ISCTE Business School
University Institute of Lisbon

AGENCY COSTS, BOARD DIVERSITY AND FAMILY FIRMS COMPENSATION

Beatriz Marília Costa Rilhas

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Supervisor:

Prof. Álvaro Augusto da Rosa, Assistant Professor, ISCTE Business School, Department of Marketing, Operations and General Management

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Acknowledgements

This was one of the hardest and most challenging projects I had to do in my academic life. Before I even started, every time someone talked about doing this thesis I got scared. Thankfully, it is finished now.

It was a long journey, which involved a lot of effort and even blood, sweat and tears (mostly tears).

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Abstract

The desire to work on the topic of family businesses comes from a subject that is very close to me. I felt the need to explore it.

We intend to further evaluate the main differences between family and non-family businesses, as well as the influence of altruism and agency theory on those companies.

Family firms play a very important role in global economy and a have a really strong presence worldwide. The central problem of this dissertation arises: these companies are in fact so different from non-family firms?

This study is based on literature about family businesses and their management, the comparison between family and non-family businesses, agency theory, altruism and also the role of women in the management of companies.

The considered sample was the population of companies listed on the Lisbon stock exchange, in a total of 47 companies analysed. The main aspects of this study were the constitution of the boards of directors, sectors of activity, remuneration and annual results for each company. The results were analysed statistically with the computer tools SPSS and Excel.

After a detailed analysis of each component under investigation it was possible to conclude that the differences between family and non-family businesses are less considerable now than they were before. These results are directly linked to the business competitiveness felt among firms today, facilitating growth and survival in the current environment.

Keywords: Family Business, Non-family Business, Compensation, Agency Theory.

JEL Classification System:

M100 Business Administration: General

M520 Personnel Economics: Compensation and Compensation Methods and Their Effects

Resumo

O desejo de trabalhar sobre o tema das empresas familiares advém de um assunto que me é muito próximo e que senti necessidade de o explorar.

Pretendemos avaliar mais ao pormenor as principais diferenças entre empresas familiares e não familiares, abordando também a influência do altruísmo e da teoria da agência.

Sendo que as empresas familiares tem um papel de extrema relevância na economia global e estão fortemente representadas mundialmente, querendo estudar se serão estas empresas assim tão díspares das empresas não familiares, surge a problemática central desta dissertação.

Este estudo tem por base literatura sobre empresas familiares e sua gestão, comparação entre empresas familiares e não familiares, teoria da agência, altruísmo e também o papel das mulheres na gestão das empresas.

A amostra considerada foi a população de empresas cotadas na bolsa de lisboa, num total de 47 empresas analisadas. Os principais fatores de estudo foram a constituição dos conselhos de administração, sectores de atividade, remuneração e resultados anuais de cada empresa. Os resultados foram analisados estatisticamente no programa SPSS e em Excel.

Após a análise detalhada de cada componente sob investigação foi-nos possível concluir que atualmente as diferenças entre empresas familiares e não familiares são cada vez menos consideráveis com o passar do tempo. Estes resultados são sinónimo da competitividade empresarial sentida entre firmas hoje em dia, facilitando o crescimento e a sobrevivência no meio atual.

Palavras-chave: Empresas Familiares, Empresas não Familiares, Compensações, Teoria da Agência.

JEL Classification System:

M100 Business Administration: General

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1. Introduction

The potential and characteristics of family businesses, their economic and social importance in the Portuguese business community and their exponential growth make the central motivations behind this work.

Over the last century family businesses have been growing and gaining importance in every country's economy. These are not just small companies anymore; they are international firms that everyone knows (Chami, 2001).

Globalization is very present nowadays and it continues to increase. Social, political and economic changes emerge at the global level, giving birth to new competitive focuses and new policies. Markets have become more competitive. Organizations are increasingly required to be responsive and adaptable to changes in the environment. In this sense, change is a permanent state and it becomes a slogan for organizational survival (Daspit *et al.*, 2017).

The diversity of factors and contingencies that affect the functioning of companies sometimes mean that their development and survival are dependent on the realization of change. These changes can be made at different levels, such as management, compensation and board diversity. The concepts of altruism and agency cost emerge from this (Madison *et al.*, 2016).

These changes are made so that companies remain competitive and upfront their competition. This happens with both family and non-family firms.

Even though family business literature and studies are somewhat recent, these type of company are key players in global economy. Studies show that between 65% and 80% of companies worldwide are family owned (Gersick *et al.*, 1999). Thus, this study proves its relevance in the context of global management. We pretend to assess if there are still considerable differences between family firms, which are seen as old-fashioned companies, and non-family firms.

In chapter two of this dissertation we present the literature review on which we based our study. This chapter summarizes the concept of family business. It is explain in detail what Agency Theory and agency costs are and also how altruism influences those. Finally, the topic of compensation is introduced, being one of our main focuses.

Although the subject discussed in this dissertation is not new, there have been scientific studies approaching this issue over the years. The authors consider of great importance to update the analysis of the Portuguese environment.

Furthermore, this master thesis intends to contribute for the literature with useful insights regarding family firms and differences between them and non-family firms, based on the main conclusions about our study.

2. Literature Review

2.1. Family Business definition

The study of family firms has its beginning in the sixties and seventies of the 20th century. It has been widely developed since then.

Gersick *et al.*, (1999) state that 65% to 80% of companies worldwide are family businesses. From in small enterprises' to worldwide companies, like Wal-Mart for instance. About 40 percent of the 500 biggest companies listed in the magazine Fortune are family owned or controlled.

Dasy (2006) states that family firms account for around 20 percent of the listed companies in Australia, approximately one-third of the S&P 500 in the United States and also, more than half of the 250 largest firms on the Paris and Frankfurt bourses are family-controlled.

Daspit *et al.*, (2017) point out that family enterprises are predominant worldwide and range from 60% to 98% of all firms around the globe. This list comprehends some of the smaller and biggest firms, youngest and oldest, in all economies.

In Portugal's case, there are examples of big family firms, some listed. some unlisted – like Grupo Sonae, Grupo Amorim or even Salvador Caetano and Luis Simões, among many others (Neves, 2001).

Daspit *et al.*, (2017) state that the differences between family and nonfamily firms lie in the definition of goals, in the way the processes are conducted and in the intervenient of the process. In addition to this, Oliveira (2009) believes that it is not correct to say that a family business is the same as any other company, simply because a family structure, when integrated into a company, provides a series of family-specific approaches and interactions, causing some particularities in their performance.

A company is very complex regarding its social body, made up by people and groups whose aspirations may be the most diverse. The notion of system that has been affirmed over the last 30 years considers that one of the parts of the company, people, have their own objectives and are less and less dependent, more educated and ambitious (Cabral-Cardoso, 2004).

When we talk about a family firm, the social body is even more complex. In it, it is included three subsystems – family, ownership and management – that interact among each other, and where a change in one part affects the complete system.

Each subsystem has its own identity and culture, and there is a close relationship between family interests and company decisions, the professional development of the family members and the transition to a professional management (Casillas, 2007).

Families make a crucial and supportive atmosphere for creating an entrepreneurial behavior. Studies on entrepreneurship have shown that the support of family and the presence of self-employed family members are a great influence in venture creation and business ownership (Bhat, Shah and Baba, 2013).

The number of family firms worldwide is enormous and leaves no doubt as to their predominance. And, therefore, their economic importance and significance.

The family-owned businesses have proved to be very strong in their determination to carry the business on.

There is still no widely accepted definition on family business. Many are discussed. What we frequently see is that definitions presented by the authors are based on common elements, which complement each other.

Thus, the definitions of family business are diverse, restrictive and heterogeneous.

In the model written by the European Commission (2017), Family Companies are those in which the family has the power of decision over the capital of the firm and at least one of its members is a manager. In case the company is listed, a holding of at least 25% is sufficient to make it a family firm.

Regarding the literature, one definition, for instance, states that this type of business is defined as a business that is owned and managed by one or multiple family members (Hollander and Elman, 1988; Handler, 1989).

Another explanation states that a family business is an organization where two or more family members are a direct influence on the direction of the firm, either by the exercise of kinship ties, management roles or ownership rights (Tagiuri and Davis, 1996).

According to Ussman (2004), it is possible to define a family business by contrasting it to a non-family business, a concept that is already common knowledge: a non-family business is a professionally managed organization whose main and central objective is profit and, through it the survival of the company in the long run. Family-owned businesses also share these objectives, along with a set of strategies and goals planned by the owner family. For instance, to continue to run the company while maintaining ownership and management through the next generations of family members; to continue to strengthen family assets, to continue to accumulate wealth; to provide the necessary support to the family, among others.

According to the author mentioned above, a family business is the result of the interaction between two distinct systems, the family and the company, with appropriate objectives and rules to each system. These often leads to conflict, confusion and complexity.

Costa (2005) says that a Family Business is "a company that was created by the entrepreneurial spirit of the founder, in which the majority of the capital and the control are in the hands of a single family, where there is a reciprocal influence of the business and family systems. The positions of command in the executive and administration boards have always been exercised by members of the family and there is a clear intention on the part of the founder and the first successors to keep the family in the main management posts."

Donnelley (1988) considers that a business is considered a family business when it has been perfectly connected with a family for at least two generations and when this connections result in a reciprocal influence on the company's general policy and the interests and objectives of the family.

To Fleming (2000) the definition is more comprehensive, considering a family business whenever two or more people of the same family work together in a company that at least one owns.

A business is considered a family business when it is a firm that grows out of families' necessities, built over the family's skills, worked by its influences and guided by its values. It is usually sustained by family commitment, and passed from generation to generation, as a legacy, in the views of Klein, Astrachan and Smyrnios (2005).

Daspit *et al.*, (2017) say that family businesses are in theory, businesses managed with the objective to pursue the vision and culture of the business, controlled by a partnership that includes members of a family - or a reduced number of families - in a way that allow for the companies to be sustainable across generations.

As we can see there are similarities between the authors' definitions regarding questions related with ownership and management in the hands of a single family. The fact that a company is related to a family for at least two generations is also predominant, as well as the presence of the founder's entrepreneurial initiative.

In the light of the foregoing, it is apparent that the different approaches to the concept confirm the existence of dimensions which clearly characterize a family enterprise, such as ownership, control, management structure and the presence of one or more families in the organization. There are also other dimensions that are harder to manage, in which the culture and values of the family business stand out.

For all that, it can be pointed out that the family business does not correspond to the image of a rational profit-oriented company. It is rather a system organized around relationships with a strong emotional load (Davis and Stern, cited in Ussman, 2004).

The diversity of this type of business is enormous. Nevertheless, all share a common feature: they are linked to a family and this connection makes them a particular type of company.

Lank and Neubauer (1998) propose and distinguish 15 roles a person can assume in a family business:

1. Just management.

2. Just shareholder.

3. Just board of directors.

4. Just family.

5. Family – shareholder.

6. Family – management/employee.

7. Family – board of directors.

8. Family – management – board of directors.

9. Family – board of directors – shareholder.

10. Family – shareholder – management.

11. Shareholder – management.

12. Shareholder – board of directors.

13. Shareholder – board of directors – board of directors.

14. Management – board of directors.

15. Family – shareholder – management – board of directors.

As can be observed, there is no consensus to what a family business actually represents and it is far from being found. For the purpose of the work at hand, we need to identify a definition that will serve as our reference. In our mind, the most universal and comprehensive is the one by the European Union and it will be adopted throughout this dissertation.

Family Companies are those in which the family has the power of decision in the capital of the firm and at least one of its members is manager. In listed companies, the holding of at least 25% of the capital makes the company a family firm.

2.2. Corporate Governance

We can introduce the concept of corporate governance. This term refers to the set of authority and supervision tools and methods of the exercise of that same authority, both internal and external. The main objective is ensuring that society establishes and implements, effectively and efficiently, activities and contractual relations for the private purpose for which it was created. And also to pursue the social responsibility that underlie its existence (Silva *et al.*, 2006).

Corporate governance arises to align interests between owners/shareholders and managers (this relationship will be better explain in the next point of this chapter). For this relationship to be a healthy relationship either for the owners and the managers both sides have to commit to each other. This is based on two principles: incentives and control. Owners have to give enough incentives to mangers to be sure they are all in the same page and their interests are aligned. Allowing an owner to remain in control of the company even if not directly (Jensen and Meckling, 1976).

This is called agency theory and agency costs, better explained in the next point.

In Portugal, this set of recommendations is made by Comissão do Mercado de Valores Mobiliários (so on called CMVM). As seen in Annex 7, the recommendations are many. In a study made by Universidade Católica Portuguesa in 2013 about the degree of compliance between the existing recommendations concerning corporate governance in Portugal and the listed companies at the time. And based on the corporate governance reports, it is showed that in general, the level of reception of the more relevant recommendations was high, especially among the companies that constituted the PSI 20 index and generally lower in other listed companies (Catolica Lisbon, 2014).

2.3. An overview of Agency Theory

Agency theory (Ross, 1973; Eisenhardt, 1989) is directly related to the conflict of interests that occur between an agent that acts as a representative of a principal. The agency relationship begins with an agent that is hired by the principal to act on his behalf. The agency theory is concerned with the problems that arise from this relationship.

It is claimed that Adam Smith (1937[1776]) is possibly the first author to ever talk about the agency problem. His standpoint motivated multiple other authors to investigate more about the aspects involving agency theory. Smith stated in his lifetime work *The Wealth of Nations* that if a firm is managed by an agent or multiple agents and not the real owners of that same organization, chances are that these agents may not work towards the benefits of the owners, but instead towards on their own benefits.

In theory, agency theory arises when there is conflict of interests and asymmetric information. If both parties of the problematic have the same interests, then there is no conflict and therefore no agency theory (Chrisman *et al.*, 2004).

Despite this, many times, both parties will in fact have unalike interests. Additionally, the agent will typically have extra or even more relevant information than the principal about the agent, the decision situation or the consequences of actions (Ross, 1973).

The agency model is considered by many one of the oldest management and economics theories.

In the article written by Madison, Kellermanns and Munyon (2017) and stating Eisenhardt (1989) this problematic is defined in the following way: "*Agency theory is fundamentally a control system where inputs and outputs are monitored and controlled to curb dysfunctional organizational behavior".*

The agency theory according to Panda and Leepsa (2017) argues the problematic of separation of ownership and management and gives emphasis on decreasing this problem.

