

# - Social Capital and Small Firms' Financial Behavior in Norway-

Programme:  
MSc in Business

Major in Business Law, Tax, and Accounting

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## Introduction to the research topic

### *Area of study*

Our topic falls into the field of corporate behavioural finance.

According to Shefrin (2011) The traditional approach to corporate finance is based on three concepts:

- The Capital Asset Pricing Model (CAPM),
- The assumption of efficient markets, and
- Rational behaviour

Behavioural finance challenge this traditional approach, proponents argue that psychological aspects affects all three parts the traditional approach. The main arguments are that psychological phenomena affects the decision maker in such a way that prevents optimal rational behaviour. Evidence also supports that security risk premiums are not fully determined by security betas, and that market prices is not corresponding with fundamental values.

We wish to understand how social capital influence the financial behaviour of small (unlisted) firms in different regions of Norway.

### *Literature review*

#### *Social Capital*

Social capital is an old term, but it's academic importance was only acknowledged in the late 1990s and early 2000s. Later on, several researchers has studied the effect of social capital on economic and social organizations.

Even though social capital has been used in the work of Lydia Hanifan (1916) or Jane Jacobs (1961), the actual term *social capital* entered the literature in the 1970s, in the work of economist Glenn Loury. He interpreted social capital as the social context in which one finds oneself and how this affected one's academic and career achievements. Thus, how social capital influences human capital (Loury 1977). Loury's work became an important bedrock for later studies.

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The first who conceptualized *social capital* was Pierre Bourdieu in the 1980s and early 1990s. He argued that capital is categorized into three fundamental species: social, cultural and economic ( Bourdieu & Wacquant 1992). He defined social capital as:

Social capital is the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition.

He used social capital to describe and discuss social inequalities in the population. James Coleman has also done a lot of work on social capital, but seems to be more interested in how social capital gets turned into human capital. He claimed that high social capital increased academic achievements and how social capital can be a positive and enhance quality in our society (Coleman 1988). Much of the work was inspired by Loury.

Robert Putnam (1995), wanted to study how social capital has contributed to consolidation of democracy. He used among other variables, civic engagement and trust (neighbourliness) as parameters of social capital and wanted to check if the decline in political engagement, hence voter participation could be explained by social capital. Some of the motivation for this study was the findings of Alexis de Tocqueville's, *Democracy in America (1835-1840)*. Alexis de Tocqueville found in 1830 that American were highly social and that their propensity to civic association where a key factor to make democracy work.

In 2000, Putnam released a sequel to his essay in 1995. However, this time highlighted some of the consequences of less social capital. Thus, he wanted to focus on the disconnection between us and how social structures (i.e. church attendance, PTA and social associations) have dissolved. Moreover, he draws the line of the fundamentals of a happy and healthy society and that this society are about to vanish. He also suggests what we need to do in order to get back on track.

Martin Paldam wrote an article in 2000 categorizing social capital into three main branches: trust, cooperation and network. Coleman (1988) defined social capital as the ability of individuals to work voluntarily together. Paldam used Coleman's idea and linked the branches of social capital: trust and cooperation (trust-

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cooperation-complex). Individuals cooperate better if the trust within the group is high. Furthermore, the trust-cooperation-relation is likely to fit the network definition of social capital. Hence, the people you trust tends to be your friends and you probably trust your friends. Thus, you have a high-trust network. Paldam continues with this assumption and links it to Putnam's Instrument (1993): Density of Voluntary organizations (VO's). If the population of VO's is big enough and the density of VO's is high, special trust is likely to transform into generalized trust. From Paldam's work you can measure trust by the level of cooperation and voluntary participation in organizations or groups.

Tuti Alawiyah and Mary Lehman Held researched in 2015 how social capital is associated with adult health and well-being of Indonesian women. What is interesting with this paper concerning our thesis is the variables they used. They included three elements of social capital for the independent variable: community participation, social trust, and social support.

Community participation includes respondents' participation in both formal and informal organizations, such as religious groups and community meetings in neighbourhood groups.

