Does Religion Matter To Capital Structure in SMEs?

Evidence from the Netherlands

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ABSTRACT, The aim of this paper is to analyze the influences of religion on capital structure, to what extent will religious beliefs affect capital structure decisions made by Dutch SMEs? By comparing a group of SMEs in protestant areas with a group of SMEs in non-protestant areas, the results provide evidence for a relationship between religion and capital structures of SMEs. Norms and values of religions are playing a role in making corporate finance decisions, furthermore it reduces owner-manager agency costs via restraining managers from unethical activities. This paper finds also evidence that the capital structure of SMEs in protestant areas differ from capital structures of SMEs in less- or non-protestant areas, SMEs in protestant areas are using less leverage than other comparable SMEs. Altogether, the capital structure of SMEs is influenced by religious belief to a moderate extent.

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1. INTRODUCTION

There is a lot of research done about the determinants that influence firm's capital structure. Capital structure refers to the specific mixture of long-term debt and equity that firms use to finance its operations (Hillier et al., 2011). When people refer to capital structure they are most likely referring to a firm's debt-to-equity ratio, which provides insight into how risky a company is. Usually a company more heavily financed by debt poses greater financial risk, as this firm is subject to higher financial distress (Hillier et al., 2011).

According to Modigliani and Miller (1958), in a world of perfect markets (without taxes, transaction costs, bankruptcy costs etc.) the level of debt comparing to the level of equity of a firm will not affect the value of a firm. Since we live in a world without perfect markets, because there are taxes, transaction costs and bankruptcy costs, the level of debt of a firm does matter. The main theories about the way companies choose their capital structure are the static trade-off theory and the pecking-order theory. The first theory, the static trade-off theory states that a firm borrows up to the point where the tax benefit from an extra pound or euro in debt is exactly equal to the cost that comes from the increased probability of financial distress (Hillier et al., 2011). This theory assumes that there is a point, an optimum, which maximizes firm's value. The second main theory is the pecking-order theory. This theory is an alternative to the static theory and answers to some of the shortcomings of the static trade-off theory (Hillier et al., 2011). The theory is stating that, all other things being equal, companies seeking to finance a new project or product have a hierarchy of preferred financing options that progresses from the most preferred to the least preferred. The hierarchy is said to follow this order: internal financing (or simply financing a project or product out-of-pocket) first, then they will issue debt, equity will be sold pretty much as a last resort. The pecking-order view states that the hierarchy is structured this way because of the transaction costs involved in each form of financing. That is, internal financing has a lower transaction cost then debt issuance, and so forth (Hillier et al., 2011). Fama and French (2002) criticizes on the empirical evidence of both theories, they found shortcomings on both the trade-off theory and the pecking-order theory. However, to get a better understanding of the topic of investigation, we can use these theories to better understand capital structure decisions, because the theories have improved our understanding of the factors that could influence capital structure, such as size, tangibility and profitability for example.

There are many factors that could influence the capital structure, for example legislation, tax policies and different types of industries. The choice to have a specific capital structure may not be always completely as rational as for example the static trade-off theory assumes, personal factors such as the extent to which someone dares to take risks and how the direct environment is looking at desired behaviour may impact on capital structure decisions also.

The focus of this paper is on the influences of religion on capital structure, to what extent will religious beliefs affect decisions about the debt-to-equity ratio? There is much literature about capital structure and the differences in countries and different systems, but there is not much known about the role that religious beliefs can play when we look at this topic. Religion is a part of culture. According to different studies, for example Chui et al. (2002), culture does influence capital structure. "Results show that countries with high scores on the cultural dimensions of "conservatism" and "mastery" tend to have lower corporate debt ratios'' (Chui et al., 2002). Scheepers (2005) investigated the relationship between conservatism and religion. He found that there is a relationship between these terms, but the relationship seems to be ambivalent. In this paper, it will be further investigated if religion, as a part of culture, influences the capital structure decisions that have to be made in companies. Baxamusa and Jalal (2014) already investigated if religion affects capital structure. They did this by comparing firms located in Protestant- and Catholic-majority counties within the U.S., and they also used a sample of international firms to see if the differences in leverage in the U.S. are similar to the behaviour of firms in Catholic and Protestant countries outside of the United States.

To exclude as much as possible the other factors that can influence the results, this research will focus on the effects of religious beliefs on capital structure in one specific country, the Netherlands. As far as I know, there is no literature available that investigated the role of religion on capital structure in the Netherlands. However, Baxamusa and Jalal (2014) did a comparable research in the United States. The companies that will be investigated in this paper consist of small and medium enterprises (SMEs). These companies have fewer employees, and the decisions about corporate finance issues are much more taken by one or a few people, in contrast to big companies, where power is often more divided. Taking into account the available time to complete the research, the purpose of this study is to investigate the capital structure of SMEs in the Netherlands by comparing comparable companies in and outside the so called 'Bible belt'. The Bible belt is the area in the Netherlands where the orthodox Protestants are living, the Church plays a central role in the life of Bible belt communities and they typically oppose the liberal practices of Dutch society. The boundaries of this area are not exactly clear, often it is defined as municipalities with high percentage of votes for the Staatkundig Gereformeerde Partij (SGP, the orthodox protestant political party) (Ruijs et al., 2011). In order to make the Bible belt more visible in the narrow sense, we can look at the municipalities in the Netherlands where the Reformed Political Party (Dutch: Staatkundig Gereformeerde Partij, SGP) is in control. We can have a look at the municipalities in the Netherlands where this party and other protestant parties are not in control, the more liberal places in the Netherlands. The propose is to compare these very protestant municipalities with the liberal municipalities where religion is not in power. It is very hard to find which individual firms are more or less controlled by religious beliefs. However, when we compare the SMEs in the highly protestant municipalities with the SMEs in the municipalities where religion does not play a very visible role, it is possible to come up with a reliable comparison. As mentioned before, Baxamusa and Jalal (2014) did a comparable research where they compared the leverage of firms located in Protestant- and Catholic-majority counties within the United States. The authors wanted to investigate the impact of the religious environment of firms on their capital structures. Therefore, they tried to keep the legal and institutional differences at a minimum, so that there are only differences in the religious composition.

