not have a regular employment/salary.

By being a fintech enthusiast, a finance student at university, the third person interviewed is familiar with the financial market's investment and he invests his wealth by himself while his family, uses some traditional investment advisor. Despite so, he would like to try a Robo advisor and see if it meets his financial needs and expectations such as the way assets are bought, the low fees and 24/7 visibility.

Considering that the third person interviewed, despite his young age, he invests his wealth by himself, a chi-square test was conducted to see if there is any correlation between people's age and the way they manage their savings. According to the survey, anyway, the majority of the people, almost 70%, have their savings sitting in their bank account.

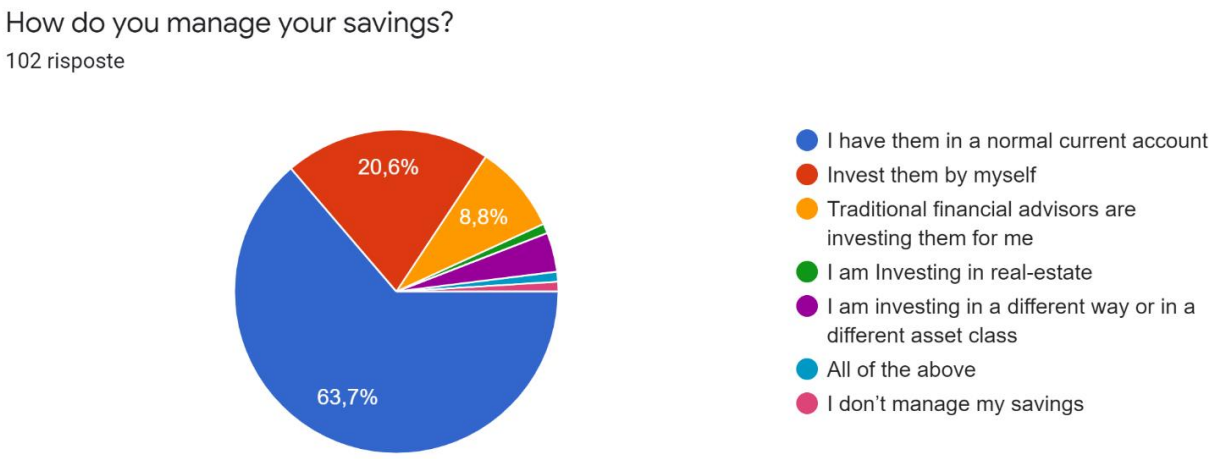

Figure 44: Investment Management

To examine this association between the way of managing wealth and age, a Chi-square test (Curwig, Slater, and Eadson, 2013) was made.

	Occupation				
Age	I have them in a normal current account	I Invest them by myself	Traditional financial advisors are investing them for me	I invest them in a different asset class	**TOT**
18 - 25	41				**41**
26 - 35	21	21			**42**
36 - 50	3		9		**12**
50+				4	**4**
TOT	**65**	**21**	**9**	**4**	99

Figure 45: Chi-square test, correlation table

To apply the hypothesis test, the hypothesis (H) is stated as the following:

H0: There is no association between age and how people manage their wealth

H1: There is an association between age and how people manage their wealth

Since the cross-tabulated data is tested, Chi-square distribution is used. The significance level (Curwig, Slater, and Eadson, 2013) used is 5%.

O	E	O-E	(O-E)^2/E
41	26,92	-14,08	7,37
0	8,70	8,70	8,70
0	3,73	3,73	3,73
0	1,66	1,66	1,66
21	27,58	6,58	1,57
21	8,91	-12,09	16,41
0	3,82	3,82	3,82
0	1,70	1,70	1,70
3	7,88	4,88	3,02
0	2,55	2,55	2,55
9	1,09	-7,91	57,34
0	0,48	0,48	0,48
0	2,63	2,63	2,63
0	0,85	0,85	0,85
0	0,36	0,36	0,36
4	0,16	-3,84	91,16
		Test Statistic	**203,33**
		Tabled Value	**16,92**

Figure 46: Table of test statistic and critical value

It is shown that the test statistics are higher than the critical value, this means that the null hypothesis is rejected. Since the null hypothesis is rejected, the other one is proven, which means that there is an association between how people manage their savings and their age.