Regarding family firms, originally, agency theory was not considered nor expected as a real problem, since family enterprises had their ownership and management well unified. Considering this, it was assumed that these companies had an environment where the interests of all parts were aligned with the interests of the company and there was no need for any type of control mechanisms. Since this initial thinking, it was came to surface that agency problems also occur in family firms, and the theoretical boundaries have been enlarged ever since (Madison *et al.*, 2016).

Schulze *et al.* (2001) states that agency relationships begin when one self-interested person (the principal) gives the right and authority to another individual (the agent) about decision making. This delegation brings risks for agents which they are not entirely compensated, creating opportunity to seek supplementary rewards from non-compensatory ways, such as free-ridding or shirking. It also creates information asymmetries.

As a result of this asymmetry in information the agency problem will fall into two basic categories: adverse selection and moral hazard.

The foundation of modern agency theory is focused on the problem of separation between ownership and control. The model created by Jensen and Meckling (1976) and talked about in Schulze *et al* (2002) states that "*shareholding causes a de facto delegation of managerial responsibility from the firm's owners to its agents*." This delegation of responsibility leaves the agents of the firm vulnerable to risks that they are not entirely rewarded for. This is a reason for agents to shirk and/or to make other "hidden actions" in order to seek for additional compensations. The risk of post-contractual opportunism can, consequently, be created by the ownership structure of the widely held firm (Schulze *et al*., 2002).

The adverse selection problem arises when the principal (unintentionally) contracts an agent who is less able, committed, hardworking, ethical, or whose interests are less compatible with the business than the principal previously expected (Ross, 1973).

As said by Schulze *et al.* (2002) adverse selection happens when applicants for agent positions are capable of keeping private or hiding facts about themselves that are important for a future employer to assess their value and worth in a proper manner.

On the other side, moral hazard is related to the commission or omission of actions, after the contract, in the interest of the agent wich are negative for the principal. Examples of omission and commission include shirking (to avoid work, duties, or responsibilities, especially if they are difficult or unpleasant) and the consumption of perks (Ross, 1973).

In order to control the adverse selection problem, principals have to sustain higher search and verification costs to try to eliminate the risks. On the other hand, in order to control the moral hazard problem, principals must use what one calls an "optimal combination". This comprises incentives, penalties, bonding, and managerial processes to correlate the interests of the two parties and monitor agents' activities.

Madison *et al.* (2017) state that in order to mitigate the agency problems firms must use agency governance mechanisms. This includes, for example, controlling and monitoring activities, and compensation incentives systems, in order to help to enlarge the performance of the organization in question.

The costs of controlling these problems are called: agency costs of dealing with principal-agent relationships. The procedures, systems, and structures set up for the purpose of monitoring and alignment of interests are called: agency cost control mechanisms (Chrisman, Chua and Litz, 2004).

2.4. Altruism definition and its influence in agency costs in family firms

In religious readings and also in some philosophy studies altruism can be defined as a moral value that encourages a person to do actions that will benefit others without any expectation of gaining something in return (Karra *et al.*, 2006).

However studies also show that altruism can be viewed as a trait based, in part, on feelings or sentiments (Lunati, 1997).

Schulze *et al.* (2003) states that in family relationships, from parents to children for instance, altruism leads the parents to care for their children, compels all family members to be selfless for one another. Altruism is also considered to nurture loyalty and commitment to the family and, consequently, to the firm. Despite all this, altruism is not always good: ultimately, it can give the family motivation to follow actions that may threaten the wellbeing of the family and the firm.

To the same authors, and using the Economic vision on altruism, it is considered as a useful tool that connects the welfare of one single person to that of others.

Research in social and family psychology indicates that families are attached by kinship ties, norms, and altruism (Astrachan, 2010).

Schulze *et al.* (2002) define altruism *"as a moral value that motivates individuals to undertake actions that benefit others without any expectation of external reward"*. Therefore, the owner-manager would bring numerous benefits to the household and enhancing the family. This generous attitude would create strategic inertia in the long run and a sense of distributive injustice between the family and the non-family workers.

Altruism defined by Van den Berghe and Carchon (2003) and stated in Karra *et al.* (2006) propose that *"altruism provides a powerful conceptual tool for understanding why family firms exist"*. Dyer (2003) in the same article by Karra *et al.* (2006) expresses a similar view, arguing that altruism plays *"a unique role in family firms that is not generally found in other enterprises."*

Schulze *et al.* (2003) write that altruism makes each individual of the family, working in some way in the family business, a *de facto* owner of the firm. Meaning that, each family member acts trusting that they have residual power over the family's company.

In family business literature and according to Jensen and Meckling (1976) agency problems appear due to the separation between ownership and control. Regarding this topic, it is discussed that family controlled firms are far more efficient than non-owner managed firms. This is because control mechanism costs are replaced by the direct involvement of the owner-manager individual (Fama and Jensen, 1983; Demsetz and Lehn, 1985).

The discussion on the matter is plenty. Authors argue about whether altruistic behavior increases and/or decreases agency costs in family firms.

Jensen and Meckling (1976) are the pioneers in claiming that owner-management has a tendency to eliminate agency costs. This statement is based on two assumptions. One states that agency costs tend to appear when conflicts between ownership and management, that are separated, happen. The second assumption states that owner-management substitutes in full effect the costly control mechanisms that need to be implemented when a firm is non-owner-managed.

Following multiple authors (Becker, 1974; Jensen and Meckling, 1976; Parsons, 1986; Eisenhardt, 1989; Daily and Dollinger, 1992) taking in account their altruistic behaviors, family enterprises should be "immune" to the agency problematic and by consequence, to agency costs.

Ang, Cole and Lin (2000) suggest that the sole-owner managed company is the *ex-libris* regarding agency costs, being the only way to have a zero cost base.

Berghe and Carchon in the article *Agency Relations within the Family Business System*, argue that altruism boosts behaviours and actions that go against agency theory. It reduces agency costs and consequently increases firm's performance. Four reasons are presented to support this statement.

Firstly, altruistic behaviour reinforces the sentiment of selfless care for one another, and encourages family members to be thoughtful with each other. Secondly, it empowers the sense of collective ownership between the family members that are employed by the firm. Thirdly, altruism reduces the information asymmetries between the members of the family. Lastly, it creates an organizational culture that enhances risk taking activities.

Chrisman, Chua and Litz (2004) conclude that, overall, family involvement may lead to the decrease of the agency problems.

Eaton, Yuan and Wu (2002) demonstrate econometrically that shared and symmetric altruism can give competitive advantages in some business opportunities.

Chua and Schnabel (1986), Chami (2001), Carney (2005) show evidence that altruism is helpful in achieving some form of competitive advantage.

Other author don't share the same view as the above mentioned. Family controlled firms also incur in agency costs and inefficiencies. It is considered that these costs are, in most cases, the results of owner-manager altruism (Schulze, Lubatkin and Dino, 2003).

Agency problems associated with ownership structures and altruism complicate the governance of family enterprises. The agency costs of ownership are not eliminated by a family owner-management (Schulze *et al.*, 2002).

As said by Chrisman *et al.* (2004) a family is not a uniform or standardized group of people: each person has its own interests, motivations and ideas. Thus not all family enterprises are equal as well, regarding organizational characteristics and behaviors. As a consequence to this, some family firms may be more vulnerable than others to the problems of agency.

The efficiency of cost control mechanisms in owner-managed firms serves as base to agency problems when these mechanisms are compromised. This happens when ownership is fully concentrated. The same is true when it comes to firms that are privately held (Schulze *et al.*, 2002).

Dyer (2003) suggests that altruism is in fact a "two-edged sword".

Schulze *et al.* (2001) argue that, despite the conventional theories and believes, it is necessary for family-managed firms to incur in agency costs, i.e., companies should invest in the internal control mechanisms that are required for widely held firms. Therefore, owner managed firms in general, and family owners in particular, may in fact not be the form of governance answer that agency theory assumes it to be.

Following the same line of thinking, Gomez-Mejia, Nunez-Nickel and Gutierrez, (2001) showed that the favored behavior towards family members leads to an increase rather than a decrease of agency related problems.

The empirical evidences relating altruism and its facades is somewhat limited, and the literature that exists contains a mixed picture painted, i.e., altruism may have both positive and negative repercussions for the agency relationship between principal and agent (Karra, Tracey and Phillips, 2006)

The literature shows that there are bounds to altruism as the family firms increase in size and in maturity (Gomez-Mejia *et al.*, 2001; Schulze *et al.*, 2003; Karra *et al.*, 2006)

Altruism is a problematic that accompanies owner-controlled and owner-managed firms.

A self-control problem arises, making it hard for owner/managers to consistently prioritize between their personal best interests, the interests of the firm and family members at the same time.

According to Schulze *et al.*, (2001) and Carrasco-Hernandez and Sánchez-Marín (2007) the firms that have a tendency to have the highest agency problems are nonfamily firms, followed by the professionalized family firms and those that are family owned and managed

As such, altruism can be both good and bad because it can make well-intended founder/managers 'bad agents,' since it is their effort to improve family member wellbeing that increases the threats of holdup and moral hazard. It is altruism that differentiates family firms from other kinds of organizational forms (Schulze *et al*, 2003).

2.5. The role of women

Women's participation in family firms has been growing since the nineteenth century. Data from the United Kingdom suggests that family participation in smaller businesses stand for the norm rather than the exception. It is suggested the importance of the role of women in these companies. Family enterprises generally offer women with ample opportunities. As an example, most women perceive their family business as a reservoir of great careers (Jaffe, 1991). When a woman works outside the family domain, she may face the so-called glass ceiling no matter how talented she is.

In a study made by the magazine Harvard Business Review in 2012 it is stated that women standout from men in leadership roles especially in skills related with development of people and relationship construction. In this study, women were evaluated by their peers, bosses and direct subordinates as better global leaders than men.

The authors also emphasize that women are superior in 15 out of 16 capabilities evaluated in the research, leaving behind only the skill "ability to develop a strategic perspective."

The study shows that women's leadership skills are strongly correlated with organizational success factors such as employee retention, customer satisfaction, employee engagement, and profitability (Domeneghini, Gasparin and Busato, 2017).

Studies show that when it comes to family firms, the topic of women creates a dual problematic. Firstly it is emphasized that women have an ability to make an important contribution to the management of the company. Secondly it is stated that family firms can offer more career opportunities for women, allowing them to reach higher positions, to have the opportunity to earn more money, and to have the ability and flexibility to combine work and family. In opposite, it has been highlighted that women can become a challenging element of family firms as they can have an approach to business with more emotionality than rationality (Cesaroni and Sentuti, 2014).

Some scholars' studies show that family firms are getting more oriented towards a "gender neutrality" standpoint every day (Cesaroni and Sentuti, 2014).

The number of woman in managing roles is changing, but some excluding factors are still being felt. Discrimination and the possibility that women candidates are not correctly assessed are possible explanations for a reduced number of women in those roles. However, another factor that may influence the presence of women on the board is the reduced pool of women candidates, possibly due to occupational segregation. Family responsibilities may also interrupt women's professional development (Martín-Ugedo and Minguez-Vera, 2016).

The presence of woman is changing. Gender neutrality is more and more present in companies. Despite some factors concerning discrimination still existing, women sometimes are viewed as the weakest link. The presence of women within companies, in managing roles and in leadership positions is increasing, either in family firms and in in non-family firms. Women are proving that they too can manage and lead companies and teams, and they even have some characteristics that most men can't demonstrate as easily.

2.6.Compensation policies in family firms and non-family firms

The debate on altruism as an enhancer mechanism for agency costs in family firms will serve as the theoretical background for the comparative study on compensation levels in family businesses and non-family businesses.

The agency arguments used to enlighten the variations in employee wages are based on the idea that incentives proposed at the top of the hierarchy of the company may spawn a cascade effect that grows in extent as it goes towards the lower levels of the company's employee ladder (Carrasco-Hernandez and Sánchez-Marín, 2007).

There are various types of compensation that go across all levels of the organization. These are: cash incentives, noncash incentives and benefits and perks (Carlson and Upton, 2006)

Pay-related agency costs under atomistic ownership are bigger than estimated by the literature that just focused on upper management pay. This because pay-performance relations are significant for the whole company, not only at the top (Werner, Tosi and Gomez-Mejia, 2005).

The representatives of SMEs (family and non-family) point out that the major challenge for the growth of the companies is human resources. It is concluded that in family owned SME's, compensation in cash incentives might take the company to higher performance (Carlson and Upton, 2006).

The adequate compensation type for employees can vary according to the type of firm in question: (1) family owned and managed (with ownership and management highly concentrated within the family, which wishes to remain firmly associated with the business in the future); (2) professionally managed family (where management is in the hands of nonfamily professionals); and (3) non-family (widespread ownership and managed by non-owners).

The interests and risks of the players in the contracts will be different depending on their role inside the firm.

The analysis will be divided into three layers of organizational levels as follows.

2.6.1. Top management compensation

According to the first theories studied (Jensen and Meckling, 1976), privately held companies and family managed businesses are likely to sustain less agency costs due to the alignment of interests between top management, family members, and company interests. Furthermore, altruism as debated by Schulze, Lubatkin and Dino (2002) turns these family members into *de facto* owners of the company, meaning that they are all constituted as responsible for the firm wealth. For this reason, the motivations to be opportunistic in seizing the firm's wealth through the consumption of perquisites are reduced.

The focus on upper management pay, especially the CEO is not unexpected. In the majority of companies, the process of decision making and absolute authority lie at the top. Much of this work is based on agency theory and the theory of managerial capitalism.

Empirical evidence suggests that incentive alignment at the top is lowest where it should be highest: when ownership dispersion is high. Meaning that it is apparent that when upper management pay-setting options are not controlled by the main shareholders, executives find ways to reduce their risk, separating pay from performance. And instead connecting their remuneration to standards they can control with ease (Werner e*t al*., 2005).

The CEO represents the agent for the owners and, at the same time, a principal for the employees below him. The major risk assumed by the CEO is being fired for inefficiency (Berghe and Carchon, 2003). To reduce it, CEOs go through certain actions that allow them to take benefits and protect their position. This is dependent on whether they are or not owners and on the amount of ownership held (Carrasco-Hernandez and Sánchez-Marín, 2007).