The research question will be the following:

To what extent is the capital structure of SMEs influenced by religious beliefs?

This central research question will be answered through a number of sub questions, which are as follows:

1. To what extent is there a relationship between religion and taking risks?

2. To what extent are norms and values of religion playing a role in making decisions at the level of corporate finance for SMEs?

3. Does the capital structure of SMEs in protestant areas differ from the capital structure of SMEs in less- or non-protestant areas?

Concerning the academic relevance, this paper attempts to add to the existing literature on capital structure. An enduring puzzle in financial economics is the gap between the theoretical and the observed capital structures (Baxamusa & Jalal, 2014). Incorporating the effects of cultural factors, such as religion, can help us develop a better understanding of some of the puzzles observed in the literature.

In terms of the practical relevance of this paper, it is important to recognize that decisions on capital structures influence firm's value and its cost of capital. Improving the knowledge of this topic will thus also help us to better inform SMEs about their optimal capital structure which maximizes the firm's value.

The data collection will be done by making use of a sample of SMEs in the Netherlands. This will be elaborated through examining the recent capital structures of SMEs in religious areas and SMEs in less or non-religious areas of the Netherlands. The data will be extracted from the database ORBIS.

2. LITERATURE REVIEW

As mentioned before, the main theories about capital structure are the static trade-off theory and the pecking-order theory, which are developed after the theory of Modigliani and Miller. These theories can be used to better understand the capital structures in relationship to religion. However, it is needed to have also a collection of theories and papers about the relationship with religion. Scientific papers about religion and the relationship with capital structures will be introduced in this section.

According to Renneboog and Spaenjers (2009), the Netherlands is the ideal place to examine the relationship between religion and individual decision-making. This is because the country is characterized by considerable heterogeneity in religiosity, and the distinction between religious and non-religious people is not as blurred as in other European countries. Renneboog en Spaenjers (2009) stated that people in the Netherlands who consider themselves members of a religious denomination are usually true believers. Renneboog and Spaenjers (2009) did a research in the Netherlands on how religion is influencing saving behaviour of households. The research is done on micro level, they used panel data from the DNB Household Survey, covering the period from 1995 to 2008. According to Renneboog and Spaenjers (2009), the Netherlands is one of the most secularized countries in Europa, where a small majority of the population is religious. The largest religious denomination is the Roman Catholic Church (27%), the mainstream Protestant churches are representing 15% of the population when taken together. Evangelicals, a group of conservative Protestants who share a strong belief in a literal interpretation of the bible and the importance of rebirth are representing about 1% of the population. Further, there are groups of Muslims (6%) and groups with non-Christian religious beliefs (2%). The other 49% of the Dutch population does not belong to a specific denomination. (Renneboog and Spaenjers, 2009). Renneboog and Spaenjers (2009) found evidence that 'religious households care more about saving, are more risk-averse, consider themselves more trusting, have a more external locus of control, and have a stronger bequest motive' (Renneboog and Spaenjers, 2009, p.1). Whereby saving stands for the more care about thrift. Risk-aversion shows the risk preferences of people, the extent to which one prefers to take more risk to have a chance to get the highest possible returns. Considering themselves more trusting is to say that religious people are more likely to consider themselves as trusting other people and the society. The higher external locus of control means that religious people believe that their life outcomes are not entirely determined by their own actions. Finally, the stronger bequest motive says that religious people care more about the inheritance of their children in comparison to non-religious people. Renneboog and Spaenjers (2009) also found that Catholics and Protestants have longer planning horizons (they have a longer time-horizon when planning expenditures and savings), and Protestants and Evangelicals seem to have a greater sense of individual financial responsibility. According to Renneboog and Spaenjers (2009), this explains the higher propensity to save by religious households in general and the lower investments in risky assets by Catholic households. Another conclusion that they made is that Protestants and Evangelicals (but not Catholics) have a relatively great sense of individual financial responsibility. Lok et al. (2010) found that Christians often have more wealth than non-Christians. They also found that Catholics and Protestants do save more than others in the society. The conclusions of this research are very conformable to the research of Renneboog and Spaenjers (2009). Further, the sober lifestyle of Protestants seems to be related to the greater wealth collection of these people. The question that is interesting for this research is to what extent the characteristics of religious households, such as risk-aversion and saving more money, are comparable with characteristics of SMEs in religious regions. When it is very comparable, we should expect that SMEs in relatively high religious regions are also more risk-averse, have longer planning horizons and care more about saving for example. We developed a hypothesis according to these characteristics, this hypothesis is based on the pecking-order theory, which states that, all other things being equal, companies seeking to finance a new project or product have a hierarchy of preferred financing options that progresses from the most preferred to the least preferred. The hierarchy is said to follow this order: internal financing (or simply financing a project or product out-of-pocket), debt issuance, debt-equity hybrid issuance, and equity issuance. The pecking-order view states that the hierarchy is structured this way because of the transaction costs involved in each form of financing. That is, internal financing has a lower transaction cost then debt issuance, and so forth (Hillier et al., 2011). When SMEs relatively care more about saving, they will have more internal funds available. Retained earnings are a good example of internal funds in SMEs. Earnings of SMEs are often paid out to the owners, who often do not draw a budgeted salary. Owners of SMEs can choose to pay out the earnings or they can reinvest them into the company. Retained earnings are the portion of net income that is retained in a company and not paid out. The sober lifestyle and the risk-aversion of Protestants can lead to more reinvesting of retained earnings in the company. Because of the sober lifestyle, protestant owners are not likely to pay out earnings of the SMEs to themselves in order to buy luxury goods for private usage. Moreover, Protestantism believes that work is an important form of service to God, and Protestantism emphasized the value of denying the pleasures of this world and living frugally. (Delacroix and Nielsen, 2001) These could be reasons for protestant owners to retain more earning in the SMEs, instead of using it for private usage. The risk-aversion of protestant can also be a reason for protestant owners of SMEs to retain earnings in the company instead of paying it out, because having more internal funds available decreases the risk of bankruptcy. When SMEs have

more internal funds available, this will lead to a better liquidity of these SMEs, and therefore the risk of bankruptcy will become lower. According to the pecking-order theory, having more internal funds available will lead to more financing through internal financing. The need to use debt will be less, because there is relatively more money available through saving. The hypothesis is as follows;

H1. SMEs in protestant areas are more risk-averse and care more about saving, these SMEs will have more internal funds available and the need to attract debt will be lower.