The information gathered seems to match with what is understandable from the survey where the majority of the people, despite their age, have their savings in their bank account. Is unconventional that such a young person manages his savings by himself. This can be due to many factors such as high willingness to risk, deep knowledge of the financial markets, family culture. When asked the interviewed person answered that, he does invest by himself because he believes he has deep knowledge of the financial market and because some of his family works in some wealth funds, this has helped him to deeply understand the market and measuring the risks that he is taking.

The third person interviewed is a pretty unconventional example compared with the other two people interviewed because he is young but he actively invests by himself in the financial market. As already shown, European people have a low willingness towards investments, reflected as well in figure 50, where is it visible that 73% of the survey's respondents are either not familiar or slightly familiar with the financial market. The study conducted by European Investment Bank (2019), shows that European people by nature are less willing to invest than USA citizens for many reasons that imply culture, habits, and financial availability.

The third person interviewed is half Israeli and half swiss and this, in addition to his family wealth management business, can have impacted and influenced him making him an active financial market investor.

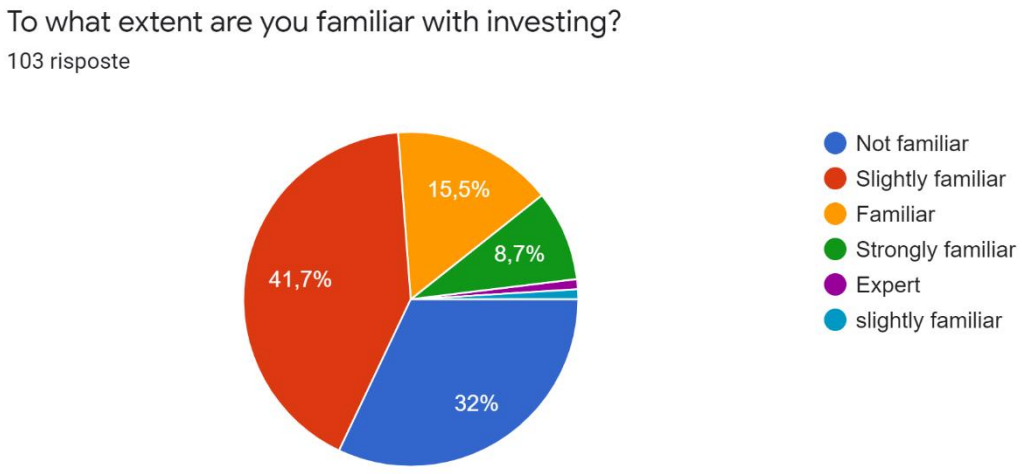

Figure 47: Investment familiarity

As already presented in the first two analyses, a Chi-square test (Curwig, Slater, and Eadson, 2013) was conducted to examine the association between familiarity to invest and how people manage their savings was made.

	Managing Savings							
Investment Familiarity	I have them in a normal current account	I Invest them by myself	Traditional financial advisors are investing them for me	I am Investing in real-estate	I am investing in a different way or in adifferent asset class	All of the above	I do not manage my savings	**TOT**
Not familiar	33							**33**
Slightly familiar	22	21						**43**
Familiar	7		9					**16**
Strongly familiar	3				4	1	1	**9**
Expert				1				**1**
TOT	**65**	**21**	**9**	**1**	**4**	**1**	**1**	**102**

Figure 48: Chi-square test, correlation table

To apply the hypothesis test, the hypothesis (H) is stated as the following:

H0: There is no association between how people manage their savings and their investment familiarity.

H1: There is an association between how people manage their savings and their investment familiarity.

Since the cross-tabulated data is tested, Chi-square distribution is used. The significance level (Curwig, Slater, and Eadson, 2013) used is 5%.

O	E	O-E	(O-E)^2/E
33	21,03	-11,97	6,81
0	6,79	6,79	6,79
0	2,91	2,91	2,91
0	2,26	2,26	2,26
22	27,40	5,40	1,06
21	8,85	-12,15	16,67
0	3,79	3,79	3,79
0	2,95	2,95	2,95
7	10,20	3,20	1,00
0	3,29	3,29	3,29
9	1,41	-7,59	40,79
0	1,10	1,10	1,10
3	5,74	2,74	1,30
0	1,85	1,85	1,85
0	0,79	0,79	0,79
1	0,62	-0,38	0,24
		Test Statistic	**93,63**
		Tabled Value	**36.42**

Figure 49: Table of test statistic and critical value

It is shown that the test statistics are higher than the critical value, this means that the null hypothesis is rejected. Since the null hypothesis is rejected, the other one is proven, which means that there is an association between how people manage their savings and their investment familiarity.