When CEOs are owners and hold substantial ownership, they are more likely to assume higher risks. If they make a mistake, they will not be fired for that, but the value of the assets they own in the company will fall. These assets usually represent a large part of the CEO's personal fortune - 69% according to Forbes Wealthiest American Index (2002).

Therefore, it is unlikely to be fired in a family owned and managed firm, the phenomenon is called asymmetric altruism by Schulze *et al.* (2001). Agency issues are likely to happen less in this type of companies.

When the CEO is not an owner, on the other end, there are two possible situations that can happen: (1) the firm is a non-family firm and the ownership is distributed between several owners. In this case, the CEO can use this situation in their favor and protect their particular investment. This is achieved by making choices that do not automatically get the most out of the shareholders' objectives, and thus assuming less risks (Berghe and Carchon, 2003). Agency problems in this case are high. (2) The ownership is extremely concentrated, professionalized family firm. In this situation, the CEOs' capability to work in their personal interest is inferior, even though it is higher than in the case of a family owned and managed business. The assumed risk is medium (Carrasco-Hernandez and Sánchez-Marín, 2007)

Studies in this area support the agency theory logic that principals (owners) prefer to link agents' pay to performance. This it aligns agent and principal goals, thus shrinking the risk of moral hazard (Fama, 1980; Fama and Jensen, 1983; Tosi *et al.*, 1999).

This tendency happens in owner-controlled firms, but not in management-controlled firms. In the first type of companies, CEO compensation is more sensitive to changes in performance than in the second type (management-controlled) (Tosi Jr and Gomez-Mejia, 1989; Hambrick and Finkelstein, 1995; Wright, Kroll and Elenkov, 2002).

Owner-controlled firms' top managers are not alone when it comes to have their pay at risk. All employees support the adverse consequences from unexpected situations that can have an influence in firms' performance. Also the choices made by top managers that affect the pay allocation criteria, for example the achievement of specified productivity or profitability targets (Werner, Tosi and Gomez-Mejia, 2005)

Family-owned SMEs state that attracting and retaining strong non-family executives and managing insufficient or poorly trained human capital are major obstacles to business success and growth (Carlson and Upton, 2006).

Taking the above mentioned into consideration, it is expectable that the level of pay of top management on family firms will be lower than the other types of organizational forms (Astrachan, 2010). This is coherent with the agency theory studies that suggest that there is no need to provide incentives to the family top managers as their wealth is closely tied to the wealth of the company (Carrasco-Hernandez and Sánchez-Marín, 2007).

2.6.2. Functional management compensation

There are still very few studies that are related with functional or mid-level management pay levels.

Inside every firm exist different levels with different employee agents respectively. Having he CEO at the top end, which takes on the role of principal in regard to the employees lower down the hierarchy, to make sure that the owners' welfares are followed (Carrasco-Hernandez and Sánchez-Marín, 2007).

These employees are considered agents in regard to the CEO, but at the same time, as principals to the employees directly below them. This pattern is followed down the hierarchy.

Every risk taken by the agents at all levels is personal, excluding the family members. For example: the risk of being fired.

In cases where the risk of moral hazard is high, the compensation designed tool turn out to be essential to correct these behaviours and align interests. However, this tool's design will vary depending on the type of company in question. The objectives of the principal will be different coming lower on the organization (Werner *et al.*, 2005; Carrasco-Hernandez and Sánchez-Marín, 2007).

It is argued that privately held companies cannot attract competent workers in the same way that public firms do it. This is explained by the limited liquidity that family firms have available and also for the unwillingness of family members present in the firm to share their power with external professionals (Schulze *et al.*, 2001).

Functional managers pay levels decreases as the CEO's level of ownership increases. The same conclusions apply to all the other levels of the hierarchy below (Werner *et al*., 2005).

We believe that this is not as exact as described before. Privately held companies face the same market competition over its products/services as other companies do. Family firms must stay competitive and try to find qualified human resources by offering similar competitive compensation packages.

2.6.3. Base employee compensation

Base employee compensation is also a subject that until this date has not been widely studied.

Studies by Werner *et al*., (2005) say that base employees pay levels decrease with the increase of the CEO ownership. On the other hand Carrasco-Hernandez and Sánchez-Marín (2007) showed that the pay level is lower in family owned and managed firms than in both nonfamily and professionally managed family firms.

Despite this, both authors state that there are no differences in employee compensation between professionally managed family firms and nonfamily firms.

There are two essential reasons to explain what was concluded by Werner, Tosi and Gomez-Mejia (2005) mentioned above. Firstly, the CEO is one of the main shareholders and being CEO is in fact a present part of power in the organization daily basis. This way it is easier to control employees. Hence it becomes easier and simpler to align their interests with those of the owners. The same logic applies to fixing agency problems such as moral hazard or collusion of interests. Secondly, CEOs will take upon themselves to lower their own pay levels (when compared to other companies) and rather let the money rest in the firm in order to enrich firm and shareholder value. On the other end, in the nonfamily business, the CEO does not represent an owner and ownership concentration is low. This situation leads to decisions that are directly oriented towards personal gain, security and status inside the company by the CEO, as well as higher salary. Finally, in professionally managed family firms, CEOs are aware that decisions made and actions taken are closely controlled by the owners. Therefore, an intermediate pay level for employees is expected: lower than in nonfamily business but higher than in companies owned and managed by the family (Gomez-Mejia, Nunez-Nickel and Gutierrez, 2001; Carrasco-Hernandez and Sánchez-Marín, 2007)

Organizations have a tendency to uphold suitable gaps between pay levels and to set these gaps not in absolute pay terms but as ratios. Thus, the expectations are for a lower pay level among employees (Gomez-Mejia *et al.*, 2003).

In a study made by Rebérioux *et al.*, (2013) that compares the pay levels and job security between family firms and nonfamily firma, it is concluded that family firms have a tendency to offer specific compensation packages that implicate lower wages but greater job security. This is related to a multiple equilibrium model in which family firms are in a low-pay/high-job-security equilibrium, while nonfamily firms are in a high-pay/low-job-security one.

Relating this fact with the altruism of the top management in family firms would provide better pay to other family members working in the company, even if their commitment, professionalism or quality of the work did not correspond to what it is expected. With this the owned/manager altruism would be extended to other non-family workers to create a biggest sense of distributive justice, leading the owners to raise the pay levels of base employees.

3. Empirical Analysis

The scarcity of data and studies concerning the comparison between family firms and non-family firms led to this investigation.

We want to understand whether or not the global environment felt in companies is affected by whom manages it. More specifically, we want to know if compensation, in particular the differences between the compensation of managers and other employees, are similar or dissimilar in these types of firms. To narrow the investigation, it will focus on Portuguese companies or companies that operate in Portugal and are listed in Lisbon Stock Exchange, composed by 48 enterprises.

The main purpose of this study is to understand if the differences felt in levels of compensation of companies in previous studies are still being felt today. If the average wages in family firms are equal or near the average wages in non-family firms. In addition, the differences between the number of board members, the number of women in the board and internationals will also be studied. Furthermore, the earnings and diversity of each company will be compared as well.

Therefore, five factors will be under analysis: number of board members, number of women in the board, number of internationals in the board, number of sector of operation of which company and overall remuneration of the board.

3.1. Research Context

Nowadays workforces in the vast majority of businesses are composed of distinct generations, each generation sharing key life experiences (Weston, 2001).

In the beginning of 2017 the total European population was around 511.5 million people (Eurostat, 2017). In the same year the active population, people considered to be of working age (15 to 64 years old)- was around 246.4 million (PORDATA, 2017)

In diverse studies about the importance of family businesses worldwide it is shown that the total number of family firms around the world leaves no questions regarding their predominance and, consequently, their economic importance and impact. (Bhat, Shah and Baba, 2013).

Family companies range from single owners to large international enterprises. Big or small, listed or non- listed, family businesses play a significant role in the EU economy (European Commission, 2017)

According to the European Family Business and considering the best available research, the importance of family businesses has been associated to:

- *"GDP - in most countries around the world they are 60 - 90% of non-governmental GDP;*
- *Jobs - in most countries around the world they are 50 – 80% of all private sector jobs;*
- *Start-Ups - 85% of all business start-ups are started with family money;*
- *Job growth - in the Unites States, family businesses represent more than 75% of net job growth;*
- *Weighting - in most countries around the world, family businesses are between 70 and 95% of all business entities".* (European Family Businesses, 2012)

Family firm research argues that this type of companies are different from non-family firms. It indicates that consumers preferred this firms when facing the choice. It is also discussed that this firms pay greater attention to customer service, offer greater opportunities for women, have a sense of respect for tradition, and take better care of their employees (Bhat, Shah and Baba, 2013).

3.2. Research Problem

With the advance of time, a larger number of family held companies change hands from one generation to another, and with this, more family legacies are lost. With new owners and different values taking over, the impacts can often be negative both in terms of company productivity and profitability, but also in terms of the workforce wellbeing.

There are many HR practices worth of study, this case will be focused on compensation.

Regarding to this matter, studies show that CEO compensation (the most studied problematic of this field) is generally higher in non-family firms when in comparison to family firms (Gomez-Mejia, Larraza-Kintana and Makri, 2003). On the other hand, it is believed that employees feel better in companies owned and managed by families due to the strict bond between managers and employees, giving a sense of proximity not felt in other companies (Chami, 2001).

We then intend to evaluate whether the differences described in literature and previous studies are still being observed today. A study will be conducted to evaluate if the gap between the two types of companies is getting narrower, or the differences are still considerable.

3.3. Hypothesis

H1: There is no difference in the number of board members of family and non-family firms

H2: There is no difference in the number of female board members of family and non-family firms

H3: There is no difference in the number of international board members of family and non-family firms;

H4: There is no difference in the number of sectors of action of family and non-family firms;

H5: There is no difference between the average remuneration paid to board members in family and non-family firms.

3.4. Methodology

3.4.1. Investigation Method

In this dissertation the Hypothetical-Deductive scientific method was used. There was a systematic investigation on the subject to describe and explain the differences of diverse factors on family firms and non-family firms, based on carefully collected and treated data.

As to its nature, this research is of the applied type: it involves truth and generates knowledge to apply to practice, in order to solve specific problems (Marconi and Lakatos, 2003).

As for the objectives, the classification is descriptive, according to Cooper and Schindler (2016). We will aim to describe a target and estimate proportions of a given sample with the same characteristics. The approach of the problem is quantitative in nature, since it uses statistical techniques to quantify and relate the collected data.

This study will be an addition to previous work, present in literature, since the subject under research was already studied in other contexts. This study can bring new and significant insights, mainly for the Portuguese context.

3.4.2. Data Collection Procedure

The procedure used for the data collection consisted of documentary research. According to Marconi and Lakatos (2003), documentary research has as a source of information collection the restriction to primary documents, whether written or not. In this study, data was collected on the websites of each and every company and also on CMVM website, specifically in the Annual Report of 2017 of each of the companies considered.

In each report, information concerning the board of directors was extracted, namely, the number of members, number of women in the board, number of internationals, and remuneration of the members. Also, information about the sectors of operation of each company was hauled out. In addition, the EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortization) of the last three years were collected for this analysis.

3.4.3. Sample

In order to conduct an empirical research it is necessary to collect data. Data is information in the form of observations or measurements of the value of one or more variables. These values are usually provided by a set of entities including families, individuals and businesses, which are called cases of investigation (Hill and Hill, 2009).

To the total set of cases on which it is intended to draw conclusions is given the name of population or universe. Its nature and size are defined by the purpose of each specific research (Hill and Hill, 2009).

The sample considered for this research are the forty seven companies listed in Euronext Lisbon. Euronext Lisbon is a stock exchange in Lisbon, Portugal. Euronext Lisbon trades equities, public and private bonds, participation bonds, warrants, corporate warrants, investment trust units, and exchange traded funds.

The forty seven companies stand for the listed Portuguese companies. These have very different origins, histories, and most importantly, operate in kinds of sectors.

The major limitation of this sample is that the resulting data is non-representative and, for that reason, the results and findings of the study cannot be extrapolated to the universe.

3.4.4. Data Analysis

The software used to analyse the collected Data was the version 25 of the Statistical Package for Social Sciences (SPSS).

In the following section, the collected data will be analysed in order to answer the investigation questions. All methods used and the results obtained will be explained and deeply analysed.

In order to take the necessary conclusions, a set of statistical analysis was performed, including:

- Descriptive statistics such as frequencies and mean;
- Inductive statistics analysis, both parametric and non-parametric, such as independent sample t-test and Shapiro Wilk test
- Correlation's coefficient of Pearson and Spearman to test if the variables were correlated

The value of the level of significance used as decision criteria on hypothesis testing was 0.05. This value is commonly used in social sciences and suggested in literature.

4. Results

4.1. Sample Characterization

A deeper study of each of the companies was made to better characterize the sample. The study is divided between Family and Non-Family Businesses as follows.

Family businesses:

1. Corticeira Amorim

The Amorim Group is one of the largest, most entrepreneurial and dynamic multinationals of Portuguese origin. Its origins date back to 1870 in the cork business. It is the world leader in the sector today.

Guided by a vision of sustained growth, the Group has engaged in the diversification of its business in sectors and geographical areas with high growth potential. In the 1960s, the process to vertically integrate the cork business and internationalise activities began.

Observing the maxim «not just one market, not just one client, not just one currency, not just one product», the Amorim Group overcame geographical borders and constraints which were risky at the time, and presented cork to the world, making its mark in sectors such as real estate, finance, telecommunications and tourism.

2. Galp

Galp was incorporated on 22 April 1999 under the name of GALP - Petróleos e Gás de Portugal, SGPS, S.A. to explore the oil and natural gas business following restructuring of the energy sector in Portugal.

Galp was a result of the merger between Petrogal, the only refining company and main distributor of oil products, and Gás de Portugal (GDP), an importer, transporter and distributor of natural gas in Portugal.

Galp is currently an innovation-oriented brand with a technological profile and committed to the common future. Achieving success requires preparation and rigour, especially in research & development - a critical area for the future. Knowledge and science are thus fundamental to Galp’s activity.