Chui et al. (2002) investigated the question why knowing the nationality of a company helps to predict its financial leverage. The study suggests that national culture does have influences on corporate capital structures. Chui et al. used six value types; Conservatism, Intellectual and Affective Autonomy, Hierarchy, Mastery, Egalitarian Commitment and Harmony. Results show that cultures that are scoring high on 'conservatism' en 'mastery' tend to have lower debt-to-equity ratios. Whereby Conservatism includes "values that are important in close-knit harmonious relationships, in which the interests of the individual are not viewed as distinct from those of the group. These values are primarily concerned with security, conformity, and tradition" (Chui et al., 2002, p101). "Mastery accentuates active mastery of the social environment through self-assertion. Such values promote the active efforts of people to change their surroundings and get ahead of others" (Chui et al., 2002, p101). Although culture, the concept that is investigated in this study, is a broader concept than religion, we can identify some similarities. The values that are concerned with Conservatism, such as tradition are values that are often also applicable to religious belief such as Catholicism en Protestantism. Scheepers (2005) did a research on the relationship between conservatism and Protestantism and Catholicism. Scheepers found that there is indeed a relationship between these terms, but the relationship seems to be ambivalent. Especially, there seems to be a correlation between the integration and socialization in a certain religious tradition and cultural conservatism. On other themes, such as trusting people and charity, religious people do not fit in the framework of conservatism. Although the relationship between conservatism and religion is called ambivalent, to some extent we can compare the effects that each concept has on corporate capital structures.

Du (2012), in a study, examines the influence of two major religions (i.e., Buddhism and Taoism) in China on owner-manager agency costs. Because the data is limited, the study can not test the impact of other religions such as Islam, Catholicism, and Protestantism on agency costs between management and shareholders. Du found 'strong and robust evidence that is significantly negatively associated with owner-manager agency costs' (Du, 2012, p319). The reasons come from the effects that religiosity has on individual thinks and behaves, religion can curb managers from unethical business practices. The findings suggest that religion does matter and reduce owner-manager agency costs via restraining managers from unethical activities (Du, 2012, p344). Therefore, religion, as one of informal system arrangements, can serve as an alternative to standard corporate governance mechanisms to curb unethically managerial behaviour (Du, 2012, p344). Ghoul et al. (2012) observed a sample of 36105 U.S. firm-year observations from 1985 to 2008 in order to answer the question if religion does matter to cost of equity. They found that firms located in more religious counties enjoy cheaper equity financing costs. Ghoul et al. (2012, p491) document that the effect of religiosity on firms' cost of equity capital is larger for firms (periods) lacking alternative monitoring (regulation) mechanisms as measured by lower institutional ownership (the pre-SOX era), implying that religion plays a corporate governance role. Further, they found that the importance of religion to cost of equity is concentrated in firms that suffer lower visibility, which tend to be more sensitive to local social and economic factors (Ghoul et al., 2012, p491). Via regressions, the study provides evidence that firms headquartered in more religious counties attract cheaper equity financing (Ghoul et al., 2012, p511). Both studies we mentioned above (Du, 2012 and Ghoul et al., 2012) see religion as an alternative to standard corporate governance mechanisms. Religion as a corporate governance mechanism will restrain managers in SMEs from unethical activities. When the managers act in a more ethical behaviour, it will reduce costs of equity financing. The lower the equity financing costs, the more attractive it will become to use more equity instead of debt. The static trade-off theory can be used to explain why SMEs will change their debt-to-equity ratio when equity financing becomes cheaper. The static trade-off theory states that firms will use debt because of the tax benefits. They will do this up to the point that an extra pound or euro in debt is exactly equal to the cost that comes from the increased probability of financial distress. When equity financing becomes cheaper, the benefits of using debt will be reduced. At the same time, the costs of financial distress will remain the same, whereby the optimum will move to a point where less debt and more equity is used. Therefore, religion as a corporate governance mechanism will lead to more use of equity instead of debt.

Baxamusa and Jalal (2014) compared the leverage of firms located in Protestant- and Catholic-majority counties within the U.S., they used also a sample of international firms to see if the differences in leverage in the U.S. are similar to the behaviour of firms in Catholic and Protestant countries outside of the United States. The authors wanted to investigate the impact of the religious environment of firms on their capital structures. Therefore, they tried to keep the legal and institutional differences at a minimum, so that there are only differences in the religious composition. In their study, Baxamusa and Jalal found that 'a 1% increase in a county's Protestant religiosity leads to a 0.4% lower leverage and less frequent debt issuances' (Baxamusa and Jalal, 2014, p112). Firms located in Catholic-majority counties have more leverage. The religiosity also has significant effect on the firms' adjustment speeds toward a target capital structure. Firms in Protestant counties restructure their capital structure faster when they have a higher debt level than the target level. Firms in Protestant counties do not want to use too much debt, and will, as fast as possible, restructure its debt level when this is too high. For firms in Catholic counties, the opposite is happening. They restructure their capital structure faster when they have a lower debt level then the target level. These differences in leverage in the U.S. are similar to the behavior of firms in Catholic and Protestant countries outside of the U.S. according to this study. (Baxamusa and Jalal, 2014). This shows that firms in Catholic counties do have less trouble with using more debt when they can benefit from it (when they are below their target level). Firms in Protestant counties do adjust slower in the same situation. Catholic counties therefore are more positive about using more debt, and will more easily adjust the debt level when it is too low. In our study we will focus on the differences between the very protestant regions in the Netherlands and the regions in the Netherlands that are not protestant. As stated before, it is possible to find regions in the Netherlands that are very protestant, however it is very hard to get a good overview of the catholic regions in this country. Due to this limitation, we can not test differences between SMEs in protestant- and SMEs in catholic areas of the Netherlands in our paper. However, we are able to compare the protestant areas with the non-protestant

