



UNIVERSIDADE D
COIMBRA

Carolina da Silva Varandas

MANAGERS' PSYCHOLOGICAL
CHARACTERISTICS AND FIRM'S
FINANCIAL HEALTH: STARTUP
EVIDENCE

Dissertação no âmbito do Mestrado em Contabilidade e Finanças
orientada pelo Professor Doutor Paulo Miguel Marques Gama
Gonçalves e apresentada à Faculdade de Economia da
Universidade de Coimbra

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Abstract

The traditional theories of finance were based on the premise that the decision process is always driven by the market conditions and that the individual's characteristics, making the decisions, were never part of that process. From the '50s onwards an evolution began, when the first studies about the topic started to show up. The research stream has been growing, however, there is still a lot to acknowledge, especially in the field of corporate Behavioral Finance seeing that most studies focus on investor behaviour and not on CEO's or top manager's behaviour. Regarding UET theory and behavioral finance this study contributes to the stream of research by studying the impact of top managers psychological characteristics, such as overconfidence and optimism, on the firm's financial policy and financial health. The focus falls on Portuguese Startups, due to the importance they are beginning to gain in the Portuguese Economy. In this way, the present study was adapted at the light of previous relevant ones, relating companies' financial characteristics with psychological and demographic top managers characteristics in order to analyse their relationship with companies' financial health. The sample was obtained from the responses to a questionnaire realised in several channels, as IPN – Instituto Pedro Nunes and the contacts available in the site of RNI – Rede Nacional de Incubadoras and counts with a tax response of 10% which is similar to the previous studies in the field. The results show that as expected psychological and demographic characteristics have an impact in companies' financial health, with a big relation with financial literacy and overconfidence.

Keywords: Behavioral Corporate Finance, Overconfidence, Optimism, Decision-making process, Financial Health

Sumário

As primeiras teorias das finanças, são baseadas na ideologia de que o processo de tomada de decisão era sempre definido pelas condições do mercado, e os indivíduos nunca foram considerados em qualquer parte desse processo. A partir dos anos 50, começou uma evolução, quando as primeiras questões sobre os efeitos das características psicológicas no processo de tomada de decisão foram feitas e os primeiros estudos sobre o tema, foram lançados. A corrente de investigação tem vindo a crescer, contudo há ainda um longo caminho a percorrer sobretudo na área da Finanças Empresariais Comportamentais, dado que a maioria dos estudos analisam o comportamento do investidor e não dos CEO's. À luz da UET theory e das teorias das finanças comportamentais este estudo contribui para a corrente de investigação ao estudar o impacto de características psicológicas como sobre confiança e o otimismo, no processo da tomada de decisões financeiras dos CEO's. O foco recai nas Startups portuguesas, dada a importância que começam a demonstrar para a economia do país. Neste sentido o estudo foi adaptado de estudos anteriores com relevância na área, relacionando as características financeiras da empresa com as características psicológicas e demográficas dos gestores, com o objetivo de analisar a sua relação com a saúde financeira das empresas que gerem. A amostra foi obtida através de questionário, divulgado por canais relacionados com o IPN e com a RNI e conta com uma taxa de resposta de 10%, que é semelhante às taxas de resposta dos estudos base. Os resultados mostram que as características psicológicas e demográficas têm o impacto esperado na saúde financeira das empresas, com grande relação com a literacia financeira e o excesso de confiança.

Palavras-Chave: Finanças Empresariais Comportamentais, Sobre Confiança, Otimismo, Processo de tomada de decisão, Saúde Financeira

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1. Introduction

The traditional finance theory ignores the individual role of managers in the decision-making process, once that traditional models do not consider the individual taking the decision, but the decision taken. It is defended that economical agents are rational and that their decisions are exclusively based on the maximisation of expected utility, through the decision-making process based on disclosed information (Baker, Filbeck, Ricciardi, 2017).

However, the theory of behavioural finance identifies the existence of imperfect information and bounded rationality in individuals. In reality, the decisions made by economic agents are influenced by diverse factors, them being passed experiences, demographic characteristics and physiological ones (Lobão, 2016).

Behavioural finance highlights the impact of each individual's heterogeneous demographic and psychological characteristics and background, on the decision-making process. These characteristic and behavioural issues take on relevance at all stages of the decision, but this, increases in a crisis phase such as the one currently living with the COVID-19 pandemic, due to the climate of uncertainty that is created (Andrea Alexander, Aaron De Smet, and Leigh Weiss, 2020).

At a business level, understanding the industry and the specific characteristics of the company proves to be insufficient to understand financial decisions. Knowing the CEO helps to understand the decisions taken and, consequently, the performance and results thereof.

The “upper echelon theory (UET),” according to Hambrick and Mason (1984), understands that strategic choices are determined and formed by the values and cognitive bases of dominant “actors” of the organization, in particular the Top Managers, such as CEOs.

In this sense, there is a need to understand how these dominant actors influence the financial decisions of their companies and, in this way, their financial structure, positively or negatively and consequently companies' financial health.

Thus, the main objective of the dissertation is to analyse the impact that psychological characteristics, namely Overconfidence and Optimism, of CEOs, have on financial decisions made in Startups, also making a comparison between theory and the real context, to evaluate the differences between the observed reality and the traditional theory about how to make these same decisions.

Overconfidence is defined by Lobão (2016) as the feeling that decision-making, thinking or other skills are better than they are. The CEO's level of confidence becomes relevant since its excess or lack of confidence can lead to suboptimal financial decisions (Kaplan, Sorensen, Zakolyukina, 2020), as they are subject to a greater level of risk the greater the level of confidence. (Eckbo, 20,07).

In 2020, Portugal was 13% above the European average in the number of Startups, having an ecosystem of 2159 Startups, 5 of which are unicorns, which already represented 1.1% of the Portuguese GDP (Startup & Entrepreneurial Ecosystem Report 2021, IDC, 2021) and an employment level of around 25 thousand people.

Due to the positive evolution of growth in the number of Portuguese Startups and their growing importance for the economy, it is important to carry out this study in this type of company.

To analyse this effect, a questionnaire to 200 CEOs of Portuguese Startups was carried out, with adaptations of studies by Graham, Harvey (2001), Graham, Harvey, and Puri (2013) and also using the CEO Confidence Survey, produced by The Conference Board.

To construct the analysis of the data, we resort to bivariate analysis and to multivariate analyses, by using Pearson's correlation for the first one and in the second case using fsQCA and csQCA, from qualitative comparative analysis.

In this context, the dissertation is structured as follows:

In the first instance, a literature review on the subject is carried out, which is divided into two segments: traditional finance and behavioural finance. The third chapter

addresses the investigation method and the fourth presents the results obtained and their discussion. Finally, the conclusions are presented, as well as limitations and suggestions for future investigations.

2. Literature Review

2.1. Traditional Corporate Finance VS Behavioral Corporate Finance

Traditional finance is based on the efficiency of markets and has the premise that agents are rational, make specialized judgments and maximize their interests. (Baker, Filbeck, Ricciardi, 2017). To consider markets efficient, according to Efficient Market Hypothesis, it is necessary that all information is available and that prices are reflected in the market. Furthermore, the theory considers that since agents are rational, they make their decisions only based on the information disclosed, without considering their emotions and having stable preferences.

Associated with the traditional theory is the concept of Homo Economicus. In the 19th century, John Stuart Mill proposed the concept, and it can be defined, by Oxford References as “Economic man, or the rational agent depicted in economic models. Such an agent has consistent and stable preferences; he is entirely forward-looking and pursues only his self-interest. When given options he chooses the alternative with the highest expected utility for himself.” Baker and Nofsinger (2010) add to the concept, the idea that the Homo Economicus preferences are well-described by standard expected utility theory.

Also associated with the Homo Economicus concept are theories like the trade-off theory, the financial hierarchy theory and the agency theory.

At a corporate level, in this scope, the objective of companies is to reach positive net present value on their projects, to maximize their and their shareholder’s wealth (Graham, Harvey, Puri,2013).

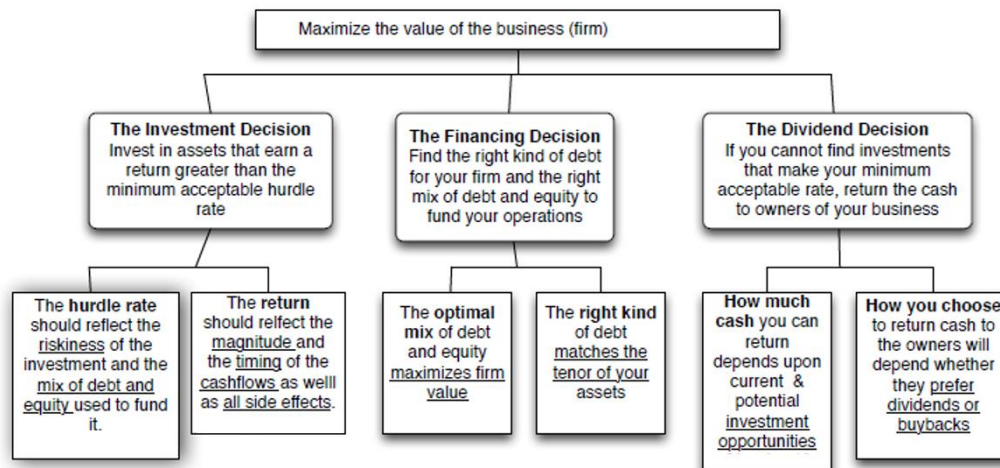
The traditional framework has its strengths and weaknesses. It is possible to identify its systematicity and precision as strengths and the assumption of total rationality of the individuals as the principal weakness of the theory.

Accordingly, to Gherghina (2021) the main focus of corporate finance is to have efficient and effective management of the company funds to achieve their objectives, by forecasting and monitoring the needed capital, the distribution of funds and the supervision of the good use of them. Damodaran (2014), defends that corporate finance

has been stable through the years. All corporate finance decisions can be divided into three main groups: The investment decision, the financing decision, and the dividend decision.

Aligned, with this thought, are the following principles of corporate finance:

Figure 1- Principles of Corporate Finance



- **The investment principle:** States where the company should invest their resources and that it should be in the projects that “yield a return greater than the minimum acceptable hurdle rate. As riskier the project is going to be, higher should be the hurdle rate, and it should reflect the financial mix used, equity or debt.”
- **The financing principle:** Is defined by the choice of the mix of financing, whether the choice of debt, equity, or a mix. This mix should maximize the value of the investments.
- **The dividend principle:** The decision of how much earnings is going to be reinvested or returned to the business owners. In this case, if there are not enough investments that earn the hurdle rate, the cash is returned to the owners.

These three principles collide in one main objective of corporate finance: Maximize the value of the business.

Damodaran considers this goal as the main strength and weaknesses of corporate finance. In this way, most traditional theories consider this goal in stock price maximization. However, this consideration has many obstacles such as the different objectives of each stakeholder and conflicts of interests that may occur between them, but as well between

them and the managers, and between them and bondholders. Besides this, it also comes to reality the impact of business in society and the relation between the business and the financial markets.

The author states that stockholders often have little power over managers, and managers consequently put their interests above those of stockholders. Lenders who do not protect their interests, often end up paying a price when decisions made by firms transfer wealth to stockholders. The information delivered to financial markets is often erroneous, misleading, or delayed, and there are significant differences between price and market value. Finally, firms that maximize wealth, may do so while creating large costs for society.

Hereupon, there are alternatives to the objectives of the firm. Maximize market share, profit maximization objectives and size/revenue objectives are the considered alternatives, nevertheless, they too have their flaws.

Maximize market share, takes into consideration that higher market share will mean more pricing power and profits overall.

Profit maximization objectives are focused on profitability rather than value. Profits can be measured more easily than value, and higher profits translate into higher value in the long run. Two problems come up, firstly it can result in short-term decisions, once they are focused on profit rather than the value that projects could generate in the future. Secondly, it may not be easier and precise to measure profits than value. When the goal is to maximize profits, how can it be time measured? A corporation may be able to increase current profits by cutting back on outlays for maintenance or staff training, but those outlays may have added long-term value. Shareholders will not welcome higher short-term profits if long-term profits are damaged. A company may be able to increase future profits by cutting this year's dividend and investing the freed-up cash in the firm. That is not in the shareholder's best interest if the company earns only a modest return of the money.

Related to the size/revenue objectives, in the past, there seemed to be a desire to increase the size of the company to increase its perceived power.

Additionally, it can also be referred to as the main objectives the Behavioral goals and social responsibility (Delta Publishing, 2008). These goals also contribute to the main goal of maximizing the value of the company.

