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Hubris as a predictor of financial distress in U.S. Banks

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Abstract

This study is investigating the relationship between hubris and future financial performance in U.S. banks during the years before and after the financial crisis that occurred in 2008. The sample consists of 261 U.S. banks listed on NASDAQ and NYSE per year end 2016. In order to get a measure of hubris, the CEO letters of the banks is analysed in the text analysis software DICTION. From the output from DICTION a measure of hubris from previous studies is used to determine the amount of hubris in each of the banks. A regression analysis between variables regarding the future financial performance and hubris, along with control variables, is conducted in order to determine the relationship between hubris and future financial performance. The findings indicates that there is no significant relationship between hubris and the variables used as a proxy for future performance when looking at the whole sample. Even though there is a significant relationship between hubris and one of the variables when looking at the extreme values of hubris, the first hypothesis cannot be supported since the beta is positive while a negative beta was expected. There is also no significant difference between the years prior to and after the study, which means that the second hypothesis of the study cannot be supported either. The study contributes to the research field on CEO letters and their usefulness as a predictor of financial numbers. Furthermore, the study also contributes to the area of hubris and how a hubristic leader might impact a company.

Key words: CEO letters, hubris, CEO communication, financial performance, U.S. banks, financial crisis.

Introduction

There have been a lot of discussions regarding the global financial crisis that occurred in 2008, both within the mainstream media and in the research community. Even though the main causes of the crisis seem pretty clear, risky behaviour from the banks and the rating agencies failure to detect these risks (Rötheli, 2010), the reasons for the risky behaviour is an issue that has not yet been completely covered in previous research.

There are a wide range of studies that discuss personality traits regarding CEOs and connects these with different types of corporate behaviour (Brown & Sarma, 2007; Brennan & Conroy, 2013). Roll (1986) brings up issues regarding personality traits and corporate behaviour in his hubris hypothesis, which suggest that CEOs that display signs of hubris make acquisitions to a larger extent than those with no signs of hubris. The findings from the mentioned studies (Roll, 1986; Brown & Sarma, 2007; Brennan & Conroy, 2013) suggest that the role of CEO involves a lot of power and that the CEO has a key role in the strategic planning process of the

company (Zhang & Rajagopalan, 2004) which means that the personality traits of the CEO can be visible through the companies' actions.

The CEO letter is an important communication tool for companies since it is one of the most widely read parts of the annual report (Hyland, 1998; Bartlett & Chandler, 1997). Through this tool, it is possible to detect different personality traits, like hubristic behaviour, from the writer or writers of the letter (Craig & Amernic, 2011). This means that it is possible to find personality traits from the CEO in the letters, and since the text in the CEO letters can be used to explain risky behaviour conducted by the company, the CEO letters is a tool that can help provide an understanding of a specific company's behaviour (Patelli & Pedrini, 2014).

Studies on the subject of CEO communication also show that national differences regarding the focus of the CEO letters exists (Weber, 2010; Gatti & Seele, 2015; Conaway & Wardrope, 2010) which in turns suggest that a study including CEO letters is preferably done within one single nation.

The purpose of the study is to look at CEO hubris and try to use a measure of hubris to predict financial distress in U.S. banks. Previous studies have used the software DICTION to look for traces of hubris in the CEO letters (Runesson & Samani, 2016; Craig & Amernic, 2016). The measure of CEO hubris in this study is the same measure that is used by Runesson & Samani (2016) which consists of Owen & Davidssons (2009) 14 different symptoms of hubris connected to 9 DICTION filters. To measure the financial situation of the banks, two different financial measures which have occurred in previous studies are used, namely operational revenue growth (Patelli & Pedrini, 2014) and non-performing loans/total assets (Alali & Romero, 2012).

In accordance with previous studies, the sample in this study is limited to the banks within one single nation, namely the U.S. The fact that U.S. banks are chosen is mainly because this gives the possibility to get a large sample within one single nation, but also because it was in the U.S. the financial crisis started. The banks chosen are the banks that are listed on the NASDAQ and NYSE per year-end 2016. This means that the banks that actually failed during the financial crisis in 2008 is not included in the study. The reason for this is that the CEO letters for these banks is not available on SNLs database. The fact that the banks that has failed since the years studied is not included in this thesis creates a survival bias. Even though this is a limitation of the study it will still be possible to detect the banks who did better or worse financially during the financial crisis. The language is another reason for the use of this sample, since it is certain that the U.S. bank's CEO letters is written in English.

The final sample consists of the CEO letters presented in the annual report of 261 U.S banks from 2005 to 2008. These letters have been analysed with the help of the software DICTION, which is a tool used for textual analysis in order to look for signs of hubris and to be able to determine the measure of hubris in each of the

CEO letters. The data regarding the performance measures along with control variables for the same periods is also collected from SNLs database in order to connect these to the measure of hubris. A table of descriptive statistics and a Pearson's correlation matrix is included in the study along with a regression analysis that has also been conducted in order to investigate if there is an association between the hubris and the financial performance measures of the companies. A regression has also been conducted with an interactive variable between hubris and a dummy which separates the years prior to and after the crisis in order to investigate if the connection between hubris and future financial performance are more evident after the crisis.

There has been a lot of research made based on the CEO letters regarding different aspects. As stated previously, the national differences is of importance in this area and has to be acknowledged (Weber, 2010; Gatti & Seele, 2015; Conaway & Wardrope, 2010). Furthermore previous studies uses the CEO letters to detect different psychological traits of the CEO (Amernic et al., 2007; Weber, 2010; Brennan & Conroy, 2013; Craig & Amernic, 2011; Burnoir & Point, 2006). There are also studies that connects the CEO letters with reputation of the firm and looks at the letters as a tool to build and enhance company reputation (Jonäll & Rimmel, 2013; Geppert & Lawrence, 2008).

Various studies also discuss overconfidence and hubristic behaviour in corporate leaders (Brown & Sarma, 2007; Brennan & Conroy, 2013; Malmendier & Tate, 2008). The study of Brennan & Conroy (2013) shows that it is possible to detect CEO hubris based on the CEO letters which supports the method of this report. Furthermore Patelli and Pedrini (2014) shows that there is a connection between the tone in the CEO letters and the actual performance of the company where optimistic tone in CEO letters, in general, is associated with better performing firms. Brown & Sarma (2007) as well as Malmendier & Tate (2008), in a similar manner as Roll (1986), discusses the risk behaviour related to hubris along with overconfidence regarding acquisitions and argues that the more hubristic tendencies a CEO displays, the more risky behaviour is conducted by the company.

The findings shows no significant association between hubris and future financial performance when looking at the whole sample. However, while looking at the extreme values of hubris, future ORG and hubris is positively associated with a 5% significance. Since it was expected that the beta would be negative between the variables hypothesis 1 is rejected. The test of hypothesis 2 shows no significant difference of the beta between hubris and future financial performance between the years before and after the crisis, which means that hypothesis 2 cannot be supported. The fact that the sample only regards U.S. banks makes it hard to generalise the findings to banks in other countries than in the U.S.

