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SIGNALING UNETHICAL BEHAVIOR: A PROPOSED COMPOSITE SCORE FOR ASSESSING CEO'S PROFILE

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Abstract

Our paper proposes an aggregate score that can be used to capture the profile of chief executive officers for signaling the propensity of unethical behavior. Based on prior research, our proposed score aggregates thirteen aspects across seven dimensions of the profile of chief executive officers; including reputation, financial expertise, internal power, age, gender, marital status, personalities from dark triad (Machiavellianism, psychopathy, narcissism). Our findings are based on the literature and suggest that having a general assessment of the profile of chief executive officers could signal the presence of unethical behavior in business environment. Future studies can examine empirically if our composite score can signal efficiently as proxies for unethical behavior via earnings management or fraud.

Keywords: Unethical Behavior, Composite Score, CEO Profile

JEL Classifications: G30, L20, M91

1. Introduction

There is an extensive body of both theoretical and empirical research seeking to understand and explain unethical conduct of managers and people in business in particular. Moreover, the behavior of executives inspired research from various areas of knowledge and in recent years raised attention to accounting research. As such, a substantial body of existing literature is concerned with developing new frameworks that are improving the detection of such behaviors.

Previous studies conducted in the literature are more focused on firm characteristics than CEOs profile when assessing for unethical behavior of managers either accrual-based earnings management or real earnings management (Roychowdhury, 2006; Kothari *et al.* 2005; Dechow and Dichev, 2002; Peasnell *et al.* 2000; Dechow *et al.* 1995; Jones, 1991). Also, previous earnings management models are subject to considerable criticisms despite their wide application. Among the most important limit is the fact that previous models fail to take into consideration the characteristics of top managers. Given their overall responsibilities for the performance of firms, they are able to influence financial statements when they disclose the financial performance, financial position and cash flows of their firms. The characteristics of CEOs such as experience, values and personalities are important to be assessed because accounting standards allow judgments in choosing appropriate accounting policies or in estimating accounting numbers under some uncertainties.

Also, psychological characteristics as Non-pathological personality traits of Narcissism, Psychopathy and Machiavellianism, the so-called Dark Triad, are important to be assessed in this context, since previous empirical studies documented that such characteristics can impact the process of decision-making. In this respect, previous research documented that personality traits have the potential to influence the managers' behavior and may explain causes of misconduct in the business environment.

Moreover, accounting research have related personality to individual behavior in the business environment, aiming to examine its impact on financial reports (Olsen *et al.* 2013; Johnson *et al.* 2013). As Olsen *et al.* (2013) documented, earnings per share can be managed in a discretionary way by managers with the intention of reflecting her/his performance. This demarche is possible due to accounting policies and estimates. Moreover, for individuals with predisposition to narcissistic behavior, increased earnings per share can induce an inflated sense of self-importance. Johnson *et al.* (2013) also examined narcissistic characteristics of managers-clients from the point of view of auditors and documented that is positively related to the assessment of fraud risk.

Our paper is motivated to make future contributions to existing literature by introducing a new holistic approach which captures the profile of chief executive officers (CEOs hereafter) to signal the presence of unethical behavior via earnings management. In this respect, our paper aims to address an important gap in the literature by constructing a composite score to signal the presence of unethical behavior of top managers, using two types of data. First, data collected from the curriculum vitae of CEOs, second an assessment of the type of personality. Based on prior research, our score has seven dimensions which cover areas as: reputation, financial expertise, internal power, age, gender, marital status and assessment of dark triad personality. Based on the previous research conducted in the literature, if an individual factor was found to suggest the presence of unethical behavior, we add one to our composite score, zero otherwise. As a result, the score is an integer with a value theoretically ranging from zero to thirteen.

Our study contributes to the literature and especially practice twofold. First, our proposed score is easier to compute compared to previous models used to detect earnings management behavior or fraud. Second, compared to previous models used in the literature, our score can be used to signal earnings management practices (via accrual and operational opportunism), regardless the practices used by CEOs. In this respect, practitioners, auditors or investors can use this composite score as a helpful tool to assess the risk of unethical behavior of top managers. The paper suggests that CEOs with low score are less likely to engage in unethical behaviors, therefore, such top managers can improve significantly the quality of financial reporting of the firms they work for.