Due to the limitations of each hypothesis, it is believed that “managers should make decisions that increase the long term value of the firm and then try to provide as much information as they can about the consequences of these decisions to financial markets, If the market reaction is not positive, they should pay attention, since there is a message in the price reaction that may lead them to modify their decisions” (pp 67, cap 2).

Managers are faced with various financial decisions throughout the life cycle of companies. The three main financial decisions – Financing, Investment and Dividend, change with the evolution of the company.

Firms usually have five stages during their existence, being a Startup, expansion, high growth, mature growth and decline. Their decisions vary accordingly to the stage they are in.

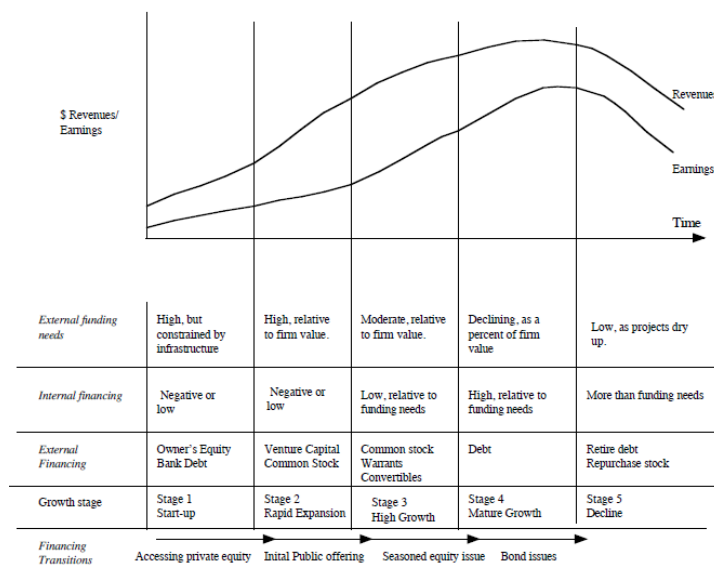
The financing decision: The choice is always between equity and debt, and there exists a variety of financing instruments that firms can use. Debt is defined, by the author, as any financing vehicle that is a contractual claim on the firm, creates tax-deductible payments, has a fixed life and has a priority claim on cash flows in both operating periods and bankruptcy. Conversely, equity is defined as any financing vehicle that is a residual claim on the firm, does not create a tax advantage from its payments, has an infinite life, does not have priority in bankruptcy and provides management control to the owner. Any security that shares characteristics from both is a hybrid security.

Internal financing is commonly preferred and has several advantages, resulting in greater use by companies. Normally, external funds are difficult to get and can result in a control loss when achieved. However, there are always disadvantages. The cost of both internal and external financing should be considered equal, the internal equity is limited by the generated cash flows for the firm’s stockholders, once that even if dividends are not paid, there is a possibility that the firm’s cash flows may not be sufficient to finance their projects. Finally, stock price still matters if internal equity is used for financing issues.

The choice between internal or external financing leans on the life cycle, explained in figure 1. In the Startup stage, it is more common to use the owner's equity and call upon bank debt. As they evolve, private equity and venture capital become an option. Later, common stock sits on the table as well and when it reaches the high grown stage, firms finance themselves with new stock and convertible bond issues. In their mature peak, corporate bonds and other debt appear and when they start declining, it is ordinary to buy back stock and retire debt.

Overall, comparing the benefits and costs of debt and equity, it is possible to conclude that if the marginal benefits of borrowing exceed the marginal costs, the firm should borrow money, otherwise, it should use equity.

Figure 2- Internal and External Funds and Life Cycle



The investment decision: Firms must decide whether or not to invest in them. This decision can result in investment in tangible assets but as well in intangible ones, such as research and development, advertising, marketing and human resources.

The goal is that today's investments generate future cash returns. It is important to reference the timeline for the cash flow. Sometimes the cash inflows last for years, thus the financial manager has to pay attention to the timing of cash inflows, not just the cumulative amount.

However, cash flows are not guaranteed, as the investment could be a success or a failure.

An investment decision rule may specify that only projects that recover the amount invested in them in less than five years will be accepted or that only projects that earn a return capital greater than their cost of capital are good.

There are three ways to make a good investment decision:

- Maintain a fair balance between allowing a manager analyzing a project to bring in his subjective assessments into the decision and ensuring that different projects are judged consistently. Too mechanical is not a good rule.
- Allows the firm to maximize the value of the firm. Projects accepted should increase the value of the firm.
- Work across a variety of investments.

Behavioural finance emerged within the scope of the need to combine psychology with finance and economics, to analyse its implications for the decision-making and performance capacity of financial agents. The evolution began in the 1950s, although Thaler and Barberis (2003) only considered its formal beginnings in the 1980s.

The perception that most agents are irrational or not fully rational led to the conclusion that the traditional approach, despite providing relevant information and details, offers an incomplete picture of observed behaviour (Baker, Filbeck, Ricciardi, 2017). In this way, it emerged to reduce the impact of the major weakness of the traditional framework - the assumption of the total rationality of the individuals.

Shefrin (2010), describes Behavioral finance as a field, where psychology is applied to the financial decision-making process and financial markets, whereas a process, the author describes Behavioral finance as the transformation of the financial paradigm from a neoclassical-based framework to a psychologically based framework, which he refers to as "behavioralizing finance".

Thus, the main objective is to incorporate psychological aspects into the decision-making process, with a focus on financial decisions as well as on the financial markets.

(Costa, Carvalho, Moreira, 2019). The connection to other sciences allows complementing the traditional approach. According to Holzhauser (2017, p. 54), the concepts associated with Behavioral finance should not be a group of theories that try to replace or directly compete with traditional theories, such as portfolio theory or efficient markets. Instead, it should be used to help define situations more clearly. So, there is no rejection of the previous theories, but a compliment to both.

Connected to the field, Baker and Nofsinger (2010) Identify the prospect theory, framing effects, heuristics, and biases as the four main topics

Relatively early in the evolution of Behavioral finance, in 1979 Kahneman and Tversky (Baker, Filbeck, Ricciardi, 2017) created the Prospect Theory which defines that agents value gains and losses differently, placing more weight on perceived gains versus perceived losses. Also, the theory is incompatible with the expected utility theory and with modern portfolio theory, once that it states that for the evaluation of the decision outcomes and has to be considered the current state of wealth, and not the expected utility (Baker, Nofsinger, 2010). In this way, they do not make their decisions based on classical rationality but have bounded rationality. This concept was introduced by Herbert Simon (1955) and is defined by decision making in which the processes used are rational within the constraints imposed by limitations in the individual's knowledge, human cognitive limitations, and empirical factors arising from the complex, real-life situations in which decisions must be made. In this type of rationality, human beings must be framed in the environment in which they are.

Decisions may not always be optimal since there are restrictions to the human's information processing, due to the limits of knowledge information, or even computational capabilities. In this way, Baker and Wurgler (2013, pp 386) find that when managers are rationally bounded, they cope with complexity by using rules of thumb that ensure an acceptable level of performance and, hopefully, avoid severe bias.

This leads to framing effects. Unlike what happens in Expected utility theory and Efficient Market Hypothesis Theory, Kahneman and Tversky (1981) advocate that decisions are related to the way that the alternatives are described and exposed. Additionally, in most choice contexts, the decision-maker, also has flexibility in how to think and see the

problem (Barberis and Thaler, 2003). Associated with this idea is mental accounting, which takes relevant importance due to the nonlinear utility in prospect theory.

Following this concept emerges the idea of heuristics and biases, discovered by Daniel Kahneman and Amos Tversky (Costa, Carvalho, and Moreira, 2018). This concept takes place in the process of the decision since there is a great amount of data and information, that normally cannot be perfectly processed by the individual's brain. That being said, the individual relies on a limited number of cognitive strategies or heuristics to simplify the scenario with which they are faced. The judgment of something as bad or good also occurs and is considered a heuristic, and it is called, affect theory, where people judge stocks that they perceive as "good" to have low risks and high returns and judge stocks that they perceive as "bad" to have low returns and high risks (Baker and Nofsinger, 2010). Experiences from the past are taken into consideration as well as psychological biases such as overconfidence, over optimism, availability bias, mental accounting bias, and *Status Quo* bias.

The main conclusion is that people do not always act in their interest, nor to maximize them, minimizing costs and their preferences are not always stable either. The decision of all financial agents, who are social animals, is always subject to knowledge, feedback, and processing capacity that are sometimes insufficient, involving uncertainty.

In this sense, Behavioral Finance tries to improve an individual's knowledge of cognitive problems and emotional reactions that influence financial assessments and decisions.

The dividend decision: When it comes to dividend policy, there are three ways to look at it. The first one is that the value created with dividends is neutral, which means that they either create or destroy value. In this scope, shareholders are indifferent to dividends distribution.

In another view, it is considered that once that dividends are higher-taxed than capital gains. At last, it can also be defended that they can increase value.

In real-life conditions, this decision, accordingly to the author involves a "trade-off between the additional tax liability it may create for investors and the potential signalling and free

cash flow benefits of making the additional commitment to their stockholders. In some cases, the firm may choose not to increase or initiate dividends because its stockholders are in high tax brackets and are particularly averse to dividends. In other cases, dividend increases may result.”

2.2. Behavioral Biases

Just as demographic characteristics play an extremely important role in the decision-making process in financial decisions, so do psychological characteristics and biases.

The biases, accordingly, to Filbeck, Ricciardi, Evensky, Fan, Holzhauser and Spieler, (2017, pp. 53) are divided into three main topics: cognitive, emotional, and social factors.

The main cognitive factors mentioned by Spieler (2017, p. 53) are the illusion of control - the idea that individuals create that they control and can influence the results of a decision - and conservatism - defined by the concept that individuals maintain ideas or predictions, without adapting them to the new information they have. Loss Aversion - a concept defined by an individual's aversion to risk or loss, as they overvalue losses over gains (Baker, Filbeck, Ricciardi, 2017) - and overconfidence - created when people believe that their personal qualities are better than in reality, are identified as the main emotional factors. Finally, the two key social factors are social trends - since the paradigm shifted with technological evolution have resulted in changes in attitudes regarding incurring risks, but on the other hand have resulted in easy access to investment platforms - and the Herding Effect, in which individuals invest in the same direction or the same securities and possibly contrary to information available to and affecting investors, analysts and portfolio managers.

Following Prospect Theory, comes the concept of heuristic, introduced by Tversky and Kahneman (1974), which is defined as the personal ability to make mental shortcuts based on readily accessible information or that results from the individual's memory, experiences, or imagination (Valcanover, Sonza, Silva, 2020). This development results in

quick decision-making; however, these can be wrong or inefficient given the additional information available or some time for reflection.

In short, it is a simplified decision-making process susceptible to cognitive biases. This idea was one of the main disruptions to traditional theories since when this concept emerged, the main theories were governed by the theory of utility and market efficiency, which only considered the maximization of the result that came from each decision.

Since human beings are subject to the limits of cognitive abilities, motivations, and willpower, Kahneman distinguished two cognitive systems for a clear understanding. The two systems differ in that, system one, is associated with the subconscious, speed, spontaneity, and emotional process, and system 2 is associated with rational thinking, all of which include logical judgments, control, and awareness (Samson, 2014 "Dual - System Theory")

As the heuristics are used by system one, it is used recurrently in our daily lives and usually results in the right decisions, however in certain situations it is not possible to correctly use system 1 by itself and thus sub decisions arise - good or wrong.

In 2016, Thaler changes the concept of homo economicus to Homo Sapiens, with the concept that individuals have limited rationality and that their choices and beliefs are considered in the decision-making process (Costa, Carvalho, Moreira, 2019).

This recent concept by Thaler suggests and reinforces the idea that human decisions are influenced by context, including how choices are presented to the decision-maker. The behaviour still varies as mentioned, but also in time and space. Contrary to classical theories, it is argued that decisions are the result of less deliberate, linear, and controlled processes than was previously thought.

Following that, the previously mentioned bias appears and in addition to the concepts presented by Filbeck, Ricciardi, Evensky, Fan, Holzhauser e Spieler, Lobão (2016) identifies thirteen key decisional biases:

1. Overconfidence: It is the most studied biased, by the important role that plays in everyone's life. It is defined as the thought that the individual is better than their equals.