The contribution of this study regards various parts of the accounting field. First of all, it contributes to literature regarding the usefulness of CEO letters in determining future firm performance (Patelli & Pedrini, 2014; Runesson & Samani, 2016; Roll, 1986). The study also adds knowledge to what effects having a hubristic

CEO can have on future financial performance in banks (Roll, 1986; Runesson & Samani, 2016) by looking at the predictive power of hubris before and after the financial crisis that occurred in 2008. Furthermore, the study provides knowledge to the role the CEOs of the banks played in the financial crisis. The information discovered in the study should also be useful to a variation of stakeholders to U.S. banks. The capital providers of the banks can get help to predict how the banks will do financially, the government could have use of the study when making regulations regarding risky behaviour in the banking industry to avoid another crisis situation.

There are, however, some limitations in the study. The sample consists of a variety of different types of banks, which means that they possibly could have reacted differently in the years of the financial crisis. This should make it hard to get a general view of the situation and might be the cause of the rejection of the hypothesis. A suggestion for future research could hence separate the different types of banks to investigate if the types are affected differently by hubris.

The rest of the study will be structured as followed. First a review of relevant literature regarding both CEO letters and hubris will be presented. The chapter after that will explain the sample and methods used in this thesis followed by a chapter consisting of the results of the study along with some analysis of the results will be provided. Finally the conclusion and the implications of the study will be presented in the final chapter of the thesis.

Literature review

In this section, previous literature within the research field of CEO letters and hubris will be presented in order to create an understanding of the different concepts of the study.

The CEO and the CEO letter

The CEO letter is seen as a very important tool for corporate communication by the stakeholders and it is also one of the parts in the annual report that investors put the most effort in reading (Hyland, 1998). The CEO of the company is responsible for the content of the letter (Craig & Amernic, 2011) and even though the CEO might not have written the letter as such it is probable that the CEO's own thoughts and personality traits are visible throughout the letter (Craig & Amernic, 2011; Amernic et al., 2007). This gets especially clear when looking at CEOs that puts a lot of effort in writing the letter, for example Jack Welsh, the former CEO of GE (Amernic & Craig, 2007), whose CEO letters Amernic et al. (2007) is studying over time. Jack Welsh uses metaphors in the letters to put his own touch on them which makes the personality traits of him as a CEO clearly visible.

Other than the previously mentioned studies, there are a wide range of studies that uses the CEO letters to detect certain personality traits of the CEO through

content analysis (Weber, 2010; Brennan & Conroy, 2013; Craig & Amernic, 2011; Burnoir & Point, 2006), which further suggests that the personality of the CEO is visible through the text of the CEO letters. Even though IASB (2010) have released a set of guidelines regarding companies' letters to shareholders, they are still not regulated and audited (Clathworthy & Jones, 2003). This, in turns, means that the CEO has an opportunity to shape the reader's mind and thoughts about the company without the critical eye of an auditor watching and judging the content of the letter. The fact that the CEO has little restriction when writing the CEO letter further supports the assumption that the personality traits of the CEO is evident in the letter.

Studies have also been conducted with regards to national differences in the writing of CEO letters (Weber, 2010; Gatti & Seele, 2015; Conaway & Wardrope, 2010), and these studies in general suggests that national differences exists in this area, even though some parts of the CEO letters are still similar. The differences are evident even in large global companies within the car manufacturing industry as suggested by Weber (2010). Webers (2010) study on car manufacturing firms is a comparison between three major regions of the world, namely Europe, Asia and the United States, and shows differences between all three regions. This means that the companies keeps their cultural identity even though the company becomes a player in the global market, and hence the CEO makes this evident in the writing of the letter to shareholders.

Some of the national differences has to do with the situation in the specific countries studied, as in Conaway & Wardropes (2010) study where they compare the content of the CEO letters between U.S. and Latin American firms. Conaway & Wardrope (2010) finds that the main differences in the letters is that the Latin American firms focuses more on political and economic stability in their letters compared to U.S firms while the financial information in the CEO letters didn't differ substantially between the regions. This is mainly because the environment in which the companies are operating in is a lot more unstable in Latin America than what it is in the United States (Ibid).

Some studies on national differences in the CEO letters suggests that the company sees itself in different ways depending on where in the world it operates. The findings from Gatti and Seeles (2015) study is a good example of this, where the authors are studying the CSR reporting specifically within the CEO letters in three major regions in the world, namely Europe, the United States and Asia. The study shows that the experienced responsibility of the company regarding these issues differed between the three regions, and therefore the disclosures on the CSR subjects in the CEO letters differs between the regions as well (Gatti & Seele, 2015).

Hooghiemstra (2010) does a comparison between CEO letters written by U.S. and Japanese firms, where he finds that CEOs in U.S firms, to a larger extent, focuses on good news about the company in the letters rather than the bad ones, while Japanese CEOs give a more balanced picture of the company in the letters. Jonäll

and Rimmel (2010) also brings up this subject in their study on three large Swedish firms where they find that the firms focus on the positive things regarding the companies rather than the negative.

There are also studies that find differences in how the CEO letter is written on a company level which further suggests that the personality of the CEO shows in the letters (Amernic et al., 2007; Weber, 2010; Burnois & Point, 2006). This is something that the reader of the CEO letters has to be aware of since there could be a lot of subjectivity in the letters, mainly because of the fact that the CEO is biased (Burnois & Point, 2006). In regards to this, Burnois & Point (2006) further suggests that the CEO letter includes a lot of information about the CEO of the company which can be detected by scrutinizing the letters carefully. Burnois & Point (2006) also finds that the corporate strategy is a common subject in the CEO letters which is especially useful for the shareholders. The fact that the CEO letters need to be scrutinized carefully in order to detect information is also suggested in an earlier study by Prasad and Mir (2002) who states that it is necessary to look deeper into the CEO letter in order to interpret the meaning of the letter.

Previous studies also suggest that the CEO letter can be used to build legitimacy and to enhance the reputation of the company (Jonäll & Rimmel, 2010; Geppert & Lawrence, 2008). Jonäll and Rimmel (2010) find that a mix of numbers and text promotes companies' legitimacy and that the numbers are used as proof that the text in the letters is in line with the actual performance of the company. Conaway & Wardrope (2010) suggest that the CEO letter is a tool to enhance firm reputation rather than actually providing real information regarding the company as such.

Geppert and Lawrence (2008) study and Craig and Brennan's (2012) study is conducted in a similar manner but in different years and gets contradictory results. Geppert and Lawrence (2008) find that the writing as such in the CEO letters has a large impact on what the public thinks about the company and hence also on the company reputation. Craig and Brennan (2012), however, states in their study that it is not the mere text in the CEO letters that promotes firm reputation, instead other things are playing a part in the process of building firm reputation. Craig and Brennan (2012) brings up this issue in their report and states that the reason for the contradictory results between the two studies could be due to a large variation of companies in Geppert and Lawrence (2008) study and also due to the fact that they were conducted in different time periods. This indicates that the public's interpretation of the CEO letters has changed overtime and that there might not be one single static way to gain company reputation through the CEO letters.