3. Grão-Pará Imobiliária

Founded in 1960 in Lisbon, its main activity, is construction, whether public or private, the purchase of buildings for resale and any other activity that suits its purposes.

The Company's activity is strongly interdependent with that of its main associates, focusing on the real estate, construction and management and operation of hotel units.

4. Impresa

Founded in 1972 by Francisco Pinto Balsemão with the intention of producing a quality weekly newspaper in Portugal, despite the censorship applicable at the time.

The newspaper Expresso was the "embryo" of the IMPRESA media group. Today it is the best-selling weekly newspaper in Portugal and winner of the European Newspaper Award in 2006. The group also publishes magazines, newspapers and has television channels. Digital is one of the new bets of this communication group.

5. Jerónimo Martins

In 1792, a young Galician with a great entrepreneurial spirit decided to open a modest shop in Chiado. After 225 years, he is still the name of a food specialist, with presence in three countries on two continents.

Offering a value proposition based on quality at competitive prices. Jerónimo Martins core business is Food Distribution which accounts for more than 95% of the Group’s consolidated sales.

In Poland, its main business is the Biedronka chain of food stores while in Portugal, Pingo Doce and Recheio are leaders in their own segments: retail and wholesale, respectively. In Colombia, the group run’s the Ara chain of neighbourhood stores.

6. Martifer

In February of 1990, Martifer Construções Metalomecânicas, SA is formed as a limited company.

Nowadays Martifer is a global recognized player in the metallic construction sector.

It carries out projects in the Metal Mechanical Construction, Aluminium and Glass, Infrastructures for Oil & Gas and Naval Industry segments.

With a diversified portfolio, it looks to find the best engineering solution for each project.

Mainly aimed at leading highly complex projects, Martifer Metallic Constructions bases its development strategy on differentiation through quality engineering.

7. MotaEngil

The Mota-Engil Group has a business record of 70 years, marked by a culture of entrepreneurship and innovation in a constant search for new horizons.

As a leader in Portugal with a consolidated position in the ranks of the 30 largest European construction groups, Mota-Engil is making its mark in 28 countries, in three distinct geographical areas – Europe, Africa and Latin America, with holdings in over 200 companies, Mota-Engil assumes a position in the market according to the values and cultural identity of the organisation, grounded in a unique and integrated strategic vision for the Mota-Engil of the future: a more international, innovative and competitive Group on the global scale.

8. Orey Antunes

Orey Group is an operating holding company that invests in a mix of minority, majority and wholly owned companies as an active, long-term investor. With about 425 employees, it is currently present in Portugal, Spain, Brazil, Angola and Mozambique.

With a family history of more than 125 years, the Group seeks to maximize shareholder returns through a dynamic asset allocation process for its well diversified portfolio. It also provides its clients with access to the unique and innovative investment products structured in house for its own proprietary portfolio.

9. Patris

Founded in 2006 Patris Investimentos is a financial holding company organized essentially around 5 poles of activities: insurance; brokerage of securities: stocks, bonds and derivatives; management of investment funds; portfolio management; venture capital.

10. SAG Gest

Founded in the late 80's SAG GEST - Soluções Automóvel Globais specializes in the distribution of cars and in the associated services. Its core activities are as follows: - sale of cars: (mainly Volkswagen, Audi and Skoda brands). In addition, the group carries out activities for the sale of car leasing and the sale of loose parts; - provision of services: maintenance services and also insurances.

11. Semapa

Semapa is a public company founded in 1991. The company is one of Portugal's largest industrial groups, with a workforce of more than 6,000 and a presence on several continents. More than three quarters of its turnover is generated on foreign markets. Its business activities consist of indirectly managing its holdings in three industrial areas:

PAPER AND PULP, through its holding in the The Navigator Company

CONCRETS AND AGGREGATES, through holdings in the Secil Group

ENVIRONMENT, through its holding in the ETSA Group

12. Sonae

Sonae is a multinational company managing a diversified portfolio of businesses in retail, financial services, technology, shopping centres and telecommunications, founded in 1959.

It manages Sonae MC the food retail market leader in Portugal with a number of distinctive business segments, which offer a varied range of high quality products at the best prices, Sonae S&F is responsible for Sonae's specialised retail in sports and fashion, Worten is responsible for Sonae's specialised retail in electronics, Sonae Retail Properties was created in 2009 with the objective of optimising the management of its retail real estate portfolio, Sonae FS is the business segment responsible for fostering financial services, Sonae IM has an active portfolio strategy, with the clear objective of building and managing a portfolio of tech-based companies linked to retail and telecommunications, Sonae Sierra is the international property company dedicated to serving the needs of retail real estate investors.

13. Sonae Capital

Sonae Capital, founded in 2007, is a holding company organized around 5 core business areas: development and management of tourist resorts and hotels. The group offers integrated services (SPA, congress center, event organization and restoration services); health club management (Solinca and Pump); energy services; design, assembly and maintenance of commercial and industrial cold and air conditioning installations.

14. Sonae Indústria

Founded in 1959 as part of SONAE Group, Sonae Indústria quickly became one of the largest Portuguese manufacturers of wood-based panels. Located in the north of Portugal, the company has undergone an expansion process through a combination of organic growth and acquisitions, and has become one of the industry leaders with business units in Europe, North America and South Africa and a wide variety of products for the furniture, construction and decoration industries aiming to improve people's lives.

15. SonaeCom

Sonaecom is a sub-holding of Sonae group with assets in Technology, Media and Telecommunications' areas.

Sonaecom holds a considerable share of the telecommunications market through NOS, which resulted from the merger of ZON TV Cabo and Optimus Clix. Also owns one of the five reference ewspapers in Portugal, the Público newspaper, and the digital certification company Saphety.

16. Teixeira Duarte

Having started its activity in 1921, Teixeira Duarte is now leading one of the largest Portuguese Economic Groups.

Based on its structuring values: Ingenuity, Truth and Commitment, Teixeira Duarte continue performing its mission: Execute, contributing towards the construction of a better world.

True to these guidelines, Teixeira Duarte got a steady and sustained growth, especially in recent decades that enabled with a strong entrepreneurial skills, with means and resources, including

HR, that allowed multiple processes of internationalization and the diversification of its activity several other sectors.

17. The Navigator Company

The history of the The Navigator Company dates back to the 1950s. In the pulp and paper industry, The Navigator Company is of great importance in the national economy. The Company's production capacity and exports make it a driving force for Portugal's economy.

The Company does more than manufacture and market pulp and paper. The Navigator Company is also a leading operator in the biomass energy sector.

18. Toyota Caetano

Founded in 1946, in 1968 the company is named exclusive distributor of TOYOTA products for Portugal. At this time Salvador Caetano completed 22 years of activity as a bus builder

Nowadays Toyota Caetano specializes in the assembly and distribution of light and heavy vehicles.

19. VAA Vista Alegre

Vista Alegre is the result of the dream of the typical modern man of the nineteenth century, José Ferreira Pinto Basto, its founder. Influenced by the success of the Marinha Grande glass factory, Pinto Basto decided to create a factory of "porcelain, glass and chemical processes" in 1924.

VAA-Vista Alegre Atlantis specializes in the manufacture and marketing of ceramic and glass products.

Non Family businesses:

1. Altri

Is a Portuguese Bleached Eucalyptus Kraft Pulp (BEKP) pulp producer Incorporated in 2005, following restructuring process of Cofina.

2. BCP

Millennium bcp, is the largest Portuguese private bank. It was founded in 1985, following the liberalization of the Portuguese banking market.

3. BPI

Founded in 1981, Banco BPI is the fifth largest financial institution operating in Portugal.

4. Santander

Banco Santander Portugal, known commercially as Santander, is currently the one of the largest private banks in Portugal, having been founded in 1988.

5. Benfica

Founded in 1904 Sport Lisboa e Benfica-Futebol owns and manages the football club Sport Lisboa e Benfica.

6. Cofina

Cofina is a Portuguese holding company and publisher founded in 1995 and that is dedicated mainly to the media. Cofina currently has five newspapers, six magazines and one cable television channel.

7. Compta

Compta is a Portuguese company with 46 years of activity in the areas of Telecommunications and Information Systems.

8. CTT Correios

CTT - Correios de Portugal, are a Portuguese business group focused essentially on the postal business. The origins of the CTT date back to 1520, the year King D. Manuel I of Portugal created the first public mail service.

9. EDP

Energias de Portugal is a company in the energy sector, in terms of production, distribution and sale of electricity, and gas sales. Founded in 1976.

10. EDP Renováveis

EDP Renováveis (EDPR), founded in 2007, is a subsidiary of the Energias de Portugal Group (EDP Group), which operates in the field of Renewable Energies.

11. Estoril Sol

Estoril-Sol is a Portuguese company that owns the concession of the casinos of Póvoa, Estoril and Lisbon, in Portugal.

The company was formed by José Teodoro dos Santos in 1958 specifically for the exploration of Casino Estoril.

12. Euronext

NYSE Euronext is a group of stock exchanges in Europe and the United States, with representations in Belgium, France, the Netherlands, Portugal, the United Kingdom and the United States (NYSE).

Euronext was founded on 22 September 2000.

13. FCP

Futebol Clube do Porto - Futebol SAD owns and manages the Porto football club, founded in 1893.

14. Glintt

Glintt – Global Intelligence Technologies (formerly two companies under the names ParaRede and Consiste), founded in 2008 is one of the biggest Portuguese technological companies.

15. Ibersol

Ibersol, founded in 1989 as part of Sonae group, being independent since 1994, specializes in the operation of fast-food chains. At the end of 2017, the group operated 646 restaurants in Portugal, Spain, Angola and Italy.

16. Inapa

Inapa was founded in 1965. The business has changed and its geographical boundaries have expanded, going from a national paper producer to an international group, leader in the European paper distribution with operations in packaging and visual communication.

17. ISA

ISA - Intelligent Sensing Anywhere specializes in the development of telemetry, remote management, automation and control systems. The products are mainly intended for the environment, energy, oil and gas, health and integrated building management sectors.

19. Lisgrafica

Lisgráfica - Impressào e Artes Gráficas specializes in printing services, founded in 1973.

20. Luz Saude

Luz Saúde was established in 2000 and is one of the largest health care groups in the Portuguese market. The group provides its services through 29 units across Portugal.

21. Media Capital

The Media Capital Group was established as a publisher of print media in 1992. In the following years, the Group acquired a number of publications. Nowadays owns also Radio Comercial and TVI.

22. Nexponor

Nexponor is a Private Equity Investment Company, specializing in the holding and management of commercial real estate assets, it started its operations in 2013.

23. NOS

NOS was founded as TVCabo in 1994, and was the third cable operator to be founded in Portugal. NOS is a Portuguese media holding company whose main assets include a satellite, cable operator, and ISP, a mobile phone operator, a movie distributor (NOS Audiovisuais) and a virtual carrier of mobile phone services.

24. NovaBase

Novabase is a Portuguese IT company established in 1989. Novabase are active in the provision of information technology solutions for the financial services, government, healthcare, energy & utilities and aerospace sectors.

25. Pharol

Pharol provides telecommunication services. The company was formerly known as Portugal Telecom, SGPS, SA and changed its name to Pharol, SGPS S.A. in May 2015. The company was founded in 1994 in Lisbon, Portugal.

26. Ramada Invest

Founded 80 years ago. Ramada was considered the pioneers, and today the leaders in global solutions using steel and high-density storage systems.

27. Reditus

Founded in 1966, Reditus has extensive experience in the various sectors in which it operate

Its portfolio combines the ability to implement solutions in a wide range of areas, from IT consulting to Business Process Outsourcing.

28. REN

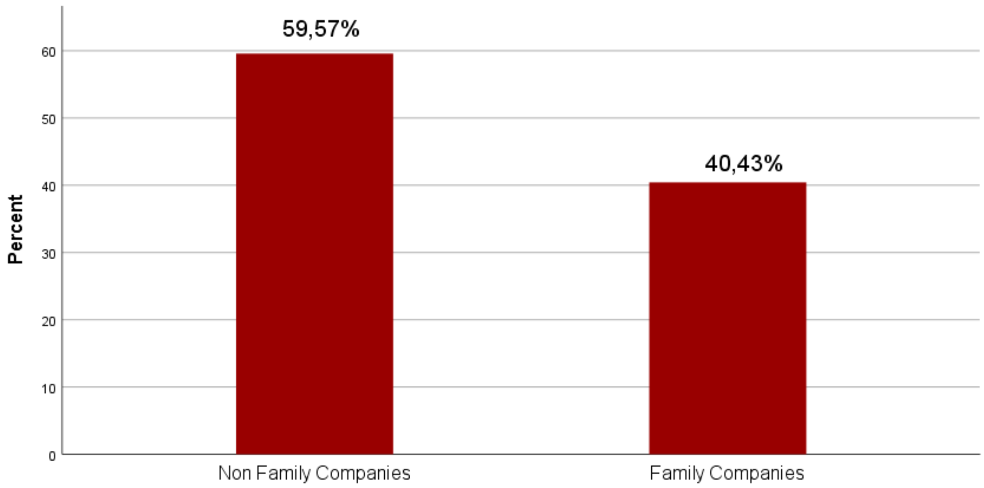
REN - Redes Energéticas Nacionais specializes in the operation and concession management of the Portuguese electricity transportation network.

29. Sporting

Sporting Clube de Portugal-Futebol manages Sporting Clube de Portugal, one of the first division football clubs in Lisbon, founded in 1906.

Considering the 47 companies, and after a thorough analysis, the conclusion is that from these 47 companies, 19 stand for family businesses and 28 stand for non-family companies, in terms of percentage, family companies stand for 40,43% of the total of the businesses and non-family firms stand for 59,57%.

Figure 1: Distribution of the sample by type of Business (in percentage)



Source: Developed by author (2017)

4.2. Board Constitution: A Comparison

In order to better understand the differences between the constitution of the board of directors from each type of companies each board was studied and analysed. Three factors were taken into the equation: total board members, women and internationals.

4.2.1. Number of Board Members

To conclude whether there were any differences between Family Business and Non-family Business concerning the Number of Board Members factor, an independent samples t-test was performed between the variables (see Annex 1).