2. Over optimism: The consideration of a favourable future. Sometimes it can also be an unrealistic optimist by underestimating the probabilities of unfavourable events.
3. Confirmation Bias: Relying on information when it supports the existing information and not relying upon it when refuting it.
4. Anchoring Bias: Defined as the tendency to formulate an estimate by using a process that begins with an initial number and then adjusting relative to the first number. This means that exaggerated importance is given to pre-existing information when reviewing initial estimates.
5. Illusion of Control Bias: Belief in the ability to influence results that are, in fact, beyond the reach of individuals.
6. Availability Bias: Giving too much importance to information that is cognitively and emotionally more available.
7. Cognitive Dissonance: Mental stress that results from having simultaneous contradictory beliefs
8. Regret Aversion Bias: Takes into consideration the emotional discomfort associated with the occurrence of an unfavourable result
9. Mental Accounting Bias: Categorisation of facts and events based on attributes that are irrelevant to the decision.
10. Representativeness Bias: The phenomenon of relying on stereotypes and making a decision based on that.
11. Conservatism Bias: The tendency to underreact by overweighting base information relative to new information.
12. Hindsight Bias: The thought that passed events, were more predictable than they were.
13. Status quo Bias: This bias, connects to regret aversion. It predisposes people to favour inaction over action.

2.3. The impact of Overconfidence in Financial Decisions

Organizations must look at decisions as a group of decisions, and not an individual thing. This regards to, the people that make the decision, once that the decision can be made by more than one individual.

Accordingly, to Spieler (2017) overconfidence bias consists in the demonstration of unwarranted faith in their intuitive reasoning. Lobão defines overconfidence as the belief that one's decision-making, thinking, and other abilities are greater than what one is. He refers to a statement by Hayward et al stated (2009, p. 569): "Within behavioural decision theory, overconfidence is often regarded as the most pervasive and damaging of the errors of judgment that managers can and do make".

This condition appears in two situations: in the decision-making and after the decision is made. Upon the decision-making process, the decision-maker considers that their predictions of the future are better than reality, and that leads to an excess of confidence. As a result, most of the managers "overvalue the importance of the information they have, undervalue the inherent risk of their choices, and are too slow to incorporate any additional piece of information that may help them assess the situation more accurately."

After that, comes the overconfidence on the evaluations of the situation, by overvaluing their capacities, resulting in not expected reactions if the decision does not outcome what was expected.

Kaplan, Sorensen, and Zakolyukina (2020) state that, overconfidence in managers can depart from two situations. To begin, it can result from the overestimation of one's absolute performance or relative performance (over placement), commonly called the better-than-average effect, or can result from the excessive precision in one's beliefs, usually nominated for overprecision or miscalibration (Baker and Nofsinger)

Miscalibration, by Moore and Healy (2008) can manifest itself in estimates of quantities that could potentially be discovered and in estimates of not yet known quantities. Considering a better-than-average effect when the outcome of their decision is bad, overconfident managers attribute that result to bad luck, but if they succeed, they attribute it to their actions. This bias is more likely to be applied in top managers, due to

two main reasons. Primarily this effect is commonly seen in high-skilled and with higher education levels individuals, once that in this level it is difficult to have a comparison with other equals. Secondly, and also regarding the comparison theme, it usually happens with decisions that are not well defined and sometimes are abstract. These types of decisions have a level of complexity that makes them difficult to compare to the decisions made by equals or prior equals, and as well to decisions of the same type, made in other firms. This turns the evaluation and detection of overestimation harder.

Barberis and Thaler (2003) defend that most people are overconfident and that it can be shown by two topics: In first-hand people assign over intervals to their estimations, meaning that for a 98% interval of confidence it is true only in 60% of the time. Following that, people tend to do bad estimations of possible events, resulting in 80% of the time events they are certain that would occur, don't and 20% events thought impossible, do happen

There are a few reasons that can explain managerial overconfidence:

Firstly, top management executives are known to be particularly vulnerable to overconfidence bias, as overconfidence is stronger among highly skilled individuals than among less-skilled individuals (Camerer and Lovo, 1999). But this condition can have several origins (Baker, Filbeck, and Ricciardi, 2017):

- People can be born overconfident and increase their level as they grow up. In this case, companies should avoid hiring the individual if it is not aligned with the firms' strategy.
- It can result from the Hiring Process. The Supply and demand for managers will affect the level of this bias in the interview and the rest of the hiring process. Overconfident individuals are more likely to be chosen in interviews, due to the image that they show, once that they must be more confident about their abilities, and in this way, they stand out. They are also the most proponent to be promoted or outperform their equals.
- It is also possible to develop this bias while being top manager, and in this case, the company should take actions for protection:

- Control of the results of their actions: Top managers can control the information, the damage, and the firm's resources to control the outcome of their own decision. This will lead to a sense of more control.
- Relationship with company's results: Not only a matter of personal performance but as well reputation and career.
- Better than the average effect: In the management field it is difficult to find the right comparison when it comes to managers.
- Timeline: When it takes longer for the outcome to become public, the overconfidence increase.

Accordingly, to Baker, Ruback, and Wurgler (2004), managers can turn themselves into overconfident people, although they were not like that in the beginning. This happens due to an attribution bias, which is the tendency to take greater responsibility for success than failure, which leads successful managers to turn overconfident. Also, even if there is no reference on the average of overconfident managers, those who are or turn themselves into that, turn to perform extremely well or bad, resulting in placing them disproportionately in the ranks of management.

The overconfident individuals have certain characteristics that differentiate them from non-biased managers (Kaplan, Sorensen, and Zakolyukina, 2020).

Generally, when bringing a new topic they do less research for information, and they are less organized, resulting in a less planned action and less level of commitment, resulting from their limited ability to see errors from themselves and to always expect positive outcomes.

Moreover, they have constrained social networks, and are more connected with individuals that they consider weak, being individuals with high on social potency, including being forceful and decisive, and low on stress reaction. On the contrary, when it comes to their analytical skills and cognitive ability, they rank lower, and studies found a negative correlation between IQ and overconfidence.

The level of overconfidence diverges with the position that the individual is in.

As cited in Shefrin (2010), Hamilton (2000,) establishes that entrepreneurs accept lower median lifetime earnings than similarly skilled wage-earners. Moskowitz and Vissing-

Jorgensen (2002) establish that entrepreneurs earn low risk-adjusted returns. Moreover, entrepreneurs appear to hold poorly diversified portfolios. Instead, they concentrate their wealth in their own private business (Gentry and Hubbard, 2001; Moskowitz and Vissing-Jorgensen, 2002; Heaton and Lucas, 2000). Also, overconfidence affects the life cycle of the company, as well as the stage where the manager is. It is stated that entrepreneurs are more overconfident than individuals in the management of large corporations (Holzhauer, 2017).

The overconfidence of top managers can affect all types of decisions in firms, but it takes more relevance in financial decisions.

This bias affects all types of firms in all of their life cycle. Hiller and Hambrick (2005) suggest that overconfidence and optimism lead to faster, less comprehensive, and more centralized decisions as well as higher-stake strategic actions.

When they correspond to a Startup it is clear the effect in investments. Firstly, in the constitution of the firm, there is a general sentiment of optimism and overconfidence. Baker, Ruback, and Wurgler (2004) refer that they found that Cooper, Woo, and Dunkelberg (1998) state that 68% of entrepreneurs think that their Startup is more likely to succeed than comparable enterprises.

With the company's evolution, when it comes to capital structure, more debt is considered than equity. The firm's ability to generate cash flows is overvalued and it conducts to the consideration that external financing is too expensive, particularly in financially constrained firms. Rendering to Fan (2017), in terms of the financial decision making, it can affect the levels of investment, resulting in an over investment from internal financing and can explain some part of the pecking order theory – the choice in corporate finance that managers do when they chose internal financing over external financing. It can also be shown in the over-investment in R&D and the sensitivity of investment to cash flow. As well as that, also in mergers and acquisitions, it plays an important role once that it results in overestimation of the value of synergies.

In 2005, Malmendier and Tate state that overconfident managers tend to overvalue future returns on projects and tend to underestimate costs and time frames for completing projects. Completing this idea, Shefrin (2009) states they underestimate the risk, resulting

in an overestimation of projects NVP, and the greater the overconfidence level, the more likely is to adopt more projects and decline acquisitions.

In long term, this will result in effects where regarding the capital structure: Shefrin (2009) states that overconfident managers tend to make debt with more maturity. The author also states that the firms with higher overconfident ranking, took longer loans, by one year - "The longer maturity leaves a company with less financial flexibility and more interest rate risk." Additionally, "Overconfident managers overestimate firms' future performance and prefer retaining cash flows for potential investment opportunities and they overinvest it they overvalue firm future earnings."

Following this idea, Roll (1986) argues that corporate takeovers may be explained by the overconfidence of acquiring firms' top managers.

There is always a good side, where it is considered that overconfident managers tend to work harder to solve the constraints of the decision and it might be helpful to help shareholders encourage risk-averse managers, and by that they and the firm benefit from certain levels of overconfidence (Hirshleifer). Accordingly, Hirshleifer *et al.* (2012) suggest that firms with more overconfident CEOs invest more heavily in innovation, obtain more patents, and achieve greater innovation success than other firms. Galasso and Simcoe (2011) also find a positive association between proxies of overconfidence and innovative behaviour.

2.4. The impact of Optimism in Financial Decisions

Malmendier and Tate (2005) state that there is a strong precedent in the psychology literature for using confidence to describe biases in self-assessment and optimism for biases in beliefs about exogenous events.

As described in the previous chapter, overoptimism consists in the consideration of a favourable future. Sometimes it can also be an unrealistic optimist by underestimating the probabilities of unfavourable events and as introduced by Weinstein (1990), it can be defined as an overestimation of the return.

According to Heaton (2002), managers are optimistic when they overestimate the probability of good firm performance and underestimate the probability of bad one. There are numerous studies in this field suggesting that managers tend to be more optimistic about the decisions they think that have in their control, and in addition they tend to be more optimistic with decisions that result in outcomes to which they are more committed.

In 2013, Ezzeddine identifies some consequences of managerial optimism that with different scopes can lead to:

- Make corporate investment sensitive to the availability of internal cash flow because they will perceive external sources of financing as very costly under the effect of these psychological biases (Heaton, 2002).
- A trade-off between underinvestment and overinvestment and can also lead to a preference for internal funds.
- Systematically upward biased cash flow forecasts and causes managers to overvalue the firm's investment opportunities.
- Undertake more projects.
- Less external financing. The better are the firm's projects, the more costly this underinvestment is to shareholders.
- Possibility of declining positive NPV projects if those projects require outside financing.

2.5. Demographic Characteristics

In the scope of UET, there are two main ideas. Firstly, managers act based on their interpretations of the strategic situations that they face, and these personalised construal's are a function of the executive's experience, values and personality (Hambrick, 2007).

Following this concept of the UET theory created by Hambrick and Mason's in 1984, demographic characteristics of important players in corporations, such as CEOs and other top managers take a relative role in their decisions.

The author of the theory states that the cognitive, social and psychological characteristics of a CEO can be proxied by demographics. In 1984 there are considered six principal demographic characteristics. Hambrick and Mason refer to the age factor, functional track, other career experiences, formal education, socioeconomic background, financial positions and group heterogeneity.

The age factor is related to risk, decisions and the ability to learn. Regarding this trait, it is stated that younger managers take more risks, may take more careless decisions, and that are associated with corporate growth. Instead, older managers tend to be more conservative for three main reasons, such as having fewer mental stamina and being less likely to be able to reach new ideas and behaviours. Secondly, older CEOs and top managers have more psychological commitment to the organizational status quo and give more importance to financial security and career security. Concerning the functional track, the previous working experience will also affect the decisions taken by top managers. As shown by Dearborn and Simon (1958), when a group of top managers is confronted with the same decision, they consider it not from a generic point of view, but in the scope of their areas. Furthermore, other careers experiences also can affect the results of top managers actions, as it is acknowledged that outsider top managers may do more changes to the firm structure, procedures and team than do CEO promoted inside the company. Additionally, when the experience of the individual is based only on one company, it can cause limited perspectives (Cyert & March 1963). As well as the timeline of the experience, the nature of the industry and company where it occurred, also matter. In the roots of the manager is their education, which takes relevance in the level and the sector of their main courses, and even the institution that individuals choose.

2.6. Financial Literacy in Corporate Finance and Management

The decision-making process involves a lot of factors, one being financial literacy once it is considered a vital knowledge resource for financial decision making. It takes even more importance in Startups and SMEs. This happens due to the weight of this type of corporation in the economies. Due to their contribution to economic development, it is

crucial to have well-established and sustainable sectors, created by well function Startups and SMEs.

The concept of financial literacy is not completely defined at the time, but it can be described as the understanding of financial terminology, statements, concepts, and knowing how to use this information to make a financial impact (Harvard Business School). Following that description in 2014, Dahmen and Rodríguez state a definition reached by Remund (2010), that defined the concept as a measure of the degree to which one understands key financial concepts and possesses the ability and confidence to manage personal finances through appropriate, short-term decision-making and sound, long-range financial planning, while mindful of life events and changing economic conditions.