areas in the Netherlands, including the low visible catholic areas. Taking into account this limitation, we developed the following hypothesis according to the findings above;

H2. SMEs in the protestant areas of the Netherlands do have less leverage than SMEs in the non-protestant areas of the Netherlands.

3. METHODOLOGY

3.1 Research Question and Hypotheses

As mentioned in the introduction, the research question of this paper will be:

To what extent is the capital structure of SMEs influenced by religious beliefs?

The hypotheses are developed on the basis of the literature review, and are as follows:

H1. SMEs in protestant areas are more risk-averse and care more about saving, these SMEs will have more internal funds available and the need to attract debt will be lower.

H2. SMEs in the protestant areas of the Netherlands will have less leverage than SMEs in the non-protestant areas of the Netherlands.

3.2 Sample

To test the hypotheses, we make use of a sample of ten municipalities in the Netherlands, consisting of five highly protestant municipalities, and five less- or non-protestant municipalities. Looking at municipalities where the SGP (Reformed Political Party) is the biggest party gives a very reliable picture of the level of Protestantism in that municipality. The SGP is the oldest political party and is very protestant. The SGP is a small party in the majority of the municipalities in the Netherlands. The municipalities where they are in control are therefore highly protestant. Therefore, the five protestant municipalities in this research are municipalities where the SGP is the biggest party in the local elections of 2010 and 2014. These municipalities are Barneveld, Reimerswaal, Neder-Betuwe, Rijssen-Holten and Staphorst. The other five municipalities are municipalities where the SGP has no seat in the municipal council. The municipalities that we use in this research are Hollandse Kroon, Oosterhout, Oldenzaal, Coevorden and Leeuwarderadeel. All the ten municipalities are spread over the whole country. Because this research is especially interested in SMEs, the sample of firms in these municipalities are limited to industrial companies that meet the requirement of the definition of SMEs according to the EU Law, these are the firms with a balance sheet total of €43.000.000 or less and 250 employees or less. This research limits itself to the period of 2009 till 2012. The data sources that will be used for this research come from ORBIS. The total sample will consist of 129 SMEs. 84 of these SMEs are located in the protestant municipalities, the other 45 SMEs are from the other five municipalities.

3.3 Variables

The independent variable in this research is the religious region where SMEs are settled according to the database of ORBIS.

To measure the dependent variables, there are some formulas needed. The formulas that will be used in this research will now be introduced. The first hypothesis is stating that having internal funds available will lead to less need for debt issuance. Liquid firms do have more internal funds available, which can be used in order to finance new investments. The pecking-order theory therefore suggests that more liquid firms will relatively use less long-term debt. In our first hypothesis, we assume that firms in protestant areas are more risk-averse and care more about saving, these firms will have more internal funds available and the need to attract debt will be lower. To test this hypothesis, we will use the current ratio to determine the liquidity of firms in- and outside protestant areas. The current ratio is calculated as follows;

$$\text{Current ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

In the second hypothesis, the relationship between religion and the amount of debt and equity used is discussed. The ratio between equity and debt can be calculated in different ways. In this paper, the Capitalization Ratio will be used.

$$\text{Capitalization Ratio} = \frac{\text{Long - term Debt}}{\text{Long - term Debt + Shareholders' Equity}}$$

This ratio is based on long-term debt instead of total debt or total liability. The advantage of this specific debt-ratio lies in the usage of long-term debt, which gives a better overview of the permanent capital structure. (Loth, n.d.)

As stated before, the dependent variables are liquidity of SMEs, which will be measured by the current ratio and the leverage of these SMEs, which will be measured by the capitalization ratio. In order to control for other variables we also make use of the following control variables.

There are many other variables that could influence the dependent variables in our research, therefore we use a number of control variables. These control variables will now be introduced.

Profitability (PRO) is the first variable to control for, it is used by both the pecking-order theory and the static trade-off theory to explain capital structures. More profitable firms are in possession of more internal funds and are therefore expected to be less inclined to make use of debt in their financing and investment decisions. The formula used to calculate the profitability is as follows;

(Earnings Before Interest and Taxes + Depreciation + Amortization) / Total Assets

Firm size (SIZ) is another variable that is used by both the pecking-order theory and the static trade-off theory to explain capital structures. To control for this variables, we will measure it by the balance sheet total in thousands of euros.

The third variable we want to control for is asset tangibility (TAN), also used by the theories above to explain capital structures. This is positive relationship, which is expected because when firms are in possession of relatively high tangible assets, than the risk for lenders will decrease, because these assets can be used as collateral. Tangibility will be calculated as follows;

Total Fixed Assets / Total Assets

Then, there is a variable left that is used by the static trade-off theory to explain capital structures. This is the non-debt tax shield (NDTS). The static trade-off theory assumes a negative relationship with the debt-to-equity ratio, because non-debt tax shields can be seen as substitutes for the tax benefits gained from debt financing. Examples of non-debt tax shields are depreciation and tax credits. The non-debt tax shield will be measured as follows;

Depreciation / Total assets

The following equations are expected;

$CAP = \alpha + PROF*\beta1 + SIZ*\beta2 + TAN*\beta3 + NDTS*\beta4 + PRS*\beta5 + \varepsilon$

$CUR = \alpha + PROF*\beta1 + SIZ*\beta2 + TAN*\beta3 + NDTS*\beta4 + PRS*\beta5$

Whereby CAP represents the capitalization ratio and CUR the current ratio. PROF represents profitability, SIZ is size, TAN stands for tangibility, NDTS is the non-debt tax shields and PRS represents Protestantism.