This test is used to compare the means between two unrelated groups on the same dependent variable. The tested null hypothesis was the equality of the two means, or in other words the inexistence of statistical differences between the two groups, family companies and non-family companies (Pestana and Gageiro, 2014).

Before conducting the T-Test, a Levene test was made to assure that the equality of variances is secured. The result was a sig of 0.149, which is higher than 0.05, our significance level, so the H0 is accepted and it is concluded that the variances are equal.

The result of the T-Test for the board members factor was a sig. of 0.502, which is higher than 0.05, our significance level. Therefore, H0 is accepted, i.e. the hypothesis of statistical equality between family companies and non-family companies concerning the board members factor is accepted, meaning the type of company has little to zero influence on the constitution of the board.

Since our sample is lower than 30 for each type of company, the results showed in the T-Test might not been the most correct, therefore the non-parametric test of Mann-Whitney U was conducted.

Mann-Whitney U test is the non-parametric alternative test to the independent sample t-test. It is a non-parametric test that is used to compare two sample means that come from the same population, and used to test whether two sample means are equal or not (Pestana and Gageiro, 2014).

The results of the Mann-Whitney U gave us a sig. of 0.827, which is higher than 0.05, our significance level. This led us to accept H0 and conclude that the distribution of the number of board members per company is the same for the two populations, family and non-family companies.

If we take a closer look to both the overall means: 9.43 members in non-family and 8.42 members in family, and the sample mean ranks: 24.36 for non-family and 23.47 for family firms (Annex 1) in the last test, we can conclude that there is evidence from the sample that the number of board members per company is higher in non-family companies, but, the differences are not significance enough to be considered.

4.2.2. Women on the Board

In order to conclude whether there were any differences between Family Business and Non-family Business concerning the Number of Women present in the board factor, an independent samples t-test was performed between the variables (see Annex 2).

Before conducting the T-Test, a Levene test was made to assure that the equality of variances is secured. The result was a sig of 0.986, which is higher than 0.05, our significance level, so the H0 is accepted and its concluded that the variances are equal.

The result of the T-Test for the women present in the board factor was a sig. of 0.764, which is higher than 0.05, our significance level. Therefore, H0 is accepted, i.e. the hypothesis of statistical equality between family companies and non-family companies concerning the number of women in the board factor is accepted, meaning the type of company has little to zero influence on presence of women on the board.

Since our sample is lower than 30 for each type of company, the results showed in the T-Test might not been the most correct, therefore the non-parametric test of Mann-Whitney U was conducted.

The results of the Mann-Whitney U gave us a sig. of 0.751, which is higher than 0.05, our significance level. This led us to accept H0 and conclude that the distribution of the number of women in the board per company is the same for the two populations, family and non-family companies.

If we take a closer look to both the overall means: 1.21 members in non-family and 1.11 members in family, and the sample mean ranks: 24.50 for non-family and 23.26 for family firms (Annex 2) in the last test, we can conclude that there is evidence from the sample that the number of women board members per company is higher in non-family companies, but, the differences are not significance enough to be considered.

4.2.3. Internationals on the Board

In order to conclude whether there were any differences between Family Business and Non-family Business concerning the Number of Internationals present in the board factor, an independent samples t-test was performed between the variables (see Annex 3).

Before conducting the T-Test, a Levene test was made to assure that the equality of variances is secured. The result was a sig of 0.097 which is higher than 0.05, our significance level, so the H0 is accepted and its concluded that the variances are equal.

The result of the T-Test for the women present in the board factor was a sig. of 0.383, which is higher than 0.05, our significance level. Therefore, H0 is accepted, i.e. the hypothesis of statistical equality between family companies and non-family companies concerning the number of internationals in the board factor is accepted, meaning the type of company has little to zero influence on presence of internationals on the board.

Since our sample is lower than 30 for each type of company, the results showed in the T-Test might not been the most correct, therefore the non-parametric test of Mann-Whitney U was conducted.

The results of the Mann-Whitney U gave us a sig. of 0.592, which is higher than 0.05, our significance level. This led us to accept H0 and conclude that the distribution of the number of women in the board per company is the same for the two populations, family and non-family companies.

If we take a closer look to both the overall means: 1.75 members in non-family and 1.16 members in family, and the sample mean ranks: 24.80 for non-family and 22.82 for family firms (Annex 3) in the last test, we can conclude that there is evidence from the sample that the number of women board members per company is higher in non-family companies, but, the differences are not significance enough to be considered.

4.3. Diversity inside the companies: number of sectors of operation

In theory is said that non-family firms are tendentiously more diverse than family firms i.e., the companies operate in more sectors, different from their core business.

To settle if the theories are right or not, and see if there are in fact differences between Non-Family companies and Family companies regarding the factor: Number of Sectors of Operation, an independent sample T-Test was performed between the variables (Annex 4).

Before conducting the T-Test, a Levene test was made to assure that the equality of variances is secured. The result was a sig of 0.296 which is higher than 0.05, our significance level, so the H0 is accepted and its concluded that the variances are equal.

The result of the T-Test for the sectors of operation factor was a sig. of 0.773, which is higher than 0.05, our significance level. Therefore, H0 is accepted, i.e. the hypothesis of statistical equality between family companies and non-family companies concerning the number of sectors of operation factor is accepted, meaning the type of company has little to zero influence on the number of sectors of operation of each company. Putting to the ground what is said in the literature.

Looking for the means that this test gave us, the mean number of sectors of operation for the non-family companies are 3.00, for family firms this number is 2.83. With a difference of 0.17, this is no significant enough to be considered, therefor there are no differences between the two types of companies in what the sectors of operation is considered.

Since our sample is lower than 30 for each type of company, the results showed in the T-Test might not been the most correct, therefore the non-parametric test of Mann-Whitney U was conducted.

The results of the Mann-Whitney U gave us a sig. of 0.863, which is higher than 0.05, our significance level. This led us to accept H0 and conclude that the distribution of both factors, sectors of operation and type of company, is close whether equal or close to equal.

4.4. Board remuneration: Are the differences real between Non-Family and Family companies?

This is the main factor of this research, compensation. We want to understand if is in fact true that Non-Family firms pay more to its employees than Family Firms? The compensations given to the board members were analysed.

To study it, and reach to the conclusion if there are in fact significant differences or not between Non-Family companies and Family companies regarding compensation, in this particular case, board compensation, an independent sample T-Test was performed between the variables (Annex 5).

Before conducting the T-Test, a Levene test was made to assure that the equality of variances is secured. The result was a sig of 0.645 which is higher than 0.05, our significance level, so the H0 is accepted and its concluded that the variances are equal.

After this, the T-Test was performed, as seen in Annex 5 in what regard to the mean remuneration, Non-Family firms show's us a mean compensation of 247,988 € per board member per year, in what Family firms concerns, this number reaches the 233,225 € per board member per year. Despite de difference of around 14,763 € and as we will see in the T-Test results, the differences are not large enough to be considered.

The result of the T-Test for the remuneration factor was a sig. of 0.852, which is higher than 0.05, our significance level. Therefore, H0 is accepted, i.e. the hypothesis of statistical equality between family companies and non-family companies concerning the remuneration of the board factor is accepted, meaning the type of company has little to zero influence on the compensation of each board member annually.

Since our sample is lower than 30 for each type of company, the results showed in the T-Test might not been the most correct, therefore the non-parametric test of Mann-Whitney U was conducted.

The results of the Mann-Whitney U gave us a sig. of 0.728, which is higher than 0.05, our significance level. This led us to accept H0 and conclude that the distribution of both factors remuneration and type of company is whether equal or close to equal.

4.5. Relating results with remuneration

The next and last step of this study was to run a linear regression model to see if the variables were somewhat related to one another.

For this, the Earnings Before Interests, Taxes, Depreciation and Amortization, called from now forward EBITDA, of the last three years (2015, 2016, 2017) was studied (Annex 8).

In order to do so, and to try to eliminate the noise present in the data collected, only for this test, the firms Grão-Pára and Orey Antunes were not considered, since the average of their annual results presents negative values.

Companies belonging to the same group as the parent company were also withdrawn, in this case particularly: EDP Renováveis, Sonae Capital, Sonae Indústrias and Sonae Com.

A simple linear regression model was chosen to test if the dependent variable, EBITDA and the other variables were correlated or not and its level of correlation. The goal was to analyse the proportion of variance of each dependent latent variable explained by its explanatory variables in the model (Langaro *et al*., 2018).

A preliminary study was made through the Pearson correlation coefficient (Pearson, 1985). It ranges between +1 and -1, in which +1 is a total positive linear correlation, 0 is no linear correlation and -1 is a total negative linear (Pearson, 1985).

Regarding the Pearson's correlation coefficient (R) for this model (Figure 2), it is possible to analyse the relationship between the studied variables.

Figure 2 – Correlations between variables

	EBITDA	BOARD	WOMEN	INTERNATIONALS	SECTORS	REMUNERATION
EBITDA	1					
BOARD	0,177	1				
WOMEN	-0,032	0,624	1			
INTERNATIONALS	-0,021	0,428	0,406	1		
SECTORS	0,060	0,258	0,374	0,136	1	
REMUNERATION	0,799	0,240	-0,104	0,031	0,047	1

Source: Developed by author (2018)

Having in account the variable EBITDA as the dependent variable and analysing the table above, we can see that among the variables Board, Women, Internationals, Sectors and Remuneration, only this last has a value high enough to be considered, with a correlation of 0.799 is the closest value to 1. Therefor the strongest correlation present in this study is between the EBITDA of a company and the board remuneration.

After this primary evaluation, the linear regression model was run. The results are as showed in Annex 6.

Analysing the r-squared measure (this indicates the percentage of the variance in the dependent variable that the independent variable explain collectively). In this particular case, our r-square is approximately 54%, meaning that the relationship between our variables is medially strong.

Our p-value in the variable Remuneration is considered significant because it gives us a value of 0.000 which is lower than our significance level of 0.05, therefor it should be considered in the linear regression model.

We can sustain that in fact Remuneration and the results, the EBITDA in this case, are strictly connected.

With the support of a Durbin Watson test, which is a test that measures autocorrelation in residuals from regression analysis (Pestana and Gageiro, 2014) we can support that the variables are connected, since the result of this test was 2.0727. This results as showed in the literature gives us a positive correlation (values between the range 0 to <2).

In our sample the most meaningful and interesting fact to point out as a conclusion to this analysis is that, in our sample, the higher the board's remuneration, the higher is the EBIDTA attached.

4.6. Hypotheses validation summary

To conclude the chapter of results, the following table lists the hypotheses and illustrates their situation in terms of validation or rejection in accordance to the investigation results presented on the previous points.

Figure 3 – Hypothesis overview

Study hypothesis	Situation
H1: There is no difference in the number of board members of family and non-family firms	**VALIDATED**
H2: There is no difference in the number of female board members of family and non-family firms	**VALIDATED**
H3: There is no difference in the number of international board members of family and non-family firms	**VALIDATED**
H4: There is no difference in the number of sectors of action of family and non-family firms;	**VALIDATED**
H5: There is no difference between the average remuneration paid to board members in family and non-family firms.	**VALIDATED**

Source: Developed by author (2018)

5. Discussion

The present study tested the multiple factors in which differences between family firms and non-family firms could be relevant.

We started by testing means. Firstly, if there were differences in the number of board members between family firms and non-family firms. With the results we could check that hypothesis one (H1) was meted. There is no relevant discrepancy. Both types of companies are similar when it comes to the number of elements that constitute their boards.

Our second test was meant to study whether there was significant differences between the number of women in board roles. The results supported that the differences are not significant. Women are gaining importance among the board members but are still very far from the number of men seen taking the same roles. Despite this, when comparing family business with non-family business the results are similar in every aspect.

The same was concluded in the study made in family firms listed in São Paulo stock exchange (Vaccari and Beuren, 2017) that women are more present, but when facing the number of men in leading roles, the differences are still very considerable. The importance of women has been growing throughout the years and this was more noticeable in non-family firms, but, nowadays family firms are approaching this reality as described in the study by Domeneghini, Gasparin and Busato (2017). Martín-Ugedo and Minguez-Vera (2016) point out that it is easier for women to have a positive work-life balance on family firms, and the results of their study suggest that small firms and family firms are more prone to have women on their board of directors.

The next test was made to check if there were differences in the number of internationals present in each board. Since we were studying Portuguese companies, the fact that some had international members reveals that multiculturalism is starting to be observed among listed companies. As a result we could see that the differences are not significant, but both types of firms have positive results on this field.

In the study made by Martín-Ugedo and Minguez-Vera (2016) the results indicate to a higher board diversity presently than a few years ago. Companies are investing on foreign professionals as a way to bring new insight and different points of view to the company, in order to gain some competitive advantage towards competition.

A study in diversity of operations was made. We wanted to know if there were differences in the number of sectors of operation for each company.

The results came out as negative: no significant differences were found. Rejecting the hypothesis of family firms being more traditional and less adventurous when it comes to entering in new fields of operation. Both types of companies are similar when it comes to the number of sectors of operation, no relevant differences.

Afterwards, the tested variable was board remuneration. We sought to understand if there were significant differences in the pay level of board members, differentiating again between family firms and non-family firms. The results were clear, no relevant dissimilarities were found. Board compensation levels are similar between family firms and non-family firms, the differences are minimal.

Comparing these to studies made by Astrachan (2010) and also by Carrasco-Hernandez and Sánchez-Marín (2007) that pointed out that: top managers and executives from family firms had lower pay levels than their peers from non-family firms. We came to the conclusion that our results did not match theirs.

The last study was a liner regression model, to understand if any of these variables, above mentioned, are directly related with the annual results (EBITDA to be precise) of each companies.

After a thorough investigation, the most relevant information taken was that the results of each company, in this particular case the EBITDA, are directly related to board remuneration. If one increases, so does the other and vice versa.

This is coherent with agency theory and agency costs. Shareholders seek better results and for this their representatives, in this case board members receive higher pays to maintain the interest align. Being remuneration and results two factors dependent on one another (Jensen and Meckling, 1976)

6. Conclusions

The present study aims to fill a gap in the literature. We put together concepts like family and non-family businesses, altruism, agency costs and board diversity. The main goal was to understand wether family firms are as distant from non-family firms as the literature conveys.