The findings from Conaway and Wardrope (2010) is somewhat contradicted by the findings from Patelli and Pedrini (2014) who suggests that the CEO letters in general are honest and informative, and that the honesty helps to enhance the company's reputation. Patelli and Pedrini (2014) makes this finding by connecting the tone of the CEO letters with the performance. In their study, they find that optimistic tone is associated with positive performance, both past and future,

which indicates that the optimistic tone in the letters to shareholders is sincere and that the companies, in general, is trying to provide correct information to their stakeholders. The study from Patelli and Pedrini (2014) also shows that tone in the CEO letters is a good tool when analysing the communication of the CEO. Patelli and Pedrini (2015) continues to conduct research regarding tone in the CEO letters in their later study where they find an association between the tone in the CEO letters and how the company conducts financial reporting. Patelli and Pedrini (2015) finds that complexity in the writing of the CEO letters is associated with more aggressive financial reporting, which can be connected to Geppert and Lawrence (2008) study that connects complex text in the CEO letters with lower firm reputation.

Other studies uses the tone in the CEO letter to evaluate the psychological traits of the CEO as well (Craig & Amernic, 2016; Runesson & Samani, 2016). A common method to do this is by using the software DICTION in order to find words and contexts in the letters that are connected to the specific personality trait the study is searching for (Patelli & Pedrini, 2014; Patelli & Pedrini, 2015; Craig & Amernic, 2016; Runesson & Samani, 2016). A specific personality trait that has been shown to be able to detect from the CEO letters by using DICTION is hubris, or hubristic behaviour regarding the CEO (Runesson & Samani, 2016). Runesson & Samani (2016) constructs a measure of hubris in their study that connects the CEO letter with hubris and hence makes it possible to use DICTION filters on the CEO letters in order to get the degree of hubris that the CEO is displaying in the letter.

Hubristic behaviour

There are various studies regarding different areas of hubris, from more psychology oriented studies (Owen & Davidson, 2009) to studies within the business field (Roll, 1986).

In 1986, Roll published his article on the Hubris hypothesis, where he studied if CEOs with a high degree of hubris were more willing to make acquisitions even though the deal might not benefit the company. Roll (1986) found that the hubristic CEOs did just that, mainly because they are overestimating their own ability to manage the acquired company. This effect of hubristic behaviour and overestimation have been used in articles regarding hubristic CEOs ever since and will be of use in this thesis as well.

A large number of researchers, in both older and more recent studies, have built on Roll's (1986) hubris hypothesis. From Hayward and Hambrick (1997) who finds that hubristic CEOs pays a higher premium in acquisitions which makes the stockholders suffer since the company pays a higher price for the acquisition, to a later study by Malmendier and Tate (2008) who looks at value destroying acquisitions and finds that these are associated with overconfident CEOs. Overconfidence is located very close to hubris (Brennan & Conroy, 2013) which makes this study in line with Roll's (1986) hubris hypothesis.

In a more psychological approach to the subject of hubris, Owen and Davidsson (2009) suggests that hubris is closely connected to narcissism. This is shown by listing 14 different characteristics for hubris, where 9 of them is a sign of both hubris and narcissism and 5 is specific for hubris. Previous studies show that narcissism within companies could potentially lead to unethical corporate behaviour (Amernic & Craig, 2010; Duchon & Drake, 2009). Since narcissism is closely linked to hubris, it is possible that hubris is also connected to unethical behaviour within companies, which is further supported by Cormier et al. (2016) in their study where they find an association with CEO hubris and misreporting.

Owen and Davidsson (2009) also suggests that there is two main things that has to be present in order to develop hubris. First, hubris can only be acquired in a position of power, which differentiates hubris from other personality disorders. Second, they also state that this position of power must be held for a period of time in order for the person to develop hubris. This is an ongoing assumption in their study, which considers presidents and prime ministers in UK and US for the last 100 years, and even though this study does not concern business leaders as such, the assumption is that any position of power held for a period of time is enough to develop hubristic behaviour (Ibid, 2009). Owen and Davidsson (2009) further states that it can be difficult to distinguish hubris from other personality disorders, like bipolar disorder, who can have similar characteristics as hubris.

When looking at hubris within top management, it seems like hubris, in general, is expected to have a negative impact on the company's performance or quality of reporting in the long run (Tang, Qian, Chen & Shen, 2015; Cormier, Lapointe-Antunes & Magnan, 2016). A study on Korean firms conducted by Park, Kim, Chang, Lee and Sung (2015) shows that CEO hubris in combination with a powerful CEO affects the company's finances negatively while a Board that operates with care will lower the negative effect from the hubristic CEO. Hribar and Yang (2016) finds that overconfident CEOs more often fails to reach the financial performance of their own forecasts, which indicates that they are overestimating their own and the company's abilities. Studies also suggests that overconfident CEOs tend to disregard negative feedback on their forecasts (Chen, Crossland & Luo, 2015).

Lawrence, Pazzaglia and Sonpar (2011) suggests that companies with a large degree of hubris could be more willing to engage to risk-taking, which might be positive for the banks when the financial environment is stable, but can be devastating for the banks when facing financial difficulties. This is also supported by Amernic and Craig (2007) in their report on CEO communication and how to interpret CEO speech. Even though most studies seems to indicate that hubristic and overconfident CEOs is a bad thing for business, some studies suggests that it is not always negative (Hirshleifer, Low & Teoh, 2012). Hirshleifer et al. (2012) finds that, in industries dependent on innovation, it can be an advantage to have an overconfident CEO. This since it is more probable that an overconfident CEO will be willing to take risks with projects in order to become more innovative.

Hypotheses

Previous studies suggests that hubris is connected to risk taking (Roll, 1986; Brown & Sarma, 2007; Malmendier & Tate, 2008; Lawrence et al., 2011; Li & Tang, 2010). Since the CEO's personality traits in form of hubris and overconfidence could be detected through content analysis of CEO letters (Weber, 2010; Brennan & Conroy, 2013; Craig & Amernic, 2011; Burnois & Point, 2006), risky behaviour should hence be able to detect through this as well. Risk taking is in general seen as bad for the financial performance of firms, even though there is exceptions (Hirshleifer et al., 2012), which leads up to the first hypotheses.

H1 - Hubristic CEO behaviour is associated with poor future financial performance in U.S. banks.

Furthermore, Lawrence, Pazzaglia and Sonpar (2011) suggests that risk taking can lead to financial distress especially in an unstable financial environment. In turn, risky behaviour, along with rating agencies failure in detecting these risks, was the reason for the financial crisis in 2008 (Rötheli, 2010). This would mean that the financial performance should be more affected when having a hubristic CEO during the global financial crisis, which leads to the second hypothesis of this thesis.