The remainder of the paper proceeds as follows. Section 2 gives an overview of the literature on unethical behavior and ways proposed to curb such behavior. Section 3 explains the construction of our aggregate score. Section 4 provides some concluding remarks.

2. State of the Art

According to the literature, the unethical behavior comprises decisions that harm others, characterized as irresponsible or wrong (Armstrong, 1977). In the business environment, usually the motivation for dysfunctional behaviors of executives comes primarily from the perspective of financial compensation.

Described as exercising managerial discretion in applying accounting standards or constructing real business transactions to affect reported earnings in financial statements (Healy and Wahlen, 1999), earnings management practices were highly debated in the literature as examples of dysfunctional and unethical behavior of top executives. Recent years have brought numerous empirical models for detecting such unethical practices. Assessing previous proposals, the large majority of models are highly difficult to use since a large quantity of data is necessary.

Overall, previous literature focused on detecting accrual-based earnings management practices and operational opportunism face important limitations. Among the limitations found the followings are important to be assessed: the reduced tests power, ignoring long term

accruals; not adequately explained the properties of stochastic nondiscretionary accruals and discretionary accruals; insufficient theorization of accrual-generating process; large magnitude of regression residuals potentially contributing to earnings management, and further potentially leading to incorrect inferences; measurement errors in estimating accruals; correlations between residuals and firm performance; data constraints in some capital markets; ability to detect either accrual-based earnings management or real earnings management not both in the same time; ignoring the characteristics of CEOs which may have significant impact on the quality of financial statements (Ball, 2013; Gerakos, 2012; Dechow *et al.* 2010; Botsari and Meeks, 2008; Kothari *et al.* 2005; Dechow and Dichev, 2002; Hribar and Collins, 2002; Fields *et al.* 2001).

On the other hand, other studies have tried to signal the presence of earnings management practices by using accounting ratios to differentiate manipulators from non-manipulators (Beneish, 1997), needing industry benchmarks to calculate. Dechow *et al.* (2011) also documented that in addition to accruals, other information obtained from financial statements may be useful to detect unethical behavior of firms.

Previous research also documented that CEOs characteristics have the potential to play an important role in explaining earnings management behavior (Sierfling, 2011; Yim, 2013; Huang *et al.* 2012; Feng *et al.* 2011; Francis *et al.* 2008).

One of the most important studies assessing the process of decision-making of CEOs was conducted by Hambrick and Mason (1984), resulting in the Upper Echelons Theory. According to this theory, the process of decision-making of CEOs is affected by both personalized and customized interpretations, which are processed based on their experience, values and personalities.

On the other hand, Kahneman and Tversky (1979), based on the Theory of Limited Rationality, documented empirically that the process of decision-making of individuals can be affected by mental shortcuts, which may sometimes lead to biases in judgment. Further, according to this particular theory, managers are facing the dilemma of opportunistically using the accounting information in the decision-making process when seeking for solutions to reach both business goals and personal interests. As such, the accounting information is intentionally distorted, conflicting with the law and accounting standards (Beneish, 1997).

The study conducted by Francis *et al.* (2008) found that firms suffering from low earnings quality, or high earnings management are more likely to hire reputable CEOs. In terms of reputation outcomes, previous literature documented mixed results. For instance, the reputation of senior managers negatively affects organizational outcomes (Malmendier and Tate, 2009; Hirshleifer, 1993; Hirshleifer and Thakor, 1992). Moreover, CEOs opportunistically make business decisions to enhance their reputation rather than to maximize shareholders' value. From a different point of view, the efficient contracting theory and the matching theory support the hypothesis that the reputation of senior managers positively affects the organizational outcomes (Baik *et al.* 2011; Jian and Lee, 2011; Francis *et al.* 2008; Wade *et al.* 2006; Milbourn, 2003).