With scarce investment familiarity, most of the people have their money in their bank accounts because they fear the financial market and they do not have enough awareness of it nor to invest nor to trust a financial advisor. On the other hand, the third person interviewed is aware of the financial market, he knows it so he is confident in investing in it.

Despite all these analyses on general investment decisions, he does not invest with a Robo advisor but he prefers a more traditional way of investing and this is in line with the findings of the questionnaire because the more people are financially educated the more use normal financial advisors or invest by themselves, as was explained as well in the second interview.

An interesting aspect, already analyzed, is that both from the interview and the questionnaire the Robo Advisors are almost unknown by the majority of the people and indeed 83% of the attendees to the questionnaire never heard about it. The person interviewed knows what a Robo advisor is but he is not aware of any specific one and he does not use any.

A common denominator both visible in the questionnaire and all three interviews is that most of the people do not know what a Robo advisor is, if they know, is because they are fintech experts/enthusiasts but nobody actively uses one.

According to a Deloitte (2018) study on the Robo advisory market, it has seen rapid growth in the last years but the market reaches probably half a million users in Europe.

There is a general lack of awareness and lack of trust for normal and new financial services providers. If people know them/ trust them is because are highly educated. To be successful this business needs to spread awareness and build trust among the possible users.

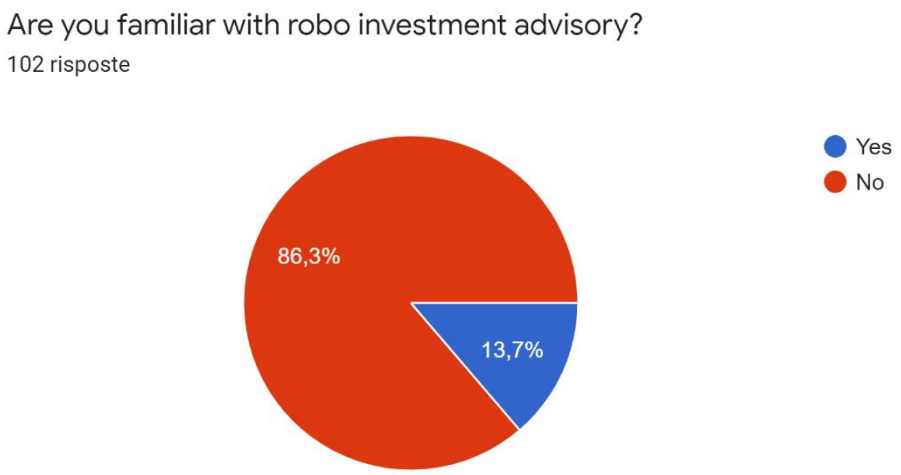

Figure 50: Robo Advisory familiarity

An interesting point to fully understand the situation is figuring out the reason why customers might be attracted by such a service and what might discourage them.

From the interview, a common point among the second and the third people interviewed is that what matters the most, after solid returns, are the asset classes chosen for investment and the reason behind it. Both the second and the third person interviewed rose these points because are aware of the financial market and for them, for example, ethical investment is important. This is an important point to be taken into consideration considering the spread lack of customization among the already existing Robo advisors (Pwc, 2016).