H2 - The association between Hubristic CEO behaviour and poor future financial performance is more evident in the time of the financial crisis in 2008.

Method

In this section, the sample used in this study will be presented along with the models used, an explanation on the hubris measure and finally the financial measure that will be used to evaluate financial difficulties.

Sample

U.S. listed banks on NYSE and NASDAQ at year end 2016 is included in the study, in total 377 banks. This sample hence is somewhat biased since the banks that failed in the crisis of 2008 is not included in the study, this is simply because the CEO letters of the banks that failed during the time is not available on the SNL database. However, it is still probable that the sample is large enough to detect if there is a pattern between the amount of hubris in the banks and their future financial performance. The bank's CEO letters from year 2005 to 2008 was extracted from the annual reports of the banks. Furthermore, the writer or the writers of the letter were noted in order to detect the letters that were actually written by the CEO. Some banks in the population were not active in the studied

years, some banks annual report were not available on SNL and some banks had missing financial variables, hence they were excluded from the study. The final sample therefore consists of 261 banks and in total 948 CEO letters. The fact that the sample consists only of U.S firms gives an opportunity to analyse the text in DICTION since the filters in DICTION is based on American English (Patelli & Pedrini, 2014). Furthermore, according to previous studies (Weber, 2010; Gatti & Seele, 2015; Conaway & Wardrope, 2010), it is preferred to conduct studies on CEO letters within one nation since there are a lot of variation in the content and way of writing between different regions in the world. All of the other variables used in this study was collected from SNLs database.

Models

To test the first hypothesis and to investigate whether there is an association between the level of hubris in the CEO letters and the financial performance of the firm, a correlation matrix of all the 10 variables is created and a regression analysis is conducted in SPSS with two different OLS regression models that is developed. Furthermore, the sample is separated into the top and bottom quartiles based on the hubris measure, a regression with the two constructed models is conducted on this as well. The method of using top and bottom quartiles of a variable is also done by Patelli and Pedrini (2014), and is a way to get rid of the noise in the middle and focus on the extremes in order to detect an association between the variables.

To test hypothesis 2, a dummy variable, hereafter called time, based on the years prior to the crisis, which is defined as 2005 and 2006, and the years after the crisis, defined as 2007 and 2008, is constructed. The years prior to the crisis gets value 0 and the years after gets the value 1. In order to test for a significantly higher effect from hubris on the future financial performance in the years after the crisis, an interactive variable between hubris and time is constructed by taking the product of hubris and time. After this, a regression will be conducted with the time variable, the interactive variable and all of the initial control variables as independent variables in order to look for a significant difference between the beta values of hubris on the future financial performance in the two different time periods.

The first and third model uses future operating revenue growth (future ORG) as the dependent variable. This variable is thought to reflect the financial performance of the banks, and has been used in previous studies by Patelli and Pedrini (2014) who states that this is a measure that is important when making decisions regarding investments. The second and fourth model uses future NPL/Total assets as the dependent variable, which is also used in a previous study by Alali and Romero (2012) who studies failed banks and characteristics of them. Alali and Romero (2012) states that banks with a high ratio of non-performing loans to assets were more likely to fail, which in turns suggests that this is a good measure to use while testing the hypotheses.

Model 1 and 2 are used to test the first hypothesis while model 3 and 4 are used to test the second hypothesis. The four models are shown below.

Model 1

$$ORG_{i,t+1} = \alpha + \beta_1 Hubris_{i,t} + \beta_2 CEO\ Tenure_{i,t} + \beta_3 CEO\ Age_{i,t} + \beta_4 ORG_{i,t} + \beta_5 ROA_{i,t} + \beta_6 CEO\ Change_{i,t} + \beta_7 Size_{i,t} + \beta_8 Company\ age_{i,t}$$

Model 2

$$NPL/Total\ assets_{i,t+1} = \alpha + \beta_1 Hubris_{i,t} + \beta_2 CEO\ Tenure_{i,t} + \beta_3 CEO\ Age_{i,t} + \beta_4 ORG_{i,t} + \beta_5 ROA_{i,t} + \beta_6 CEO\ Change_{i,t} + \beta_7 Size_{i,t} + \beta_8 Company\ age_{i,t}$$

Model 3

$$ORG_{i,t+1} = \alpha + \beta_1 Hubris_{i,t} + \beta_2 Time_{i,t} + \beta_3 interaction\ hubris-time_{i,t} + \beta_4 CEO\ Tenure_{i,t} + \beta_5 CEO\ Age_{i,t} + \beta_6 ORG_{i,t} + \beta_7 ROA_{i,t} + \beta_8 CEO\ Change_{i,t} + \beta_9 Size_{i,t} + \beta_{10} Company\ age_{i,t}$$

Model 4

$$NPL/Total\ assets_{i,t+1} = \alpha + \beta_1 Hubris_{i,t} + \beta_2 Time_{i,t} + \beta_3 interaction\ hubris-time_{i,t} + \beta_4 CEO\ Tenure_{i,t} + \beta_5 CEO\ Age_{i,t} + \beta_6 ORG_{i,t} + \beta_7 ROA_{i,t} + \beta_8 CEO\ Change_{i,t} + \beta_9 Size_{i,t} + \beta_{10} Company\ age_{i,t}$$

In order to test the hypotheses, different control variables has been included in the models in order to account for variables that can create noise in the test. Owen and Davidsson (2009) states that a position of power is necessary to develop hubris, as well as the time the person has been in the power position. The tenure and age of the CEO is hence important factors that can have effect on the degree of hubris of the company, which is why these are added as control variables (Runesson & Samani, 2016). Furthermore, Park et al. (2015) states that a strong, controlling board makes the CEO less powerful and hence makes the hubristic behaviour less evident, while a powerful CEO might worsen the hubristic behaviour. However, the data on the tenure of the CEO and the CEO age was only available for the banks as of year-end 2016. This creates a bias in these variables since the two variables had to be traced back to the years studied, 2005-2008. This means that the data used on these variables only includes the CEOs that were in office in 2005-2008 and still in office in year-end 2016. To apply this on the whole sample, the averages of the available values regarding these two variables were used where these variables went missing, in the same manner as Patelli and Pedrini (2014) did in their study. The tests were conducted without the variables as well but as in Patelli and Pedrini's (2014) study it did not affect the results.

The idea of the study is to see if the hubristic behaviour can predict future performance, which is why the financial performance for t+1 years is considered.

However, the financial performance for the current year is also added to the models, since the past performance can have an effect on the tone in the CEO letters (Patelli & Pedrini, 2014) and hence promote behaviour that have similar characteristics as hubristic behaviour. The age of the company can have an effect on the growth (Runesson & Samani, 2016) and is hence added as a control variable as well. Further control variables that is included in this study is Size in the form of the natural logarithm of total assets which is used by Brown & Sarma (2007) and Malmendier & Tate (2008) as well as return on assets which is used as a proxy for financial performance by a variety of previous studies (Patelli & Pedrini, 2014; Alali & Romero, 2012).