The efficient contracting theory predicts that CEOs with high credibility lead to high quality organizational outcomes because they have more to lose (for instance future career or remuneration) when they engage in practices that are not beneficial for long term development of organizations (Francis *et al.* 2008; Jian and Lee, 2011). According to the matching theory (Francis *et al.* 2008), companies with high earnings management would hire reputable CEOs from outside because the firms need the expertise of the new CEOs.

Taken together, it has been previously documented in the literature that earnings management is affected by the profile of CEOs including working experience, reputation but also by its personality traits, among which Narcissism, Psychopathy and Machiavellianism, the so-called Dark Triad were extensively examined in this context.

According to Paulhus and Williams (2002), the so called Dark Triad construct comprises a set of three personality traits known as being socially aversive: subclinical narcissism, subclinical psychopathy and Machiavellianism. Based on the literature, the Dark triad personalities are considered socially aversive based on traits as: misbehavior, antisocial behavior, tendency to manipulation.

Machiavellianism, known in the literature as the manipulative personality, emerged from the work of Christie and Geis (1970), who documented that people with this personality were more likely to behave in a cold and manipulative fashion in both laboratory and real world studies. Currently, Machiavellianism is thought to be best represented by an individual who is manipulative, with a willing to use deception and manipulation if it will benefit him/herself (Jakobwitz and Egan, 2006). Machiavellians are also known as being abusive and manipulative within the workplace (Kessler *et al.* 2010; Kiazad *et al.* 2010) demonstrating a diminished organizational commitment and poor supervisory responsibility (Zettler *et al.* 2011). Studies in accounting as those conducted by Wakefield (2008) and Aziz and Vallejo (2007) documented that Machiavellianism is linked to work behavior. As Kish-Gephart *et al.*'s (2010) concluded, increases in Machiavellianism were associated with increases in unethical behavior.

Psychopathy personality comprises as central character elements including high impulsivity and thrill-seeking along with low empathy and anxiety. The gold standard in the measurement of psychopathy is the Psychopathy Check List, a four-factor solution developed by Hare (1991), which can predict anti-social behavior of individuals. Based on the empirical studies assessing this construct, psychopaths are a detriment to a company's productivity and are poor at cooperation with colleagues (Galperin *et al.* 2011). Similarly to Machiavellianism and narcissism, some individuals who are psychopathic can prosper in business and corporate settings, especially when their work requires consistent focus on achievement or willingness to take risks (Yang and Raine, 2008). However, in some cases, such traits's power-oriented can prosper in organizations, and ultimately seen as a good corporate example, especially when above qualities are displayed toward targets of the organization rather than the membership and leadership of the organization (Wilson, 2010).

The latter construct of subclinical or normal narcissism emerged from the work of Raskin and Hall (1979) and is considered a stable personality construct that consists of grandiosity, self-love, and inflated self-view (Campbell *et al.* 2011). Individual with narcissistic characteristics feel dominant, grandiose, and superior to others and are self-entitled (Menon and Sharland, 2011). According to the findings of empirical studies assessing this construct, narcissists in positions of power tend to engage in unethical behavior (Amernic and Craig, 2010; Williams *et al.* 2010). Also, empirical results documented that increases in narcissism can be linked to impression management (Vohs *et al.* 2005).

All the personalities above composing the Dark triad entail a socially malevolent character with behavior tendencies towards duplicity, self-promotion, aggressiveness and emotional coldness. The latter developments of non-clinical measures of all three constructs have permitted the empirical evaluation in normal populations. As a result, such constructs were extensively examined and valuable findings shaped our understanding regarding the facets of such personalities.

The next section comprises details of the construction of USCORE which captures the profile of CEOs.

3. Dimensions of the Composite Score Used to Signal the Unethical Behavior

Based on the theoretical background above, various characteristics of CEOs from reputation to psychological traits can impact the process of decision-making. Moreover, top executives have the potential to define and influence ethical or unethical conduct. As Amernic and Craig (2010) asserted, the results of accounting figures become a personal demonstration of the managers' success and an indicative of personal accomplishment.

Below, we summarize the details that construct our composite score which captures the profile of CEOs, aggregating thirteen factors along seven dimensions (reputation, financial expertise, internal power, age, gender, marital status, personalities from dark triad (Machiavellianism, psychopathy, narcissism)).