Family companies are growing in size. They represent a great parcel of companies in nowadays economy. They are no longer just your typical grocery store or restaurant. They are big enterprises. With a strong presence in the market, equivalent to non-family firms and just as competitive.

To address the research objectives, a quantitative investigation was performed through a deep analysis of each company annual report in order to collect the necessary information.

As the main challenge for the current study, five hypotheses were formulated and tested to support the research objectives.

Tendentially and as described in the literature, family firms are seen as more altruistic and therefore with a propensity of incurring in less agency costs. We believe this to be true, but only when we talk about smaller companies.

When we face listed companies the reality is different. In most listed family companies is not the family that manages completely the business. Typically what we see is a professionally managed firm, but owner controlled. Which is in everything similar with non-family firms that are professionally owned and managed.

This is coherent with our study, after analysing all of the 47 companies listed on the Lisbon stock exchange, in particularly, board constitution, number of sectors of operation, remuneration and annual results. All differences encountered were minimal.

COnsidering our results, family firms are walking hand in hand with non-family firms, allowing them to keep a strong presence in the market and to gain competitive advantages.

In respect to compensation, and facing the literature that says that usually non-family firm CEOs and board members have higher pay levels than their peers in family firms, our study shows opposite results to that. Again, no significant differences between the two types of companies.

More so, it is important to mention that the annual results of each company, in this case, the EBITDA has a higher correlation with the pay levels of board members in all companies, explained by the Agency Theory and agency costs.

The unique characteristics that make a family firm are getting lost in the transition to becoming a larger company. No significant differences can be point out between them and non-family firms.

Concluding, the main answer to our problematic, "*Are family firms so different from non-family firms?*" was found. It is possible to conclude that, at the end of the day, it all depends on the size of the companies. The problematic of agency theory and agency costs will be felt in larger companies rather than small ones, and family firms have a tendency to incur in less agency costs if they are family owned and managed. The same applies to altruism, in family owned and managed companies altruistic behaviour is more likely to be present, especially in smaller companies where almost everyone is part of the family.

In bigger companies, especially in listed companies the reality is different. The motivations are different and the behaviour changes. Exceptions can and will occur. But most firms' goal is to keep up with their competition and gain competitive advantages. Therefore, the differences between the two types of companies become thinner.

7. Limitations and Future Research

Although the efforts to minimize possible errors, the current study presents some limitations that should be considered. This study proposed to fulfil a gap in the literature but conclusions should take into account the following limitations. In addition it should be consider the proposed future research directions.

The reduced number of the sample does not allow us to elaborate generalizations, leading only to the construction of a theory. Without support of a more global structure, which required a study of a larger number of companies it is not possible to make global considerations.

Another limitation has to do with methodology. The chosen methods are not unique and more can be done. A qualitative research may be considered with a suggested research technique that would consist of a semi-directive interview and a content analysis. With a set of relatively open questions to guide the interviewee to "speak openly, with words you wish and in the order that suits you ".

Our other suggestion would be to do a questionnaire, send it to a more vast number of companies with simple questions regarding remuneration and board constitution. The questionnaire in question would be distributed to all the employees. This would be useful to comprehend the pay levels associated with each position inside each company, and to be able to compare the differences in more detail.

Concerning our analysis, it cannot be considered as representative, since it was done using the listed companies as sample. Moreover, this only grasps the surface of the topic. With further investigation, there is no way to tell how much could be unravelled.

Another limitation of our study and our result is the lack of connectivity with agency theory and altruism. We were unable to reach conclusions regarding that.

Even though the topic of this dissertation is not new, it is important to do an updated analysis, due to the significant changes that occur every day.

To extend the study to different countries in order to compare realities would be an interesting and useful path to follow, to check for patterns.

We recommend that future researchers focus on either understanding the benefits of board diversification or in compensation on lower levels of a company. CEO compensation has been studied in depth, but lower levels often are forgotten.

Concluding, the current study is a stepping stone for further authors to use- who are interested in deeply study altruism, family firms' compensation and board diversity.

8. References

Ang, J. S., Cole, R. A. and Lin, J. W. (2000) 'Agency costs and ownership structure', *the Journal of Finance*. Wiley Online Library, 55(1), pp. 81–106.

Astrachan, J. H. (2010) 'Strategy in family business: Toward a multidimensional research agenda', *Journal of Family Business Strategy*. Elsevier Ltd, 1(1), pp. 6–14. doi: 10.1016/j.jfbs.2010.02.001.

Becker, G. S. (1974) 'A theory of social interactions', *Journal of political economy*. The University of Chicago Press, 82(6), pp. 1063–1093.

Berghe, L. A. A. and Carchon, S. (2003) 'Agency Relations within the Family Business System: an exploratory approach', *Corporate Governance*, 11(3), pp. 171–179. doi: 10.1111/1467-8683.00316.

Bhat, M. A., Shah, J. A. and Baba, A. A. (2013) 'A Literature Study on Family Business Management from 1990 To 2012', *Journal of Business and Management*, 7(6), pp. 60–77.

Cabral-Cardoso, C. (2004) 'The evolving Portuguese model of HRM', *International Journal of Human Resource Management*, 15(6), pp. 959–977. doi: 10.1080/09585190410001677269.

Carlson, D. and Upton, N. (2006) 'The Impact of Human Resource Practices and Compensation Design on Performance: An Analysis of Family-Owned SMEs', *Journal of Small Business Management*, 44(4), pp. 531–543. doi: 10.1111/j.1540-627X.2006.00188.x.

Carney, M. (2005) 'Corporate governance and competitive advantage in family-controlled firms', *Entrepreneurship theory and practice*. Wiley Online Library, 29(3), pp. 249–265.

Carrasco-Hernandez, A. and Sánchez-Marín, G. (2007) 'The determinants of employee compensation in family firms: Empirical evidence', *Family Business Review*, 20(3), pp. 215–228. doi: 10.1111/j.1741-6248.2007.00096.x.

Casillas, J. C. (2007) *Gestão da empresa familiar: conceitos, casos e soluções*. THOMSON PIONEIRA. Available at: https://books.google.pt/books?id=iR6XPgAACAAJ.

Catolica Lisbon (2014) 'Governo das Sociedades em Portugal', pp. 1–9. Available at: http://www.cgov.pt/index.php?option=com_content&task=view&id=945&Itemid=21.

Cesaroni, F. M. and Sentuti, A. (2014) 'Women and family businesses. When women are left only minor roles', *History of the Family*, 19(3), pp. 358–379. doi: 10.1080/1081602X.2014.929019.

Chami, M. R. (2001) *What is different about family businesses?* International Monetary Fund.

Chrisman, J. J., Chua, J. H. and Litz, R. A. (2004) 'Comparing the agency costs of family and non-family firms: Conceptual issues and exploratory evidence', *Entrepreneurship Theory and practice*. Wiley Online Library, 28(4), pp. 335–354.

Chua, J. H. and Schnabel, J. A. (1986) 'Nonpecuniary benefits and asset market equilibrium', *Financial Review*. Wiley Online Library, 21(2), pp. 185–190.

Cooper, D. R. and Schindler, P. S. (2016) *Métodos de Pesquisa em Administração-12ª Edição*. McGraw Hill Brasil.

Costa, A. J. D. (2005) 'A sadia e as sucessivas sucessões nas empresas familiares', pp. 1–23.

Daily, C. M. and Dollinger, M. J. (1992) 'An empirical examination of ownership structure in family and professionally managed firms', *Family business review*. Wiley Online Library, 5(2), pp. 117–136.

Daspit, J. *et al.* (2017) 'A Strategic Management Perspective of the Family Firm: Past Trends, New Insights, and Future Directions', *Journal of Managerial Issues*, XXIX(1), pp. 6–29. doi: 1045-3695.

Dasy (2006) 'The Relationship between Family Firms and Corporate Governance', 44(2), pp. 1–24.

Demsetz, H. and Lehn, K. (1985) 'The structure of corporate ownership: Causes and consequences', *Journal of political economy*. The University of Chicago Press, 93(6), pp. 1155–1177.

Domeneghini, G., Gasparin, G. S. and Busato, A. B. (2017) 'Mulheres a Frente : Um Estudo Das Práticas De Gestão Sob Um Masculinizados Women Ahead : a Study of Management Practices Under a Female Look At Small Business Families of Traditionally Male', *Revista de Carreiras e Pessoas*, 7, pp. 113–138.

Donnelley, R. G. (1988) 'The family business', *Family Business Review*. Wiley Online Library, 1(4), pp. 427–445.

Dyer, W. G. (2003) 'The family: The missing variable in organizational research', *Entrepreneurship theory and practice*. Wiley Online Library, 27(4), pp. 401–416.

Eaton, C., Yuan, L. and Wu, Z. (2002) 'Reciprocal altruism and the theory of the family firm', in *Second Annual Conference on Theories of the Family Enterprise: Search for a Paradigm. Philadelphia, PA*.

Eisenhardt, K. M. (1989) 'Agency theory: An assessment and review', *Academy of* *management review*. Academy of Management, 14(1), pp. 57–74.

European Commission (no date) 'Family business - European Commission'. Available at: https://ec.europa.eu/growth/smes/promoting-entrepreneurship/we-work-for/family-business_en.

European Family Businesses (2012) 'Family Business Statistics', (November 2009), p. 4. Available at: http://www.europeanfamilybusinesses.eu/uploads/Modules/Publications/family-business-statistics.pdf.

Eurostat (2017) 'Population on 1 January', *Eurostat*, 56, pp. 3–4. Available at: http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table%7B&%7Dinit=1%7B&%7Dlanguage=en%7B&%7Dpcode=tps00001%7B&%7Dplugin=1.

Fama, E. F. (1980) 'Agency problems and the theory of the firm', *Journal of political economy*. The University of Chicago Press, 88(2), pp. 288–307.

Fama, E. F. and Jensen, M. C. (1983) 'Agency problems and residual claims', *The Journal of Law and Economics*. The University of Chicago Press, 26(2), pp. 327–349.

Fleming, Q. J. (2000) *Keep the family baggage out of the family business: Avoiding the seven deadly sins that destroy family businesses*. Simon and Schuster.

Gersick, K. E. *et al.* (1999) 'Staging and transitions: Managing change in the family business', *Family Business Review*, 12(4), pp. 287–297. doi: 10.1111/j.1741-6248.1999.00287.x.

Gomez-Mejia, L. R., Larraza-Kintana, M. and Makri, M. (2003) 'The determinants of executive compensation in family-controlled public corporations', *Academy of management journal*. Academy of Management, 46(2), pp. 226–237.

Gomez-Mejia, L. R., Nunez-Nickel, M. and Gutierrez, I. (2001) 'The role of family ties in agency contracts', *Academy of management Journal*. Academy of Management, 44(1), pp. 81–95.

Hambrick, D. C. and Finkelstein, S. (1995) 'The effects of ownership structure on conditions at the top: The case of CEO pay raises', *Strategic Management Journal*. Wiley Online Library, 16(3), pp. 175–193.

Handler, W. C. (1989) 'Methodological issues and considerations in studying family businesses', *Family business review*. Wiley Online Library, 2(3), pp. 257–276.

Hill, M. M. and Hill, A. (2009) *Investigação por Questionário, Metodologias de Investigação em Educação*. doi: 179524/02.

Hollander, B. S. and Elman, N. S. (1988) 'Family-owned businesses: An emerging field of inquiry', *Family business review*. SAGE Publications Sage CA: Los Angeles, CA, 1(2), pp. 145–164.

Jaffe, D. T. (1991) 'Working with the ones you love: Strategies for a successful family business Berkley'. CA. Conari Press.

Jensen, M. C. and Meckling, W. H. (1976) 'Theory of the firm: Managerial behavior, agency costs and ownership structure', *Journal of financial economics*. Elsevier, 3(4), pp. 305–360.

Karra, N., Tracey, P. and Phillips, N. (2006) 'Altruism and Agency in the Family Firm', *E T P*, pp. 861–878. doi: 10.1111/j.1540-6520.2006.00157.x.

Klein, S. B., Astrachan, J. H. and Smyrnios, K. X. (2005) 'E T & P The F-PEC Scale of Family Influence : Implication for Theory', *Network*, (2003), pp. 321–339.

Langaro, D., Rita, P. and de Fátima Salgueiro, M. (2018) 'Do social networking sites contribute for building brands? Evaluating the impact of users' participation on brand awareness and brand attitude', *Journal of Marketing Communications*. Taylor & Francis, 24(2), pp. 146–168.

Lank, A. G. and Neubauer, F. (1998) 'The family business. Its governance for sustainability'. Macmillan Press, London.

Madison, K. *et al.* (2016) 'Viewing Family Firm Behavior and Governance Through the Lens of Agency and Stewardship Theories', *Family Business Review*, 29(1), pp. 65–93. doi: 10.1177/0894486515594292.

Madison, K., Kellermanns, F. W. and Munyon, T. P. (2017) 'Coexisting Agency and Stewardship Governance in Family Firms: An Empirical Investigation of Individual-Level and Firm-Level Effects', *Family Business Review*, 30(4), pp. 347–368. doi: 10.1177/0894486517727422.

Marconi, M. de A. and Lakatos, E. M. (2003) *Fundamentos de metodologia científica*. 5. ed.- São Paulo: Atlas.

Martín-Ugedo, J. F. and Minguez-Vera, A. (2016) 'Firm Performance and Women on the Board : Evidence from Spanish Small and Medium-Sized Enterprises', 5701(August), pp. 136–162. doi: 10.1080/13545701.2014.895404.

das Neves, J. C. (2001) 'A SUCESSÃO NA EMPRESA FAMILIAR: A Estrutura de Governo e o Controlo do Capital'.

de Oliveira, D. C. C. (2009) 'A gestão de recursos humanos numa organização familiar: estudo de caso', *Investigação e Intervenção em Recursos Humanos*, 1(1).

Panda, B. and Leepsa, N. M. (2017) 'Agency theory: Review of Theory and Evidence on Problems and Perspectives', *Indian Journal of Corporate Governance*, 10(1), pp. 74–95. doi: 10.1177/0974686217701467.

