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The effect of family business on firm performance

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Abstract

This paper investigates whether family ownership and the degree of involvement from the shareholders influence firm performance, primarily looking at family firms. Family firms are unique in their low amount of owners and the frequent interaction between the shareholders. They are driven by pride and honor of the family name contrarily to non-family firms. We are using data of accounting and governance information gathered by the Center of corporate governance research (CCGR) from 2000-2017. Within our definition of family firm we find that family firms produce weaker results than non-family firms, but if the family shareholders are involved in the company by either chair or CEO, or if the founder of the firm still is the CEO, then they do perform better than non-family firms.

Table of content

1.0 Introduction	1
2.0 Theoretic framework	2
2.1 Earlier Research	2
2.2 Definition of family firm.....	4
2.3 Uniqueness of family firms	7
2.3.1 Sociological	7
2.3.2 Governance.....	8
2.4 Agency Issues.....	9
2.4.1 Agency issue I – Manager Vs Shareholders	10
2.4.2 Agency Issue II – Majority vs. Minority shareholders.....	11
2.5 Tax reform of 2006	12
3.0 Research question and hypothesis	12
3.1 Research question	12
3.2 Hypothesis	12
4.0 Data.....	13
4.1 Database	13
4.2 Filters	14
5.0 Variables	14
5.1 Dependent Variable.....	14
5.2 Independent variables	16
6.0 Descriptive statistics	18
7.0 Methodology	19
7.1 Panel data, fixed effect- and random effect model.....	19
7.2 Endogeneity.....	20
7.3 Multicollinearity.....	20
7.4 Heteroskedasticity	20
7.5 The tax reform of 2006	21
8.0 Main Results	21
9.0 Robustness tests	23
9.1 Methodology	23
9.2 Robustness tests results	25
10.0 Conclusion.....	26
11.0 Limitations	27
12.0 References	28
13.0 Appendix.....	31
14.0 Preliminary Thesis Report.....	39

1.0 Introduction

In this research paper we will investigate the unique features of family firm and understand the effects of family business on firm performance. With data gathered from the Centre for Corporate Governance Research (CCGR) database, we will prove whether the relationship between firm performance and family ownership is positive, negative or insignificant. The data is based on Norwegian firms over the period of 2000-2017. Therefore, our findings will only reflect the firms in Norway.

For centuries, family firms have survived and thrived. According to Berzins, Bøhren & Stacescu (2018), family firm is the dominating organizational form in the Norwegian economy, representing 70% of all type of firms. Their paper provided an insight about the unique ownership- and organizational structure of family firms, which heavily affects their decision making. Moreover, family firm's risk averse behavior reflecting their incentives to ensure firm's survival.

Recent studies have proven that there is a connection between ownership structure and firm's performance. The main characteristic that differentiates a family firm from other type of firms, is its unique ownership structure with a particular family as its controlling owner. By definition, a controlling owner of a firm is an individual or entity who possesses more than 50 percent of the firm's outstanding shares. With that said, our definition of a family firm requires a family to be the majority owners, resulting in the family possessing the right to control and influence the firm's governance and performance. The second requirement for the firm to be regarded as family firm, is that there is more than one owner. We believe that a family consist of at least to members, hence, firms with only one owner will not be regarded as family firm in our definition.

With a family as the majority shareholder brings up an interesting topic of agency issues. A common conception is that agency issues will, naturally, occur between majority shareholder, minority shareholders and the manager, in any firms. However, in the case of family firms, these types of conflicts might be different than other firms due to the family firm's ownership- and organizational structure. A common assumption would be that there will be less agency conflicts in a

family firm, due to the fact that the family has the ultimate ownership with a lot of influence, such as who is on the board, the management team, or the CEO. For instance, the family will, certainly, choose a CEO who shares the same interests. And in many cases, the CEO is even related to the family, either by blood or marriage.

This paper is relevant to understand the effects of the unique characteristics of family firms on firm performance. First, the results suggest that by simply being a family firm does not positively affect the firm performance. Second, the founder of the firm, who is also CEO, will contribute to a higher profitability, Third, involvement from the family, who owns majority of the shares, is essential to control and direct the firm towards a better firm performance.

2.0 Theoretic framework

2.1 Earlier Research

In recent past, the attention towards family businesses and, how they perform contra non-family businesses has increased (Miralles-Marcelo, Miralles-Quirós & Lisboa, 2014; Siebles & KnyphausenAufseß, 2012). In the late 1980's the publications were more opinion- and experienced based rather than empirical papers due to the lack of accessibility to reliable data (Bammens, Voordeckers & Van Gils, 2011). One of those experience-based publications were written by Thomas B. Harris (1989) who expressed his disbeliefs about implementing a model of boards of directors that has evolved with nonfamily public firms into a family business, based on his insight from family therapy, organizational behavior, finance, management and owners in family companies.

Shleifer & Vishny (1986) found that 354 of 456 companies in a sample of the fortune 500 (The top 500 firms in US based on revenues at that time) had at least one large shareholder holding above 5% of the shares in the company. However, Shleifer and Vishny (1997) stated that "Large shareholders thus address the agency problem in that they have both a general interest in profit maximization, and enough control over the assets of the firm to have their interest respected" (Shleifer and Vishny, 1997, p. 754). Thereby the largest shareholder of the company could run the company according to their self-interest which may not

coincide with the interest of the stakeholders, which is a contra intuitive argument for why such a large amount of the fortune 500 would have individuals with relatively large amount of shares. But on the other hand, large companies could limit these agency costs regarding agency issue 2 by putting a cap on the voting rights. Thereby, separating the percentage of voting rights from the percentage of shares. (DeAngelo & DeAngelo, 1985)

Johannisson and Huse (2000) found that outsourcing the CEO-position, if “properly orchestrated”, would create a more competitive and energized family business. The professional manager would then use her experience and managerial skills, improving the company’s competitiveness. This was assumed based on a piloting survey of only 12 family firms. Thereby, Johannisson and Huse (2000) requested more research on the topic to test the effect of using independent managers (A manager with no relation to the firm when hired) on a large-scale sample with cross-country comparisons (Johannisson & Huse, 2000).

Claessens, Djankov, Fan and Lang (2002) wrote a study about East Asian corporations and their corporate governance. The study found that there were generally limited manager-owner conflicts although the manager of the company usually is related to the family with the controlling amount of shares. A year later Anderson and Reeb (2003) found evidence, using data from the Fortune 500 that, surprisingly, were the exact opposite of what Johannisson and Huse (2000) have stated. In fact, the performance of the firm is better when the CEO of the company are related to the controlling shareholder. They also found that the reasoning for the family firms performing significantly better than the non-family firms could stem from the firms where the CEO are a family member. Additionally, they found that family ownership in public companies reduces agency problems, consistent with the findings from Claessens et.al (2002) (Anderson & Reeb, 2003). Suggesting that family businesses are a competitive organizational structure.

Villalonga and Amit (2006) discovered that firm performance did not necessarily have a positive effect from having family members at the CEO position. There was only a statistically positive effect if the family member, serving as the CEO, is also the founding member of the company. Their results show that if a descendant of the founding member of the company takes over as the CEO, the

individual will likely destroy value of the company. This is because the agency cost from conflicts between owner and manager is higher in descendant-CEO firms than in non-family firms (Villalonga & Amit, 2006). Another reason is that there is a minuscule probability that the children of the founder would be better suited for the job compared to an experienced, educated CEO employed through a good recruitment process.

Furthermore, Miller, Le Breton-Miller, Lester and Cannella (2007) question whether family firms really outperform non-family firms considering there might be bias or endogeneity issues by examining only the fortune 500. To examine this, Miller et.al (2007) decided to look at the fortune 1000 in addition to 100 smaller public firms. Their results were not supporting family firm to be as superior contra non-family firms than what earlier suggested. “The results show that findings are indeed highly sensitive both to the way in which family businesses are defined and to the nature of the sample” (Miller et.al, 2007, p. 1). Following research in the area assess this endogeneity problem as relevant and evaluate whether the family firms compared in the Fortune 500 may be heterogeneous entities, thereby not comparable (Chua, Chrisman, Steier & Rau 2012; De Massis, Kotlar, Campopiano & Cassia, 2013; Mazzi, 2011; Miralles-Marcelo et al., 2014).

With that said, Johannisson & Huse (2000) and Villalonga & Amit (2006) argues that there is relatively little attention to family businesses because of the difficulty in obtaining reliable data. Thus, more research is required to clarify these inconsistent findings.

2.2 Definition of family firm

In this section, we will look at several definitions of family firm and ultimately choose the most suitable one for this paper. Berzins et al., (2018) define family firm as a firm that has individuals, who are related by either blood or marriage, as the majority-owners. Their reasoning behind this definition is based on the dimensions of sociology and governance, which jointly creates the uniqueness of a family firm. The sociological dimension refers to the requirement of the owners being tied together by either blood or marriage. Being more precise, the family group can include up to great-great-grandparents or grand- nieces and nephews. The governance dimension refers to the family holding majority of the shares,

which reflects their right to control without the need of other owners' permission. Additionally, they argued that what matters is the family's right to take governance positions, and not actual participation.

Bammens et. al (2011) define a family firm as a firm with involvement from a family. Furthermore, the family's involvement has to include the exercise of control and the provision of advice. In other words, the family has to perform the tasks of a board. We find this definition inadequate due to its impreciseness. For instance, the firm will be considered as a family firm if the family is a part of the board but does not own any shares. In reality, individuals, with none to limited amount of shares, can be influential in the firm's decision making through other ways. In our point of view, the key characteristic of a family firm is primarily its ownership structure. Which implies that the family must possess shares in the company.