3.1. CEOs' Reputation

The first dimension of USCORE is reputation. The study conducted by Wade *et al.* (2006) documented that the reputation of CEOs can affect negatively the organizational outcomes in

long term. Similar results were obtained by Malmendier and Tate (2009). Given the negative long term consequences of earnings management, especially the operational opportunism (Cohen and Zarowin, 2010; Xu *et al.* 2007), we expect that reputable top managers are less likely to engage in unethical practices.

Our study established two proxies for the reputation of CEOs. Similar to Milbourn (2003), we consider that reputable CEOs should have generated high industry performance. In this respect, the first proposed proxy for CEOs reputation is the industry-adjusted returns on assets during the last three years of CEOs' tenure (pROA hereafter). Moreover, the industry-adjusted return on assets is the difference between a firm's return on assets and the corresponding industry's mean where return on assets equals to net income before extraordinary items divided by total assets.

According to Milbourn (2003), reputable CEOs should have longer tenure given that the board of directors acknowledge their performance. In this regard, the second proxy used for CEOs reputation is early years of service of CEOs in the firm (pEXPERIENCE hereafter). According to Ali and Zhang (2015) and Kuang *et al.* (2014), the magnitude of earnings management practices is high in the first three years of service of CEOs. According to the empirical findings, in the early years of service CEOs have high incentives to show their ability. Moreover, such incentives exist since the perception of the market about CEOs is uncertain in the early years.

3.2. CEOs' Financial Expertise

The second dimension of USSCORE is related to CEOs financial expertise. The empirical study conducted by Aier *et al.* (2005) documented that the financial expertise of chief financial officers negatively impacts earnings restatements. In terms of CEOs, the financial expertise has the potential to affect the financial policies of the firms (Custodio and Metzger, 2014) and it is reasonable to expect that it also affects accounting practices such as earnings management. The proxies proposed for financial expertise are the ones used by Aier *et al.* (2005) as following: (i) the role experience of CEOs (pROLE hereafter); (ii) working experience of CEOs as a chief financial officer (pCFO); (iii) advanced finance-related certification (e.g. master of business administration or chartered professional accountant qualification) (pCPA /MBA).

3.3. CEOs' Internal Power

The third dimension of USSCORE is internal power, related to the power of CEOs inside the firms. According to the studies conducted by Feng *et al.* (2011) and Farber (2005) when CEOs act as chairman, the likelihood of fraud increases, since powerful CEOs dominate both the board of directors as well as the chief financial officers. Also, in most companies, CEOs are considered powerful if they serve as the chairman of board of directors or founder of companies. The empirical study conducted by Dechow *et al.* (1996) documented that the board of directors of fraud firms are more likely to be dominated by management.

In this study, two proxies are used for internal power of CEOs as following: (i) when the CEOs serve as the chairman of the board of directors (pCHAIRMAN hereafter); (ii) when the CEOs serve as founder or co-founder of the company (pFOUNDER hereafter).

3.4. CEOs' Age

The fourth dimension of USSCORE is age of CEOs. Previous empirical research documented the effect of age of CEOs on manipulative behavior (Serfling, 2014; Huang *et al.* 2012). The findings of such studies documented that younger CEOs are more likely to engage in accrual-based earnings management and operational opportunism compared to older ones, except for the ones close to retirement age (Ali and Zhang, 2015; Kalyta, 2009). The proxy for age used by this study is pAGE.

3.5. Gender

The fifth dimension of USCORE is gender of CEOs. Based on previous research, gender has the potential to affect the unethical behavior of managers. For instance, empirical studies as those conducted by Francis *et al.* (2015); Liu *et al.* (2014) or Barua *et al.* (2010) documented that female managers are more conservative compared to male managers. In this respect, female directors are less likely to engage in manipulative practices. The proxy for gender proposed by this study is pGENDER. In sample where very few CEOs are female compared to significant much more male CEOs, such proxy can introduce bias, otherwise can bring significant contribution to existing research.