Social trust was measured by six questions of how the respondents trust others and how their trust in the general community were. The social support variable was just if they received any kind of social support.

They also included a variety of demographic variables such as years of education, age, marital status, number of children, per capita expenditure etc.

### ***Social Capital and Financial Effects***

It was first in 1997, that Knack and Keefer studied the effect of social capital on economic payoff. They used indicators of trust and civic norms from the World Value Survey for a sample of 29 market economies. In their paper, two contradicting theories, namely the "Olson -effect"(association stifle growth through rent-seeking") and "Putnam-effect"(associations increase growth through trust) was assessed. Firstly, they found that trust and civic cooperation are associated with stronger economic performance. Secondly, associational activity is not correlated with economic performance. Thirdly, they find that trust and norms of civic cooperation are stronger in countries with formal institutions that

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effectively protect property and contract rights and in countries that are less polarized along lines of class or ethnicity.

Knack and Zak (2001) continued to study the effect of trust on economic growth. They found that when social heterogeneity was high (low trust), formal and informal institutions were weaker, the amount invested would decrease and that this adversely impacted income growth. In other words, in areas where trust is higher, investments and growth tends to have a positive covariance with trust.

Guiso, Sapienza and Zingales showed in their research article (2004) that social capital is positively correlated with financial development. Their hypothesis was that higher levels of trust would lead to improved financial development, hence less investment in cash and more use of institutional credit and less informal credit. Yet, the findings might not be entirely consistent since high trust would also result in borrowings/loans in social network and less bank loans. This means that there might be a gap between social network trust (special trust) and institutional/governmental trust. They also found that social capital plays a bigger role and has a larger effect in areas with weaker enforcement and less education among the population. According to these findings, social capital is expected to play a minor role in Norway because formal institutions are strong and the population are likely to have an education. The financial development in Norway is rather good, so it is rational to say that the overall level of social capital in Norway is high. This is consistent with Knack and Zak findings in their 1998 article: Norway has a high level of trust.

In another study, Guiso, Sapienza and Zingales (2008) studied the effect of trust on stock market participation. Due to risk aversion, less trusting individuals are less likely to buy stock and they are likely to buy less. They found that since generalized trust has a positive correlation with stock ownership, countries with higher trust are likely to have higher stock market participation. Just as in their previous study in 2004, education and knowledge about the market is more important when there is low trust because higher education and knowledge will have a larger effect on stock ownership when the generalized trust is low (people do not trust in the market, but they have enough knowledge to buy stocks). Additionally, they showed that other variables affect the stock market

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participation across countries, such as whether the country was invaded during world war two. Low-trust countries that were invaded should have lower stock market participation, than invaded countries with higher trust. However, trust have no effect for countries that were not invaded. All in all, their research finds that Norway has a quite high level of participation, partly due to high level of trust. Based on this assumption, it is expected that small companies in Norway trust each other and thus buys stocks in other companies (social capital affects investments in small firms).

Georgarakos and Pasini (2011) did a research on trust, sociability and stock market participation on a number of countries, mainly in Europe, which in many ways builds onto the work of Guiso, Sapienza and Zingales. Georgarakos and Pasini find that trust and sociability play significant roles for stock market participation. Their findings point to that both factors should be taken into account, since a reduction in the level of trust can be counterbalanced by increased sociability, and vice versa. For trust are they using data on how people perceive the level of interpersonal trust, sharing, and reciprocity. Sociability is measured by density of social networks, or patterns of civic engagements, mainly. By using data from WVS and Share do they have comparable international as well as regional data. Their findings show regional variations of trust prevailing trust can lead to more stock-ownership in countries with low stock-participation and low average levels of trust; this is especially seen for wealthy households. The contrary is the case with countries where stock participation is high; in these regions sociability evokes stockholding. Typically, these countries have high median trust rates, and the effect of differences in regional trust is low. Both the article of Georgarakos and Pasini and the one of Guiso, Sapienza and Zingales might have implication for our research. From our perspective is it intuitive that in the regions where stock market participation is higher, it might be easier for companies to acquire equity from the local area.