Associated with the concept there are 9 areas, budgeting, savings, borrowing and investing were presented by Remund (2010) and core competencies such as earning, spending, saving, borrowing, and protecting (e.g., insurance, identity theft) (U.S. Treasury 2010).

Lema, Palomo, and Soto (2020) identify the idea that people with more financial literacy are more likely to participate in a wide range of recommended financial practices. Also, it is confirmed that financial literacy plays an important role when fighting difficulties in achieving proper and balanced business' financial capital and can ease decision-making processes related to payments of bills on time or debt management, enhancing the confidence of lenders. Additionally, having a higher financial literacy tend to result in positive consequences such as a higher necessity of financial services, more planning, better debt management and proper risk management, which may result in increasing the trust of financial institutions. Likewise, it should enable top managers to deal with challenges when cutting edge credit markets in an initial Startup stage, as well as allow them to manage risks involved in their operations (Ye and Kulathunga, 2019). It is added that in the initial stage of the company, this type of knowledge is also relevant when it comes to the search for financing once that it communicates a level of professionalism and by that, it creates a sense of higher safety in the financial institutions.

In sum, financial literacy is viewed by the scope of knowledge-based view of the organization as a way of achieving competitive advantage and improving the firm

performance once CEOs and top managers with higher levels of financial literacy are more capable of making their decisions and have higher confidence levels (Ye and Kulathunga).

2.7. Financial Health – The impact of financial decisions

Each phase of a company life cycle is different and results in different outcomes and results for every spectrum of the company operation. The financial health of the company is not an exception.

The concept of financial health has been gaining importance. It can be defined by Financial Health Network as a situation whereby the daily systems of a small business help it build resilience and take grasp opportunities. Also, the institution states that a firm is considered financial healthy when adequately manages its financial matters and maintains financial systems, plans its cash flow and takes measures to protect against risk, and has access to various types of financial resources. The notion of financial health is interrelated with the concept of financial sustainability, defined by Zabolotnyy S. and Wasilewski M., as the ability of the company to generate profit and to increase the value of the invested capital by its shareholders as well as to operate continuously throughout the optimal use of financial resources to assure the long-term financial equilibrium (Sabau-Popa, Simut, Droj and Bent, 2020).

Both concepts lay on indicators of performance, liquidity, management and indebtedness. According to Cummings (2019), strong financial health leads to greater business success. The author gives relevance to the fact that financial health is not a measure of profitability, instead, they are interrelated. She states that it is possible to have a viable business without being financially healthy but being financially healthy is not possible without having a viable business. Following this interrelation, it is also connected with social-economic factors, as well as the physiological characteristics of the owners and top managers of corporations.

Koryński, states that tracking the financial health of the business has not only relevance for business owners and entrepreneurs, since it provides a more comprehensive image of the company, but as well for the lenders, local communities and policy makers.

Small businesses and Startups have specific problems and needs to be financially healthy. First of all, these firms have limited access to financial and social capital, limited options for managing cash flow and additionally limited time for financial management. Cummings and Wolkowitz (2017) refer to nine needs divided into two groups. The manage cashflow section is represented by meeting obligations on time and in full, maximizing collectability of sales, having a financial management system and budget and having access to funds to weather financial shocks. Then the ability to sustain and grow the business is divided into having a sustainable debt load, generating earnings to cover expenses and replacing assets, having appropriate insurance and risk mitigation plans, as well as access to capital to pursue opportunities and in last to have a business plan that includes cash flow cycle, future expenses, and investment opportunities.

The Financial Health Network (FHN) is currently, the leading investigator in this field, being focused on measuring financial health of individuals and small businesses in the US (Koryński). The most markable studies in the area come from this institution, especially in the field of small business and accordingly, the research carried out in chapter 3, uses their method. However, due to the importance of the topic the constrain of investigation is growing and there are already several studies in the field, which are necessary to nominate. As listed by Sabău-Popa, Simut, Droj and Bent (2020), there are presented the following studies, which were selected by their similarity and relationship with the present one.

Table 1- Previous Studies in financial health

Author(s)	Construct
Nyabwanga, R. N., Ojera, P., O. Simeyo and Nyakundi F	Diagnosis of the small and medium enterprises' (SMEs) financial performance using statistical analysis and Altman's Z-score model.

Maciková L., Smorada M., Dorčák P., Beug B. and Markovič P	Indicator of business sustainability and linked to the economic value added, using financial ratios method and the correlation and linear regression analysis method.
Zabolotnyy S. and M. Wasilewski M.	measurement indicator of financial sustainability.
Salawu	Analysis of the relationship between the capital structure and the profitability, using panel data econometric techniques.
Lassala C., Apetrei A. and Sapena J	Analysis of the relationship between both types of performance in a sample of the companies listed in the Spanish capital market, using fuzzy-set qualitative comparative analysis.
Kočíšová K. and Mišanková M.	Prediction of the financial health of companies and send alarm signals to the management of companies, using multiple discriminant analysis technique.
Sannikova N. and Prihodko E. A.	Analysis of time series to assess the dynamics of financial indicators of Russian companies according to their financial statements and developed a methodology for assessing the financial health of a company and an integral indicator of “financial health” (IFHI) based on the main performance indicators, indebtedness and the managements rates of the companies.
Čámská D. and Scholleová H	An analysis of the reliability of the models for predicting the financial health of the companies financed by European funds.

As Michalkovaa, Valaskovab and Michalikovac (2018) state, financial health, in comparison to humans' health, also presents symptoms of health or sickness, which if detected in an early stage can lead the company to a greater state. A symptom that can lead to bad results concerning financial health is financial stress. There are several definitions about this construct, but the most common ones rely on financial factors and reside in situations as worse financial performance regarding high levels of debt, total losses, negative cash flow but as well worse market share, working capital and employment losses. However, the author refers, and along with behavioral finance theory that financial indicators by themselves do not represent the ultimate truth of the state of the company and in that sense, it is concluded that qualitative indicators and not sufficient to take on a financial health analysis.

This way, in the first place, the need to relate the financial health of firm's with the current state of the economy and the market arises. Secondly it is also necessary to relate this construct with physiological and demographic characteristics of company's top managers.

This last relationship is directly connected as by as stated in previous chapters 2.2, 2.3 and 2.4 this characteristics have direct implications in financial indicators and consequently in financial health, which will be addressed in chapter 3.

3. Research Design

This chapter is organized as follows:

Section 3.1 describes the problem and main objectives, section 3.2 describes the collection process, namely the questionnaire construction, and validation. Section 3.3 describes the sample selection and questionnaire distribution. Section 3.4 presents the main empirical methods to use for estimation.

3.1. Problems and Main Objective of Investigation

As shown in the literature review, traditional finance considers managers to be fully rational making the best choices to maximize firm value.

However, behavioural finance shows that individuals are not fully rational, and that there are factors that affect their decision process, such like demographics and psychological ones. Following this, the scope of the empirical study is to establish the relationship between this factors and the financial health of Startups as well as their financing policy.

3.2. Data Collection Process

In order to assess the relationship between top managers characteristics and companies' financial health, a survey was conducted to obtain information about their characteristics and about the companies and was oriented to detect the presence of optimism and overconfidence.

Carrying out an investigation by the use of surveys is common when it is necessary to establish the incidence of a condition, and in this way frequently used when the topic is attitudes or behaviour (Mathers, Fox, Hunn, 2009). In this way, we established a cross-sectional survey. The collecting of the survey data was made by questionnaires.

This method has several advantages such as having internal and external validity, being efficient, having the ability to cover geographically spread samples, having ethical

advantages and being flexible. Despite that, there are some limitations as being dependent upon the chosen sampling frame, giving limited information about the reasons behind the answers (Mathers, Fox, Hunn, 2009).

Considering the advantages of online questionnaires, it is possible to consider the cost savings, the ease to reach people in time and in scalability, the anonymity and the flexibility that it gives to the respondents to answer the questionnaire in time and place. As well as that once that is easily transformed into a database it reduces human error. Yet, the information can result in differences in understanding and interpretation, having unanswered questions, difficulty in analysing the answers and accessibility issues if the survey is not well designed. Also, it can be reported a difficulty in conveying feelings and emotions and on top of that, questionnaire fatigue given either due to the great amount of request to respond to questionnaires or given the size of the questionnaire and the difficulty of the same (Cleave, 2021).

Accordingly, to Virgínia Ferreira (1997 p.167), the elaboration of questionnaires has three guidelines, them being the application to social units, the equivalence between them and the existence of social phenomenon independent from the relationships that determine them.

The questionnaire was developed at the light of the existent corporate finance literature, resulting in a merge of 6 studies and well-tested surveys (Appendix I).

In this way, the survey is divided in 4 major sections that focus on financial literacy, company politics, top managers characteristics and company characteristics.

For financial literacy, we rely on the Lusardi and Mitchel (2011) and Klapper and Lusardi (2020) scale that consists in five questions that address the understanding of interest compounding, inflation and risk diversification. The literacy level increases in relation to the number of correct answers. The greater the number of correct answers, the greater the literacy level.

In the second section, the purpose is to understand the level of the firm financial health. It is based on the scale developed by Cummings (2019), where there are brought up 9 indicators of financial health. In this way, this part is composed by 9 questions,

regarding this 9 indicators: meets financial obligations, maintains sufficient cash reserves, maintains a comprehensive financial management system, plans for significant business risks, plans for cash flow variability, has appropriate insurance, has access to affordable timely credit, has a sustainable debt load and has access to investment capital. These questions are followed by a Likert scale, personalize for each question. Accordingly, to the answers, posteriorly they are coded with the scale of good, caution and at risk. This codification is personalized for each question as can be seen in Table 1. Additionally, and for comparison it is also asked in this section if there was any change in the fulfilment of financial obligations in 2020 in comparison to 2019.

Table 2 - Questions and Codification for Financial Health

Meets Financial Obligations	Over the past year, which of the following statements best describes how well your business is keeping up with its financial obligations? Please consider bills, taxes, payroll, and debt payments.	Good - a) Pay all on time; b) Pay Almost all on time / Caution - c) Pay most on time/ At Risk - d) Pay some on time; e) Pay very few on time
Maintains Sufficient Cash Reserves	Generally, the business has cash available to cover:	Good - a) More than one year of operating expenses; b) 7 - 12 months of operating expenses; c) 4-6 months of operating expenses / Caution - d) 1-3 months of operating expenses/ At Risk - e) Less than 1 month of operating expenses
Maintains a Comprehensive Financial Management System	When is the last time you reviewed a profit and loss statement for the business?	Good - a) In the last month; / Caution - b) Over a month ago; c) Over 6 months ago / At Risk - d) Over 12 months ago e) Do not Have a profit and loss statement
Plans for Significant Business Risks	There is a plan to address common bussiness risks	Good - a) Strongly Agree; b) Somewhat agree / Caution - c) Somewhat disagree / At Risk - d) Stongly Disagree

Plans for Cash Flow Variability	There is a plan in case of a cash shortfall due to late payments or an emergency expense	Good - a) Strongly Agree; b) Somewhat agree / Caution - c) Somewhat disagree / At Risk - d) Strongly Disagree
Has Appropriate Insurance	The business insurance policies provide enough support in case of an emergency	Good - a) Strongly Agree; b) Somewhat agree / Caution - c) Somewhat disagree / At Risk - d) Strongly Disagree
Has Access to Affordable, Timely Credit	How would you rate the credit score?	Good - a) Excellent; b) Very Good / Caution - c) Good / At Risk - d) Poor, Don't Know
Has a Sustainable Debt Load	How would you describe the business's debt?	Good - a) Do not have debt; b) Has manageable amount of debt / Caution - c) Has a bit more debt than it can manage / At Risk - d) Has much more debt than it can manage
Has Access to Investment Capital	There is access to the funding needed to achieve the business goals	Good - a) Strongly Agree; b) Somewhat agree / Caution - c) Somewhat disagree / At Risk - d) Strongly Disagree

Consistent with prior studies, Graham (2013) related the demographic characteristics with the individuals' decisions. Accordingly, there are questioned 7 demographics questions:

1. Age – It is shown that age can affect decisions, once that younger individuals may be bolder, and less averse to risk. Additionally, as the age increases so does the experience acquired, influencing their current decisions. There is evidence (Shefrin, 2005) that refer personal risk-aversion appears to increase with age till 70 and then decline.
2. Gender – Barber and Odean (2001) state that psychological research demonstrates the predominance of overconfidence in men, rather than women.
3. Level of education: MBAs or master's in management or similar subjects, related with corporate management that represent valuable knowledge.
4. Current Job title: It is relevant to understand the position of the top manager, to understand the level of their independence and importance of their decisions.