3.4 Methods

In this subsection, the statistical tests used to test the hypothesis will be introduced. The data will be split up in two groups, whereby group one the SMEs in non-protestant areas represents, and group 2 represents the SMEs in protestant areas. Afterwards there will be a univariate analysis to see if there are major differences noticeable between the two groups on the variables that are introduced before. After the univariate analysis, this paper continues with an independent samples t-test which will test if there are any significant differences between the two groups in the means of the variables used. Finally, Multiple Regression Analyses will be performed to control for other variables.

4. RESULTS

The sample that is used in this paper consists of values of 129 SMEs over a period of 4 years, 512 observations in total. Before the analyses are done, it is needed to exclude the outliers. Outliers are having a high influence on the outcomes of the data, and they can cause a highly distorted view of reality. Therefore this paper used the following rules to exclude the outliers from the data. Firstly, the mean of all measurements need to be determined. Secondly, the value 'x' (minimum and maximum), which lies furthest away from the mean, need to be found. After that, we need to look for the mean 'm' and the standard deviation 's' from all the other values left. After all, 'x' is an outlier when $x > m + 3s$ or $x < m - 3s$. When x is an outlier, we delete x from the original set of values and repeat the procedure with the values left. The current ratio and the capitalization ratio are the main ratios, the ratios that define the dependent variables of liquidity and leverage. The other ratios, profitability, size, tangibility and non-debt tax shield, are the ratios that define the control variables. Because the current- and the capitalization ratio are the main ratios, the outliers of these ratios are excluded. After the determination of the outliers, 357 observations are left, of which are 231 (64.7%) protestant and 126 (35.3%) non-protestant observations.

In the first place, a univariate analysis is done to show the mean, median, standard deviation, minimum and the maximum of the six ratios that are investigated in our research. In order to see the differences between the protestant and non-protestant areas of our research, the data is firstly split in two groups based on the region of the SMEs. After that, a first look on the differences and the similarities of these two categories can be made, as shown in table 1. The outcomes of this analysis show that the expected differences between the two groups in terms of current ratio and capitalization ratio are indeed visible in the mean of the ratios. While the other measurements (median, standard deviation, minimum and maximum) are less or more the same in the two groups, the mean of the capitalization ratio is lower in protestant areas (0.164) than in the non-protestant areas (0.211). There is also a noticeable difference in the mean of current ratio, which is higher in protestant areas (1.566) than in non-protestant areas (1.450), as expected. Another notable observation is the median of the capitalization ratio in both groups. The median lies far lower than the mean by both groups and the skewness is relatively high. In our sample this is due to the high amount of SMEs that do not use any long-term debt according to our data. When SMEs do not use any long-term debt this will result in a capitalization ratio of 0.000, which is the case in 161 out of 357 observations we used (45.1%). Interesting question here is whether this will have major effects on the means that we are going to use in the next analyses. There are 57 (45.2%) SMEs in non-protestant areas that have a capitalization ratio of 0.000. This is very comparable to the outcomes of the SMEs in the protestant areas, where 102 (45.0%) SMEs do not use long-term debt and therefore have a capitalization ratio of 0.000. When the SMEs that do not use long-term debt are ignored, the skewness for the non-protestant areas is reduced to 0.130, for the protestant areas it is reduced to 0.549, which are both relatively low and can be approach as a normal distribution. The values of the skewness of size and the non-debt tax shield are relatively high, there is a need be aware of this in our following analyses. There are also minor and major differences noticeable in the other ratios, this will be discussed more in detail in the next analysis.

Table 1: Univariate analysis on independent and dependent variables

City		CaR	CuR	PROF	SIZ	TAN	NDTS
NON-PROT.	N	126	126	126	126	126	126
	Mean	0.211	1.450	0.110	22751.840	0.468	0.026
	Median	0.020	1.319	0.082	22291.112	0.490	0.000
	Std.dev	0.261	0.833	0.142	14529.497	0.327	0.064
	Min.	0.000	0.013	-0.443	96.669	0.000	0.000
	Max.	0.836	3.847	0.556	89441.767	1.000	0.470
	Skewness	0.903	0.639	0.048	1.430	0.028	5.551
PROTESTANT	N	231	231	231	231	231	231
	Mean	0.164	1.566	0.098	20860.894	0.424	0.016
	Median	0.021	1.511	0.047	21212.989	0.338	0.000
	Std.dev	0.226	0.805	0.209	12263.214	0.317	0.026
	Min.	0.000	0.000	-0.188	108.781	0.000	0.000
	Max.	0.843	3.887	1.5413	111743.898	1.000	0.168
	Skewness	1.271	0.432	4.866	2.160	0.413	2.201

CaR represents the capitalization ratio which measures the leverage of the SMEs. CuR represents the current ratio which measures the liquidity of the SMEs. The other ratio, profitability (PROF), size (SIZ), tangibility (TAN) and the non-debt tax shield (NDTS) are used as control variables.