3.6. Marital Status

The sixth dimension of USCORE is marital status. According to the empirical study conducted by Hilary *et al.* (2017), companies having married CEOs exhibit less earnings management practices compared with the companies having single CEOs. The explanation consists in the fact that married CEOs are more risk averse, according to their preference to job securities or commitment to family and social relationships (Hilary *et al.* 2017). The proxy for marital status used by this study is pMARSTATUS. Usually, when such data is missing, the final sample can be significantly reduced, otherwise, similar like the gender proxy, assessing such proxy also can bring significant contribution to the existing research.

3.6. CEOs Psychological Traits (Dark Triad)

The latter dimension of USCORE is related to the psychological traits of CEOs (e.g. Dark triad). Our study established three proxies for the Dark triad. The first proxy for the Dark triad is pMACH.

Based on the findings of Christie and Geis (1970), *High-Machs* (i.e. individuals high in Machiavellianism) are characterized by lack of empathy, low effect, unconventional view of morality, willingness to manipulate, willingness to lie and exploit others. As a result, such individuals are focused exclusively on reaching their own goals not those of others.

The most used and known instrument for measuring Machiavellianism construct is the Mach-IV inventory developed by Christie and Geis (1970). This instrument consists of 20 5-point Likert items.

The second proxy for the Dark triad is pPSYCHOPATY. As Boddy (2006) asserted, high individual in psychopathy are considered to be responsible for much of the unethical behavior in the economic environment as: accounting fraud, stock manipulation, unemployment or environmental damage. In order to measure the subclinical psychopathy, the Self-Report Psychopathy Scale III developed by Hare (1985) can be used. The instrument consists in a 31 5-point item, and is useful in examining subclinical psychopathy.

The third proxy for the Dark triad is pNARCISS. The Narcissism was the most examined trait so far in the literature, being associated with corporate decision-making and occurrence of fraud (Rijsenbilt and Commandeur, 2013). Highly narcissistic CEOs have the potential to achieve greatness for their companies; however, if there is no control, it may result in unethical behavior and harm the interests of the organization. To measure narcissistic behavior, the Narcissistic Personality Inventory (developed by Raskin and Hall, 1979) can be used. Empirical results obtained by Paulhus and Williams (2002) documented that Dark triad personalities are distinctive enough to warrant separate measurement.

Based on the above theoretical background and on previous empirical results documenting the impact of such characteristics on CEOs behavior, the paper develops USCORE, which covers seven characteristics of top managers as presented below. USCORE is developed in the way that the value of this score is added one if previous research document that an individual factor could suggest the presence of unethical behavior. As a result, USCORE value theoretically ranges from zero to thirteen. The USCORE of a CEO who works for firm i in year t is computed as following:

$$USCORE_{i,t} = pROA_{i,t} + pEXPERIENCE_{i,t} + pROLE_{i,t} + pCFO_{i,t} + pCPA/MBA_{i,t} + pCHAIRMAN_{i,t} + pFOUNDER_{i,t} + pAGE_{i,t} + pGENDER_{i,t} + pMARSTATUS_{i,t} + pMACH_{i,t} + pPSYCHOPAT_{i,t} + pNARCISS_{i,t} \quad (1)$$

where:

pROA = is the first proxy for CEOs reputation and is: (i) the sum of industry-adjusted returns on assets in year t , $t-1$ and $t-2$ if a CEO is on the third year of tenure, or (ii) the sum of industry-adjusted returns on assets in year t and $t-1$ if a CEO is on the second year of tenure, or (iii) the industry-adjusted return on assets in year t if a CEO is on the first year of tenure. pROA equals to one if the average of industry-adjusted returns on assets (averageROA) during the last three years of CEO's tenure is negative, zero otherwise.

pEXPERIENCE = is the second proxy for CEOs reputation and refers to experience years of service of CEOs in the firm. pEXPERIENCE equals one if the CEO is within the first three years of service in the firm, zero otherwise.

pROLE = is the first proxy for financial expertise of CEOs as chief executive officer. The pROLE equals to one if the number of years a CEO worked as chief executive officer is less than the corresponding industry-year mean, zero otherwise.

pCFO = is the second proxy for financial expertise of CEOs as chief financial officer. The pCFO equals to one if the CEO does not have working experience as a chief financial officer, zero otherwise.