Lastly, Miller et. Al (2007) define a family firm as a firm with members of the same family involved as major owners or managers. Again, due to its impreciseness, we find this unsuitable for our paper. Miller et. Al (2007) mention that this definition allows for a number of variations, including in the family generation of key family members. However, the variations may encourage an indefinite number of explanations why a firm should be classified as a family firm. With that said, we prefer a definition that has precise requirements and less vague on the requirements. On the other hand, this particular definition emphasizes that it should be distinguished between a lone founder-owner firm and a family firm in which there are multiple owners from the same family. Accordingly, a lone founder-owner firm does not possess the unique ownership structure of a family firm due to having only one owner. Therefore, we believe that a lone founder-owner business cannot be classified as a family business and will take this into consideration in our study.

As we can see, there are several unique definitions of family firm and no common definition in the literature. However, there is a general theme in all definitions, the use of the "3-circle" model. The model was developed by Tagiuri & Davis in 1982, describing the family business with three elements: the family, business, and ownership (Tagiuri & Davis, 1992)

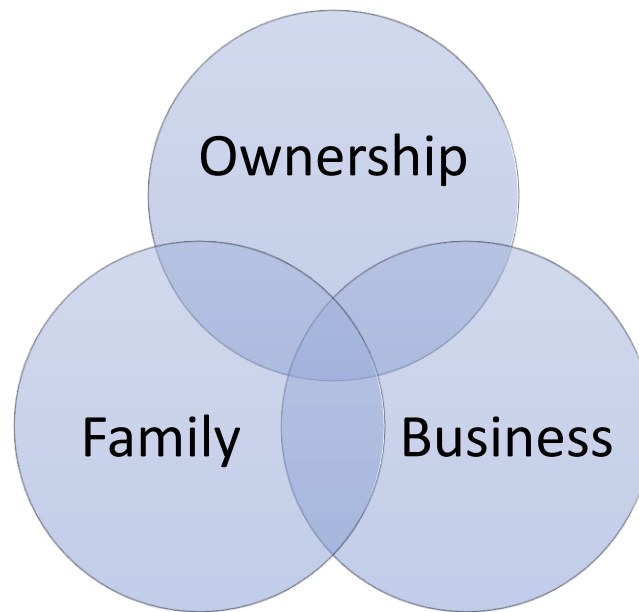


Figure 1: Tagiuri & Davis, 1992

As mentioned, we find ownership as the main feature that differs a family firm from non-family firms. However, there are several variations in the level of ownership and voting control, which can result in indefinite definitions. With that said, we have chosen to partly follow the definition provided by Berzins et al. (2018), as it includes strict requirements: the majority-owners have to be related by blood or marriage. Being the majority-owners, the family will have the right to control the board, and in turn influence the management team. Being related by blood or marriage refers to, simply, being a part of the family that owns majority of the shares in the company. Additionally, due to the fact that we believe majority ownership is the main feature of a family firm, we will classify firms as family firms if a particular family holds majority of the shares, even if they do not participate in board decisions.

All things considered, we define a firm as a family firm if more than 50% of the shares are owned by a family, and where the family members are related by either blood or marriage. Moreover, the firm must also have more than one owner due to our belief that a family consists of at least two members. Therefore, we will not include firms with only one owner as family firm.

2.3 Uniqueness of family firms

As the majority-owners are related by either blood or marriage, they are more tightly related sociologically than other owners (Berzins et al., 2018). This particular element is one of the key factors that differentiates family firms from other type of firms. Additionally, it introduces several interesting features to the firms' behavior and structure.

2.3.1 Sociological

In this section, we will explore the sociological aspect of family firms and what it might bring to the firm.

With relatives as majority-owners, they have a more unique connection with each other than other owners. Their relationship is one of a kind, and to the company it will be a resource that is practically non-imitable. Besides being interested about the firm's profitability, the owners will also be concerned with the welfare and the unity of the family (Tagiuri & Davis, 1996). The family-related majority-owners will, therefore, have two actors to show loyalty to: the family and the firm. This will, undoubtedly, be a competitive advantage that is difficult to imitate.

Another interesting feature of family firms is the pride and identity of the firm. The group of family members behave and act in a different manner compared to other owners. First and foremost, the family members act for the family firm's survivability. To illustrate, the family may be thinking more long-term and be more cautious in their investments than other non-family firms to ensure long-term survivability. Additionally, it is important for the family firm, and its members, to behave in an ethical manner as it may damage the family name if acted otherwise. For instance, if one of the family members are unethical, hypocritical, deceitful, uncooperative, people will expect the whole family to have the same behavior. Thus, the family members will try to avoid making mistakes that might hurt the image of the family firm and the family name. The family members will strive for a successful business with good reputation as it will bring pride and honor to the family.

We can say that, in most cases, the majority-owners will act and behave based upon extrinsic motivation, regardless of family firm or not. In other words, their behavior is driven by external rewards; motivated by status, approval, paycheck

(Deci, 1972). However, it is reasonable to say that the extrinsic motivation of majority-owners in family firms is unique and considerably different from other majority-owners. In comparison to the majority-owners of family firms, other majority owners are more concerned about their firm's reputation and successfulness merely for their own benefit. In the case of family firms, the majority-owners act and behave for the firm's and family name's benefit. As mentioned, their loyalty is shown towards the family name and, accordingly, the firm of the family. The same can be said about their motivation: First, they want to ensure the firm's long-term survival for the family members in the upcoming generations to benefit from. Second, behaving ethically to not only hurt their reputation, but also the family's. Third, bringing pride and honor to the family name. Thus, the motivation of the majority-owners of family firms is unique compared to others.

Lastly, it is suggested that the information asymmetry within the group of family-related majority-owners is small (Berzins et al., 2018). Besides being related by either blood or marriage, they have interacted with each other regularly all their lives. They will have a clear understanding of other relatives' usual behavior, preference, expressions, and most importantly, experience and skills. Furthermore, it is possible that the relationship and family name shared between them will serve as a factor to reduce the chance of agency issues happening within the family group. This will be further explained in the section 2.4 addressing agency issues in family firms.

2.3.2 Governance

With a group of family members as majority-owners in the firm, the governance of firm may also be influenced and aligned with the governance of the particular family. The family will have the right to control and influence the decision making of the firm. In this section, we will explore the governance aspect of family firms and what it might bring to the firm.

Family firms have usually few owners which indicates an organizational form of concentrated ownership. A concentrated ownership is one of the most dominant organizational form and may explain the governance of family owned firms. In theory, one of the advantages of a concentrated ownership is low chance of

conflicts between shareholders and managers. The reasoning is that shareholders can easily coordinate and control the managers. Additionally, since the control is in the hands of few owners, they will have enough control to have their interests respected and the power to put pressure on the management (Shleifer and Vishny, 1997). The same can be said about family firms. In practice one of the family members is often also the manager of the firm. A recent study shows that family firms have small boards and many owners in CEO and chair positions (Berzins et al., 2018). This implies that, besides influencing from an owner's position, the family are also involved from the management level. Accordingly, the owners will be well informed about the firm's operations and productivity. Hence, there will be less information asymmetry between the firm and the majority-owners.

Consequently, we can see how the ownership structure of family firms affects the governance of the firm. We will have owners who may have multiple and simultaneous roles: as shareholders, as board members, and as managers.

Combining with their roles as relatives, they will have simultaneous obligations to the family, the firm, and the shareholders (Tagiuri & Davis, 1996). To illustrate, they will have to show commitment to the firm's business as it affects the relationship with other family members working in the family firm. Individually and collectively, owners of a family firm will bear more responsibility than other. Altogether, the uniqueness of family firms will have an effect on the firm's behavior and structure. We will also see how this can minimize the agency cost in the next section.

2.4 Agency Issues

A business is usually driven by several parties. With several parties involved and relationships developed, the possibility of conflict of interests occurring is present. In this section we will discuss agency issues that may occur in a family firm, which includes managers versus shareholders and majority- versus minority shareholders.

2.4.1 Agency issue I – Manager Vs Shareholders

It is not unusual for companies to have a dispersed ownership consisting of many small shareholders. The amount of owners can be more than thousands. With such amount of owners, it is not easy to keep all of them aligned. For practical and simplicities' reasons, it is then commonly to have an executive board headed by the manager, also known as the CEO of the firm. The idea is that the CEO will take all stakeholders interest under consideration and then make fair decisions based on them. Thereby, splitting the owners from the controlling part of the firm. This could be effective if you then manage to avoid managers that have personal interests that are not align with the company's core values (Yermack, 2006). However, this is not as easy to find as managers who manage other people's money rarely watch over it with the same vigilance as they do with their own (Smith, 1776).

Incentive systems have been utilized to align the interest of the manager and the shareholders. Tempting managers to reach for better results by granting bonuses if different milestones are achieved. There are both positives and negatives to this type of system. At the start of the process, the manager will work towards the goals to reach for her bonus, but when the goals are accomplished, the motivational factor is gone and her performance might suffer. Furthermore, you will need to be careful when stating the bonus-system. The goals set for the manager must be linked to value creation for the firm. If not, the incentive system will work against its own purpose by increasing the amount of conflicting interest rather than aligning them (Narayanan, 1985). With that said, the incentive system is primarily utilized as a proactive tool and not reactive.

In terms of reactive solutions, the shareholders could speak up and express their displeasure regarding the manager or they could leave the company by selling their shares. Nevertheless, for this to have an effect it is assumed that the shareholders that are reacting are of a considerable amount to be noticed (Shleifer and Vishny, 1986; Edmans, 2009).

A third option is that the manager could have shares in the company, thereby having a shareholder in the CEO-position. This is not uncommon in family firms and ensures that shareholders and manager have some of the same interests. However, this could lead to there being too much on stake for the manager making the manager risk averse (Jensen 1986)

2.4.2 Agency Issue II – Majority vs. Minority shareholders

Agency issue II refers to a situation where the majority shareholder uses his position, as the controlling owner, in the firm to extract private benefits at the expense of other minority shareholders (Villalonga and Amit, 2006). Since the majority shareholders hold more voting power, they will have the right to be more influential in decision making of the firm. Potential for agency issues between majority and minority shareholder is likely when the interests of majority and minority shareholders are not aligned.