Variable	Source	Description
<i>Personality trait:</i>		
Hubris	CEO letters	9 filters in DICTION used to determine the level of hubris
<i>CEO attributes:</i>		
Tenure	SNL database	Number of years in the company
Age	SNL database	Age of the CEO
CEO change	SNL database	Dummy variable, 1 if the CEO has changed to this year, 0 otherwise
<i>Financial performance:</i>		
Revenue growth	SNL database	Percentage change of revenue from year t-1 to year t
ROA	SNL database	Net income/Average Assets
NPL/ Total assets	SNL database	Non-performing loans deflated with Total assets
<i>Company data</i>		
Size	SNL database	The natural logarithm of Total assets
Age	SNL database	Age of the firm
<i>Other variables</i>		
Time		Dummy variable, 0 for the years prior to the crisis, 1 for the years after the crisis
Time*Hubris		Interactive variable between time and hubris

Table 1. Definition of variables.

The dummy variable CEO Change is also added to the model, if the CEO changed until the annual report, the variable is 1, otherwise 0. The CEO Change is an important variable to consider, this since it is common for companies to engage in big bath accounting when a CEO change is taking place (Bornemann, Kick, Pfungsten & Schertler, 2015; Wells, 2002), which could affect the performance measures studied. A summary of all the variables included in the study is shown in table 1.

Measure of hubris

In order to look for hubristic tendencies in the CEO letters, the text analysis software DICTION is used. This software is used in various studies in order to analyse the context of CEO letters in general (Craig & Brennan, 2012; Craig, Mortensen & Iyer, 2013; Patelli & Pedrini, 2015) and to analyse CEO hubris specifically (Runesson & Samani, 2016; Craig & Amernic, 2016). The software will hence provide data that will show the level of hubristic tone in the CEO letters of the banks.

The measure of CEO hubris in this study will be the same measure as Runesson and Samani (2016) constructed in their paper regarding hubris and mergers and acquisitions. The construction of the measure is:

$$CEO_{hubris} = Accomplishment + Aggression + Centrality - Concreteness + Exclusion - Passivity + Praise + Satisfaction + Self-reference$$

The measure of CEO hubris is hence based on nine different filters that is available in the text analysis software DICTION. These DICTION filters is connected to Owen and Davidssons (2009) different symptoms regarding hubris. Owen and Davidsson (2009) have found 14 symptoms, where 5 of them are unique for hubris. The higher total score according to the measure, the more hubristic is the CEO of the bank studied. Table 2 shows how the DICTION filters is connected to the symptoms of hubris.

To understand the table we can look at the first symptom, if the DICTION filters Accomplishment and Praise gets a high score it indicates that the first symptom of hubris could be present. Since this study does not take into consideration if the CEO is actually having a hubristic personality disorder diagnose, only to what degree the CEOs actually writes in a hubristic manner, the measure of hubris just includes the diction filters in a relatively simple model.

Symptom	DICTION HIGH	DICTION LOW
1. A narcissistic propensity to see their world primarily as an arena in which to exercise power and seek glory; NPD.6	Accomplishment, praise	
2. A predisposition to take actions which seem likely to cast the individual in a good light—i.e. in order to enhance image; NPD.1	Accomplishment	
3. A disproportionate concern with image and presentation; NPD.3	Accomplishment	
4. A messianic manner of talking about current activities and a tendency to exaltation; NPD.2	Accomplishment, praise	Concreteness
5. An identification with the nation, or organization to the extent that the individual regards his/her outlook and interests as identical; (unique)	Accomplishment, centrality, praise, self-reference	Concreteness
6. A tendency to speak in the third person or use the royal 'we'; (unique)	Self-reference	
7. Excessive confidence in the individual's own judgement and contempt for the advice or criticism of others; NPD.9	Self-reference	
8. Exaggerated self-belief, bordering on a sense of omnipotence, in what they personally can achieve; NPD.1 and 2 combined	Self-reference, satisfaction	
9. A belief that rather than being accountable to the mundane court of colleagues or public opinion, the court to which they answer is: History or God; NPD.3	Aggression	Passivity
10. An unshakable belief that in that court they will be vindicated; (unique)	Accomplishment, Centrality, Praise, Satisfaction	
11. Loss of contact with reality; often associated with progressive isolation; APD 3 and 5	Exclusion	Concreteness
12. Restlessness, recklessness and impulsiveness; (unique)	Aggression	Passivity
13. A tendency to allow their 'broad vision', about the moral rectitude of a proposed course, to obviate the need to consider practicality, cost or outcomes; (unique)	Accomplishment, Praise, Self-reference	Concreteness
14. Hubristic incompetence, where things go wrong because too much self-confidence has led the leader not to worry about the nuts and bolts of policy; HPD.5		Concreteness

Table 2 (Runesson & Samani, 2016)

Findings/Results

In this section, the findings will be presented and interpreted. First, a table of the descriptive statistics of the variables will be presented, followed by Pearson's cross correlation analysis. A multiple regression analysis will also be conducted in order to test the first hypothesis, both on the total sample and on the top and bottom quartiles. Lastly, the second hypothesis will be tested with an interactive variable between hubris and a dummy that separates the years prior to and after the crisis in a multiple regression analysis.

Descriptive statistics

The descriptive statistics is presented in table 3 where all of the years studied are included in the measures. As can be seen in the table, the dependent variable future ORG is separated from the control regarding the same variable. This is mainly because the future ORG differs from ORG since the future ORG regards 2006 to 2009 while ORG regards 2005 to 2008, but also because the sample between the years varies a bit since some banks were not operating in all of the studied years. The mean, median and standard deviation of each variable is included in the table along with the range of the variable.

The variables CEO change ranges between 0 and 1, which is because this variable is a dummy variable that can only take the value of 1 or 0. This makes it easy to detect what percentage of the specific firm years that had a CEO change between 2005 and 2008. This is done by simply looking at the mean, in 4,32% of the observations a CEO change occurred.

While looking at the statistics on the hubris measure, the median and the mean has a similar value, but the hubris measure ranges from -234,3 and 110,97, with a standard deviation of over 17 which indicates a large variation of hubris among the studied banks.

Moving on to the financial measures, the ORG has a mean of 9,31% and future ORGs mean is 8,19%. The lower number in future ORG might be attributable to the financial crisis which reached its most financial impact in 2009. It is also important to note the large range in these variables, from -49% for both ORG and future ORG to 462% for ORG and 142% for future ORG. Interestingly, both ORG and Future ORG has the same min value which means that the min of -49% did occur earlier than 2009 when the impact of the financial crisis peaked.