pCPA / MBA = is the third proxy for financial expertise of CEOs related to advanced finance-related certification, where pCPA / MBA equals to one if a CEO does not have a CPA or MBA equivalent, zero otherwise.

pCHAIRMAN = is the first proxy for internal power of CEOs. When pCHAIRMAN equals to one, the CEO serves as the chairman of the board of directors of firms, zero otherwise.

pFOUNDER = is the second proxy for internal power of CEOs. When CEOs serve as the founder or co-founder of the company, the pFOUNDER proxy equals to one, zero otherwise.

pAGE = is the proxy for age of CEOs. pAGE equals to one if either: (i) the age of a CEO equals to or less than the 25th percentile of industry-year or (ii) the age of CEOs is one year or less close to the retirement, zero otherwise.

pGENDER = is the proxy for gender of CEOs. pGENDER equals to one if the CEO is a male director, zero otherwise.

pMARSTATUS = is the proxy for marital status of CEOs. pMARSTATUS equals to one if the CEO is single, zero otherwise.

pMACH = is the first proxy for Dark triad, assessing Machiavellianism. pMACH equals to one if the CEO is a *high-Mach*, zero otherwise.

pPSYCHOPATY = is the second proxy for the Dark triad, assessing psychopathy. pPSYCHOPATY equals to one for the individuals high in psychopathy, zero otherwise.

pNARCISS = is the third proxy for the Dark triad, assessing narcissism. pNARCISS equals to one for individuals high in narcissism, zero otherwise.

Since USCORE is developed in the way that its value is added one if previous research documents that an individual factor could suggest the presence of earnings management, USCORE value theoretically ranges from zero to thirteen. As such, when the value of USCORE is high, a higher magnitude of earnings management or fraud is present.

4. Conclusion

Previous literature reviews documented that judgments and actions of individuals facing ethical problems can be affected by both individual and contextual considerations such as: psychological state, age, working conditions, observed behaviors of others (Trevino *et al.* 2006; O'Fallon and Butterfield, 2005; Collins, 2000).

As stated above, there is a large body of literature assessing the unethical behavior of top executives with multiple findings, among which the majority concentrate on ways to curb

practices as earnings management. In this regard, various models were developed over time, but not without limitations.

Our paper takes a different path and proposes to capture the profile of CEOs and examines theoretically how well could signal the propensity of earnings management or fraud. In this regard, our paper aims to address an important gap in the literature by constructing a composite score to signal the presence of unethical behavior of top managers. Two important types of data are required. First, data collected from the curriculum vitae of CEOs, second an assessment of the type of personality. Based on prior research, our proposed score aggregates thirteen aspects across seven dimensions of the profile of chief executive officers, including: reputation, financial expertise, internal power, age, gender, marital status, personalities from dark triad. More specifically, the aspects proposed were documented in the literature as impacting the ethical behavior of top executives, as following: industry-adjusted returns on assets; early years of service; experience of CEOs as chief executive officer; working experience of CEOs as chief financial officer; advanced finance –related certification of CEOs; chairman of the board of directors; founder or co-founder; age; gender; marital status; assessment of personalities from the dark triad (Machiavellianism, psychopathy, narcissism). Our findings are based on the literature and suggest that a general assessment of the profile of managers can be useful in signaling the presence of unethical behavior in business environment.

Based on the previous research conducted in the literature, if a individual factor was found to suggest the presence of unethical behavior, we add one to our composite score, zero otherwise. As a result, the score is an integer with a value theoretically ranging from zero to thirteen.

The main advantage of this study is to develop an aggregate score who has the potential to signal the propensity of both types of earnings management and fraud all together, compared to previous research that examined each type of unethical behavior separately.

Future studies can examine empirically within business settings if our composite score can signal efficiently as proxies for unethical behavior via earnings management or fraud. Also, further studies can assess how characteristics of the individuals, characteristics of the firms and those of the ethical issues interact when affecting the ethical behavior of top executives. It is of paramount importance for further research to understand how different characteristics of organizational features encourage or discourage individuals to behave unethically.

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