Berzins et al. (2018) argues that the likelihood of agency issue II occurring is smaller the more shares the majority shareholder hold. The reasoning is that the more shares they own, the more they will have to pay during losses. Accordingly, the minority shareholder will pay less during losses. This suggests that a conflict between majority and minority shareholder will likely happen the more shares the minority shareholder own. They will be more concerned and watchful of the majority shareholder actions as they will have to bear the losses. In turn, they will be less engaged the less shares they own. Furthermore, there will be no second agency problem if the majority shareholder's amount of shares is close to 100%, which means there are no minority owners.

In theory, this second agency issue is common in family firms, due to its concentrated ownership structure, and more likely to occur than agency issue I. In family firms, the minority shareholders will find it even more difficult to prevent the issue from happening due to the family's frequent involvement in board discussions and management. It is safe to assume that they will make every effort to assure that every decision made in the firm will be aligned with their interests. However, a research by Berzins et al. (2018) shows that there are no signs of the second agency problem in 82% of the family firms because they do not have any minority shareholders.

In summary, the likelihood of agency issue II happening depends on the amount of shares the minority shareholders hold. The less they own, the more careless they will be.

2.5 Tax reform of 2006

In the early 1990s the dual tax income system was put into practice to avoid double taxation on dividend payouts. This system accidentally created an opportunity for arbitrage, for companies that had employees with shares in the firm, due to low tax on dividends. Companies exploited the dual tax system by paying themselves minuscule wages and instead a larger amount of dividends until a new tax reform came in practice in 2006. The new tax reform increased the tax on dividends from 28% to 48% removing the incentives to pay dividends instead of wages. The tax reform affects the financial statements already in 2005 due to the fact that the companies would have to pay taxes in 2006, with the new tax rate, on dividends planned in 2005. (Sørensen, 2010). Accordingly, we will take this into consideration in our paper as it will affect the financial statements.

3.0 Research question and hypothesis

3.1 Research question

We wish to research whether family businesses will have any effect regarding the firm's financial performance and profitability. Thus, our research question is:

In terms of Norwegian firms, does family business have an effect on the performance of the firm?

3.2 Hypothesis

As mentioned, family firms possess unique characteristics that differentiate themselves from other type of firms (Berzins et al., 2018). Including the aspects of sociological and governance, it will ultimately result in change of behavior and structure of the firm. Previous studies have shown that family firms produce better results than non-family firms (Anderson & Reeb, 2003; Villalonga & Amit, 2006; Chrisman, Kellermanns, Chan & Liano, 2009), and our objective is to confirm whether if it is the case with Norwegian firms. Thus, our main hypothesis question will be as following:

Does being a family firm affect the firm's performance?

As mentioned in the literature review, Villalonga and Amit (2006) wrote about their findings regarding companies having their founding member as the serving CEO. They found the following: "...family ownership creates value only when the founder serves as CEO of the family firm..." (Villalonga & Amit, 2006, p.1). To further expand on their statement, we will investigate if this is the case with both family and non-family firms. Thus, our second hypothesis question is as following:

Will firms with their founder as their current CEO have an effect on firm performance?

To further expand our study, we will examine whether family involvement affect firm performance or not. We believe that beside being a family firm, the family needs to contribute for the firm to generate better results. Including a variable of family involvement will provide us a broader perspective of this subject. Our last hypothesis question will be as following:

Does family involvement have any effect on the firm performance?

4.0 Data

4.1 Database

The data for our research is provided by the Centre for Corporate Governance Research (CCGR). The CCGR is a database of corporate governance and accounting information of Norwegian firms. Especially focused on family firms, non-listed companies and the corporate landscape of Norway. The aim of the CCGR is to provide quality research on how ownership and governance affect firms' stakeholders, in terms of value-creation and welfare.

4.2 Filters

Before applying our filters, the data set from the CCGR consists of 4.108.823 observation from 538.239 unique Norwegian firms from the year 2000-2017. To be able to conduct our research we will sample the population by applying the following filters.

As our study focuses on firms with limited liability, we will only include firms that are either AS or ASA. Secondly, we exclude firms that do not have any data on ownership structure and age of the company as we are dependent on these data to conduct our regressions. Thirdly, we remove firms that have abnormal accounting figures, including negative revenue, negative total assets, and negative debt values. Moreover, we have excluded extreme outliers as these may bring skewness to our sample. Thereafter, we remove all subsidiaries as we use the consolidated statements for the group companies. Including the subsidiaries in the dataset would lead to us using the same consolidated statement multiple times, which is what we want to avoid. Furthermore, as ownership structure is a vital variable in our research, consolidated statements are needed to explain the performance of the group as a single entity. To illustrate, a parent company will have influence over its subsidiaries and its performance. Accordingly, we will have to include consolidated statements to capture the effect of ownership structure on the firm's performance. This is explained in the section 2.3.2 regarding ownership and control in firms. After applying the filters, our dataset consists of 1.227.827 observation from 214.994 firms.

5.0 Variables

5.1 Dependent Variable

ROA

We will use return on assets as our dependent variable in our main regression. *ROA* is an economic measurement that shows how profitable a company is, compared to its assets. There are plenty of different methods to calculate *ROA* in the current financial textbooks (Jewell & Mankin, 2011). However, we have

chosen the second most common one according to Jewell and Mankin (2011), which is net income divided by average total assets. The reason why we use the average of the total assets is because the number can differ throughout the year. Thereby, an average of the firm's assets at the start and the end of the year is a better representation of what the firm's assets were during the timespan the net income were generated.

ROE

We have considered using return on equity as a dependent variable in our main regression, but this measurement is fluctuated too much by how the company is financed rather than their economic return contrarily to the *ROA*. However, we will use *ROE* as a dependent variable to investigate the robustness of our main regression.

Bankruptcy

Beside the profitability measures, we will also examine the possibility of bankruptcy. We would like to see if firms, with a family as majority owner, are more likely to file for bankruptcy than non-family firms. Bennedsen, Nielsen, Perez-Gonzalez and Wolfenzon (2007) suggest that firms with a family CEO tend to underperform and more likely to file for bankruptcy compared to firms with nonfamily CEO. In this case, we will investigate whether being a family firm increases the possibility of bankruptcy and if family involvement and founder CEO has any impact on that matter. With the data available, *bankruptcy* is determined by the fact that if the firm disappears from the sample, it is considered bankrupt. The variable of *bankruptcy* is a dummy variable that has the value of 1 if the firm has filed for bankruptcy, and 0 otherwise.

5.2 Independent variables

Explanatory variables

Family firm

Based on our definition of family firm, a firm will be regarded as a family firm if a family holds more than 50% of the shares and there are more than 1 owner. The owners will have to be related by blood or marriage. Moreover, we believe that a family consists of more than 1 member. Thereby *Familyfirm* is a dummy variable that has the value of 1 if the total shares held by a family is above 50% and there are more than 1 family member, and 0 otherwise. This is calculated by checking if the largest family holds more than 50% of total ultimate ownership and if there are more than 1 owner.

Founder CEO

Villalonga and Amit (2006) suggests that in a family firm, the value is created when the founder also serves as the CEO. We will examine if this also applies to the Norwegian firms. Thus, we will introduce a variable named *FounderCEO* that indicates if the founder is also the CEO of the firm. Founder CEO is a dummy variable, which has the value of 1 if the CEO of the firm is also the founder, and 0 otherwise. With the data available, the condition is filled if the CEO has been with the company since it was founded. We have calculated this by checking if the length of the current CEO's tenure matches the lifetime of the company.

Family involvement

Recent studies indicate the essence of family influence to the firm performance (Chrisman, Chua, Pearson & Barnett, 2012; Dyer, 2006). To our knowledge, beside family ownership, involvement from the family is needed to dictate the firm's behavior and direction. We will, therefore, include a variable of family involvement to examine if it is the case. *FamilyInvolvement* is a dummy variable, which has the value of 1 if the family with the most shares in the company has a

family member in the CEO position or as the chairman of the firm, and 0 otherwise.

Control variables

To gain accurate results we will also include control variables that are related to the dependent variables. The effects of these variables will be separated from the explanatory variables and, thereby, clarify the real effect of family firm, founder CEO and family involvement. Earlier research has provided us a list of variables regarding economic growth (Claessens et. al, 2002; De Massis et. al, 2013; Jiang, Jiang, Kim & Zhang, 2015). The control variables we find most suitable for our main regression are *risk*, *age of the firm*, *fixed assets*, *ratio of current- to fixed assets*, *ratio of debt* and *ratio of assets turnover*.

Risk is included in the regression due to its impact on our dependent variable *ROA*. To our knowledge, risk is related to profitability as the variable dictates the decisions of the firm in regard to investments. In consistent with de Olalla López (2014), risk is calculated as the standard deviation of the growth in sales. Akben-Selcuk (2016) suggests that firms may perform better at an old age, while younger firms will experience a decline in their profitability. Hence, age of the firm is included due to its relationship with firm performance. We believe that the *age* variable will be positively related to *ROA* due to older companies often being bigger and may have economies of scale advantages. Additionally, their ability to survive for considerable amount of years indicates their successfulness in their business. Doğan (2013) and Babalola (2013) find that there is a positive relation between size and profitability. Therefore, *size* is expected to be positively related to firm performance. Same reasoning is applied to why we include ratio of *current- and fixed assets*. Akinlo and Asaolu (2012) argues that the use of debt by firms will decrease profitability. Ahmad, Salman and Shamisi (2015) further proves that firms with high leverage tend to have lower profitability and firms with low leverage have higher profitability. Therefore, we expect *ratio of debt* to have a negative relation to firm performance. Lastly, we include the firm's ability to generate revenue from the usage of total assets, *ratio of assets turnover*, as it positively affects the firm performance.