Descriptive statistics						
	Mean	Median	Std. Deviation	Min	Max	N
Hubris	18,9866	19,0350	17,01420	-234,30	110,97	948
Future ORG	0,0819	0,0568	0,15084	-0,49	1,46	948
ORG	0,0931	0,0649	0,20149	-0,49	4,62	948
ROA	0,0085	0,0095	0,00771	-0,06	0,03	948
Size	14,5758	14,2968	1,61527	11,45	21,51	948
Future NPL/Total assets	0,0126	0,0070	0,01605	0,00	0,17	948
Company age	21,1023	19,0000	21,35067	0,00	174,00	948
Tenure	6,5192	6,5192	3,78576	0,00	29,00	948
CEO age	51,0306	51,0306	3,61390	32,00	73,00	948
CEO change	0,0432	0,0000	0,20352	0,00	1,00	948

Table 3

The dependent variable future NPL/Total assets ranges from 0 to 0,17 with a mean of 0,0126. The max of 0,17 in future NPL/Total assets of the banks peaked in 2009 which indicates that this could be an effect of the financial crisis. Looking at ROA with a range from -6% to 3% and a mean of 0,85%, this can seem low, but it is in line with previous studies, Alali & Romero (2012) had an average ROA of 0,8% on their sample of banks.

The descriptive table also reveals that there are a large variation of old and new banks along with experienced and unexperienced CEOs by looking at the range in the variables company age, tenure and CEO age.

Pearson's correlations

Pearson's correlations for the variables included in the models that tests hypothesis 1 is presented in table 4, this in order to get an overview of the correlation between the variables. The data for all of the studied years are included in the table. It is necessary to make a correlation table for all of the data together since the study is trying to predict future performance in general through the hubris measure for hypothesis 1. The seven control variables along with the independent variable hubris and the two dependent financial variables is included in the correlation. The dependent variables Future ORG and Future NPL/Total assets is based on year t+1, that will be year 2006-2009 while the control variables and the independent variable will consist of the data from years 2005-2008.

As can be seen in table 4 of the Pearson correlations, virtually no correlation between hubris and the dependent variable future ORG is found, which is significant on the 5% level. This was unexpected since previous studies suggests that hubris is associated with risk-taking and hence poor future performance (Roll, 1986; Brown & Sarma, 2007; Malmendier & Tate, 2008; Lawrence et al., 2011; Li & Tang, 2010), which would suggest that there should be a negative correlation between the two variables. The same goes with the other dependent variable, Future NPL/total assets, where virtually no correlation is detected between hubris and Future NPL/total assets and it is not significant either. This variable is expected to get higher the higher the hubris score is since it is a ratio of non-performing loans to total assets.

Pearsons correlations										
	Hubris	Future ORG	ORG	ROA	Size	Future NPL/Total assets	Company age	Tenure	CEO age	CEO change
Hubris	1	,056*	-0,001	0,002	,144**	0,008	0,046	-0,002	-0,026	0,010
Future ORG		1	,347**	-,111**	0,012	-,070*	-0,001	-,064*	-0,012	,097**
ORG			1	-,134**	-,106**	-,103**	-,091**	-,096**	-0,019	,176**
ROA				1	0,039	-,456**	,079**	,063*	-0,002	-,061*
Size					1	0,017	,370**	,058*	,064*	-0,017
Future NPL/Total assets						1	-,084**	-0,014	,058*	-0,020
Company age							1	,087**	,097**	-0,046
Tenure								1	,343**	-,357**
CEO age									1	-,101**
CEO change										1

*. Correlation is significant at the 0.05 level.

** . Correlation is significant at the 0.01 level.

Table 4

The only control variable that hubris is significantly correlated with on the 1% level during the studied years is the size of the company, there is a very weak positive correlation between the two variables which means that the larger banks in general are more hubristic. This could be because the CEO power is related to hubris and that the CEO of a larger bank could have more power than the CEO of a smaller bank.

Looking at the proxies for CEO power, CEO tenure and CEO age (Runesson & Samani, 2016), there is a very weak, almost none, negative correlation between the tenure and future ORG with a 5% significance. Since CEO power is one of the aspects that is needed for hubris syndrome to develop (Owen & Davidson, 2009)

it could be expected that the future ORG would have a negative correlation with tenure. The CEO age, however, has virtually no correlation with future ORG, and it is not significant either.

More surprisingly, the tenure and age of the CEO is not significantly correlated with hubris at all, which is contradictory to the studies of Owen and Davidsson (2009) and Park et al. (2015) that suggests that these are important contributors to CEO power and hence also hubristic behaviour by the CEO.

The variable CEO change has a weak positive correlation with both ORG and future ORG with 1% significance, which could indicate that the banks might have engaged in big bath accounting before the year of the CEO change. However, there is a very weak negative correlation between CEO change and ROA with 5% significance, which does not indicate that there has been any big bath accounting the year prior to the CEO change.

Regression analysis

The regression analysis is conducted in two different ways to investigate hypothesis 1, first all of the banks in the sample is included in the regression which is shown in table 5. Then, in order to further look for association between hubris and future financial performance, the top and bottom quartiles of the banks, based on the hubris measure, is chosen in order to determine if the more extreme values of hubris shows a larger effect on the future financial performance. The regression based on the top and bottom quartiles of hubris is shown in table 6. In order to investigate hypothesis 2, a dummy variable which separates the years prior to and after the crisis is used to make an interactive variable between hubris and the dummy. A regression is conducted with the financial variables as the dependent variables, the interactive variable as the independent variable and the dummy added to the control variables which is shown in table 7.

Looking at the adjusted R-squares in table 5, it is evident that the explanatory degree of the models varies a bit, from 12,4% explanatory power on future ORG to 23,89% explanatory power on future NPL/Total assets.

As can be seen in table 5, the beta value of hubris is not significantly associated with neither the future ORG nor future NPL/Total assets. However, CEO age, which is a proxy for CEO power, is associated with future NPL/Total assets with a positive beta of 0,0003 with a 5% significance. The fact that there is a positive beta value is expected, since the expectations were that CEOs with more hubris is more likely

to engage in risk-taking (Roll, 1986; Brown & Sarma, 2007; Malmendier & Tate, 2008; Lawrence et al., 2011; Li & Tang, 2010) and CEO power is a vital part in building a hubristic behaviour. Hence a higher NPL/Total assets is expected. Even though this is true, the association between the hubris measure and the financial performance was the thing hypothesis 1 was looking for, hence the hypothesis cannot be supported.

Regression		
	Future NPL/Total assets	Future ORG
	β	B
Hubris	0,0000	0,0004
ORG	-0,0132**	0,2522**
ROA	-0,9851**	-1,2962*
Size	0,0004	0,0034
Company age	-0,0001**	0,0002
Tenure	-0,0001	-0,0009
CEO age	0,0003*	0,0001
CEO change	-0,0021	0,0196
Adjusted R-square	0,2389	0,1240

** . Correlation is significant at the 0.01 level
 * . Correlation is significant at the 0.05 level

Table 5

The fact that the control variables for the performance of the company, ORG and ROA, is negatively associated with the dependent variable NPL/Total assets is expected. Both ORG and ROA is negatively associated with future NPL/Total assets with 1% significance and the beta value is negative in both cases. This was expected since when the financial performance goes up, the ORG and ROA goes up as an indication of this, while the amount of non-performing loans in the company decreases.