### *Capital Structure*

Frank Z. Murray and Goyal K. Vidhan (2009) has written a paper on capital structure decisions, and which factors that are reliably important. The study is based on publicly traded American firms from 1950 to 20013. They found a set of six core factors that provided a useful basis for further studies, which all were

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quite robust. All of these factors also share effects across different classes of firms.

These six factors were: firms that compete in industries in which the median firm has high leverage tend to have high leverage; firms that have a high market-to-book ratio tend to have low levels of leverage; firms that have more tangible assets tend to have less leverage; larger firms (as measured by book assets) tend to have high leverage; when inflation is expected to be high firms tend to have high leverage.

In the paper “Firms’ Histories and Their Capital Structures” from 2007, Kayhan and Titman are looking at the concept of a target debt ratio. Their results indicate that firms tend to behave as they have they reached the target debt ratios, but the cash flows, need for investments and stock price realizations deviate from the target. Another indication is that the capital structures of firms actually move towards their targets, but at a slower rate than intended. Similar to the results from two other articles do they find that higher financial shortfall is connected to an increase in leverage.

In 1995 published Raghuram and Zingales an article on international evidence concerning capital structure. Their findings indicate similarities of firm leverage across the G-7 countries, and that the differences that exists are not explained by institutional differences, which was the shared consensus earlier. With cross-sectional data, did they find a positive correlation in all countries between tangibility and leverage. Another positive correlation which almost exclusively applies to all countries is the correlation between size and leverage.

### ***Knowledge gap***

There are no research on our topic in Norway. Although, there have been done research on social capital in general and it’s effect economically (Knack and Zak 1998) , there have been no research specifically in Norway. That is why we want to analyse how social capital influences the behaviour of small firms in Norway.

The famous Modigliani-Miller (1958) theorem states that capital structure should not influence the value of an asset. This is proposition is however only applicable

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in a world with no taxes, bankruptcy costs, agency cost, or asymmetric information and the market is efficient.

When taxes is included is it optimal to maximize the level of debt, even with the same assumptions. There are no companies with 100% debt financing due to the fact that the market indeed is inefficient, and that there do exist bankruptcy costs, agency costs, and asymmetric information. In our research would we explore if social capital influence small firms' behavior, including capital structure.

According to Knack and Zak, there should be a positive correlation between trust and investment rates. Furthermore, Norway has a high degree of trust because of it's social equality and strong formal institutions (Knack and Zak 1998).

Therefore we expect to find a link between generalized trust and investments since the transacting companies trust each other. Contrary, if there are lower generalized trust, firms may use bank loans to finance their operations. However, this might not be consistent with regards to our hypotheses about capital structure. If there are high trust, banks are more willing to give loans to companies. These hypotheses only hold if generalized trust and trust between companies are positively correlated.

In order to fill this knowledge gap, will have to gather information from different databases, resulting in defining social capital by generating explanatory variables that affects the variation of financial behaviour of small firms in Norway.

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## Objective of the Thesis

### *Research Question*

For now, our research question is formulated as follows:

- *Does the financial behaviour of small firms in different regions in Norway vary according to the level of social capital in the region?*

At later stages in the research process we might find it necessary to change the research question, by making it more specific. We also might split our rather general research question into several sub questions with more specific and narrow nature.

### *Hypotheses*

There exists evidence that the level of trust between people varies to a large extent in different parts of the world (Knack and Zak 1998). We therefore expect that we can see similar differences within a single country - in different counties in Norway, specifically.

Trust reduces the transaction cost, it is therefore expected that societies with high levels of trust have higher output. Even though most of the prior research concerns differences between countries, we believe we can find evidence for regional differences in Norway.

H1: Higher trust increases investment and growth

According to Knack and Zak (2001) is there a high level of trust in “fair societies”, i.e. where there exists wage discrimination based on non-economic factors. Norway is perceived as a very “fair society”, so it is reasonable to assume that the overall trust is high.