6.0 Descriptive statistics

In this section we will be looking at the descriptive data. Provided by our filtered dataset, the descriptive data will give us an overview of the data that will be valuable to connect the literature with the real world.

Table 1 shows the general descriptive statistic of ownership structure and accounting variables of the firms in the final sample. Based on our definition of family firm, the sample consists of 32,22% that are family firms. Divided by different samples, the percentage of family firms are still smaller which is consistent with the main sample. Additionally, the family firms account for 33,88 of the revenue, 35,57% of the net income, 33,79% of total assets, and 38,56% of the employees. Observing other different samples, the statistics are in line with those from the main sample. With that we can state that family firms are smaller than non-family firms based on the accounting variables presented in the table.

Table 2 provides a simple overview of firms' typical governance structure when families are involved. As expected, the family is usually involved in the firm's business, either through management or the board. Which demonstrates that if a family holds majority of the shares in a firm, the likelihood of them engaging in firm management is substantially high.

Table 3 shows means and medians of the accounting variables, financial- and profitability ratios. The size measures indicate that, on average, the family firms are larger than non-family firms. Note that our definition of family firm requires that there are more than one owner, which results in sole proprietorships not being regarded as a family firm. We propose that, by including sole proprietorships as family firm, the outcome will be different. The profitability ratios suggest that family firms are, on average, more profitable than non-family firms. In the later sections, we will explore why this might be the case.

According to Sørensen (2010) there were mainly the closely held firms with active owners, which were affected by the tax-reform (Section 2.5). Accordingly, we will examine if this is the case in our sample. As reported in table 4, family firms on average have 2,93 owners while non-family firms have 3,02. This can seem like a miniscule different, but due to our definition of family firm there are no family firms with less than two owners. Resulting in a median of two for

family firms and one for non-family firms, but still the family firms are in a bigger degree closely held. Thereby the family firms are more likely to be affected by the taxation arbitrage in our study.

7.0 Methodology

In this thesis, we will have a deductive approach where we will test the theoretical proposition mentioned in the literature review. We will see whether there is an effect of family firms and the ownership structure on the performance of the companies.

7.1 Panel data, fixed effect- and random effect model

We have a panel data set from the CCGR consisting of observations on Norwegian firms from 2000-2017. When using panel data, it is normal to use either a fixed- or random effect model. Fixed effect is only analyzing variables that are changing over time. Time invariant variables will, therefore, be omitted and captured by the intercept (Torres-Reyna, 2007). If the difference between the companies in the sample is believed to have an effect on the dependent variable, then a random effect model should be employed. In a random effect model, there is expected that the variation between the firms in the data set are random and not correlated with the independent variables. Further, in contrast to fixed effect, random effect model accepts time invariant variables (Torres-Reyna, 2007).

In order to see whether we need to use fixed effect or random effect we ran the Hausman test. The null hypothesis in the Hausman test is that the random effect model is applicable, and the alternative hypothesis is that the fixed effect model is applicable. Given the result, we should employ a model of fixed effect. However, the fixed effect model is omitting our risk variable because it is time invariant. Since this constant is essential in our regression, we will, thereby, have to use the random effect model.

To avoid extreme outliers, the variables have been winsorized at a 1% in each tail. It is also required that we use year dummies to capture their effects, and our model will, therefore, be as following:

$$ROA_{it} = \beta_0 + \beta_1 \text{Familyfirm}_{it} + \beta_2 \text{FounderCEO}_{it} + \beta_3 \text{Familyinvolvement}_{it} + \beta_4 \text{Controls}_{it} + \beta_5 \text{Year}_t + u_{it} + \varepsilon_{it}$$

Controls _{it}	Vector of control variables: Risk, Age, Total fixed assets, Current-fixed asset ratio, Debt ratio, Assets turnover ratio
Year _t	Vector of year dummies
u _{it}	Between firm error
ε _{it}	Within-entity error

7.2 Endogeneity

We will prevent the endogeneity issue in our regression by including a considerable amount of control variables to avoid having omitted variables that would have been essential to explain the dependent variable. Further, we will lag all the accounting variables to make sure we are measuring the effects of the variables on *ROA*, and not the other way around to avoid the double causality. We wish to capture the real effects of the accounting variables on the current year's return, which means that we have to observe the last year's results. Thus, by lagging the variables, the outcome will be more accurate and reliable. However, we cannot with absolute certainty conclude whether the problem is eliminated.

7.3 Multicollinearity

As presented in table 5, we have constructed a correlation matrix to investigate the level of correlation between our independent variables. Optimally we should have no correlation above 0,8 (or below -0,8) to avoid multicollinearity. In this regression our highest correlated variables are *total fixed assets* and *current-fixed assets ratio* of -0,6849, which is acceptable. With that said, there is no signs of multicollinearity in our sample.

7.4 Heteroskedasticity

To have a valid statistical analysis result and avoid loss of efficiency and misleading statistical inference, detecting and estimating heteroscedasticity of a model is important (Xia, Xiong & Tian, 2016). If heteroscedasticity exists in a

data sample, the variance of errors is non-constant and leads to OLS estimators being unbiased and not efficient. We performed a modified Wald statistic test to detect if heteroscedasticity exists in our random effect model. The result concludes that there are signs of heteroscedasticity in our data sample and should be solved. To handle this issue, a robust approach is applied in the calculations. As the standard errors calculated under normal OLS are not consistent, we will add the option “robust” to obtain more reliable consistent standard errors.

7.5 The tax reform of 2006

As mention in section 2.5, the lower wages as a consequence of to the tax arbitrage creates an abnormality in our data set from year 2000-2004 due to increased net income and return on assets. We will therefore split the sample into pre-tax reform (year 2000-2004) and after-tax reform (year 2005-2017). With that said, we will mainly study our results after the tax reform.

8.0 Main Results

Table 6 shows results of the effect of *Familyfirm*, *FamilyInvolvement* and *FounderCEO* on return on assets. Column 1 is a random effect model regression without year dummies, and column 2 is the same regression but with year dummies included. Hereafter, we will refer to the regression with year dummies as the main regression. *FamilyFirm* has no significant effect on *ROA*, but *FounderCEO* and *FamilyInvolvement* have both a positive effect. The coefficient of *FounderCEO* is 0,0034 and is statistically significant at the 1 percent level, suggesting that companies that have their founder as the CEO produces a larger return on assets. The coefficient of *FamilyInvolvement* is 0,0172 and is significant at the 1 percent level. This indicates that a family that are involved in their company, in general, achieve a higher return on assets.

Table 7 shows the results of the regressions, split up into seven samples. The first three columns consist of the main regression, regression before tax reform and regression after tax reform, due to the taxation arbitrage (section 2.5 & 7.5). In the after-tax reform sample, all the explanatory variables have the same signs of

coefficient as in the in main sample, but interestingly, *FamilyFirm* is now significant at a 1 percent level. In the pretax reform sample, the *FounderCEO* and the *FamilyInvolvement* variables have a positive impact on ROA. Additionally, the *FamilyFirm* variable is now positively related to ROA with a coefficient of 0,0140 and is significant at the 1 percent level. The family firms in the pre-tax reform sample are clearly positively affected by the taxation arbitrage, in regard to higher net income. Which is in line with table 4, showing that family firms in general have fewer owners than non-family firms. This further supports the statement of closely held firms with active owners being the most suited to utilize on the taxation arbitrage (Sørensen, 2010). However, in the after-tax reform sample the arbitrage opportunity is removed, turning the coefficient of the *FamilyFirm* variable negative and significant at a 1 percent level. Hereafter, we will mainly analyze the samples after the tax reform to avoid the abnormality in our data from year 2000-2004.

We posit two possible explanations for our results. First, we propose that a family holding majority of the shares does not necessarily lead to better firm performance. With our definition of family firm, whereas more than 50 percent of the shares belong to a family and there are more than one owner, we can argue that ownership structure of a family firm has no positive effect on profitability of the firm. For a firm to achieve a profitable result, those involved need to engage and perform. Moreover, the family will have to utilize their positional power to direct the firm to success. Which means, family involvement is essential for the firm to produce better performance. The results indicate that one of the family members must be either the CEO or the chair to positively influence the firm's profitability. We believe that, in consistent with Berzins et al. (2018), the governance aspect of a family firm is the factor that adds value to the firm. With the right to control and influence the decision-making of the firm, the family will be able to dictate the firm towards positive results. Furthermore, there is no coincidence that involvement from the family produces better profitability. As Berzins et al. (2018) argued, the sociological aspect of a family firm can be beneficial to the firm as it encourages a common interest: bring pride and honor to the family name. With that said, these two unique factors will, undoubtedly, be a competitive advantage for the firm to exploit.

Second, we posit that, in line with Berzins et al. (2018), being a family firm has a negative effect because the firm has limited their options of governance recruits. It is reasonable to assume that the family will prefer to recruit someone they know and trust. Additionally, they are compelled to recruit their relatives. Consequently, they will have a much smaller pool of candidates to select from, and the pool might not have any talented candidates at all.

To challenge our model, we have divided the sample into four subsamples, by sizes and maturity. Table 7 shows the subsamples of small/medium, large, young, and old firms. When separated by maturity, all explanatory variables maintain their coefficients signs, but we do recognize that the effect of the coefficients are stronger in the young companies. Furthermore, by dividing the sample by small/medium and large, the coefficient of *FamilyInvolvement* is 0,0241 for the former, and 0,0032 for latter. However, the *FamilyFirm* variable is insignificant in the large firms. We propose that the effect of being a family firm and whether they are involved in the company or not tend to vanish with maturity and size, which makes sense taking into consideration that it would be easier for a family to influence a small/young company with fewer people to intervene. Also considering that larger companies could have voting power policies including caps on voting rights (Section 2.1).

9.0 Robustness tests

9.1 Methodology

In this section, we will conduct a series of robustness tests. First, we will replace the dependent variable with return on equity. Thereafter we will test our choice of model by conducting a pooled OLS. Furthermore, we will examine the likelihood of bankruptcy with the use of a logit model.