Related with question 4, are question 5 about tenure of the individual in the current position and question 6 about tenure of the individual in the current firm and lastly past experience, once their last experience could affect the outlook and comfort level in certain kinds of decisions.

In this section, the questions also have the purpose to ascertain the levels of optimism and overconfidence, by questioning individuals' life choices. Following that, the first question is based on Life Orientation Test (LOT-R), developed by Michael Scheier (1994) with the purpose to measure levels of optimism. It is compound by 10 questions, with a Likert Scale (strongly disagree, disagree, neutral, agree, strongly agree), being that questions 3,7 and 9 are reverse and considered measures of pessimism. The questions 2,5,6 and 8 are control points and not considered for the result.

1. In uncertain times, I usually expect the best.
2. It's easy for me to relax.
3. If something can go wrong for me, it will.
4. I'm always optimistic about my future.
5. I enjoy my friends a lot.
6. It's important for me to keep busy.
7. I hardly ever expect things to go my way.
8. I don't get upset too easily.
9. I rarely count on good things happening to me.
10. Overall, I expect more good things to happen to me than bad.

For data analysis, the sum of values of the answers to question 1, 3, 4, 7, 9, and 10, must be made, by assigning values to the scale being: 0 = strongly disagree, 1 = disagree, 2 = neutral, 3 =agree, and 4 = strongly agree. For questions 3,7 and 9 the sum is reverse (0=4), (1=3), (3=1), (4=0). The final score will represent the level of optimism, considering the following score range:

- 0-13 Low Optimism (High Pessimism)

- 14-18 Moderate Optimism
- 19-24 High Optimism (Low Pessimism)

Up next, there are questions to verify the levels of overconfidence. We use the scale developed by Cummings (2015) that consists in 4 questions:

- Current Economic Conditions Vs 6 months ago
- Expectations for the economy, 6 months ahead.
- Expectations for own industry, 6 months ahead.
- Current Conditions in own industry vs 6 months ago

The Likert scale is measured by 5 points: Substantially Better; Better; Same; Moderately Worse; Substantially Worse. The measure of CEO overconfidence is calculated by the average of the results, by the attributions of a numeric value to the scale in the following order: 100- Substantially Better; 75- Better; 50- Same; 25- Moderately Worse; 0- Substantially Worse. As higher the result is, higher is the level of CEO overconfidence.

The last section consists of questions on the economic and financial characteristic of the firm, where information about the company is asked, such as the size, sales revenue, the industry, historic and expected growth. These control questions are all related to the top managers decisions and characteristics that depend on them. As stated in Graham (2013), large companies imply a level of stability and implications in the level of growth, and it is suggested that normally have more debt. The historic growth is expected to be a way to understand the relation between the effects of managerial traits to company characteristics as well as the expected growth. It is also explored the levels of liquidity, leverage, efficiency and profitability. For this measures it is asked the current asset, current liabilities, fixed assets, long term liabilities, Shareholder's equity, net sales, average total assets and gross profit.

In this way it is possible to calculate indicators like current ratio, debt ratio, debt to equity, asset turnover ratio and gross margin ratio.

The present questionnaire was design online by using Microsoft forms. Hereupon, there were made the necessary adaptations, mostly done to the language, given that the respondents main language is Portuguese, the survey was carried out in that language instead of English. Moreover, also the values, like turnover were adjusted to the

Portuguese reality, as well as the currency and the dimension of the companies. Regarding this a test was made with the answers of 6 independent respondents from the field, which resulted in changes to make the questionnaire more efficient. After this, it was sent directly to a list of Portuguese Startups in the field of technology as well as to the list of certified incubators published by IAPMEI in 17th of January 2022. A telephone contact was made with all the entities in order to explain the study and to make sure that they had received the email. Additionally, the questionnaires were also handed in, in IPN, the incubator of technology in Coimbra, which represents approximately 50 companies with physical incubation. Consequently, the companies received a reminder by email and phone call.

3.3. Sample Selection and Questionnaire Distribution

According to the Startup & Entrepreneurial Ecosystem Report 2021 it is a small-scale ecosystem but in a fast pace and with steadily growing companies (as mentioned before the Startups already represent 1% of country's GDP). There are some principal KPIs presented in the report, of which we mention the following:

- 2159 Startups in 2020.
- 5 unicorns in 2020.
- 13% above the average nº of Startups per capita in Europe.

Due to the growing importance of the Startup environment the study is centred in this type of companies, specifically in the field of technology.

Following this, and after two months of contacting companies to obtain answers, our sample consists in 20 Portuguese top managers, corresponding to an approximate answer rate of 10%, given that the questionnaire was sent to approximately 200 top managers and for 100 incubators. Similar studies like Graham e Harvey (2001) and Graham (2013) had similar answer rates between 9% and 11%, nevertheless their sample was higher regarding a distribution of 4440 and 10700 questionnaires and a sample of 392 and 1180 responses, respectively.

To analyse the sample and in order to obtain results, there were used two methods. Firstly, bivariate methods based on correlation and additionally asymmetric method based on set theory, QCA.

As stated by Obilor & Amadi (2018), for the first method the goal is to involve two variables that can be compared and to find a relationship between them. In this way the bivariate distribution describes the sample in two characteristics, for example age and overconfidence. In this way, it is made the measurement of association, relationship or correlation between two variables to ascertain whether there are positively or negatively associated. The association happens when there is influence of one variable on the other.

In order to measure the association, there are used correlation coefficients to express the degree of association or relationship. In this case it was used Pearson's correlation given that it measures the existence and strength of a linear relationship between two variables, and if it results in a significant outcome, it is concluded that a correlation exists.

For a more complete work it was implemented a multivariate analysis using qualitative comparative analysis (QCA). In this way QCA is a set-theoretic methodology that empirically investigates the relationship between all possible combinations of binary states (i.e., absence and presence) of its predictors and the outcome variables (Fiss, 2011). Regarding this, there are three variants of QCA which are Crisp-Set (csQCA), Fuzzy-set (fsQCA) and Multi value Qualitative Comparative Analysis (mvQCA). The mvQCA is remarkably less popular than the other two and as only been applied 13 times since the introduction in 2003 (Haesebrouck,2016). As Haesebrouck mentions, this variant of QCA is capable of straightforwardly capturing the specific causal role of every category of a multi-value condition. Regarding csQCA, it "provides a set of tools for analysing the necessary and sufficient conditions that explain outcomes, mapping out similarities and differences between various configurations of conditions and cases" (Dusa & Marx,2011). FsQCA method was chosen given the small dimension of the sample and regarding the type of analyses that was possible to do and due to the increase in its use.

There are some advantages of QCA versus correlational techniques, represented in the following table 2 (Silva,2022).

Table 3- fsQCA VS Correlations

fsQCA	Correlations
Case-oriented technique	Variable-oriented technique
Combinatorial effects. Conceptualizing cases as set theoretic configurations	Net effects, independent variables as competing in explaining variation
Assumes asymmetry, equifinality, multifocality, and conjunctural causation	Assumes symmetry, permanent causality, additivity, linearity, uniformity of causal effects
Calibrating cases' memberships into sets	Regression techniques face limitations (both computationally, due to collinearity and power issues, and in terms of interpretation) when modelling higher-order interactions (Campbell et al., 2016; Fiss, 2011).
Does not rest on an assumption that data are drawn from a given probability distribution	Assumes that data are drawn from a given probability distribution
View causality in terms of necessity and sufficiency relations between set	
Set-theoretic methods are constrained by the sample size in the number of causal conditions they can include because of limited diversity problems (Fiss, 2011)	

Concerning the sample and the issue that was approached, the chosen variant was Fuzzy set (fsQCA) once it was originally developed for small sample sizes, smaller than 50 cases. In this way QCA can identify logically simplified statements that describe different combinations (or configurations) of conditions indicating a specific outcome (Ragin, 2008). Through this method, it is possible to identify which conditions are indispensable (or not needed) for an outcome to occur, and which combinations of conditions are more (or less) important than others (Pappas, Woodside, 2021).

4. Results and Results Discussion

This chapter is organized as follows. Section 4.1 presents descriptive statics of our sample. Section 4.2 presents several bivariate tests concerning the relationship between variables like overconfidence, optimism, demographic ones and financial ones. Section 4.3 presents the results of the multivariate QCA study.

4.1. Results description

The statistical analysis was carried out by using SPSS (Statistical Package for the Social Sciences). In that sense, starting with the demographic questions it was determined that the age of the top managers is between 20 a 65 years old with an average of 38,3 years, the individuals are mostly male considering a representation of 60% in comparison of 40% of females. In the level of education, the majority have a masters, and there is no one below the current compulsory education (12^o year) (Table 1).

Table 4- Demographic data

		Frequency	Percentage
Age	[20;30[	4	20%
	[30;40[	9	45%
	[40;50[	3	15%
	[50;60[	3	15%
	>60	1	5%
	Total	20	100%
Gender	Female	8	40%
	Male	12	60%
	Total	20	100%
Level of Education	12 ^o year	3	15%
	Doctorate	1	5%
	Graduation	4	20%
	Masters	11	55%
	PhD	1	5%
	Total	20	100%

Concerning the current role, 65% are CEOs, 25% are CFOs and 10% are other top managers. Regarding the duration of tenure, it is established between 2 and 39 years with an average of 7,9 years. The respondents have been working in the current company at least for 22 years and the average is currently at an experience of 8 years in the current company (Table 4).

As for their past experience, the most referred area is management, followed by finance, production and marketing.

Table 5- Professional Experience

		Frequency	Percentage
Current Role	CFO Support	2	10%
	CFO	5	25%
	CEO	13	65%
	Total	20	100%
Year of the beginning of the current rule	[1980;1990[	1	5%
	[1990;2000[	1	5%
	[2000;2010[	0	0%
	[2010;2020]	18	90%
	Total	20	100%
Tenure	[0;10[	17	85%
	[10;20[	1	5%
	[20;30[	1	5%
	[30;40[	1	5%
	Total	20	100%
Year since working in the current company	[2000;2005[	3	15%
	[2005;2010[	2	10%
	[2010;2015[	1	5%
	[2015;2020]	14	70%
	Total	20	100%

Regarding top managers psychological characteristics there were evaluated the levels of optimism, of overconfidence and in addition, their literacy.

In this way, in average, the respondents have good levels of literacy, given that the average is 4,35 in a scale of 0 (zero) to 5 (five). Additionally, it is worth mentioning that only one person is considered non literate, given that only one respondent obtains this punctuation, 2 obtain level 3,6 obtain level and 11 obtained the top level of literacy, since

they got all five questions right. Following that, the levels of optimism are moderate once the average is 14,4, the median 14 and the maximum only reaches a level of 18 which leads to the conclusion that no respondent has a level of high optimism. As well as that, overconfidence does not reach high levels due to the low average of 36,56 and to only 5 respondents, correspondent to 25% have reach levels of overconfidence superior to 50 (Table 5).

Table 6 - Literacy, Optimism and Overconfidence

	Literacy	Optimism	Overconfidence
Average	4,35	14,4	36,5625
Median	5	14	31,25
Minimum	1	10	0
Maximum	5	18	87,5
N - Valid	20	20	20

Looking at the companies, the main field is technology as expected, and there is other two areas that came up being them engineering and software, and they were founded at least in 2000, the most recent in 2020, being the average the year of 2014. As for the number of employees it was possible to analyse the evolution between the years of 2019 and 2020. In Table 6 it is noticeable an evolution since in 2019 3 companies didn't exist and in 2020, the percentage of companies with a number of employees between 10 to 49 increased 15%.

Table 7- N° of Employees 2019 VS 2020

N° of employees	2019		2020	
	Frequency	Percentage	Frequency	Percentage
< 10	10	50%	10	50%
10 a 49	6	30%	9	45%
50 a 250	1	5%	1	5%
Didn't Exist	3	15%	0	0%
Total	20	100%	20	100%

In the same though it was also carried out an evaluation to some of the financial indicators of the Startups. Concerning this in table 7 it is demonstrated the distribution and evolution of the Turnover. The lower turnover in 2019 is 20.000,00€ whilst in 2020 it starts in 5.000,00€ and the higher in 2019 is 5.200.000,00€ and in 2020 4.700.000,00€. Despite the lower extreme values in 2020 in comparison to 2019, the average in 2020 is 805.336,30€ and in 2019 is 700.413,60€ what shows a positive evaluation of 104.922,70€ that can be explained by the diminution of registers between 0 and 1000.000,00€ and well as in the next interval and in the gap between 400.000,00€ and 500.000,00€ and for the increase of the registers in the gaps between 700.000,00€ and 1.000.000,00€.