Additional analysis

In order to further investigate the connection between hubris and future financial performance, the extreme values of hubris, the top and bottom quartiles of the banks based on their hubris value, have been singled out and analysed. The results from this regression is shown in table 6.

As expected, the explanatory power of the models while using a sample that is only half the size of the original sample, which is the result when using the top and bottom quartiles, is much lower than with the full sample. The adjusted R-square ranges from 8,18% in explanatory power for the model with the dependent variable future ORG to 16,71% for the model with the dependent variable future NPL/Total assets.

Looking at table 6, where the top and bottom quartiles of hubris is included, the beta of hubris in regards to future ORG before the crisis is slightly higher than on the full sample, 0,02% higher per 1 point higher hubris score. In contrary to the beta on the full sample, this positive association is statistically significant at the 5% level. However, the expectations were that the future financial performance would be negatively correlated with hubris, hence these findings do not support the hypothesis 1. The other dependent variable, NPL/Total assets, is not significantly correlated with hubris at all.

The proxies for CEO power, tenure and CEO age, is not significantly associated with any of the dependent variables while looking at the extreme values of hubris which was not expected since CEO power is a vital part of hubris and hubris were in turns expected to be negatively associated with future financial performance.

As in the regression on the total sample, ORG and ROA is negatively correlated with future NPL/Total assets, ORG with 5% significance and ROA with 1% significance, which was expected.

Regression top and bottom quartiles		
	Future NPL/Total assets	Future ORG
	B	β
Hubris	0,0000	0,0006*
ORG	-0,0126*	0,2700**
ROA	-0,9451**	-2,6214**
Size	0,0003	0,0003
Company age	-0,0001	0,0003
Tenure	0,0001	-0,0025
CEO age	0,0001	0,0017
CEO change	-0,0010	0,0052
Adjusted R-square	0,1671	0,0818

** . Correlation is significant at the 0.01 level

*. Correlation is significant at the 0.05 level

Table 6

Hubris and financial performance after the crisis

To find out whether hypothesis 2 should be supported or rejected, we must look for a significant difference between the years prior to and after the crisis with regards to the association of hubris and financial performance. A regression analysis is conducted in order to compare the beta coefficients of hubris from the years prior to the crisis and the years after the crisis.

First of all, a dummy variable, time, is created to separate the years prior to the crisis and after the crisis. The years prior to the crisis takes value 0 and the years after value 1. An interactive variable between hubris and time is created by taking the product of hubris and time. A regression is then conducted with time added to the control variables, the interactive variable as the independent variable along with the dependent variables for future financial performance. The interactive variable should reveal if the effect of hubris on future financial performance differs significantly between the two time periods.

Regression		
	Future NPL/Total assets	Future ORG
	β	B
Hubris	0,0000	0,0007
Time	0,0100**	0,0381**
Interactive variable Hubris-Time	0,0000	-0,0003
ORG	-0,0095**	0,2636**
ROA	-0,7307**	-0,5499
Size	0,0003	0,0029
Company age	0,0001**	0,0001
Tenure	0,0001	-0,0010
CEO age	0,0002	0,0002
CEO change	-0,0036	0,0143
Adjusted R-square	0,3376	0,1326

** . Correlation is significant at the 0.01 level

* . Correlation is significant at the 0.05 level

Table 7

As can be seen in table 7, the interactive variable shows no significant association with neither future ORG nor future NPL/Total assets, which was unexpected since the relationship between hubris and poor future financial performance was thought to be more evident in a crisis situation. This means that the null hypothesis cannot be rejected, hence there is no significant difference between the two periods and hypothesis 2 cannot be supported.

Conclusion

The study analyses the CEO letters from 261 U.S. banks listed on NASDAQ and NYSE with the software DICTION in order to detect hubristic CEOs. The hypotheses were that companies with hubristic CEOs would be associated with poor future financial performance and that this pattern would be even more evident the years after the financial crisis.

The findings of this study showed no significant association between hubris and future financial performance when looking at the full sample which was not expected. This since the expectations were that hubris leads to negative future financial performance. A regression were also conducted on the firms with the highest and lowest quartiles of hubristic CEOs, which showed a positive association between hubris and the dependent variable future ORG with 5% significance but no significant association between the other dependent variable future NPL/Total assets. This was also unexpected since hubris was expected to be associated with a negative future financial performance. This leads to the conclusion that hypothesis 1 cannot be supported.

To test the second hypothesis, a regression was conducted to investigate if the coefficients between hubris and future financial performance differs between the years prior to and after the crisis. This regression showed that there was no significant difference between the two time periods and hence hypothesis 2 cannot be supported either.

The study contributes to a variety of areas within accounting research. First of all, contributions to literature regarding the usefulness of the CEO letters in determining firm performance (Patelli & Pedrini, 2014; Runesson & Samani, 2016; Roll, 1986) is made. Furthermore the study contributes to literature regarding hubristic CEOs and how they can affect banks and their financial performance. Since the study is looking at the predictive power of hubris in the years surrounding the financial crisis in 2008, it also contributes to the understanding of the causes of distress in U.S. banks during the crisis.

The findings from the study could also be useful to a variation of stakeholders to U.S. banks. The capital providers of the banks can get help to predict how the banks will do financially, the government could have use of the study when making regulations regarding risky behaviour in the banking industry to avoid another crisis situation.

There are also some limitations to the study. First of all, the sample of this study consists of different types of banks. Different types of banks could be more or less sensitive to a financial crisis which might be one of the reasons that there were no support for neither of the hypotheses. One suggestion for a future study could hence be one that distinguishes the different type of banks in the sample and conducts studies the types separately. Another limitation is that the findings of the study only is applicable to U.S. banks since the content of the CEO letters differs between nations. Because of that, a suggestion for future research could be to study the relationship between hubris detected through CEO letters with future financial performance with a sample located in another part of the world.

References

Alali, F. Romero, S. 2012. Characteristics of failed U.S. commercial banks: an exploratory study. *Accounting and Finance*. pp. 1-26.

Amernic, J., Craig, R., Tourish, D. 2007. The transformational leader as pedagogue, physician, architect, commander, and saint: Five root metaphors in Jack Welch's letters to stockholders of General Electric. *Human Relations*. Vol. 60:12. pp. 1839-1872.

Amernic, J., Craig, R. 2007. Guidelines for CEO-speak: editing the language of corporate leadership. *Strategy & Leadership*. Vol. 35:3. pp. 25-31.

Amernic, J., Craig, R. 2010. Accounting as a facilitator of extreme narcissism. *Journal of business ethics*. Vol. 96. pp. 79-93.

Bartlett, S-A., Chandler, R-A. 1997. The corporate report and the private shareholder: Lee and Tweedie twenty years on. *British accounting review*. Vol. 29. pp. 245-261.

Bornemann, S., Kick, T., Pfingsten, A., Schertler, A. 2015. Earnings baths by CEOs during turnovers: empirical evidence from German savings banks. *Journal of banking & finance*. Vol. 53. pp. 188-201.