As shown in table 8, we replace the dependent variable *ROA* with *ROE* in the random effect model for all the seven samples to see whether the findings from our main results are consistent. The model to estimate is:

$$ROE_{it} = \beta_0 + \beta_1 \text{Familyfirm}_{it} + \beta_2 \text{FounderCEO}_{it} + \beta_3 \text{Familyinvolvement}_{it} + \beta_4 \text{Controls}_{it} + \beta_5 \text{Year}_t + u_{it} + \varepsilon_{it}$$

Further, we use a Pooled Ordinary least square (OLS) model with the *ROA* as the dependent variable to see if the choice of model is affecting the original results, pre-tax reform, and after-tax reform. The pooled OLS model however differs from the random effect model in the way that it is mainly used with pooled data, which is when the sample between the periods (in our case years) vary. We acknowledge this but will proceed by including the Pooled OLS model as a robust test to our main results.

Our Pooled OLS model will be as following:

$$ROA_{it} = \beta_0 + \beta_1 \text{Familyfirm}_{it} + \beta_2 \text{FounderCEO}_{it} + \beta_3 \text{Familyinvolvement}_{it} + \beta_4 \text{Controls}_{it} + \beta_5 \text{Year}_t + \varepsilon_{it}$$

ε_{it} Error term

Lastly, we will examine the likelihood of *Bankruptcy*, given the effects of the explanatory variables. We have excluded the control variable *Debt-ratio* and the year dummies from the regression due to the fact that the program could not find a solution when the variables were included. We will use the following model on the original sample, pretax reform, and after-tax reform:

$$\text{Logit}(P_{\text{Bankruptcy}}) = \beta_0 + \beta_1 \text{Familyfirm}_{it} + \beta_2 \text{FounderCEO}_{it} + \beta_3 \text{Familyinvolvement}_{it} + \beta_4 \text{Controls}^*_{it} + \varepsilon_{it}$$

Controls^*_{it} Vector of control variables (Not including debt ratio)

9.2 Robustness tests results

We will in this section present the results from our robustness tests. Table 8 shows the results from all the samples with *ROE* as the dependent variable in a random effect model. In regard to the relationship between *FamilyFirm* and firm performance, the signs of the coefficients are similar to the base model. However, in the sample of large firms, *FamilyFirm* is significant at 1 percent level, in contrast to the base model. The coefficients of *FounderCEO* remain the same for all samples that are significant at 1 percent level. *FounderCEO* is insignificant in the sample of large, young, and old firms. Regarding the relationship between *FamilyInvolvement* and firm performance, all coefficients that are significant maintain their signs. With that said, the coefficients that are significant in table 8 are consistent with the base model, measured by *ROA*, which supports our results from the main analysis.

Table 9 shows results of the effect of family firm, family involvement and founder CEO on return on assets, using an OLS model. The coefficient of all the explanatory variables maintain their signs in the original sample, pre-tax reform, and after tax-reform. These results are in line with the base model, measured by *ROA*.

Lastly, table 10 shows the effects of *FamilyFirm*, *FounderCEO*, and *FamilyInvolvement* on the probability of *Bankruptcy*. This model estimates the likelihood of going bankrupt based on our independent variables. Observing the sample of after-tax reform (Column 3), the *Familyfirm* variable is positively related to bankruptcy with a coefficient of 0.0502 and is significant at a 1 percent level. Both *FounderCEO* and *FamilyInvolvement* are negatively related to bankruptcy with coefficients of -0.2305 and -0.2927 respectively. Both are significant at a 1 percent level. These results suggest that family firms are more likely to go bankrupt, but companies with the founder as the CEO, and companies with large family shareholders that are involved, are less likely to go bankrupt. Accordingly, this is aligned with our main results. The probability of bankruptcy is greater in family firms than non-family firms due to the fact that the ownership structure of a family firm does not generate higher returns. Moreover, since both *FounderCEO* and *FamilyInvolvement* increase the firm performance, the likelihood of the firm filing for bankruptcy is lower.

10.0 Conclusion

The purpose of this paper is to investigate the unique features of family firm and understand the effects of family business on firm performance. Provided by CCGR, we have gathered a sample of Norwegian firms in the period of 2000-2017.

Based on Berzins et al., (2018), we have created three variables reflecting the unique characteristics of family firms and examine if these contributes to firm performance. We find that by being a family firm, the firm will generate a lower profitability than non-family firms. Accordingly, being a family firm does not have a positive effect on firm performance due to factors as incompetence and limited pool of talented recruits. However, our results indicate that family firms perform better if the family, who owns majority of the shares, is involved in the firm's business. This indicates that the family must engage and dictate for a better firm performance, and that simply owning majority of the shares will not lead to better profitability. The probability of bankruptcy also decreases when the family is involved. Furthermore, we discovered that the founder of firm, who is also the CEO, contributes to better firm performance. We divided the sample into seven subsamples to confirm the main results. The result is robust to the use of three different estimation methods.

In summary, our results provide evidence that, in terms of Norwegian firms, family businesses do impact the performance of the firm.

11.0 Limitations

Firstly, we do address the endogeneity problem within the *FounderCEO* variable, as there is a possibility of double causality. For instance, if the company are achieving good results, the probability of replacing the CEO is small. On the other hand, if the company is underperforming, then they would more likely consider a change. Secondly, when we define if a company has filed for bankruptcy, we are taking into assumption that a company that disappears from the dataset have gone bankrupt. This can be considered as a dubious method due to the fact that the firms may still exist without appearing in the dataset. Thirdly, due to the limitations of our computers, we cannot include all variables in the logit model. The solution is, therefore, to exclude *Debt-ratio* and year dummies to be able to run the regression. Lastly, the effect of family firms on performance is highly sensitive to the definition of the family business (Miller et. al, 2007).

12.0 References

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13.0 Appendix

Table 1: Descriptive statistics of ownership structure and accounting variables

Percentage of family firms							
Samples	In general	Pre-tax reform	After-tax reform	Small/Medium	Large	Young	Old
Family firm	32,22 %	40,98 %	29,31 %	31,65 %	35,55 %	26,37 %	35,26 %
Family firm							
Revenue	33,88 %	40,15 %	31,92 %	34,55 %	33,36 %	25,67 %	36,53 %
Net income	35,57 %	47,02 %	33,17 %	35,99 %	35,09 %	29,04 %	37,05 %
Total assets	33,79 %	38,99 %	32,52 %	33,82 %	33,75 %	23,86 %	36,58 %
Employees	38,56 %	38,57 %	32,08 %	40,76 %	37,26 %	33,56 %	40,24 %
N	395 622	125 550	270 072	331 952	63 670	125 379	270 243

Table 2: Overview of firms' typical governance structure when families are involved

Governance			
	In General	Family	Non-family
Largest family has Chair	74,33 %	85,95 %	68,81 %
Largest family has CEO	72,12 %	82,42 %	67,22 %
Largest family has CEO or Chair	87,59 %	96,12 %	83,53 %
Largest family has CEO and Chair	58,86 %	72,25 %	52,49 %
Largest family neither CEO or Chair	12,41 %	3,66 %	16,47 %
Number of firms	1 227 827	395 622	832 205

Table 3: Descriptive statistics of accounting variables, financial- and profitability ratios.

This table shows the mean and the median (in parentheses)

Size	All firms	Non-family firms	Family firms	Family		Small/Medium	Large	Young	Old
				Pre-tax reform	After-tax reform				
Revenue (<i>million NOK</i>)	10,9 (2,6)	10,6 (2,4)	11,4 (3,1)	10,2 (3,0)	12,0 (3,1)	6,0 (2,3)	39,6 (21,0)	6,7 (2,0)	13,6 (3,9)
Net Income (<i>million NOK</i>)	0,54 (0,066)	0,51 (0,063)	0,59 (0,101)	0,43 (0,096)	0,67 (0,104)	0,38 (0,071)	1,69 (0,661)	0,28 (0,045)	0,74 (0,141)
Fixed assets (<i>million NOK</i>)	4,8 (0,39)	4,7 (0,36)	5,1 (0,46)	3,4 (0,41)	5,8 (0,49)	3,5 (0,35)	13,3 (1,96)	2,64 (0,28)	6,1 (0,61)
Total assets (<i>million NOK</i>)	9,8 (2,0)	9,6 (1,9)	10,3 (2,2)	7,4 (1,8)	11,7 (2,4)	6,7 (1,7)	29,2 (9,5)	5,3 (1,3)	12,7 (2,9)
Current-fixed assets ratio	21,5 (2,7)	22,6 (2,7)	19,3 (2,6)	15,5 (2,5)	21,0 (2,6)	19,6 (2,4)	17,6 (3,4)	16,6 (2,4)	20,5 (2,7)
<i>Financing</i>									
Debt ratio	0,82 (0,74)	0,83 (0,73)	0,81 (0,74)	0,87 (0,82)	0,78 (0,69)	0,83 (0,74)	0,71 (0,72)	0,89 (0,81)	0,77 (0,70)
Debt-to-equity ratio	2,85 (1,63)	2,72 (1,57)	3,12 (1,74)	4,36 (3,01)	2,54 (1,37)	2,97 (1,63)	3,90 (2,25)	3,44 (2,03)	2,97 (1,64)
Long term-debt-to assets ratio	0,25 (0,05)	0,25 (0,03)	0,25 (0,09)	0,25 (0,11)	0,25 (0,07)	0,27 (0,07)	0,19 (0,12)	0,27 (0,09)	0,25 (0,09)
<i>Profitability</i>									
ROA	0,047 (0,504)	0,046 (0,050)	0,049 (0,050)	0,054 (0,056)	0,047 (0,048)	0,043 (0,046)	0,079 (0,068)	0,023 (0,039)	0,062 (0,054)
ROE	0,370 (0,213)	0,375 (0,218)	0,359 (0,203)	0,497 (0,287)	0,294 (0,176)	0,356 (0,194)	0,375 (0,233)	0,446 (0,307)	0,318 (0,175)
ATO	2,14 (1,74)	2,16 (1,73)	2,11 (1,75)	2,23 (1,88)	2,05 (1,68)	1,95 (1,61)	2,91 (2,36)	2,35 (1,92)	1,99 (1,68)