Table 8- Turnover 2019 VS 2020

Turnover	2019		2020	
	Frequency	Percentage	Frequency	Percentage
[0;100.000,00[	8	40%	7	35%
[100.000,00;200.000,00€[	2	10%	1	5%
[200.000,00;300.000,00€[	1	5%	1	5%
[300.000,00;400.000,00€[	0	0%	1	5%
[400.000,00;500.000,00€[	2	10%	0	0%
[500.000,00;600.000,00€[	0	0%	1	5%
[600.000,00;700.000,00€[	1	5%	0	0%
[700.000,00;800.000,00€[	0	0%	1	5%
[800.000,00;900.000,00€[	2	10%	3	15%
[900.000,00;1.000.000,00€[	0	0%	1	5%
>1.000.000€	4	20%	4	20%
Total	20	100%	20	100%

Carrying on the description of the companies there are demonstrated better results concerning the levels of assets, when comparing to liabilities in both years, being the average of assets superior in 2020 relative to 2019, unlike the values of liabilities that decrease.

Table 9- Assets, Liabilities and Equity 2019 VS 2020

	Assets 2019	Assets 2020	Liabilities 2019	Liabilities 2020	Equity 2019	Equity 2020
Average	2 639 967,10 €	2 783 647,05 €	363 225,40 €	252 100,50 €	2 276 742,55 €	2 531 546,95 €
Median	199 000,00 €	338 500,00 €	45 884,00 €	68 000,00 €	70 000,00 €	183 500,00 €
Interval	45 200 000,00 €	43 000 000,00 €	3 200 000,00 €	1 495 110,00 €	42 000 000,00 €	42 460 000,00 €
Minimum	- €	- €	- €	- €	- €	- €
Maximum	45 200 000,00 €	43 000 000,00 €	3 200 000,00 €	1 495 110,00 €	42 000 000,00 €	42 460 000,00 €
N	20	20	20	20	20	20

From the collect data there were analysed some financial indicators as debt structure (results from the ratio between current liabilities/total liabilities) total debt (results from the ratio between total liabilities/total assets), financial self-sufficiency (results from the ratio between total equity/total assets), and solvency (results from the ratio between total equity/total liabilities).

Table 10- Financial Indicators 2019 VS 2020

Indicator	Year	Average
Debt Structure	2019	48%
	2020	57%
Total Debt	2019	36%
	2020	33%
Financial Self-Sufficiency	2019	0,44
	2020	0,52
Solvency	2019	2,43
	2020	7,09

Concerning this indicators in Table 9 it is demonstrated that:

- Debt Structure is the result from the ratio between current liabilities/total liabilities which means that higher levels indicate more treasury difficulties given that greater part of the liability has a shorter term to be paid. In 2019

the level was 48% what shows that mostly the financing sources were long term, but the situation changed in 2020 when the indicator reaches 57% meaning that in that year most financing sources were short term.

- General rule it is considered a good level of financial self-sufficiency, when it is better than 0,5. In this case in 2019 it is remarkably close and in 2020 the overtakes this value, which can be interpreted as great stability of the companies.
- The levels of solvency, the result from the ratio between equity and total liabilities show that in average and in both years, the companies are in a good position once that they have levels superior to 1.

Proceeding with the analysis of the company’s situation it was investigated the levels of access to sources of financing as well as the types of financing sources that are used. In this sense it is possible to conclude that 75% of the companies had already hired a source of financing. Following that the most used source is Credit Line, the least used source is the issuance of debt securities. For the companies that already have a financing source the most reliable one is bank loan with a higher level of execution.

Table 11- Types of Financing Sources

	No		Yes		Maybe	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Bank Loan	6	30%	10	50%	4	20%
Credit Line	6	30%	11	55%	3	15%
Comercial Credit	11	55%	4	20%	5	25%
Equity	3	15%	9	45%	8	40%
Debt Securities	15	75%	2	10%	3	15%
Leasing	5	25%	8	40%	7	35%
Others	10	50%	3	15%	7	35%

Considering the differences between 2019 and 2020 and 2021, in 2019 companies used bank loans mostly for I&D while in 2020/2021 it was for I&D and obligation payments. Regarding credit lanes the distribution was the same as bank loans. As for equity the used was the same in both years, in the field of Human Resources considering new hires and training. The significant difference consists in the nonexistence of leasing’s in 2019 and in that form of financing source being the most used in 2020/2021 specifically for property and equipment investment.

Per last, and accordingly to cummings, it was carried out the analyses to the section of companies' financial health. nine questions were made, in order to have a level of risk for 9 indicators them being, meets financial obligations, maintains sufficient cash reserves, maintains a comprehensive financial management system, plans for significant business risks, plans for cash flow variability, has appropriate Insurance, has access to affordable, timely credit, has a Sustainable Debt Load, has access to investment capital.

In this way the indicators that show better levels are the meeting of financial obligations with a percentage of 95 in good state which means that in this level only one company is in caution, as well as that also the sustainability of debt load has only one company, in this case, at risk. Up next most of the companies are safe to what it comes to a plan for cash flow variability, with 80% in a satisfactory level and when concerning appropriate insurance and access to investment capital the levels are also safe wit 75% of the companies in the field of good. Regarding sufficient cash reserves, access to affordable timely credit and plans for significant business risks the levels are lower with 60%, and 55% of the companies in the good sector, however more than average stays in this level which is a good indicator. Yet, one indicator shows worrying levels once that only one company states that they maintain a comprehensive financial management system, with 14 in caution and 5 at risk, which may lead to a worse management and consequently worst results. In average companies are in a Caution position of financial health, given that the average of financial health is 2,57. This results may have been influenced by the current economic situation, caused by Covid 19 and the European War.

Table 12- Financial Health

		Frequency	Percentage
Meets Financial Obligations	Caution	1	5%
	Good	19	95%
Maintains Sufficient Cash Reserves	At risk	3	15%
	Caution	5	25%
	Good	12	60%
Maintains a comprehensive financial management system	At risk	5	25%
	Caution	14	70%
	Good	1	5%
Has Access to Affordable, Timely Credit	At risk	3	15%
	Caution	6	30%
	Good	11	55%
Has a Sustainable Debt Load	At risk	1	5%
	Good	19	95%
Plans for Significant Business Risks	At risk	1	5%
	Caution	8	40%
	Good	11	55%
Plans for Cash Flow Variability	At risk	1	5%
	Caution	3	15%
	Good	16	80%
Has Appropriate Insurance	At risk	1	5%
	Caution	4	20%
	Good	15	75%
Has Access to Investment Capital	At risk	2	10%
	Caution	3	15%
	Good	15	75%

4.2. Bivariate Analysis

After this analysis it was carried out a study of some characteristics by using Pearson's correlations. For that, the median was considered for the codification of the data. Following this for financial literacy the respondents with less than 3 were considered non literate while with the punctuations of 4 and 5 are considered literates. For optimism levels the median centres in moderate levels corresponding to a punctuation between 14 and 18. For overconfidence there are three levels between 0 and 50, 51 and 75 and 76 and 100, corresponding to low, moderate and prominent levels of overconfidence. For turnover,

debt structure and total debt the median of which was used to code the variables corresponding to a level superior of 417.500,00€, 75,5%, 26% respectively. For gender, the main gender is male and as for age it was considered as senior levels the respondents with and age higher than 36 years old which is the median.

Analysing table 12, the level of a 5% significance is represented by \ast and when the correlation is significant at the 1% it is represented by $\ast\ast$. Results show that it is possible to consider that financial literacy has a relationship with corporate financial health, as well as financial health with overconfidence and with turnover. Aligned with that also age as is statistically correlated with debt structure. The most relevant correlation is between age and debt structure with a level of significance of 1% and with a Pearson correlation inferior to -0,3 and following that surges the correlation between financial health and turnover with high levels of correlation. With lower levels of significance there is Financial Health with Financial Literacy and Financial health with overconfidence.

All of the other's correlations are relatively poor.

Table 13- Pearson's Correlation

		Financial health	Financial Literacy	Optimism	Overconfidence	Turnover 2020	Debt Structure 2020	Total Debt 2020	Age	Gender	Education
Financial health	Correlação de Pearson	1	,547 [*]	0,105	-,498 [*]	,605 ^{**}	0,114	0,151	-0,071	-0,007	-0,263
	Sig. (2 extremidades)		0,013	0,658	0,025	0,005	0,634	0,526	0,767	0,977	0,263
Financial Literacy	Correlação de Pearson		1	0,336	-0,110	0,420	0,140	0,140	0,099	0,229	0,140
	Sig. (2 extremidades)			0,147	0,645	0,065	0,556	0,556	0,679	0,332	0,556
Optimism	Correlação de Pearson			1	0,043	0,218	0,000	-0,218	-0,066	-0,089	0,218
	Sig. (2 extremidades)				0,858	0,355	1,000	0,355	0,783	0,709	0,355
Overconfidence	Correlação de Pearson				1	-0,392	0,000	0,000	0,039	0,320	0,196
	Sig. (2 extremidades)					0,087	1,000	1,000	0,869	0,169	0,407
Turnover 2020	Correlação de Pearson					1	0,200	0,000	-0,101	-0,204	-0,250
	Sig. (2 extremidades)						0,398	1,000	0,673	0,388	0,288
Debt Structure 2020	Correlação de Pearson						1	0,200	-,704 ^{**}	-0,408	0,250
	Sig. (2 extremidades)							0,398	0,001	0,074	0,288
Total Debt 2020	Correlação de Pearson							1	-0,302	0,408	-0,250
	Sig. (2 extremidades)								0,196	0,074	0,288
Age	Correlação de Pearson								1	0,328	0,201
	Sig. (2 extremidades)									0,158	0,395
Gender	Correlação de Pearson									1	-0,153
	Sig. (2 extremidades)										0,519
Education	Correlação de Pearson										1
	Sig. (2 extremidades)										

In addition to the prior interpretation of table 13 it can also be concluded that financial Health and financial literacy have the highest positive correlation, reaching 54.7%, meaning that in the companies with higher levels of financial health, financial literacy is also higher. Following that, there are other relationships with a positive association such as total debt and gender, meaning that the companies with higher total debt levels are managed by male top managers. Also, there is association with financial literacy and optimism levels that can lead to the conclusion that more literate individuals have higher levels of optimism. Moreover, optimism is also positively correlated with turnover in 21,8% which represents that companies managed by optimist top leaders have higher turnovers. Concerning the financial view, debt structure has an association also with financial literacy of top managers and companies' financial health, meaning that companies with more literate top managers have greater debt structure levels as well as companies with higher levels of financial health have greater debt structure.

For another side, there are some negative correlations. For example, the negative correlation between financial health and overconfidence suggests that in the companies

with a higher level of financial health, the levels of overconfidence are smaller, meaning that this behavioral bias is associated with smaller levels of financial health. Also, age and debt structure have a negative correlation meaning that that in the companies with a higher level of debt structure, age is smaller. Debt structure also relates negatively with gender since higher level of debt structure are associated with female gender. Per last, with 39,2% of negative correlation high turnover levels are associated with smaller levels of overconfidence.

There were also carried out some analyses to conclude some relationship between the variables.

In Table 13 a comparison between gender and literacy, education and current role was made. It is concluded that in general males have higher levels of literacy given that 92% have levels of literacy equal or superior to level 4 – Good when in comparison to females with a percentage of 75% in the same levels. Regarding levels of education and considering that a good level for a position of a top manager is above the compulsory education, 88% of females reach that level whereas males register 83%, leading to the conclusion that women are more qualified than men. To the extent of the current role, males have more predominance at the role of CEO.

Table 14- Gender VS Literacy, Education and Current Role

		Gender			
		Female	Male	Female	Male
Literacy	2-Bad	1	0	13%	0%
	3-Intermediary	1	1	13%	8%
	4-Good	1	5	13%	42%
	5-Really God	5	6	63%	50%
Education	12º year	1	2	13%	17%
	Doctorate	0	1	0%	8%
	Graduation	3	1	38%	8%
	Masters	4	7	50%	58%
	PhD	0	1	0%	8%
Current Rule	CFO Support	2	0	25%	0%
	CFO Support	3	2	38%	17%
	CEO	3	10	38%	83%

It was also taken in account, the relationship between literacy and level of education as well as current role. Given that, the level of education corresponding to masters has the higher levels of literacy, and following that CEOs are the most literate as shown in Table 14.

Table 15- Literacy VS Education and Current Role

		Literacy			
		2	3	4	5
Education	12 ^o year	1	0	1	1
	Doctorate	0	0	0	1
	Graduation	0	2	1	1
	Masters	0	0	3	8
	PhD	0	0	1	0
Current Role	CFO Support	1	0	1	0
	CFO Support	0	1	0	4
	CEO	0	1	5	7

Continuing with the analyses, females are one point more optimistic than males, but they are both in the level considered a moderated optimism. What does not happen with levels of overconfidence being that the levels of male's overconfidence more than doubles the levels of female's overconfidence.