H2: The overall level of trust is high in Norway

We expect to see different results due to firm specific variables, such as size. As of now is it too early to determine exactly which variables we will use, and how to

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use them for distinguishing firms from each other. At later stages of the research process we might divide this hypothesis into several hypotheses with regards to different firm specific variables. For now, the hypothesis is as follows:

H3: Smaller companies will experience larger effects of social capital differences than bigger companies

Social capital could be defined by both trust and cooperation. An example of cooperation is to work voluntarily together with others in groups or organizations. However, people who work together more easily, have higher trust. This forms the trust-cooperation-complex (Paldam 2000). With this, we can assume that cooperation is an indicator of social capital. This is also a building block in Game theory, which states that individuals performs better if they cooperate, hence they trust each other. According to game theory, economic payoff/profitability should be higher in areas where social capital is higher.

H4: Trust and cooperation is positively correlated and both can be used to explain the variations of investments

It is intuitive to think that in areas with high level of trusts the proportion short-term debt is higher than in areas with lower trust. We also argue that the same applies for account receivables, and longer average collection period.

H5: Higher trust leads to more short term debt and receivables

Ha. Higher trust leads to higher accounts payable

Hb. Higher trust leads to higher account receivables

Hc. Higher trust leads to longer average collection period

According to Modigliani and Miller's proposition is it optimal to maximize the level of debt in a world with taxes. However, in the real world we don't see any companies with full debt financing, due to bankruptcy costs, agency costs, and asymmetric information. We accept this fact, but we believe different level of social capital in a region has implications on the firms located in the same region.

H6: Social capital influence the capital structure of small firms

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## **Data Collection and Thesis Progression**

### ***Research method***

Our research will be based on a quantitative method using a database for identifying accounting and corporate information. We will base our thesis on a non-empirical approach to research, with results diverting from our own statistical analyses, and perusal of research on similar topics. Most likely, our data will be cross-sectional.

This type of research method requires quantifiable data involving statistical and numerical explanations. We can answer our research question by quantifying the problem by using collected and/or generated numerical data and turning this into useable and readable statistics.

We can quantify opinions, attitudes, behaviour, trust and different other variables to measure social capital, and generalize the results to interpret patterns or clusters in different regions in Norway, company size, company structure etc. By using measurable data, we intend to use second hand data, we can formulate facts and uncover patterns in the research, this is typical for quantitative research.

Quantitative data is collected in several ways; the data can be collected from surveys, face-to-face interviews, telephone interviews, website interceptors, online polls, systematic observations and longitudinal studies.

This early in the process is it difficult for us to foresee exactly what kind of statistical tools and models we are going to use, but on this stage we presume we are going to use Stata and interpret the data through regression analysis and/or SEM/CFA.

### ***Data***

We will collect data from various databases. Centre for Governance Research (CCGR) has a high-quality database on Norwegian Private firms. Due to Norwegian Law are these data of high-quality and standardized such that it is both easy and relevant to compare and analyse using statistical software. It is too soon to determine exactly which financial variables we are going to use. Due to the

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nature of the thesis is it however natural to look at variables concerning capital structure, investments and profitability, among others.

For the social capital variables trust, and voluntary cooperation; as well as other soft variables like crime rate, and church attendance, employment rate, level of education etc., we plan to obtain data from World Value Surveys, NSD Norway and Statistisk Sentralbyrå.

We plan to collect secondary data from reliable sources and analyse these in accordance to our research question, which hopefully will support or disregard our hypotheses.

### ***Thesis Progression***

With this preliminary thesis have we acquired more knowledge about our topic, and are further equipped for analysing and gaining depth knowledge of the topic. After the preliminary thesis, we will start to collect the necessary data and applying these in Stata. In this process, we may expect some difficulties.

Collecting data for use in research is unfamiliar to us and we consider ourselves neophytes in usage of Stata. Towards the summer we hope to be finished with our master thesis and have contributed with new research and knowledge to the field of study.

We will work consistently with the thesis throughout the semester, and hopefully be finished with our first draft in late May and use June for final adjustments.

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