Table 4: Descriptive statistics of number of owners

This table shows the mean and the median (in parentheses)

	Number of owners
In general	2,99 (2)
Non-family	3,02 (1)
Family	2,93 (2)
Pre-tax reform non-family	2,90 (1)
Pre-tax reform family	2,85 (2)
After-tax reform non-family	3,05 (1)
After-tax reform family	2,97 (2)

Table 5: Correlation matrix

	ROA	Family firm	Founder CEO	Family involvement	Risk	Age	Total fixed assets	Current-fixed assets ratio	Debt ratio	Assets turnover ratio
ROA	1.0000									
Family firm	-0.0034	1.0000								
Founder CEO	0.0088	-0.0575	1.0000							
Family involvement	0.0344	0.1779	0.1233	1.0000						
Risk	-0.0731	-0.0410	0.0334	-0.0026	1.0000					
Age	0.0166	0.0951	-0.4997	-0.0019	-0.0900	1.0000				
Total fixed assets	-0.0146	0.0471	-0.1321	-0.0753	0.0534	0.1731	1.0000			
Current-fixed assets ratio	0.0961	-0.0137	0.0162	0.0023	-0.1620	0.0105	-0.6849	1.0000		
Debt ratio	-0.0278	-0.0007	0.0033	-0.0017	0.0197	-0.0256	-0.0615	-0.0279	1.0000	
Assets turnover ratio	0.0078	-0.0115	0.0546	0.0093	-0.1943	-0.0882	-0.3124	0.3117	0.0913	1.0000

Table 6: The effect of family firm, family involvement and founder CEO on return on assets

	(1) ROA without year dummies	(2) ROA with year dummies
Family firm	-0.000324 (0.000737)	-0.00106 (0.000741)
Founder CEO	0.00170* (0.000889)	0.00344*** (0.000912)
Family involvement	0.0160*** (0.000960)	0.0172*** (0.000959)
Risk	-0.0248*** (0.000884)	-0.0238*** (0.000877)
Age	8.67e-05** (4.08e-05)	0.000442*** (4.01e-05)
Total fixed assets	-0.00393*** (0.000350)	-0.00320*** (0.000346)
Current-fixed assets ratio	0.00146*** (0.000334)	0.00209*** (0.000332)
Debt ratio	0.00422*** (0.00121)	0.00411*** (0.00117)
Assets turnover ratio	0.00515*** (0.000549)	0.00498*** (0.000531)
Constant	0.0806*** (0.00585)	0.0545*** (0.00583)
R ²	0.0033	0.0057
Observations	972,299	972,299
Number of firms	137,531	137,531

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 7: The effect of family firm, family involvement and founder CEO on return on assets, with year dummies included.

ROA				After- tax reform			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Original	Pre-tax reform	After-tax reform	Small/medium	Large	Young	Old
Family firm	-0.00106 (0.000741)	0.0140*** (0.00132)	-0.00685*** (0.000841)	-0.00859*** (0.000941)	-0.00192 (0.00133)	-0.0188*** (0.00159)	-0.00445*** (0.000904)
Founder CEO	0.00344*** (0.000912)	0.00322** (0.00157)	0.00453*** (0.00101)	0.00562*** (0.00110)	0.00802*** (0.00175)	0.0125*** (0.00191)	0.00937*** (0.00107)
Family involvement	0.0172*** (0.000959)	0.0202*** (0.00184)	0.0162*** (0.00108)	0.0241*** (0.00134)	0.00317** (0.00135)	0.0341*** (0.00209)	0.0104*** (0.00117)
Risk	-0.0238*** (0.000877)	-0.0283*** (0.00153)	-0.0233*** (0.000953)	-0.0233*** (0.00100)	-0.00703*** (0.00183)	-0.0304*** (0.00138)	-0.0165*** (0.00108)
Age	0.000442*** (4.01e-05)	0.000646*** (6.12e-05)	0.000469*** (4.44e-05)	0.000469*** (5.00e-05)	7.97e-05 (7.11e-05)	0.000300 (0.000435)	-0.000124*** (4.58e-05)
Total fixed assets	-0.00320*** (0.000346)	0.00298*** (0.000568)	-0.00403*** (0.000371)	-0.00343*** (0.000435)	-0.0200*** (0.000890)	0.00439*** (0.000554)	-0.00444*** (0.000409)
Current-fixed assets ratio	0.00209*** (0.000332)	0.00912*** (0.000634)	0.000830** (0.000353)	0.000730** (0.000372)	-0.00681*** (0.000919)	0.00920*** (0.000550)	-1.20e-05 (0.000393)
Debt ratio	0.00411*** (0.00117)	0.00902** (0.00358)	0.00363*** (0.00109)	0.00311*** (0.000920)	0.0270*** (0.00902)	0.00267 (0.00202)	0.00297*** (0.000881)
Assets turnover ratio	0.00498*** (0.000531)	0.00235*** (0.000532)	0.00442*** (0.000588)	0.00407*** (0.000727)	-0.00260*** (0.000385)	0.000596 (0.000407)	0.00402*** (0.000799)
Constant	0.0545*** (0.00583)	-0.0134 (0.00970)	0.0702*** (0.00627)	0.0590*** (0.00743)	0.359*** (0.0175)	-0.0537*** (0.00856)	0.0983*** (0.00705)
R ²	0.0057	0.0188	0.0046	0.0049	0.0158	0.0189	0.0047
Observations	972,299	203,814	768,485	634,813	133,672	230,538	537,947
Number of firms	137,531	64,141	123,866	116,623	26,274	73,567	89,280
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 8: The effect of family firm, family involvement and founder CEO on return on equity, with year dummies included

ROE	After-tax reform						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Original	Pre-tax reform	After-tax reform	Small/medium	Large	Young	Old
Family firm	-0.00325 (0.00451)	0.0339*** (0.00902)	-0.0279*** (0.00499)	-0.0268*** (0.00542)	-0.0357*** (0.0110)	-0.0283*** (0.00959)	-0.0285*** (0.00551)
Founder CEO	0.0198*** (0.00524)	0.0582*** (0.0107)	0.0152*** (0.00566)	0.0204*** (0.00601)	-0.00334 (0.0132)	0.0154 (0.0114)	0.00680 (0.00613)
Family involvement	0.0134** (0.00649)	0.0542*** (0.0136)	0.00180 (0.00722)	0.0159* (0.00849)	-0.00763 (0.0123)	0.0412*** (0.0137)	-0.00717 (0.00789)
Risk	-0.0273*** (0.00403)	-0.0166* (0.00900)	-0.0311*** (0.00433)	-0.0292*** (0.00452)	-0.00780 (0.0121)	-0.00476 (0.00721)	-0.0510*** (0.00488)
Age	-0.00470*** (0.000209)	-0.00554*** (0.000386)	-0.00438*** (0.000229)	-0.00437*** (0.000254)	-0.00400*** (0.000466)	-0.0524*** (0.00311)	-0.00270*** (0.000240)
Total fixed assets	0.000635 (0.00142)	0.0311*** (0.00301)	-0.00281* (0.00154)	-0.00757*** (0.00177)	-0.0801*** (0.00607)	0.0217*** (0.00298)	0.00208 (0.00174)
Current-fixed assets ratio	0.0305*** (0.00156)	0.0841*** (0.00348)	0.0226*** (0.00169)	0.0149*** (0.00181)	-0.00918 (0.00639)	0.0490*** (0.00317)	0.0249*** (0.00191)
Debt ratio	0.000349 (0.000785)	-0.00413 (0.00312)	-0.000144 (0.000728)	-0.000998 (0.000695)	0.319*** (0.0424)	0.0198*** (0.00527)	-0.000291 (0.000709)
Assets turnover ratio	0.00585*** (0.00140)	0.00102 (0.00282)	0.00445*** (0.00137)	0.00234 (0.00161)	-0.0227*** (0.00340)	-0.00381* (0.00217)	0.00838*** (0.00210)
Constant	0.295*** (0.0229)	0.158*** (0.0466)	0.366*** (0.0246)	0.427*** (0.0283)	1.510*** (0.110)	0.173*** (0.0462)	0.288*** (0.0287)
R ²	0.0073	0.0111	0.0014	0.0027	0.0202	0.0037	0.0050
Observations	972,047	203,754	768,293	634,622	133,671	230,439	537,854
Number of firms	137,531	64,135	123,863	116,620	26,274	73,562	89,280
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 9: OLS regression. The effect of family firm, family involvement and founder CEO on return on assets

	OLS		
	(1) Original	(2) Pre-tax reform	(3) After-tax reform
FamilyOrNot	-0.00742*** (0.000482)	0.0124*** (0.000983)	-0.0133*** (0.000553)
FounderCEO	0.00777*** (0.000550)	0.00442*** (0.00117)	0.00857*** (0.000623)
FamilyInvolvement	0.0304*** (0.000756)	0.0284*** (0.00160)	0.0303*** (0.000858)
risk	-0.0230*** (0.000522)	-0.0246*** (0.00117)	-0.0228*** (0.000587)
age	1.65e-05 (2.17e-05)	0.000126*** (4.28e-05)	2.78e-06 (2.50e-05)
lnTotalFixedAssets	0.0106*** (0.000189)	0.0106*** (0.000389)	0.0105*** (0.000210)
lnCurrentFixedRatio	0.0182*** (0.000200)	0.0203*** (0.000417)	0.0177*** (0.000219)
DebtRatioLagged	-0.00203*** (0.000787)	-0.00603*** (0.00147)	-0.00170** (0.000753)
TurnoverRatioLagged	-0.00246*** (0.000233)	0.000268 (0.000429)	-0.00317*** (0.000289)
Constant	-0.0889*** (0.00331)	-0.125*** (0.00627)	-0.0842*** (0.00364)
Observations	972,299	203,814	768,485
R ²	0.022	0.030	0.022
Year dummies	Yes	Yes	Yes