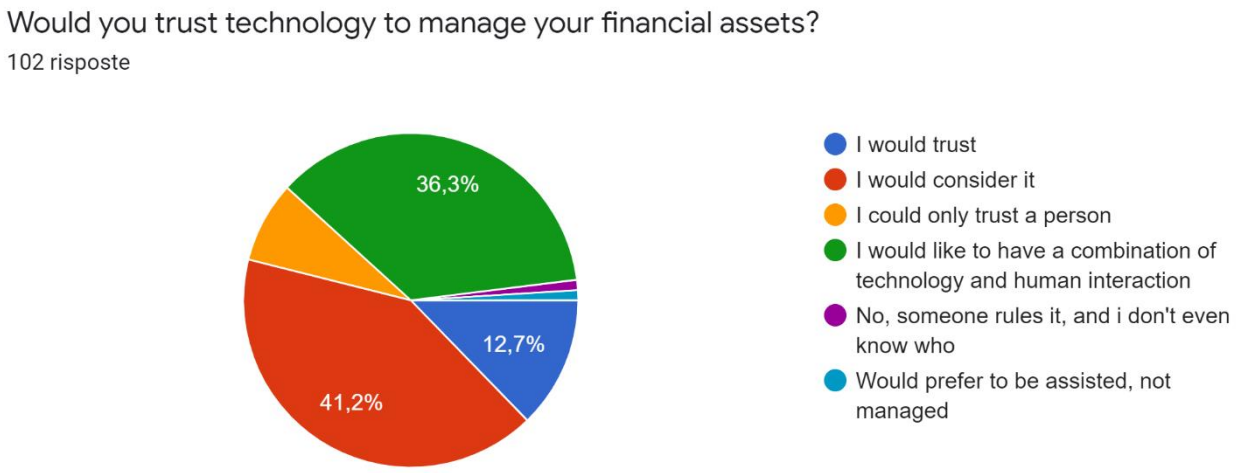

Figure 51: Trust in Technology

This person is willing to try to use an algorithm for investing but is interested mainly in returns and investment asset classes/types. He might be interested in using a Robo advisor only if it could guarantee a highly customized product because, him, knowing the financial markets asserts that could easily do what most of the low-customized Robo advisors do, investing in ETFs.

This is a useful insight because from this information we can understand that if people are financially educated they might find low-customized Robo advisors not attractive because of their easy financial investment strategy. On the other hand, in defense of the Robo advisory ecosystem, is important to remember that buying ETFs is way less expensive than buying individual shares, is less risky, and much easier in terms of financial investment strategy.

From the survey, only 12,7% of the respondents would immediately trust the Robo advisor to invest their money while 41,2% is willing to consider it. Maybe a more customized product might incentivize the unconvinced population.

12.4 General consideration

The information gathered between the analysis of the survey concerning the interviews are extremely valid and can be summarized in some key points. There is a general lack of trust among the younger generation for the financial institutions mainly due to lack of knowledge and because Millenials were highly impacted by the 2008 subprime financial crisis. Is important to remember, as well, that a lot of regulation was put in place by the ECB (European Central Bank) and by all the other European institutions to guarantee the security of their citizens and to protect them.

A common trend for both people interviewed and surveyed is that the majority of them are not very familiar and keen on investment but they rather prefer to keep their savings in their bank accounts. This information is connected with the trend experienced regarding the trust in financial institutions. The lack of trust is showed mainly in the fact that people prefer to rather keep their savings in their bank accounts rather than investing in the financial markets.

This can be due to any reason such as scarce investment familiarity, scarce understanding of how financial markets work, and the scarce awareness of the Robo advisory world.

All these reasons highlight that if people, mostly younger generations, are very keen towards technology and they might be interested in using new innovative ways of investments, the scarce awareness of them, does not allow the market yet to be spread among all the population.

Starting from the positive feedback received on the possibility of investing savings through a Robo advisor, the key points that recur among the people interviewed are important to be considered if such a service is going to be launched.

First of all, all the people interviewed appreciate and consider their priority the low fees that such service can guarantee. This is a fundamental key point to attract and to keep customers together with transparency about the fees themself.

Another important point to highlight and that needs to be considered in case such a service is going to be implemented are the returns that can be guaranteed and the asset class allocations.

People tend to not mind so much if investments are done by algorithms as long as good returns are guaranteed and ethical asset classes are chosen.

To attract new customers, considering the lack of awareness and sometimes trust regarding this topic, could be positively appreciated a free demo where potential customers can try and test the service with virtual money. This will allow customers to better understand the service, try it, and chose consciously.

13. Conclusion

The financial industry since 2008 has been highly regulated due to the lack of transparency and trust that rose during and after the financial crisis. Institutions around the world have been introducing regulations to mitigate and reduce the risk associated with the financial establishment and to try to bring back the trust in them. What derives from both the survey and the interviews is that there are a generic perspective and perception among people that financial institutions are not fully secure and that the new technologies are not helping them rather discrediting them even more. Most people can be defined as technology-friendly meaning that uses a lot of online financial instruments but people are divided, in terms of favorable opinions, towards an application that could gather all the financial services in one.