Parsons, D. O. (1986) 'The employment relationship: Job attachment, work effort, and the nature of contracts', *Handbook of labor economics*. Elsevier, 2, pp. 789–848.

Pearson, K. (1901) 'LIII. On lines and planes of closest fit to systems of points in space', *The London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science*. Taylor & Francis, 2(11), pp. 559–572.

Pestana, M. H. and Gageiro, J. N. (2014) *Análise de Dados para Ciências Sociais. A Complementaridade do SPSS, 5ª Edição Revista E Corrigida*. doi: 10.1017/CBO9781107415324.004.

PORDATA (2017) 'Página 1 de 4', *Pordata População Activa*, pp. 1–4. Available at: https://www.pordata.pt/Europa/População+activa-1944.

Rebérioux, A. *et al.* (2013) 'WORKING IN FAMILY FIRMS: PAID LESS BUT MORE SECURE? EVIDENCE FROM FRENCH MATCHED EMPLOYER-EMPLOYEE DATA', 66(April).

Ross, S. A. (1973) 'The economic theory of agency: The principal's problem', *The American Economic Review*. JSTOR, 63(2), pp. 134–139.

Schulze, W. S. *et al.* (2001) 'Agency relationships in family firms: Theory and evidence', *Organization Science*, 12(2), pp. 99–116. doi: 10.1287/orsc.12.2.99.10114.

Schulze, W. S., Lubatkin, M. H. and Dino, R. N. (2002) 'Altruism, agency, and the competitiveness of family firms', *Managerial and Decision Economics*, 23(4–5), pp. 247–259. doi: 10.1002/mde.1064.

Schulze, W. S., Lubatkin, M. H. and Dino, R. N. (2003) 'Toward a theory of agency and altruism in family firms', *Journal of Business Venturing*, 18(4), pp. 473–490. doi: 10.1016/S0883-9026(03)00056-9.

Silva, A. S. *et al.* (2006) 'Livro Branco sobre Corporate Governance em Portugal', *Instituto Português de Corporate Governance*, p. 191.

Tagiuri, R. and Davis, J. (1996) 'Bivalent attributes of the family firm', *Family business review*. SAGE Publications Sage CA: Los Angeles, CA, 9(2), pp. 199–208.

Tosi, H. L. *et al.* (1999) 'Managerial discretion, compensation strategy, and firm performance: The case for ownership structure', *Research in personnel and human resources management*. JAI PRESS INC., 17, pp. 163–208.

Tosi Jr, H. L. and Gomez-Mejia, L. R. (1989) 'The decoupling of CEO pay and performance: An agency theory perspective', *Administrative Science Quarterly*. JSTOR, pp. 169–189.

Ussman, A. M. (2004) *Empresas familiares*.

Vaccari, N. A. D. and Beuren, I. M. (2017) 'Participação Feminina na Governança Corporativa de Empresas Familiares Listadas na BM&FBovespa', *Revista Evidenciação Contábil & Finanças*, 5(1), pp. 113–131. doi: 10.18405/recfin20170107.

Werner, S., Tosi, H. L. and Gomez-Mejia, L. (2005) 'Organizational governance and employee pay: How ownership structure affects the firm's compensation strategy', *Strategic Management Journal*, 26(4), pp. 377–384. doi: 10.1002/smj.452.

Weston, M. (2001) 'Coaching generations in the workplace.', *Nursing administration quarterly*, 25(2), pp. 11–21. Available at: http://www.ncbi.nlm.nih.gov/pubmed/18188890.

Wright, P., Kroll, M. and Elenkov, D. (2002) 'Acquisition returns, increase in firm size, and chief executive officer compensation: The moderating role of monitoring', *Academy of Management Journal*. Academy of Management, 45(3), pp. 599–608.

9. Annexes

Annex 1 – Tests concerning Board members

Number of Board Members				
	N	Mean	Std. Deviation	Std. Error Mean
Non Family Companies	28	9,43	5,426	1,025
Family Companies	19	8,42	4,312	0,989

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Number of board members	Equal variances assumed	2,159	0,149	0,677	45	0,502	1,008	1,489	-1,992	4,007
	Equal variances not assumed			0,707	43,773	0,483	1,008	1,425	-1,864	3,879

Ranks- Number Board Members				
Family or Non-Family Companies		N	Mean Rank	Sum of Ranks
	Non Family Companies	28	24,36	682,00
	Family Companies	19	23,47	446,00
	Total	47		

Test Statistics[a]	
	Number of Board Members
Mann-Whitney U	256,000
Wilcoxon W	446,000
Z	-0,218
Asymp. Sig. (2-tailed)	0,827
a. Grouping Variable: Family Or Non-Family	

Annex 2 – Tests concerning Women on the Board

Women on the Board				
	N	Mean	Std. Deviation	Std. Error Mean
Non Family Companies	28	1,21	1,228	0,232
Family Companies	19	1,11	1,197	0,275

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Women	Equal variances assumed	0,000	0,986	0,302	45	0,764	0,109	0,361	-0,619	0,837
	Equal variances not assumed			0,303	39,470	0,763	0,109	0,360	-0,618	0,836

Ranks- Women				
Family Or Non-Family Companies		N	Mean Rank	Sum of Ranks
	Non Family Companies	28	24,50	686,00
	Family Companies	19	23,26	442,00
	Total	47		

Test Statistics[a]	
	Women
Mann-Whitney U	252,000
Wilcoxon W	442,000
Z	-0,317
Asymp. Sig. (2-tailed)	0,751
a. Grouping Variable: Family Or Non-Family	

Annex 3 – Tests concerning Internationals on the Board

Internationals on the Board

	N	Mean	Std. Deviation	Std. Error Mean
Non Family Companies	28	1,75	2,577	0,487
Family Companies	19	1,16	1,675	0,384

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
International	Equal variances assumed	2,864	0,097	0,882	45	0,383	0,592	0,672	-0,761	1,945
	Equal variances not assumed			0,954	44,951	0,345	0,592	0,620	-0,657	1,842

Ranks- Internationals

Family Or Non-Family		N	Mean Rank	Sum of Ranks
	Non Family Companies	28	24,80	694,50
	Family Companies	19	22,82	433,50
	Total	47		

Test Statistics[a]

	International
Mann-Whitney U	243,500
Wilcoxon W	433,500
Z	-0,536
Asymp. Sig. (2-tailed)	0,592
a. Grouping Variable: Family Or Non-Family	

Annex 4 – Tests concerning Number of Sectors of operation of each company

Sectors of Operation

	N	Mean	Std. Deviation	Std. Error Mean
Non Family Companies	28	3,00	2,018	0,381
Family Companies	18	2,83	1,689	0,398

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	Upper
Sectors	Equal variances assumed	1,119	0,296	0,291	44	0,773	0,167	0,573	-0,989	1,322
	Equal variances not assumed			0,302	40,859	0,764	0,167	0,551	-0,947	1,280

Ranks- Sectors

Family Or Non-Family		N	Mean Rank	Sum of Ranks
	Non Family Companies	28	23,77	665,50
	Family Companies	18	23,08	415,50
	Total	46		

Test Statistics[a]

	Sectors Of Operation
Mann-Whitney U	244,500
Wilcoxon W	415,500
Z	-0,173
Asymp. Sig. (2-tailed)	0,863
a. Grouping Variable: Family Or Non-Family	

Annex 5 – Tests concerning Remuneration

Remunerations				
	N	Mean	Std. Deviation	Std. Error Mean
Non Family Companies	26	247988,13	289327,10	56741,71
Family Companies	17	233225,39	177332,78	43009,52

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Remunerations	Equal variances assumed	0,215	0,645	0,188	41	0,852	14762,74	78482,99	-143736,88	173262,36
	Equal variances not assumed			0,207	40,890	0,837	14762,74	71200,00	-129040,38	158565,85

Ranks- Remuneration				
Family Or Non-Family		N	Mean Rank	Sum of Ranks
	Non Family Companies	26	21,46	558,00
	Family Companies	17	22,82	388,00
	Total	43		

Test Statistics[a]	
	Remunerations
Mann-Whitney U	207,000
Wilcoxon W	558,000
Z	-0,348
Asymp. Sig. (2-tailed)	0,728
a. Grouping Variable: Family Or Non-Family	

Annex 6 – Linear regression

Dependent Variable: LOG_MEAN
Method: Least Squares
Date: 09/09/18 Time: 23:03
Sample: 1 38
Included observations: 38

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.303245	3.209355	-1.029255	0.3102
LOG_REMUNERATION	1.721570	0.265465	6.485114	0.0000

R-squared	0.538797	Mean dependent var	17.43740
Adjusted R-squared	0.525986	S.D. dependent var	2.394455
S.E. of regression	1.648551	Akaike info criterion	3.888867
Sum squared resid	97.83794	Schwarz criterion	3.975055
Log likelihood	-71.88846	Hannan-Quinn criter.	3.919532
F-statistic	42.05670	Durbin-Watson stat	2.072746
Prob(F-statistic)	0.000000		

Annex 7 – CMVM Corporate Governance Code

CMVM

CMVM CORPORATE GOVERNANCE CODE 2013

(RECOMMENDATIONS)

I. VOTING AND CORPORATE CONTROL

I.1. Companies shall encourage shareholders to attend and vote at general meetings and shall not set an excessively large number of shares required for the entitlement of one vote, and implement the means necessary to exercise the right to vote by mail and electronically.

I.2. Companies shall not adopt mechanisms that hinder the passing of resolutions by shareholders, including fixing a quorum for resolutions greater than that provided for by law.

I.3. Companies shall not establish mechanisms intended to cause mismatching between the right to receive dividends or the subscription of new securities and the voting right of each common share, unless duly justified in terms of long-term interests of shareholders.

I.4. The company's articles of association that provide for the restriction of the number of votes that may be held or exercised by a sole shareholder, either individually or in concert with other shareholders, shall also foresee for a resolution by the General Assembly (5 year intervals), on whether that statutory provision is to be amended or prevails – without super quorum requirements as to the one legally in force – and that in said resolution, all votes issued be counted, without applying said restriction.

I.5. Measures that require payment or assumption of fees by the company in the event of change of control or change in the composition of the Board and that which appear likely to impair the free transfer of shares and free assessment by shareholders of the performance of Board members, shall not be adopted.

II. SUPERVISION, MANAGEMENT AND OVERSIGHT

II.1. SUPERVISION AND MANAGEMENT

II.1.1. Within the limits established by law, and except for the small size of the company, the board of directors shall delegate the daily management of the company and said delegated powers shall be identified in the Annual Report on Corporate Governance.

II.1.2. The Board of Directors shall ensure that the company acts in accordance with its objectives and shall not delegate its responsibilities as regards the following: i) define the strategy and general policies of the company, ii) define business structure of the group iii) decisions considered strategic due to the amount, risk and particular characteristics involved.

II.1.3. The General and Supervisory Board, in addition to its supervisory duties supervision, shall take full responsibility at corporate governance level, whereby through the statutory provision or by equivalent means, shall enshrine the requirement for this body to decide on the strategy and major policies of the company, the definition of the corporate structure of the group and the decisions that shall be considered strategic due to the amount or risk involved. This body shall also assess compliance with the strategic plan and the implementation of key policies of the company.

II.1.4. Except for small-sized companies, the Board of Directors and the General and Supervisory Board, depending on the model adopted, shall create the necessary committees in order to:

a) Ensure a competent and independent assessment of the performance of the executive directors and its own overall performance, as well as of other committees;

b) Reflect on the system structure and governance practices adopted, verify its efficiency and propose to the competent bodies, measures to be implemented with a view to their improvement.

II.1.5. The Board of Directors or the General and Supervisory Board, depending on the applicable model, should set goals in terms of risk-taking and create systems for their control to ensure that the risks effectively incurred are consistent with those goals.

II.1.6. The Board of Directors shall include a number of non-executive members ensuring effective monitoring, supervision and assessment of the activity of the remaining members of the board.

II.1.7. Non-executive members shall include an appropriate number of independent members, taking into account the adopted governance model, the size of the company, its shareholder structure and the relevant free float. The independence of the members of the General and Supervisory Board and members of the Audit Committee shall be assessed as per the law in force. The other members of the Board of Directors are considered independent if the member is not associated with any specific group of interests in the company nor is under any circumstance likely to affect an exempt analysis or decision, particularly due to:

a. Having been an employee at the company or at a company holding a controlling or group relationship within the last three years;
b. Having, in the past three years, provided services or established commercial relationship with the company or company with which it is in a control or group relationship, either directly or as a partner, board member, manager or director of a legal person;
c. Being paid by the company or by a company with which it is in a control or group relationship besides the remuneration arising from the exercise of the functions of a board member;
d. Living with a partner or a spouse, relative or any first degree next of kin and up to and including the third degree of collateral affinity of board members or natural persons that are direct and indirectly holders of qualifying holdings;
e. Being a qualifying shareholder or representative of a qualifying shareholder.

II.1.8. When board members that carry out executive duties are requested by other board members, said shall provide the information requested, in a timely and appropriate manner to the request.

II.1.9. The Chair of the Executive Board or of the Executive Committee shall submit, as applicable, to the Chair of the Board of Directors, the Chair of the Supervisory Board, the Chair of the Audit Committee, the Chair of the General and Supervisory Board and the Chairman of the Financial Matters Board, the convening notices and minutes of the relevant meetings.

II.1.10. If the chair of the board of directors carries out executive duties, said body shall appoint, from among its members, an independent member to ensure the coordination of the work of other non-executive members and the conditions so that said can make independent and informed decisions or to ensure the existence of an equivalent mechanism for such coordination.

II.2. SUPERVISION

II.2.1. Depending on the applicable model, the Chair of the Supervisory Board, the Audit Committee or the Financial Matters Committee shall be independent in accordance with the applicable legal standard, and have the necessary skills to carry out their relevant duties.

II.2.2. The supervisory body shall be the main representative of the external auditor and the first recipient of the relevant reports, and is responsible, *inter alia*, for proposing the relevant remuneration and ensuring that the proper conditions for the provision of services are provided within the company.

II.2.3. The supervisory board shall assess the external auditor on an annual basis and propose to the competent body its dismissal or termination of the contract as to the provision of their services when there is a valid basis for said dismissal.