The second analysis that has been done is an independent samples t-test, which will be used to determine whether the means of the two independent groups are similar or not. The groups are again split into two groups, protestant and non-protestant. The independent samples t-test consist of two parts, the first part is shown in table 2, the second part in table 3. First, as shown in table 2, a Levene's test for equality of variances will test if it can be assumed that the two groups have equal variances. In this test, the difference between the observation and the group average is calculated, afterwards a variation analysis is executed with these differences. The result of the test is displayed in the form of the F-value and the associated

exceedance probability (significance level). In this test, it is usual to reject the null hypothesis of similar means when the significance level (exceedance probability) is lower than 0.05. (Huizingh, 2010) If the significance level ('Sig.' in table 2) is lower than 0.05, then we must continue with the outcomes of the t-test in table 3 whereby is not assumed that the variances are equal (unequal variance-method). When the significance level is higher than 0.05 we can continue with the assumption that the variances are equal, in that case we use the equal variance-method in table 3. Looking at the outcomes of our test in table 2, the conclusion can be made that there are two ratios whereby equal variances can not be assumed. These are the capitalization ratio and the non-debt tax shield. The other ratios show significance levels above the level of 0.05.

Table 2: Levene's test for equality of variances

	Levene's Test	
	F	Sig.
CaR Equal variances assumed	7.948	0.005
CuR Equal variances assumed	0.342	0.559
PROF Equal variances assumed	0.023	0.881
SIZ Equal variances assumed	2.167	0.142
TAN Equal variances assumed	0.240	0.625
NDTS Equal variances assumed	9.059	0.003

The abbreviations used in this table are the same as in table 1. 'Sig.' stands for significance level.

The second part of the independent samples t-test is shown in table 3, and represents a number of measurements. Firstly, there is a T-value, which is calculated on basis of the variances of both groups. This is also the case for the calculation of the degrees of freedom. After this, the exceedance probability is measured for a two-tailed test. Because the hypotheses in our paper expect a higher current ratio and a lower capitalization ratio in protestant areas, there will be a one-tailed test. Table 3, which is shown below, uses a two-tailed test, which means that we need to divide the values below 'Sig. (2-tailed)' by two. The last column contains information about the mean difference (Huizingh, 2010). Earlier in this paper we concluded that there are two ratios, capitalization- and non-debt tax shield ratio, for which we have to look at the unequal variance-method. The values of the rows of EVNA (Equal variances not assumed) are showing this method. The significance level here is the chance that the differences we observed earlier, can be observed in tests with this size where the means in fact are equal. This significance level is 0.090 for the capitalization ratio. As explained before, we need to divide this number by two, which means that we observe a 0.045 significance level for the one-tailed test. Because this is lower than 0.05, we can conclude that means of both groups are in fact significant different for the capitalization variable. This is also the case for the variable non-debt tax shield, which has a significance level of 0.088, which is 0.044 when divided by two. Since this is also lower than 0.05, we can conclude that the means of both groups are also significant different for the variable non-debt tax shield. Capitalization ratio and non-debt tax shield are significant different, whereby the values of the both variables are lower at the SMEs in the protestant areas. The differences in the other variables, current ratio, profitability, size and tangibility, are not significant different in the both samples.

Table 3: T-test for equality of means

	T-test for Equality of Means			
	T	Df	Sig. (2-tailed)	Mean Diff.
EVNA CaR	1.700	227	0.090	0.047
EVNA CuR	-1.268	250	0.206	-0.116
EVNA PROF	0.646	338	0.519	0.012
EVNA SIZ	1.240	223	0.216	1890.946
EVNA TAN	1.226	250	0.221	0.044
EVNA NDTS	1.718	149	0.088	0.010

EVNA represents the method with equal variances not assumed. T stands for de T-value, where Df refers to the degrees of freedom. Sig. (2-tailed) represents the outcome of a two-tailed significance test. The other column is the mean differences. The other abbreviations are the same as in table 1 and 2.

Regarding the control variables we can conclude that profitability, size and tangibility are found to be very comparable in both groups, which imply that they have little or no influences on our results. The only control variable which is found to be different in both groups is the non-debt tax shield. It is important to be aware of the possible influences that the non-debt tax shield can have on the capitalization ratio. In order to investigate the correlation between the variables, the next analysis that is done is a bivariate analysis. The outcomes are shown in table 4.

The correlation between the capitalization ratio and the non-debt tax shield are significant for both groups. It is a weak positive relationship for both groups. This implies that there is a weak correlation which states that a higher non-debt tax shield leads to higher capitalization ratio and vice versa. The differences in the outcomes for both groups are almost null. When we make conclusions about the way Protestantism influences the capital structures of SMEs, we must be aware of the fact that there is a correlation between non-debt tax shield and the capitalization ratio, which could also be an explanation of the differences in the different groups. It is already shown in table 1 that the mean of the non-debt tax shield in the non-protestant areas is higher than in the protestant areas (respectively 0.026 vs. 0.016). We must also be aware that the values of the non-debt tax shield are very skew for both groups. Tangibility is the control variable which correlates the most with the capitalization ratio, there is a significant strong positive relationship between these variables in both groups. Further, the current ratio has a significant but weak negative correlation with the capitalization ratio. Which correspondents with the expectation that the need for using debt will be less when SMEs do have more internal funds available. With regard to the current ratio, it can be noticed that two control variables which have a significant correlation. The first one, profitability has a weak positive relationship. The second one, tangibility has a moderate negative relationship.

Table 4: Bivariate analysis: Pearson correlation

		CaR	Cur	PROF	SIZ	TAN	NDTS
NON-PROT.	N	126	126	126	126	126	126
	CaR	1					
	CuR	-0.141	1				
	PROF	-0.037	0.266**	1			
	SIZ	0.166*	-0.059	0.271**	1		
	TAN	0.463**	-0.365**	-0.173*	0.052	1	
	NDTS	0.273**	0.036	0.211**	0.123	-0.007	1
PROTES.	N	231	231	231	231	231	231
	CaR	1					
	CuR	-0.219**	1				
	PROF	-0.106	0.144*	1			
	SIZ	0.075	0.007	0.141*	1		
	TAN	0.534**	-0.362**	-208**	0.031	1	
	NDTS	0.279**	0.006	0.112*	-0.108	-0.037	1

*. Correlation is significant at the 0.05 level (1-tailed).