Concerns for the financial industry come, as well, from the fact that many people are not familiar with investments. This should be a worry not only for the financial industry but for governments as well. Having the majority of the people keeping their savings in their banking accounts is not a positive aspect. No investments mean a lack of trust in both financial institutions and governments and consequently no growth for the countries. If people do not invest and do not spend, industries do not produce and this makes the country's industries stagnant.

The lack of knowledge/awareness of alternative ways of managing their money is something the financial industry as a whole should worry about as well. Most likely this lack of awareness is positively correlated with the lack of trust in the financial institutions but the industry should and must do more.

Concerning the lack of awareness towards the alternative way of managing money and savings, not only the financial industry as such should be concerned. There are, nowadays, many new types of ways people can invest their money. Crowdlending and

crowd-investing platforms, Robo advisory platforms, and many more are trying to recreate the lost connection and trust between the financial industry and its customers. By reducing fees, by being fully online, by reducing drastically costs, by being 24/7 available with customer services, and by being as transparent as possible these new companies are trying to disrupt the old financial world by integrating technology in the industry. The question is why, despite all these efforts, so many people are still not aware of this new technologies/services to invest their savings. The biggest learning for the fintech startups/companies that are living in the European ecosystem is that among those people who tried their new innovative services, many are fully satisfied with what they found. These new companies are offering features highly appreciated by their customers such as highly customized customer service, transparency over fees that are very low in comparison with traditional institutions. At the same time, such companies need to understand that, if on one hand, their users appreciate them, they still have a niche market and most of the population is still unserved. Users of Robo advisors in Europe barely reach 1 Mio units and this accounts for 0.23% of the European population. This must be the focus for all the platforms that offer alternative ways for managing people’s savings/money.

13.1 Value of the Research

Whenever research is conducted and it is finalized it is subject to the limitation that can have an impact on the quality of the findings. Limitations can derive from how the research was designed and implemented but as well can be related to the scope. The main limitation of this piece of research is that we're not reached 384 respondents for the survey. So instead of using data collected among such a high number of people that could have guaranteed accuracy of 95%, the research relied only on roughly 120 responses.

Over the three interviews conducted, none of them were conducted in person due to COVID-19 restrictions and only one was conducted via ZOOM call while the other two were conducted via email. This is due to the lack of availability of people to participate in the study. This reason did not allow any type of follow-ups in an unclear answer and this could result in a lack of clarity and imprecision.

It would have been better for the sake of the research to interview people employed in the fintech industry because they could have given a better and wider opinion over the topic of the dissertation. Moreover, they could have brought useful insights that could have been used to make an analysis and understand the feasibility of the project. Due to the COVID-19 pandemic was difficult to get to know such people and engage with them. The interviews were conducted with relevant people, who know the fintech world, but who do not directly work in the field.

A questionnaire with more answers would have been perhaps more useful and could have brought more insights into how possible customers deal with investment and their savings. Receiving such a low amount of answers does not allow to fully generalize and make inferential statistics on the sample.

Yet, the research, despite the limitations, can offer good insights into the fintech

industry and in the Robo advisory one. Is it clear that the use of technology in our lives is nowadays very present and will be dominant in the future. The literature indicates that fintech companies are already changing people's lives and will keep on disrupting the industry. Despite the people interviewed come from different backgrounds, they all agree on the necessity of more awareness and education among investments. Only by creating an investment culture and by understanding customer's needs, this project can succeed.

13.2 Future Directions

By conducting this research some limits have been raised and some improvement areas were identified. Understanding and further developing these areas are keys to bringing the research to a further, more advanced, and deeper level. First of all, the research could be conducted with a broader sample, in different countries, and with a larger frame of time. Moreover, some improvement areas were identified in the part of the research connected with initial findings validation. So, not only general research on the fintech industry should be conducted but one that goes deeper in the Robo advisory one and the Challenger banks one. This new industry perspective might be helpful to identify other threats, strengths, and weaknesses of the chosen topic. Furthermore, conducting the research only in the Czech Republic was a limit, and understanding other country's markets and their related customer behavior might be an additional fundamental point for this piece of research.

Analyzing better the competitors in the specific markets might be a useful point because is important to understand how competitors try to overcome with new products and services the problems that they might find on the market, the changes in the behavior of customers, and the increasing competition.