Table 16-Gender VS Optimism and Overconfidence

	Female	Male
Optimism	15	14
Overconfidence	20,31	47,4

Continuing and focusing on the financial aspects such as financial health, debt structure, total debt and financial self-sufficiency, table 16 shows the following conclusions:

- The levels of financial health are the same in female and male top managers but are a little higher when the top manager is moderate optimist rather than the ones who have lower levels of optimism. As expected, concerning literacy levels, financial health is higher when the top managers show literacy knowledge. Per last regarding overconfidence, in this sample, lower levels of overconfidence show higher levels of financial health, followed by higher levels of overconfidence and moderate levels.

- Respecting debt structure, the difference is relevant between genders given the difference of 25,75% from male to female top managers. The difference when analysing the impact of optimism is lower but also relevant since it is higher when shown low levels of optimism. In overconfidence the levels are higher with moderate levels and regarding literacy there is a significant difference between non literate and literate top managers.
- Total debt shows little changes in almost all indicators, however in overconfidence it is shown that moderate levels of overconfidence correspond to higher levels of total debt.
- Relatively, to turnover companies managed by females show high turnovers, as well as the ones managed by top managers with moderate optimism levels, with low overconfidence and literate ones.
- Financial Self Sufficiency shows more discrepancies concerning overconfidence given that with high levels of overconfidence the level of financial self-sufficiency reaches one, and with literate top managers given that non literate top managers are related with a financial self-sufficiency of 0.

Table 17 - Relation Between Demographic and Financial Characteristics

		Financial Health	Debt Structure	Total Debt	Turnover	Financial Self Sufficiency
Gender	Female	2,57	72,13%	26,50%	1 009 215,75 €	0,49
	Male	2,57	46,42%	38,00%	669 416,67 €	0,54
Optimism	Low	2,52	60,17%	39,17%	417 500,00 €	0,44
	Moderate	2,59	55,21%	30,93%	971 551,86 €	0,55
Overconfidence	Low	2,64	54,94%	29,24%	941 101,53 €	0,53
	Moderate	2,06	100,00%	85,50%	37 500,00 €	0,15
	High	2,33	0,00%	0,00%	33 000,00 €	1,00
Literacy	Non literate	2,18	33,33%	33,33%	23 333,33 €	0,00
	Literate	2,64	60,82%	33,41%	943 336,82 €	0,61

The prior analyse, shows the importance of financial literacy in financial management, given the better results in every shown indicator. As well as that, it shows that gender has an impact in 4 of the 5 indicators. Regarding the two major psychological characteristics as expected by the literature review, both of them, overconfidence and optimism have impact in financial indicators.

4.3. Multivariate Analysis

In order to do a more complete study, it was carried out an analysis using the fsQCA method.

For the execution of the method, it was taken in account the paper of 2021 written by Pappas and Woodside, following the presented steps.

In that manners, a data base was created with the variable and the conditions that matter for this analysis. The first step is to proceed to the calibration, in this case using direct calibration. Given that there are constructed fuzzy sets, with values for 0 to 1. For this, and in direct calibration the thresholds are commonly 0,95, 0,50 and 0,05, that are calculated by using percentiles given by SPSS analysis. Although, thresholds can be customized according to the study. In this way, the thresholds are the following:

- a. Literacy, given that it is a 5 Likert scale the thresholds are 4,2.9, and 2.
- b. Financial health, given that it is a 3 Likert scale the thresholds 3, 2.66, and 1.
- c. For overconfidence, optimism, age, and financial indicators the coded was made accordingly to the calculated percentiles of 5, 50 and 95 in SPSS.
- d. Gender is a binary variable in which female stands for 1 and male 0.
- e. For education levels 0 corresponds to 12^o year, 1 to graduation and 2 to levels above that.

Accordingly, this means that in the case of literacy 3 means full membership. In financial health this occurs with 2.66. In overconfidence full membership corresponds to the 50 percentile, as well as age, optimism, debt structure, total debt and financial self-sufficiency. In this way full membership is 31, 36, 14, 0.75,0.26 and 0,56, respectively. As for gender, full membership corresponds to value 1- female.

The goal of this analyses is to confirm if the full membership truly leads to the outcome. In this way and from the prior analyses and review of literature it is believed that financial literacy leads to financial health, psychological characteristics may be generally

absent, and debt structure and financial self-sufficiency contribute as well for financial health.

When applied fsQCA generates three solutions, them being complex solution, parsimonious solution and intermediate solution. These solutions consist in a combination of configurations where the rule “the combination leads to the outcome” is consistent (Pappas, Woodside, 2021).

As the complex solution may have a high level of difficulty for interpretation the fsQCA creates the other two solutions. The Parsimonious is a simplified version and leads to the most relevant conditions, which have to be a part of the solutions, and they are called core conditions. Per last, it is generated an intermediate solution where the results are part of the complex solution and include the parsimonious, but while core conditions appear in both, the conditions that are eliminated in the Parsimonious from the complex are called peripheral conditions.

For present and future reference for any consistency with a value >0,8 it is conclude that the condition is sufficient for the outcome. For the overall solution consistency, it is considered >0,75.

Following this it was created the truth table, which was created by using the criteria of minimum frequency of 1 and for consistency the minimum of 0,8, for the subsequent condition:

- Financial Health is conditioned by financial indicators, physiological and demographics ones. To accomplish this truth table the data was coded, and the model is represented by:

Model: $c_{SF} = f(c_{lit}, c_{overc}, c_{opti}, c_{DE}, c_{FinSS})$

Analysing the three solutions for the outcome of financial health it is conclude that all solutions this threshold of 0,8 in consistency. For analyses it was taken in consideration the parsimonious solution given that it is “a simplified version of the complex solution, based on simplifying assumptions, and presents the most important conditions which cannot be left out from any solution” (Pappas & Woodside,2021). In this way the conditions presented in this solution are called “core conditions,” being the only one financial literacy.

The peripheral conditions are presented in complex and intermediate solutions, being overconfidence, debt structure, optimism and financial self-sufficiency.

Table 18- Complex Solution fsQCA

Complex Solution			
frequency cutoff: 1			
consistency cutoff: 0.878378			
Conditions	Raw Coverage	Unique Covreage	Consistency
overconfidence*literacy*~DE	0.360883	0.136278	0.916667
overconfidence*~optimism*literacy*~FinSS	0.311041	0.0586751	0.972387
~overconfidence*optimism*literacy*DE*~FinSS	0.214511	0.0706624	0.899471
~overconfidence*~optimism*literacy*DE*FinSS	0.243533	0.0946372	1
solution coverage: 0.630915			
solution consistency: 0.911577			

Table 19- Parsimonious Solution fsQCA

Parsimonious Solution			
frequency cutoff: 1			
consistency cutoff: 0.878378			
Conditions	Raw Coverage	Unique Covreage	Consistency
literacy	0.971609	0.971609	0.860816
solution coverage: 0.971609			
solution consistency: 0.860816			

Table 20- Intermediate Solution fsQCA

Intermediate Solution			
frequency cutoff: 1			
consistency cutoff: 0.854839			
Conditions	Raw Coverage	Unique Covreage	Consistency
overconfidence*literacy*~DE	0.360883	0.136278	0.916667
overconfidence*~optimism*literacy*~FinSS	0.311041	0.0586751	0.972387
~overconfidence*optimism*literacy*DE*~FinSS	0.214511	0.0706624	0.899471
~overconfidence*~optimism*literacy*DE*FinSS	0.243533	0.0946372	1
solution coverage: 0.630915			
solution consistency: 0.911577			

Table 21- Intermediate Solution Resume

Configuration	Solution			
	1	2	3	4
Debt Scruture	⊗		●	
Financial Self Sufficiency		⊗	⊗	●
Overconfidence	●	●	⊗	⊗
Optimism		⊗	●	●
Literacy	●	●	●	●
Consistency	0.916667	0.972387	0.899471	1
Raw Coverage	0.360883	0.311041	0.214511	0.243533
Unique Coverage	0.136278	0.0586751	0.0706624	0.0946372
Overall Solution Consistency	0.911577			
Overall Solution Coverage	0.630915			

Given the prior analysis table 20, was constructed to resume the presented results, by analysing the intermediate solution. The black circles mean the presence of a condition, the circles with an “x” mean the absence of it, and the blank space represents a “don’t care” condition. The bigger black circles represent the core condition and the small ones the peripheral conditions.

In this way, for an outcome of financial health there are 4 solutions in which financial literacy takes more importance given that it is a core condition and appears in every solution. Along with that, the solution with higher levels of consistency is solution 4 that relates high levels of financial literacy, optimism and financial self-sufficiency with the absence of overconfidence. Up next, solution 2 involves the same factors but represents the relationship between high levels of financial literacy and overconfidence with the absence of financial self-sufficiency and optimism. Solution 1 is the result of high levels of financial self-sufficiency and overconfidence with the absence of debt structure and per last solution 3 relates the presence of financial literacy, financial self-sufficiency and optimism with the absence of overconfidence.

To conclude the multivariate analysis, it was carried out a Crisp-Set Qualitative Comparative Analysis (csQCA) by using the same Software.

Firstly, the variables were recoded to be binary values, according to Boolean algebra, and in this way, they were represented by:

- For financial literacy 0 represents values from 0 to 2, and 1 from 3 to 5.
- For overconfidence, given the median of 31,25, 0 represents values from 0 to 31,24 and 1 from 31,35 to 100.
- For optimism given the median of 14, 0 represents values from 0 to 13,9 and 1 from 14 to 20.
- For Debt structure 0 represents values from 0 to 0,749 and 1 from 0,75 to 1.
- For total debt 0 represents values from 0 to 0,259 and 1 from 0,26 to 1.
- For financial self-sufficiency 0 represents values from 0 to 0,549 and 1 from 0,55 to 1.
- For age 0 represents values from 20 to 35,9 and 1 represents 36 to 70.

- For financial health 0 represents values from 0 to 2,65 and 1 from 2,66 to 3.

As for gender, as it already as a binary variable, 0 stands for male and 1 stands for female.

Regarding this codification, it was produced the truth table by reducing it to values of consistency superior to 0,75.

By this procedure, the solution is the following:

Table 22- Truth Table qsQCA

Truth Table Solution			
frequency cutoff: 1			
consistency cutoff: 1			
Conditions	Raw Coverage	Unique Covreage	Consistency
~DE*TDebt	0.363636	0.181818	1
TDebt*FinSS	0.363636	0.0909091	1
Opti*DE*FinSS	0.363636	0.181818	1
~Overconfidence*Opti*FinSS	0.181818	0	1
~Overconfidence*Opti*~TDebt*Literacy	0.181818	0	1
solution coverage: 0.90901			
solution consistency: 1			

Given this, table 22, was constructed to resume the presented results and as mentioned before the black circles mean the presence of a condition, the circles with an “x” mean the absence of it, and the blank space represents a “don’t care” condition. Since they are all core conditions the circles have the same size.

Table 23- qcQCA Solution's

Configuration	Solution				
	1	2	3	4	5
Debt Scruture	⊗		●		
Total Debt	●	●			⊗
Financial Self Sufficiency		●	●	●	
Overconfidence				⊗	⊗
Optimism			●	●	●
Literacy					●
Consistency	1	1	1	1	1
Raw Coverage	0,363636	0,363636	0,363636	0,181818	0,181818
Unique Coverage	0,181818	0,090909	0,181818	0	0
Overall Solution Consistency	1				
Overall Solution Coverage	0,90901				

From the fsQCA analyses, in this one gender, age and education did not take part since their levels of significancy were not relevant. In this way, for an outcome of financial

health there are 5 solutions in which the financial indicator of financial self-sufficiency takes more importance, given the presence in 3 solutions, and in this analysis, this also occurs with optimism. Given that the first solution combines the absence of high levels of debt structure and the presence of total debt. The second one combines the presence of high levels in financial self-sufficiency and total debt. The third one that relates financial indicators and physiological ones, combines high levels of debt structure, financial self-sufficiency and optimism. Fourth solution also combines financial and physiological factors, considering the absence of overconfidence combined with the presence of optimism and financial self-sufficiency and per last the fifth solution combines 4 indicators, them being one financial, total debt with absence, and three physiological, the absence of overconfidence, the presence of optimism and financial literacy.

5. Conclusions

Behavioral finance is progressively gaining importance in the field. As the evolution occurs it becomes clearer that traditional theories had some flaws that are contoured with behavioral finance. In particular, psychological characteristics take more importance as it is clear by previous studies that characteristics such as overconfidence and optimism affect the people's judgment and consequently affect their decisions leading to an impact in the decision outcome.