Bournois, F., Point, S. 2006. A letter from the president: seduction, charm and obfuscation in French CEO letters. *Journal of Business Strategy*. Vol. 27:6. pp. 46-55.

Brennan, N., Conroy, J-P. 2013. Executive hubris: the case of a bank CEO. *Accounting, Auditing & Accountability Journal*. Vol. 26:2. pp. 172-195.

Brown, R., Sarma, N. 2007. CEO overconfidence, CEO dominance and corporate acquisitions. *Journal of economics and business*. Vol. 59. pp. 358-379.

Chen, G., Crossland, C., Luo, S. 2015. Making the same mistake all over again: CEO overconfidence and corporate resistance to corrective feedback. *Strategic management journal*. Vol. 36. pp. 1513-1535.

Clatworthy, M., Jones, M-J. 2003. Financial reporting of good news and bad news: evidence from accounting narratives. *Accounting and Business Research*. Vol. 33:3. pp. 171-185.

Conaway, R - N., Wardrope, W - J. 2010. Do their words really matter? Thematic Analysis of U.S. and Latin American CEO Letters. *Journal of Business Communication*. Vol. 47:2, pp. 141-168.

- Cormier, D., Lapointe-Antunes, P., Magnan, M. 2016. CEO power and CEO hubris: a prelude to financial misreporting?. *Management Decision*. Vol. 54:2. pp. 522-554.
- Craig, R., Amernic, J. 2011. Detecting Linguistic Traces of Destructive Narcissism At-a-Distance in a CEO's Letter to Shareholders. *Journal of Business Ethics*. Vol. 101. pp. 563–575.
- Craig, R., Amernic, J. 2016. Are there Language Markers of Hubris in CEO Letters to Shareholders?. *Journal of business ethics*. 2016. pp. 1-14.
- Craig, R., Brennan, N - M. 2012. An exploration of the relationship between language choice in CEO letters to shareholders and corporate reputation. *Accounting forum*. Vol. 36. pp. 166-177.
- Craig, R., Mortensen, T., Iyer, S. 2013. Exploring Top Management Language for Signals of Possible Deception: The Words of Satyam's Chair Ramalinga Raju. *Journal of business ethics*. Vol. 113. pp. 333-347.
- Duchon, D., Drake, B. 2009. Organizational narcissism and virtuous behaviour. *Journal of business ethics*. Vol. 85. pp. 301-308.
- Gatti, L., Seele, P. 2015. CSR through the CEO's pen: Comparing CEO letters from CSR reports from Asia, Europe, and the U.S. *Uwf*. Vol. 23. pp. 265-277.
- Geppert, J., Lawrence, J-E. 2008. Predicting Firm Reputation Through Content Analysis of Shareholders 'Letter. *Corporate reputation review*. Vol. 11:4. pp. 285-307.
- Hayward, M-L., Hambrick, D-C. 1997. Explaining the premium paid for large acquisitions: Evidence of CEO hubris. *Administrative Science Quarterly*. Vol. 42. pp. 103-127.
- Hirshleifer, D., Low, A., Teoh, S-H. 2012. Are Overconfident CEOs Better Innovators?. *Journal of finance*. Vol. 67:4. pp. 1457-1498.
- Hooghiemstra, R. 2010. Letters to the shareholders: A content analysis comparison of letters written by CEOs in the United States and Japan. *The International Journal of Accounting*. Vol. 45. pp. 275–300.
- Hribar, P., Yang, H. 2016. CEO overconfidence and management forecasting. *Contemporary Accounting Research*. Vol. 33:1. pp. 204–227.
- Hyland, K. 1998. Exploring Corporate Rhetoric: Metadiscourse in the CEO's Letter. *The journal of business communication*. Vol. 35:2. pp. 224-245.

IASB. 2010. Management Commentary – A framework for presentation, International Accounting Standards Board, London.

Jonäll, K., Rimmel, G. 2010. CEO letters as legitimacy builders: coupling text to numbers. *Journal of Human Resource Costing & Accounting*. Vol. 14:2. pp. 307-328.

Lawrence, D-Y., Pazzaglia, F., Sonpar, K. 2011. The Introduction of a Non-Traditional and Aggressive Approach to Banking: The Risks of Hubris. *Journal of business ethics*. Vol. 102. pp. 401-420.

Li, J., Tang, Y. 2010. CEO hubris and firm risk taking in China: The moderating role of managerial discretion. *Academy of management journal*. Vol. 53:1. pp. 45-68.

Malmendier, U., Tate, G. 2008. Who makes acquisitions? CEO overconfidence and the market's reaction. *Journal of financial economics*. Vol. 89. pp. 20-43.

Owen, D. & Davidson, J. 2009. Hubris syndrome: An acquired personality disorder? A study of US Presidents and UK Prime Ministers over the last 100 years, *Brain*. Vol. 132:5. pp. 1396-1406.

Park, J-H., Kim, C., Chang, Y-K., Lee, D-H., Sung, Y-D. 2015. CEO Hubris and Firm Performance: Exploring the Moderating Roles of CEO Power and Board Vigilance. *Journal of business ethics*. pp. 1-15.

Patelli, L., Pedrini, M. 2014. Is the Optimism in CEO's Letters to Shareholders Sincere? Impression Management Versus Communicative Action During the Economic Crisis. *Journal of business ethics*. Vol 124. pp. 19-34.

Patelli, L., Pedrini, M. 2015. Is Tone at the Top Associated with Financial Reporting Aggressiveness? *Journal of business ethics*. Vol. 63. pp. 3-19.

Prasad, A., Mir, R. 2002. Digging deep for meaning: A critical hermeneutic analysis of CEO letters to shareholders in the oil industry. *The journal of business communication*. Vol. 39:1. pp. 92-116.

Roll, R. 1986. The hubris hypothesis of corporate takeovers. *Journal of Business*. Vol. 59:2. pp. 197–216.

Runesson, E., Samani, N. 2016. Goodwill or "No-will": A study of CEO hubris. *Working paper*.

Rötheli, T-F. 2010. Causes of the financial crisis: Risk misperception, policy mistakes, and banks' bounded rationality. *Journal of socio-economics*. Vol. 39. pp. 119-126.

Tang, Y., Qian, C., Chen, G., Shen, R. 2015. How CEO hubris affects corporate social (ir)responsibility. *Strategic Management Journal*. Vol. 36. pp. 1338-1357.

Weber, J. 2010. Assessing the “Tone at the Top”: The Moral Reasoning of CEOs in the Automobile Industry. *Journal of Business Ethics*. Vol. 92. pp. 167–182.

Wells, P. 2002. Earnings management surrounding CEO changes. *Accounting and Finance*. Vol. 42. pp. 169-193.

Zhang, Y., Rajagopalan, N., 2004. When the known devil is better than an unknown god: an empirical study of the antecedents and consequences of relay CEO successions. *Academy of management journal*. Vol. 47. pp. 483-500.