**. Correlation is significant at the 0.01 level (1-tailed).

Abbreviations are the same as in the previous tables.

Now, Multiple Regression Analyses will be performed to control for other variables. First, we will perform regression analyses for the capitalization ratio. After that, also the current ratio will be analyzed. The results of the first regression test are shown in Table 5. The first thing we observe is the Adjusted R Square of 0.332, which means that, after adjustment on basis of the number variables and the number of observations (N), 33.2% of the variation can be explained by the independent variables that are used. Several other things can be observed in the lower part of the table. The main data we will use are the unstandardized regression coefficients and the significance level. The regression coefficient indicates how many the dependent variable increases in units when the particular independent variable increases by one unit. Profitability is the only control variable which has a negative relationship, which means that the capitalization ratio will decrease when profitability is increasing. This is on contrast with the pecking-order theory and the static trade-off theory, which are expecting a positive relationship. The other control variables are all positively correlated with the capitalization ratio. This positive relationship is for the non-debt tax shield in contrast with the pecking-order theory and the static trade-off theory. The positive relationship of the variable size correspondents with the static trade-off theory. Our independent variable, Protestantism, has a negative relationship with the capitalization ratio, which was expected. In our analysis we made use of a dummy variable the test Protestantism. This will say that this variable can only have two values, 0 or 1. Non-protestant areas are the 0-values and protestant areas are the 1-values in our analysis. The negative relationship implicates therefore that when areas are protestant, the capitalization ratio will be lower. When looking at the significance level of all the variables, it is notable that size, tangibility and the non-debt tax shield are significant. This is not the case for profitability. Also our independent variable, Protestantism, is not significant.

Table 5: Multiple Regression Analysis; Capitalization ratio

N	R	R Square	Adjusted R Square	Std. Error of the Estimate
357	0.584	0.341	0.332	0.196

	Unstandardized Coefficients		T	Sig.
	B	Std. Error		
(Constant)	-0.035	0.030	-1.160	0.247
PROF	-0.047	0.058	-0.812	0.417
SIZ	0.000	0.000	2.093	0.037
TAN	0.372	0.033	11.223	0.000
NDTS	1.487	0.242	6.143	0.000
PRS	-0.013	0.022	-0.585	0.559

PRS represents the dummy variable of Protestantism. All other abbreviations are the same as in the previous tables.

Earlier in this paper, the skewness of the capitalization ratio is discussed. This skewness is mainly caused by the high amount of SMEs in our sample that do not have any long-term debt according to the database. It is very interesting for our paper to see if these SMEs, without long-term debt, are influencing are multiple regression analysis. Therefore, we will perform the same multiple regression analysis, but then without those SMES. Looking at the results of the analysis in table 6, we see that the predictors are explaining 37.1% of the variation of the dependent variable, which is a slight increase. The results of the lower part of table 6 are almost the same as in table 5. Again, profitability and Protestantism are having a negative relationship with the capitalization ratio, the other variables are again having a positive relationship with the capitalization ratio. The results of the significance level of the control variables are also very comparable to the previous analysis, again size, tangibility and non-debt tax shield are significant, while profitability is not significant. The big difference between the two analyses is the significance level of the independent variable Protestantism, which is now 0.018 instead of the 0.559. This is a big difference, and the variable Protestantism is also significant now. The SMEs which do not use any long-term debt are thus having a high influence on our results.

Table 6: Multiple Regression Analysis; Capitalization Ratio (Without SMEs with no long-term debt)

N	R	R Square	Adjusted R Square	Std. Error of the Estimate
196	0.622	0.387	0.371	0.187

	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	0.152	0.057	2.660	0.008
PROF	-0.127	0.155	-0.821	0.413
SIZ	0.000	0.000	-2.088	0.038
TAN	0.485	0.055	8.818	0.000
NDTS	1.019	0.259	3.943	0.000
PRS	-0.072	0.030	-2.392	0.018

Abbreviations are the same as in the previous tables.

The same multiple regression analyses are also performed for the other dependent variable, the current ratio. For the current ratio, we also did two regression analyses, one with and one without the SMEs without long-term debt. For both analyses, as shown in table 7 and table 8, there is no significant relationship between Protestantism and the current ratio. Also the Adjusted R Square is far lower than with the previous regression analyses. We can see that Protestantism has, as expected, a positive coefficient, which means that the current ratio in protestant areas is higher than in non-protestant areas, however this relationship is not significant in both analyses. Profitability and Tangibility are the only variables that are significant related to the current ratio, whereby more profitability leads to higher current ratios and more tangibility leads to lower current ratios.

Table 7: Multiple Regression Analysis; Current ratio

N	R	R Square	Adjusted R Square	Std Error of the Estimate
357	0.384	0.148	0.135	0.759

	Unstandardized Coefficients		T	Sig.
	B	Std. Error		
(Constant)	1.836	0.116	15.763	0.000
PROF	0.487	0.224	2.174	0.030
SIZ	-0.000	0.000	-0.503	0.616
TAN	-0.866	0.129	-6.735	0.000
NDTS	0.025	0.938	0.027	0.978
PRS	0.081	0.085	0.951	0.342

Abbreviations are the same as in the previous tables.

In table 8, the results of the Multiple Regression Analysis without the SMEs with no long-term debt are shown. These results do not differ much from the results in table 7. The same variable are significant, whereby Protestantism is again positive related, but still not significant. The findings from table 7 and table 8 are corresponding with the results of the independent samples t-test, where the current ratios of SMEs in the different areas do not differ significant from each other.

Table 8: Multiple Regression Analysis; Current Ratio (Without SMEs with no long-term debt)

N	R	R Square	Adjusted R Square	Std Error of the Estimate
196	0.400	0.160	0.138	0.777

	Unstandardized Coefficients		T	Sig.
	B	Std. Error		
(Constant)	1.990	0.237	8.394	0.000
PROF	1.347	0.645	2.089	0.038
SIZ	-0.000	0.000	-0.211	0.833
TAN	-0.962	0.229	-4.209	0.000
NDTS	-1.183	1.074	-1.101	0.272
PRS	0.014	0.124	0.109	0.913

Abbreviations are the same as in the previous tables.