This type of impact demonstrates importance in every type of decision, but in the companies field it is given a greater relevance since different levels of, for example, overconfidence can influence the levels various financial factors and therefore financial health. In the Startup field this takes more meaning given that there is only one top manager, and since the beginning of the company life cycle, it can affect all of the viability for the business.

In this way, this study arises to contribute to this field of investigation, by analysing the relationship between top managers psychological and demographics characteristics with their company's financial health.

Following this construct, the study was based on previous studies in the field and an online questionnaire was carried out by using Microsoft forms. With a 10% rate of response, it was possible to obtain 20 replies and, in this way, to evaluate the top managers and companies' characteristics.

From the responses, bivariate and multivariate analyses were performed by using Pearson's correlation and QCA, respectively. By this methods it was possible to reach the following conclusions. The sample is constituted by top managers with an average age of 38,3 years, mostly male top managers with a rate of 60% and 85% of the sample shows high levels of education, above the graduate level.

Considering the psychological characteristics, it is concluded that 95% are considered literate, the levels of optimism are in a general way in an intermediate level and accordingly so is overconfidence with only 25% of the respondents reaching a level superior to 50.

Carrying onto the relationship between the present characteristics and the companies' financial ones, and according to the review of literature it is shown a relationship between optimism and overconfidence with financial indicators and in general financial health.

Specifying one of the most settled correlation is the one between financial health and financial literacy, given that they present a positive correlation meaning that the more literate the managers, the higher the level of financial health of the companies. Optimism as a positive correlation with a financial indicator, turnover. This important correlation means that companies managed by optimist top leaders have higher turnovers. On the contrary the psychological characteristics of overconfidence, shows that in this sample, it leads to a smaller level of financial health, meaning that overconfidence negatively affects the financial health of companies.

For the outcome of financial health also the financial indicators take an important role, and, in that way, financial self-sufficiency is the one that stands out and is more present.

For a better understanding of the reality, by carrying the QCA analyses it was also possible to obtain solutions where the positive outcome of financial health is reached. In this way the top solutions are constituted by the factors of high levels of financial literacy, optimism and financial self-sufficiency with the absence of overconfidence.

QCA analyses corroborate the previous ones. In sum, financial literacy has a positive impact on financial health, moderate levels of optimism do to, levels of overconfidence have a negative effect on financial health and regarding financial factor, financial self-sufficiency is the most important factor for the outcome of financial health.

In conclusion, by the empirical study, it was possible to achieve the expected outcomes. Nonetheless it is relevant to mention the limitations of this study. Firstly, the sample is smaller than the desired given the difficulty of contacting a sufficient number of companies and getting a positive response from them. The lack of openness to participate in this study may have resulted from the current crisis situation, but also from the lack of availability felt in the business sector to participate in similar investigations. Regarding this, for following investigations the suggestion is to open the questionnaire for more

companies and if possible, to have the support of a market player in order to reach more important players and to guarantee higher rates of distribution and responses. It is also considered as relevant to open the investigation to other areas in the Startup field and up next, to big companies. This would be relevant to compare how this characteristics have impact in opposite realities.

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As características dos gestores, a política financeira e a saúde financeira das Startups

Este questionário está a ser realizado no âmbito da dissertação de mestrado de Contabilidade e Finanças, para obtenção do grau de mestre na Faculdade de Economia da Universidade de Coimbra. O projeto tem por objetivo estudar a relação entre as características dos decisores financeiros empresariais e a política financeira das empresas, com foco nas startups de base tecnológica. Estimamos que o tempo de resposta seja aproximadamente 15min. Obrigada.

^ Obrigatoria

Conhecimentos Financeiros

1. Suponha que tem algum dinheiro disponível. É mais seguro investir o dinheiro em um negócio/aplicação financeira, ou repartir o seu dinheiro por diferentes negócios/aplicações financeiras? *

- Um negócio/aplicação financeira
- Vários negócios/aplicações financeiras
- Não sei
- Não respondo

2. Suponha que nos próximos 10 anos os preços atuais vão duplicar. Se o seu rendimento também duplicar, vai estar apto para comprar menos do que o que compra hoje, o mesmo ou mais? *

- Menos
- O mesmo
- Mais
- Não sei
- Não respondo

3. Admita que vai pedir emprestado 100€ por um ano. Qual o valor mais baixo a pagar no final do ano: 105€ ou 100€ acrescidos de 3%? *

- 105€
- 100€ acrescidos de 3%
- Não sei
- Não respondo

4. Suponha que deposita dinheiro no banco e que o banco concorda em acrescentar 15% de juros ao ano no seu depósito. O Banco vai adicionar mais dinheiro no segundo ano do que no primeiro, ou é a mesma quantia nos dois anos? *

- Mais
- A mesma
- Não sei
- Não respondo

5. Suponha que tem 100€ numa conta poupança no banco e que a taxa de juro é de 10% ano. Quanto dinheiro tem na conta ao fim de 5 anos, se não levantar nada durante os 5 anos? *

- Mais de 150€
- 150€
- Menos de 150€
- Não sei
- Não respondo

Políticas da Empresa

6. Em 2019, qual das seguintes frases descreve melhor o cumprimento das obrigações financeiras da empresa? Considere contas, impostos, vencimentos, dívida. *

Se não tinha atividade em 2019, considere 2020.

- Todos os prazos foram cumpridos
- Quase todos os prazos foram cumpridos
- A maioria dos prazos foram cumpridos
- Alguns prazos foram cumpridos
- Poucos prazos foram cumpridos

7. Como se registou o cumprimento das obrigações financeiras da empresa em 2020 face a 2019?

- Agravou
- Manteve-se
- Melhorou

8. Normalmente, a empresa mantém disponibilidades monetárias suficientes para: *

- Mais de um ano de despesas operacionais
- 7-12 meses de despesas operacionais
- 4 -5 meses de despesas operacionais
- 1-3 meses de despesas operacionais
- Menos de um mês de despesas operacionais

9. Quando foi a última vez que foi consultada e revista a demonstração de resultados da empresa? *

- No mês passado
- 1 mês
- 6 meses
- 12 meses
- Não existe

10. Como classifica o nível de risco de crédito da empresa? *

O nível de risco de crédito da empresa representa uma avaliação da capacidade da empresa para cumprir com o serviço de dívida dos empréstimos.

- Excelente
- Muito bom
- Bom
- Fraco ou Não sei

11. Como descreve a dívida? Inclua qualquer tipo de dívida, assim como dívida pessoal que colocou na empresa. *

- Não existe
- Quantia razoável de dívida
- Tem mais dívida do que deveria
- Tem muito mais dívida do que pode suportar

12. Escolha o que se adequa mais à empresa: *

Discordo Totalmente Discordo Neutro Concordo Concordo totalmente

Discordo

Concordo

	Totalmente	Discordo	Neutro	Concordo	totalmente
Há um plano para situações de risco comum, como novos concorrentes, perda de RH cruciais ou clientes, desastres naturais	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Existe um plano no caso de um déficit de caixa devido a pagamentos em atraso ou a despesa de emergência	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Os seguros contratualizados são suficientes no caso de uma emergência (por favor considere a cobertura que tem para o(s) veículo(s), propriedade(s), responsabilidade civil, acidentes de trabalho)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Há acesso ao financiamento necessário para concretizar os objetivos da empresa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. A empresa já teve algum tipo de financiamento? *

Sim

Não

14. .As seguintes fontes de financiamento são relevantes para a empresa, ou seja, já foram utilizadas no passado ou consideram usá-las no futuro?

*

	Sim	Talvez	Não
Empréstimo Bancário	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Linha de Crédito	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Crédito Comercial	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Capital Próprio - Inclui Capital de Risco/ Business Angels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emissão de títulos de dívida	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leasing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outros empréstimos, por exemplo, de familiares e amigos, de uma empresa relacionada ou acionistas, excluindo crédito comercial	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. Se realizou algum pedido de financiamento qual foi o resultado?

	100% Realizado	75% ou mais realizado	Realizado abaixo de 75%	Recusado devido ao custo	Rejeitado	Ainda avalia
Empréstimo Bancário	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Linha de Crédito	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Crédito Comercial	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Capital Próprio - Inclui Capital de Risco/ Business Angels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emissão de títulos de dívida	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leasing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. Se existiram financiamentos até 2019, para que propósitos foram utilizados?

	Investimentos em propriedades, instalações ou equipamentos	Inventário e Working Capital	Contratações e Formação de Recursos Humanos	Desenvolvimento e Lançamento de Novos produtos ou serviços	Refinanciamento ou pagamento de obrigações	Out
Empréstimo Bancário	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Linhas de Crédito	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Crédito Comercial	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Capital Próprio-Inclui Capital de Risco/Business Angels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emissão de títulos de dívida	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leasing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. Se existiram financiamentos em 2020 e 2021, para que propósito foram utilizados?

	Investimentos em propriedades, instalações ou equipamentos	Inventário e Working Capital	Contratações e Formação de Recursos Humanos	Desenvolvimento e Lançamento de Novos produtos ou serviços	Refinanciamento ou pagamento de obrigações	Outro
Empréstimo Bancário	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Linhas de Crédito	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Crédito Comercial	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Capital Próprio-Inclui Capital de Risco/Business Angels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emissão de títulos de dívida	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leasing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outro	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Características dos decisores financeiros

18. Por favor responda de acordo com seus próprios sentimentos e valores *

	Discordo Totalmente	Discordo	Neutro	Concordo	Concordo Totalmente
Em tempos de incerteza, espero o melhor de mim	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
É fácil para mim relaxar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Se algo de mau me pode acontecer, acontecerá	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sou sempre otimista em relação ao meu futuro	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gosto muito dos meus amigos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
É importante para mim manter-me ocupado	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Difícilmente espero que as coisas aconteçam à minha maneira	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Não me aborreço facilmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Discordo Totalmente	Discordo	Neutro	Concordo	Concordo Totalmente

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As características dos gestores, a política financeira e a saúde financeira das Startups

Raramente conto que me aconteçam coisas boas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No geral, espero que me aconteçam mais coisas boas do que más	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. No seguimento da situação que vivemos, como se sente em relação ao estado da economia? *

	Substancialmente Pior	Pior	Igual	Melhor	Substancialmente Melhor
Condições económicas atuais em comparação com 6 meses atrás	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expectativas para a economia nos próximos 6 meses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Condições na industria atuais em comparação com 6 meses atrás	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expectativas para a industria nos próximos 6 meses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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20. Idade *

21. Género *

- Feminino
- Masculino
- Prefiro não dizer
- Outro

22. Nível de Educação *

- 6º ano
- 9º ano
- 12º ano
- Licenciatura
- Pós Graduação
- Mestrado
- Doutoramento

23. Função Atual *

- Diretor Financeiro
- Diretor Geral
- Diretor Tecnológico
- Diretor de Produção
- Outro

24. Desde que ano exerce a função atual? *

25. Desde que ano trabalha na empresa atual? *

26. No decurso da sua carreira, em que áreas trabalhou? *

- Administração
- Gestão
- Finanças
- Marketing
- Produção
- Outro

Características da empresa

27. Área de atuação *

28. Em que ano foi fundada a empresa? *

29. Quantos colaboradores tinha a empresa nos seguintes anos: *

	<10	10-49	50-250	>250	Não existia
2019	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2020	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2021	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

30. Volume de Negócios de 2019 (aproximadamente) *

31. Volume de Negócios de 2020 (aproximadamente) *

32. Valor do Ativo de 2019 (aproximadamente) *

33. Valor do Ativo de 2020 (aproximadamente) *

34. Valor do Passivo de 2019 (aproximadamente) *

35. Valor do Passivo de 2020 (aproximadamente) *

36. Valor do Ativo Corrente de 2019 (aproximadamente) *

37. Valor do Ativo Corrente de 2020 (aproximadamente) *

38. Valor do Passivo Corrente de 2019 (aproximadamente) *

39. Valor do Passivo Corrente de 2020 (aproximadamente) *

40. Passivos Médio e Longo Prazo de 2019 (aproximadamente) *

41. Passivos Médio e Longo Prazo de 2020 (aproximadamente) *

42. Dívida a curto prazo de 2019 (aproximadamente) *

43. Dívida a curto prazo de 2020 (aproximadamente) *

44. Dívida a longo prazo de 2019 (aproximadamente) *

45. Dívida a longo prazo de 2020 (aproximadamente) *

46. Capital Próprio de 2019 (aproximadamente) *

47. Capital Próprio de 2020 (aproximadamente) *

Este conteúdo não foi criado nem é aprovado pela Microsoft. Os dados que submeter serão enviados para o proprietário do formulário.

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