II.2.4. The supervisory board shall assess the functioning of the internal control systems and risk management and propose adjustments as may be deemed necessary.

II.2.5. The Audit Committee, the General and Supervisory Board and the Supervisory Board decide on the work plans and resources concerning the internal audit services and services that ensure compliance with the rules applicable to the company (compliance services), and should be recipients of reports made by these services at least when it concerns matters related to accountability, identification or resolution of conflicts of interest and detection of potential improprieties.

II.3. REMUNERATION SETTING

II.3.1. All members of the Remuneration Committee or equivalent should be independent from the executive board members and include at least one member with knowledge and experience in matters of remuneration policy.

II.3.2. Any natural or legal person that provides or has provided services in the past three years, to any structure under the board of directors, the board of directors of the company itself or who has a current relationship with the company or consultant of the company, shall not be hired to assist the Remuneration Committee in the performance of their duties. This recommendation also applies to any natural or legal person that is related by employment contract or provision of services with the above.

II.3.3. A statement on the remuneration policy of the management and supervisory bodies referred to in Article 2 of Law No. 28/2009 of 19 June, shall also contain the following:

a) Identification and details of the criteria for determining the remuneration paid to the members of the governing bodies ;

b) Information regarding the maximum potential, in individual terms, and the maximum potential, in aggregate form, to be paid to members of corporate bodies, and identify the circumstances whereby these maximum amounts may be payable;

d) Information regarding the enforceability or unenforceability of payments for the dismissal or termination of appointment of board members.

II.3.4. Approval of plans for the allotment of shares and/or options to acquire shares or based on share price variation to board members shall be submitted to the General Meeting. The proposal shall contain all the necessary information in order to correctly assess said plan.

II.3.5. Approval of any retirement benefit scheme established for members of corporate members shall be submitted to the General Meeting. The proposal shall contain all the necessary information in order to correctly assess said system.

III. REMUNERATION

III.1. The remuneration of the executive members of the board shall be based on actual performance and shall discourage taking on excessive risk-taking.

III.2. The remuneration of non-executive board members and the remuneration of the members of the supervisory board shall not include any component whose value depends on the performance of the company or of its value.

III.3. The variable component of remuneration shall be reasonable overall in relation to the fixed component of the remuneration and maximum limits should be set for all components.

III.4. A significant part of the variable remuneration should be deferred for a period not less than three years, and the right of way payment shall depend on the continued positive performance of the company during that period.

III.5. Members of the Board of Directors shall not enter into contracts with the company or with third parties which intend to mitigate the risk inherent to remuneration variability set by the company.

III.6. Executive board members shall maintain the company's shares that were allotted by virtue of variable remuneration schemes, up to twice the value of the total annual remuneration, except for those that need to be sold for paying taxes on the gains of said shares, until the end of their mandate.

III.7. When the variable remuneration includes the allocation of options, the beginning of the exercise period shall be deferred for a period not less than three years.

III.8. When the removal of board member is not due to serious breach of their duties nor to their unfitness for the normal exercise of their functions but is yet due on inadequate performance, the company shall be endowed with the adequate and necessary legal instruments so that any damages or compensation, beyond that which is legally due, is unenforceable.

IV. AUDITING

IV.1. The external auditor shall, within the scope of its duties, verify the implementation of remuneration policies and systems of the corporate bodies as well as the efficiency and effectiveness of the internal control mechanisms and report any shortcomings to the supervisory body of the company.

IV.2. The company or any entity with which it maintains a control relationship shall not engage the external auditor or any entity with which it finds itself in a group relationship or that incorporates the same network, for services other than audit services. If there are reasons for hiring such services - which must be approved by the supervisory board and explained in its Annual Report on Corporate Governance - said should not exceed more than 30% of the total value of services rendered to the company.

IV.3. Companies shall support auditor rotation after two or three terms whether four or three years, respectively. Its continuance beyond this period must be based on a specific opinion of the supervisory board that explicitly considers the conditions of auditor's independence and the benefits and costs of its replacement.

V. CONFLICTS OF INTEREST AND RELATED PARTY TRANSACTIONS

V.1. The company's business with holders of qualifying holdings or entities with which they are in any type of relationship pursuant to article 20 of the Portuguese Securities Code, shall be conducted during normal market conditions.

V.2. The supervisory or oversight board shall establish procedures and criteria that are required to define the relevant level of significance of business with holders of qualifying holdings - or entities with which they are in any of the relationships described in article 20/1 of the Portuguese Securities Code – thus significant relevant business is dependent upon prior opinion of that body.

VI. INFORMATION

VI.1. Companies shall provide, via their websites in both the Portuguese and English languages, access to information on their progress as regards the economic, financial and governance state of play.

VI.2. Companies shall ensure the existence of an investor support and market liaison office, which responds to requests from investors in a timely fashion and a record of the submitted requests and their processing, shall be kept.

Annex 8 – Companies and collected Data

Company	N Board Members	Men	Women	Nationals	Internationals	Family	Total Remuneration	N Remunerated Members	Average Remuneration	N Sectors
Altri	7	5	2	7	0	NF	1 439 500,00 €	7	205 642,86 €	2
BCP	19	16	2	18	1	NF	4 565 000,00 €	19	240 263,16 €	3
BPI	25	22	3	19	6	NF	5 015 574,00 €	25	200 622,96 €	2
Santander	15	13	2	12	3	NF	9 231 000,00 €	15	615 400,00 €	2
Benfica	5	5	0	5	0	NF	647 000,00 €	2	323 500,00 €	2
Cofina	5	4	1	5	0	NF	- €	5	- €	1
Compta	6	6	0	6	0	NF	353 373,00 €	6	58 895,50 €	1
Corticeira Amorim	6	4	2	5	1	F	775 802,60 €	3	258 600,87 €	6
CTT Correios	13	9	4	11	2	NF	2 568 042,77 €	13	197 541,75 €	3
EDP	8	8	0	8	0	NF	11 872 021,00 €	8	1 484 002,63 €	3
EDP Renováveis	19	18	1	15	4	NF	738 608,00 €	14	52 757,71 €	1
Estoril Sol	11	10	1	5	6	NF	2 458 000,00 €	10	245 800,00 €	5
Euronext	11	9	2	1	10	NF	- €	11	- €	1
FCP	6	6	0	6	0	NF	1 425 417,00 €	5	285 083,40 €	2
Galp	19	16	3	17	2	F	6 735 078,00 €	19	354 477,79 €	6
Glintt	11	9	2	11	0	NF	1 124 872,00 €	11	102 261,09 €	4
Ibersol	3	3	0	2	1	NF	906 000,00 €	3	302 000,00 €	1
Grão Pára	3	3	0	3	0	F	- €	3	- €	2
Impresa	8	7	1	8	0	F	571 440,00 €	8	71 430,00 €	3
Inapa	8	8	0	7	1	NF	1 660 000,00 €	8	207 500,00 €	4
ISA	5	4	1	5	0	NF	16 475,00 €	5	3 295,00 €	1

Jeronimo Martins	9	8	1	5	4	F	1 268 500,00 €	9	140 944,44 €	2
Lisgrafica	4	4	0	4	0	NF	357 551,00 €	4	89 387,75 €	1
Luz Saude	11	10	1	7	4	NF	2 163 000,00 €	4	540 750,00 €	1
Martifer	6	6	0	6	0	F	431 912,00 €	5	86 382,40 €	3
Media Capital	7	4	3	2	5	NF	887 974,84 €	5	177 594,97 €	6
Mota Engil	17	14	3	17	0	F	5 562 914,00 €	17	327 230,24 €	6
Nexponor	7	6	1	7	0	NF	178 084,00 €	7	25 440,57 €	1
NOS	16	12	4	16	0	NF	4 114 710,00 €	16	257 169,38 €	7
NovaBase	4	4	0	4	0	NF	986 743,00 €	4	246 685,75 €	2
Orey Antunes	8	8	0	6	2	F	507 349,00 €	7	72 478,43 €	1
Patris	3	3	0	3	0	F	- €	3	- €	5
Pharol	11	10	1	9	2	NF	708 119,00 €	11	64 374,45 €	1
Ramada Invest	5	4	1	5	0	NF	523 500,00 €	5	104 700,00 €	2
Reditus	5	5	0	5	0	NF	230 000,00 €	2	115 000,00 €	4
REN	12	10	2	8	4	NF	2 019 249,98 €	12	168 270,83 €	5
SAG Gest	8	7	1	8	0	F	1 072 736,00 €	8	134 092,00 €	6
Semapa	11	11	0	11	0	F	5 858 527,00 €	11	532 593,36 €	3
Sonae	9	6	3	4	5	F	1 734 600,00 €	9	192 733,33 €	5
Sonae Capital	7	5	2	6	1	F	1 140 331,00 €	7	162 904,43 €	5
Sonae Ind	7	7	0	3	4	F	1 189 498,00 €	7	169 928,29 €	1
Sonae Com	3	2	1	3	0	F	917 002,00 €	3	305 667,33 €	1
Sporting	5	5	0	5	0	NF	535 006,00 €	4	133 751,50 €	2
Teixeira Duarte	6	6	0	6	0	F	869 985,00 €	6	144 997,50 €	6
The Navigator Com	14	14	0	14	0	F	7 290 385,00 €	10	729 038,50 €	3
Toyota Caetano	8	7	1	5	3	F	642 809,00 €	3	214 269,67 €	2
VAA Vista Alegre	8	5	3	8	0	F	268 252,00 €	4	67 063,00 €	1

	EBITDA			
	2015	**2016**	**2017**	**MEAN**
Altri	221 107 000,00 €	167 477 000,00 €	191 098 000,00 €	193 227 333,33 €
BCP	1 340 000 000,00 €	1 367 000 000,00 €	1 297 000 000,00 €	1 334 666 666,67 €
BPI	82 981 000,00 €	154 847 000,00 €	-27 700 000,00 €	70 042 666,67 €
Santander	689 300 000,00 €	663 500 000,00 €	657 400 000,00 €	670 066 666,67 €
Benfica	73 477 000,00 €	93 196 000,00 €	106 633 000,00 €	91 102 000,00 €
Cofina	15 040 000,00 €	13 512 000,00 €	13 627 000,00 €	14 059 666,67 €
Compta	2 120 993,00 €	1 867 708,00 €	2 135 157,00 €	2 041 286,00 €
Corticeira Amorim	100 720 000,00 €	122 347 000,00 €	133 594 000,00 €	118 887 000,00 €
CTT Correios	134 570 000,00 €	102 052 911,00 €	81 138 366,00 €	105 920 425,67 €
EDP	3 923 959 000,00 €	3 759 307 000,00 €	3 989 949 000,00 €	3 891 071 666,67 €
Estoril Sol	29 548 388,00 €	32 198 524,00 €	40 619 373,00 €	34 122 095,00 €
FCP	65 755 188,00 €	-8 704 124,00 €	19 543 159,00 €	25 531 407,67 €
Galp	1 538 000,00 €	1 411 000,00 €	1 869 000,00 €	1 606 000,00 €
Glintt	651 161,00 €	7 755 091,00 €	6 249 170,00 €	4 885 140,67 €
Ibersol	32 700 000,00 €	47 100 000,00 €	65 300 000,00 €	48 366 666,67 €
Grão Pára	-70 347,00 €	-117 013,00 €	-17 330,00 €	-68 230,00 €
Impresa	22 544 641,00 €	18 157 261,00 €	19 176 794,00 €	19 959 565,33 €
Inapa	23 200 000,00 €	22 000 000,00 €	22 600 000,00 €	22 600 000,00 €
ISA	312 870,00 €	183 398,00 €	-176 341,00 €	106 642,33 €
Jeronimo Martins	800 000 000,00 €	862 000 000,00 €	922 000 000,00 €	861 333 333,33 €
Lisgrafica	2 573 000,00 €	2 453 000,00 €	1 818 000,00 €	2 281 333,33 €
Luz Saude	60 700 000,00 €	52 100 000,00 €	53 700 000,00 €	55 500 000,00 €
Martifer	11 389 156,00 €	4 403 440,00 €	8 507 835,00 €	8 100 143,67 €
Media Capital	40 100 000,00 €	41 500 000,00 €	40 100 000,00 €	40 566 666,67 €
Mota Engil	366 846 000,00 €	337 946 000,00 €	404 738 000,00 €	369 843 333,33 €
Nexponor	1 948 297,00 €	-31 865,00 €	1 204 936,00 €	1 040 456,00 €
NOS	533 100 000,00 €	556 700 000,00 €	580 600 000,00 €	556 800 000,00 €
NovaBase	12 000 000,00 €	5 900 000,00 €	10 900 000,00 €	9 600 000,00 €
Orey Antunes	6 146 404,00 €	-7 911 875,00 €	n.a.	-882 735,50 €
Patris	738 494,00 €	-646 461,00 €	4 999 029,00 €	1 697 020,67 €

Pharol	16 200 000,00 €	-7 000 000,00 €	-4 800 000,00 €	1 466 666,67 €
Ramada Invest	17 870 000,00 €	21 325 000,00 €	24 831 000,00 €	21 342 000,00 €
Reditus	6 900 000,00 €	2 800 000,00 €	4 900 000,00 €	4 866 666,67 €
REN	487 700 000,00 €	476 000 000,00 €	487 500 000,00 €	483 733 333,33 €
SAG Gest	15 119 000,00 €	18 197 700,00 €	2 688 200,00 €	12 001 633,33 €
Semapa	478 200 000,00 €	489 100 000,00 €	500 700 000,00 €	489 333 333,33 €
Sonae	393 000 000,00 €	409 000 000,00 €	396 000 000,00 €	399 333 333,33 €
Sporting	15 820 000,00 €	-2 437 000,00 €	-10 094 000,00 €	1 096 333,33 €
Teixeira Duarte	213 800 000,00 €	265 898 000,00 €	181 354 000,00 €	220 350 666,67 €
The Navigator Com	390 000 000,00 €	397 400 000,00 €	403 800 000,00 €	397 066 666,67 €
Toyota Caetano	23 932 000,00 €	25 106 000,00 €	34 040 000,00 €	27 692 666,67 €
VAA Vista Alegre	6 825 000,00 €	9 548 000,00 €	13 586 000,00 €	9 986 333,33 €