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 10: The effect of family firm, family involvement and founder CEO on the likelihood of bankruptcy

	Bankruptcy		
	(1) Original	(2) Pre-tax reform	(3) After-tax reform
Family firm	0.152*** (0.00452)	-0.0557*** (0.00984)	0.0502*** (0.00540)
Founder CEO	-0.365*** (0.00490)	-0.0426*** (0.0112)	-0.231*** (0.00576)
Family involvement	-0.273*** (0.00668)	-0.104*** (0.0150)	-0.293*** (0.00779)
Risk	0.299*** (0.00387)	0.414*** (0.0105)	0.366*** (0.00440)
Age	-0.0115*** (0.000233)	-0.00163*** (0.000508)	-0.00668*** (0.000270)
Total fixed assets	-0.0902*** (0.00148)	0.0111*** (0.00350)	-0.107*** (0.00172)
Current-fixed assets ratio	-0.0335*** (0.00151)	0.0406*** (0.00368)	-0.0336*** (0.00173)
Turnover ratio	0.0298*** (0.00107)	0.0344*** (0.00256)	0.0171*** (0.00123)
Constant	1.139*** (0.0224)	0.440*** (0.0520)	0.973*** (0.0261)
Pseudo R ²	0,0161	0,0082	0,0166
Observations	972,299	203,814	768,485
Year dummies	No	No	No

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

14.0 Preliminary Thesis Report

BI Norwegian Business School - campus Oslo

GRA 19702

Master Thesis

Preliminary thesis report

Preliminary Thesis Report

Navn: Simen Spiten Grønlie, Duy Vo

Start: 19.08.2019 09.00

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Table of content

Introduction	2
Literature Review.....	3
Research question and objective of the thesis.....	6
Research question	6
Objective of the thesis.....	6
Hypothesis	9
Data and methodology	9
Data.....	9
Methodology	10
Plan for thesis progression	12
References	13

Introduction

Family firms have existed for many centuries without any major signs of declining. And since family firms represent a large portion of firms in any countries, we find the topic very relevant due to its overall impact on the world economy. Family firms have unique features that distinguish from other types of firms, and we wish to further explore and understand the effects of family ownership on firm performance.

Recent studies have shown that there is a connection between ownership structure and performance. However, it is important to distinguish between ownership and control. The owners are, in theory, those who possess voting rights in the firm – shareholders. They have a say in what the company is doing, whether they hold a few or majority of the shares. Naturally, they who possess majority of the shares will be more influential. On the other hand, the control of the firm is in the hands of the management team.

By definition, family firm is controlled and influenced by two or more family members. In many cases multiple generations of a family are involved in the decision-making of the firm. With that said, the key characteristic of a family firm is primarily its ownership structure. By standard, the family should hold majority of the outstanding shares in the firm, i.e. more than 51% of the shares, to be counted as the controlling shareholder. Furthermore, a majority shareholder has the ability and power to have strong control over the board of directors and the management team. Which makes them, in theory, the owner of the firm in a relatively high concentrated ownership environment.

In most cases, family members, who possess majority of the shares, serve on the board of directors and the management team as CEOs. This is considered as a family-owned firm, where both the ownership and control belong to the particular family. With this kind of structure, we are very curious of the possible advantages and disadvantages caused by the great involvement of family members. In essence, we will further explore this fascinating topic through analyses of financial accounting and corporate governance.

Literature Review

In recent past, there have been increased attention towards family businesses, and how they perform in comparison of non-family firms. (Siebles & KnyphausenAufseß, 2012)(Miralles-Marcelo, Miralles-Quirós & Lisboa, 2014) The numbers of publications regarding family businesses peaked for the first time in the late 1980's. The publications were more opinion and experienced based rather than empirical papers but they still contributed to the literature regarding the family business theme. (Bammens, Voordeckers & Van Gils, 2011) Thomas B Harris were one of those and he explained how he disagreed that one cannot simply import a model of boards of directors that has evolved with large nonfamily public firms into a family business, based on his insight from family therapy, finance, organizational behavior and management and owners of family firms. (Harris, 1989)

Vishny and Shleifer found in 1986 that 354 of 456 firms in a sample from the fortune 500 (top 500 firms in US at the time based on revenues) had at least one large shareholder owning above 5 % of the firm. (Shleifer & Vishny, 1986)

Vishny and Shleifer later stated, "Large shareholders thus address the agency problem in that they have both a general interest in profit maximization, and enough control over the assets of the firm to have their interest respected". (Shleifer and Vishny, 1997, p. 754) Thereby the manager could run the company by their own interest, which not need to coincide with the interest of the other stakeholders, (Shleifer & Vishny, 1997) which is a contra intuitive argument against why such an amount of the top 500 firms would have a large shareholder.

If not looking at economies with very good shareholder protection, relatively few of the 20 largest publicly traded firms in each of the 27 generally richest economies as of 1999 are widely held, in contrast to Berle and Means view of the modern corporation from 1933. These firms are rather typically controlled by the state or families having controlling amounts of shares through use of pyramids (holding large amount of shares with little cash) and participation in management. (La Porta, Lopez-De-Silanes & Shleifer, 1999) Because of this research by Rafael La Porta, Florencio Lopez-De-Silanes and Andrei Shleifer, Berle and Means's

“The Modern Corporation and Private Property “, which were widely accepted in the finance literature, were losing some of its credibility and relevancy.

In 2000 Johannisson and Huse published “Recruiting outside board members in the small family business: an ideological challenge” where they believed that using professional managers, if properly orchestrated, would create an energized and more competitive family business. This was assumed based on a piloting survey of 12 family businesses. Thereby they requested future studies to test the effect of using independent managers (a manager without any relations to the firm when hired) on a large-scale sample with cross-country comparison. (Johannisson & Huse, 2000)

“Disentangling the Incentive and Entrenchment Effects of Large Shareholdings”, a study from 2002 found that managers of East Asian corporations are usually related to the family of the controlling shareholder while manager-owner conflicts still are generally limited. (Claessens, Djankov, Fan & Lang, 2002) A year later Ronald C. Anderson and David M. Reeb found evidence from the Fortune 500 showing what Johannisson and Huse wrote was wrong. Andersen and Reeb found that the performance of the company is better when the company CEO is related to the controlling shareholder. Suggesting that family businesses are a competitive organizational structure. Further testing suggested that the reasoning for the family businesses performing significantly better than the non-family businesses could stem from the companies where the CEO where a family member. (Andersen & Reeb, 2003) They also found that family ownership in public firms reduces agency problems, supporting the “Disentangling the Incentive and Entrenchment Effects of Large Shareholdings”. (Andersen & Reeb, 2003) It was later discovered that family members at the CEO position not necessarily gave a positive effect on the firm’s performance. There is only a statistically positive effect if the family member serving as CEO is the founder of the firm.

“How do family ownership, control and management affect firm value?” shows that if a descendant of the founder takes over as CEO he/she will destroy value. Reasoning for this being that the agency cost of the conflict between manager and owner is higher in descendant-CEO firms than in non-family firms. (Amit &

Villalonga, 2006) There is a very little probability that the ancestors of the founder will be the ones best suited for the job.

Commonly most of the papers agrees on that there is relatively little attention on the theme because of the difficulty in obtaining reliable data on these firms. (Johannisson & Huse, 2000) (Amit & Villalonga, 2006)

In 2007 Miller et. al published “Are family firms really superior performers?” questioning whether family businesses really outperform non-family businesses considering that there might be some endogeneity or bias by examining only the fortune 500. They examined instead the fortune 1000 and added another 100 smaller public companies. The result where not supporting family businesses as that dominant as what earlier research suggest. “The results show that findings are indeed highly sensitive both to the way in which family businesses are defined and to the nature of the sample” (Miller, Le Breton-Miller, Lester & Cannella, 2007, p. 1)

Following research in the area assess this endogeneity problem as relevant and evaluate whether the family companies that are compared in the Fortune 500 may be heterogeneous entities, thereby not comparable. (Mazzi, 2011) (Chua, Chrisman, Steier & Rau 2012) (De Massis, Kotlar, Campopiano & Cassia, 2013) (Miralles-Marcelo et al., 2014)

Overall, more research is required to clarify these inconsistent findings. To do that we will only compare family businesses and non-family businesses that are of the same industry and comparable size.

Research question and objective of the thesis

Research question

We wish to further investigate whether family involvement in decision-making will have any effect on the firm's status in regard to financial performance and corporate governance. Thus, our research question is:

Does family ownership have an effect on the performance of the firm?

Objective of the thesis

First and foremost, we will examine the possible agency issues that arises from family-owned business. This includes problems that occur from a circumstance where the large shareholder directly manages the firm which aligns managers' interests with those of the large shareholder. (Laeven & Levine, 2007). This will lead to an agency problem, where the controlling owner may have an incentive to transfer assets and profits out of the firm to benefit the majority shareholder at the cost of minority shareholders (Johnson, La porta, Lopez-de-Silanes & Shleifer, 2000). However, a majority minority shareholders problem may also provide a solution to the free-rider problem (Shleifer and Vishny. 1986). In another case, where no family members are involved in management, the controlling shareholder will have greater incentives to monitor the manager (Amit & Villalonga, 2006). Which ultimately leads to an agency problem between the manager and the controlling shareholder, in regard to aligning their interests. For instance, Yermack (2006) argues that managers' tendency to make more use of private benefits than needed which also leads to workers observing managers' perquisites and reacting adversely. As result, shirking, unethical behavior, or low morale will occur. Ultimately reducing the firm's initial value.