With regards to the hypotheses, the conclusion can be made that the first hypothesis should be reject, because this research did not found evidence that SMEs in protestant areas do have significant more internal funds available than SMEs in the non-protestant areas, which is investigated by a research on the current ratios. The other hypothesis is based on the assumption that SMEs in protestant areas are using less leverage than SMEs in non-protestant areas. According to the results of the independent samples t-test, the means of the capitalization ratios in our sample are significant different when comparing the two different groups. The SMEs in the protestant areas of the Netherlands are using less leverage than SMEs in the non-protestant areas of the Netherlands. The Multiple Regression Analyses are showing different things. When we take into account the SMEs the firms with no long-term debts, the variables Protestantism is negative, but not significant related to the use of leverage. However, since we used SMEs in the Netherlands whereby approximately 45% of both groups did not use any long-term debt, this has a large impact on our significance level. When we exclude the SMEs with no long-term debt, the causal relationship between Protestantism and the capitalization ratio is negative and significant. In both cases, the control variables size, tangibility and non-debt tax shield are having a positive and significant causal relationship with the capitalization ratio. We can retain hypothesis 2, but we must be aware of the fact that our data is highly influenced by the high percentage of SMEs that do not use long-term debt at all according to the database.

5. CONCLUSION AND IMPLICATIONS

5.1 Conclusion

There are many papers that have investigated the capital structure of SMEs in different countries and different systems. However, there is not much known about the role that religious beliefs can play when we look at capital structure decisions made in SMEs. The goal of this paper is to investigate which influences religion has on the capital structure, especially the way that religious beliefs affect decisions about the debt-to-equity ratio is an interesting question for this research. The hypotheses used in this paper tested the similarities and differences between SMEs in highly protestant municipalities and non- or less protestant municipalities. The dependent variables are the capitalization ratio, which is a way to measure the debt-to-equity ratio, and the current ratio, which measures the liquidity of SMEs. After conducting a univariate analysis, an independent samples t-test, a bivariate analysis and multiple regression analyses, there are a number of conclusions that can be made. The first one is based on the hypothesis that tested the current ratios of SMEs in the two different groups (protestant and non-protestant). The outcomes of the statistical tests have shown that there are no significant differences found between SMEs in protestant and non-protestant areas in the Netherlands, which means that there is no evidence found in this paper that confirms the assumption that SMEs in protestant areas will have more internal funds available and the need to attract debt will be lower. The second hypothesis was testing the differences in the capitalization ratio in both groups. The outcomes of the statistical tests have shown that there are indeed significant differences found between SMEs in protestant and non-protestant areas in the Netherlands. This means that we can assume that religion, in our case especially Protestantism, serves as a corporate governance mechanism which leads to relatively more use of equity instead of debt. Another conclusion that we can made is that SMEs in the protestant areas of the Netherlands do have less leverage than firms in the non-protestant areas of the Netherlands. In our research we controlled for a number of important control variables. The non-debt tax shield is the only control variable that has a significant other mean in both groups, this possibly had some influences on our outcomes. However, this influence seems to be weak. The other control variables do not significantly differ from each other in both groups. However, these control variables are to some extent influencing the capitalization ratio. The control variables size, tangibility and non-debt tax shield are having a significant causal relationship with the capitalization ratio. With regards to the research question and sub questions, we can state that capital structure is indeed influenced by religious beliefs, in our paper by Protestantism especially. According to the literature, there is also a relationship between religion and risk aversion. This relationship is however not supported by the outcomes of our statistical tests on SMEs in the Netherlands. According to both the literature and the our sample data we found evidence that norms and values of religion are playing a role in making decisions at the level of corporate finance for SMEs. The literature suggests that religion does matter to and reduce owner-manager agency costs via restraining managers from unethical activities. This is supported by our results. This paper found also evidence that capital structures of SMEs in protestant areas differ from capital structures of SMEs in less- or non-protestant areas. Altogether, the capital structure of SMEs is influenced by religious belief to a moderate extent. SMEs in protestant areas are using less leverage than SMEs in non-protestant areas.

5.2 Limitations

This paper used the percentage of votes for the SGP per municipality to define if a municipality is highly protestant. Although this seems to be the best test available, it has some shortcomings. The adequacy of this policy can be affected by changes in the defined area, because it is subject to change. It could for example be that municipal mergers of municipalities with higher and lower percentages of votes can affect the outcomes. (Ruijs et al., 2011)

5.3 Practical implications

The focus of this paper is on protestant and non-protestant areas. Although it could be that other religions show the same effects, we can not generalize the outcomes of this paper to all other religions. Therefore, we recommend to perform more research on the relationship between the several religions and the capital structure of especially SMEs.

With regard to the data used in this paper, there are also some shortcomings. In this paper, we used a sample of 129 SMEs. However, due to the high percentage of SMEs whereof not all the needed data was available in the database, we had to limit our self to the available data. Therefore, we recommend to perform more extensive research on capital structures of SMEs in relationship to religion, in order to get a more complete picture of the relationship.

In conclusion, this paper found evidence that confirmed the assumption religion does matter to capital structures of SMEs. SMEs in protestant areas are using less leverage than comparable SMEs in non-protestant areas. These outcomes may contribute academically to solve the enduring puzzle of the gap between the theoretical and the observed capital structures. Incorporation of the effects of religion can help to develop a better understanding of the puzzles in the field of corporate finance. Practically, these outcomes can be helpful to better inform SMEs about their capital structure decisions. Decisions on capital structures influence firm's value and its cost of capital. With our outcomes, SMEs in protestant areas especially can be informed about their optimal capital structure which maximizes the firm's value.

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