Secondly, we will further explore the relationship between family ownership structure and firm's performance. Whether family involvement creates or destroys value of the firm in terms of financial performance. This includes family business succession, strategic investment decision-making and capital structure.

Recent studies have provided evidences regarding the correlation between family succession and firm performance. According to (Cucculelli & Micucci, 2008), the maintenance of management within the family has a negative impact on the firm's performance. Their research and results, based on Italian firms, indicate that there is no sense of superiority with family ownership structure compared to other types. However, Amran & Ahmad's (2010) recent research, based from

Malaysian firms, provides findings that indicate that family succession positively contributes to firm performance. Moreover, family ownership does positively influence firm performance due to families' motivation to work efficiently when they hold big number of shares in the firm. Most important, results show successors-managed firms have better firm performance than founder-managed firms. With that said, these two particular papers open up the possibility for us to further study the relationship between family succession and firm performance, and why cultural differences might play a huge part of the results.

Another research that has brought interests is the effects of family business owner's gender to firm performance. In common with to family succession, succession planning in family businesses is important for the firm's future performance. While attributes like management skills, technical skills, interpersonal skills, problem-solving, among others, are important for an owner to succeed. Based on Harveston, Davis & Lyden's (1997) research, there are actually similarities and differences between males and females in succession planning in family business. While Karataş-Özkan, (2011) also examines the gender differences in family businesses. However, their findings are small and without much consistency.

Strategic investment decision-making is essential in all organizations. In this section, we will explore the family firms' approach to short-term investments and

long-term investments. In other words, their strategy of capital budgeting and working capital management which is heavily related to the firm performance and growth. Moreover, the relation between family ownership structure and the firm's risk-taking behavior. The article written by Naldi, Nordqvist, Sjöberg & Wiklund (2007) provides evidence that, while family firms do take risks, the risks taken are to a lesser extent than nonfamily firms. Moreover, that risk taking in family firms is negatively related to performance. On the other hand, Lee, Chae & Lee (2018) find that, in Korea, family with less ownership takes less risk for pursuing their private benefits, while a family with more ownership takes more risky projects to align their interest with the firm's.

While the risk-taking behavior of the firm is heavily dependent on the characteristics of the CEO, which in this case might be a part of the controlling family owner, we can reasonably assume that the level of risk-taking is affected by the degree of family influence in the firm. To further explore this topic, we will examine several unique conditions that lead family firms to be less risk-averse. Including, size of family ownership, family-involvement for generations, gender, founder- or successors-managed, religion, wealth, among others. For instance, a very recent paper by Jiang, Jiang, Kim & Zhang (2015) proposes that family firms with founders with religious background are less risk-taking than other family firms. Their findings show that firms founded by religious owners have lower leverage and less investments in fixed and intangible assets compared to other nonreligious owners. While a paper written by Memili, Eddleston, Kellermanns, Zellweger & Barnett (2010) demonstrates the relation between risk taking, expectations and family firm image. Highlighting that family firm image plays a crucial role demonstrating their enduring influence on the firm through risk taking. In other words, high expectations from the leader, presumably from the family, promote a family firm image and risk-taking. In turn, risk-taking and family image affects the firm performance. With that said, we find that there are other family-related factors that contribute to the firm performance. Not as simple as being a family-owned or non-family firm. But the attributes and qualities that the family has brought to the table.

Lastly, but most importantly, we will explore family firm's capital structure decision making. What determines a family firm's capital structure? For instance,

a CEO's view of debt financing contributes to firm leverage. In turn, firm leverage has an impact on firm investment which ultimately affects firm performance. King & Santor (2008) study shows that family-owned firms with a single share class have higher financial leverage based on debt-to-total assets than other non-family firms. According to Aspenberger, Schmid, Achleitner & Kaserer (2011), family does influence the capital structure of the firm, and that the family impact is mostly through management involvement. In addition, the study indicates a negative relationship between family firm characteristics (ex. Family management) and the level of leverage.

Hypothesis

H0: Family business does not have an effect on firm performance

H1: Family business does not have an effect on firm performance

Data and methodology

Data

We will mainly use Secondary data. We plan to gather the data through BI's Center of Corporate Governance Results (CCGR), Bloomberg or, if necessary, collecting data from their annual reports. CCGR is a database provided by BI, focusing on empirical research and primarily studies Norwegian firms. The CCGR also includes private industry in general and to non-listen firms and family firms in particular (BI Norwegian Business School 2020). The data from CCGR consists of information from 1994-2015, which should be sufficient for later research about firm performance in family firms. The data we wish to use, so far, for this study includes:

- 1) Revenue
- 2) Payroll expense
- 3) Depreciation
- 4) Other interest expenses
- 5) Income
- 6) Total fixed assets
- 7) Total current assets
- 8) Total equity
- 9) Total short-term liabilities
- 10) Total long-term liabilities
- 11) Cash flow
- 12) Dividends payable
- 13) Information about CEO
 - a. Gender
 - b. Age
 - c. Years as CEO
- 14) Information about the family ownership structure
 - a. Number of owners
 - b. % of owners belonging in the same family

Methodology

Firstly, as mentioned earlier, we will only consider a family firm where the family holds over 50% of the shares. Secondly, as a family tree might be complicated, we only consider family as blood-related or in-laws. Lastly, we will not conclude a daughter company nor subsidiaries in our studies as we are more interested in the larger companies. This is also due to the relationship between the mother and daughter company which, to our knowledge, does not contribute to our research as stock of the daughter company is still an asset on the balance sheet of the holding company.

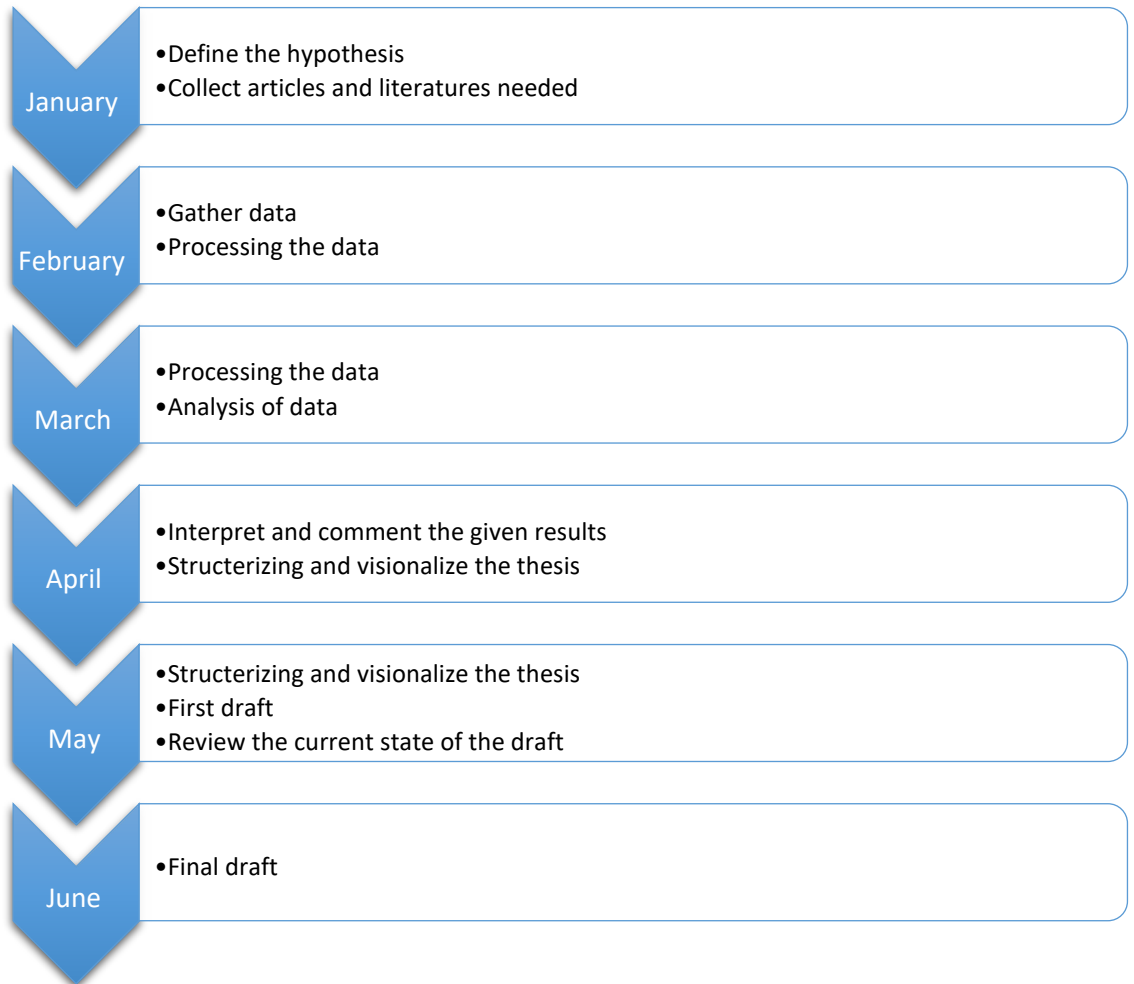
Primarily, we consider using Return on Assets (ROA) as the dependent variable as an indicator to explain whether family ownership has an affect on the firm

performance or not. However, we will likely to also conclude financial parameters as following:

- 1) Return on equity (ROE)
- 2) Turnover rate
- 3) Gross profit margin
- 4) Operating profit margin
- 5) Net profit margin
- 6) Return on invested capital
- 7) Operating cash flow
- 8) Working capital
- 9) Current ratio
- 10) Quick ratio
- 11) Debt to Equity ratio
- 12) Substantial growth

In addition, with the data and variables available, we will utilize a statistical quantitative approach to answer our research question.

Plan for thesis progression



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