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A mixed-methods study of CEO Transformational Leadership and Firm Performance

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Abstract

This mixed-method study explores the relationship between CEO transformational leadership and firm performance relying exclusively on secondary data. We used a random sample comprising of 42 CEOs of publicly-listed US and European companies. We evaluated their transformational leadership drawing upon media sources which were content analyzed to create individual CEO profiles. These profiles were then given to a panel of three judges who rated the CEOs on their transformational leadership style. We obtained the firm performance data from Thomson Datastream. Our results showed significant associations between intellectual stimulation and inspirational motivation respectively, and different financial performance indicators. We also observed a tendency of positive relationships between individualized consideration and firm performance. These findings remained significant after controlling for company baseline performance, firm size, CEO tenure, and company location. Our findings largely support the positive role of CEO transformational leadership in shaping firm performance.

Keywords: CEO transformational leadership; firm performance; secondary data; mixed-methods

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1. Introduction

In today's fast-moving business environments, a better understanding of factors that influence firm performance is paramount. Given increased competition, technological improvements, and rapidly changing customer demands, CEOs are forced to apply effective practices to achieve and exceed organizational performance targets (Mammassis & Kostopoulos, 2019; Ou et al., 2014; Tang, 2017). However, the extent to which chief executives can affect their companies' performance is a controversial issue. Success stories, such as Howard Schultz transforming Starbucks into one of the world's most recognizable brands (Ignatius, 2010) and Angela Ahrendts doubling Burberry's revenues within 5 years (Ahrendts, 2013), suggest that CEO leadership may have a positive impact on company performance. However, some critics have highlighted the negative consequences of hiring superstar CEOs whose charisma have no effect on firm performance but may trigger higher total pay packages (Tosi, Misangyi, Fanelli, Waldman, & Yammarino, 2004) and induce blind obedience in their followers with potentially disastrous outcomes (such as the example of Jeff Skilling in the case of Enron's downfall) (Khurana, 2009).

Our study aims to shed more light on the controversial impact of CEOs on improving organizational performance by exploring the relationship between CEO transformational leadership style and firm financial performance. Although there is some empirical research on the effects of CEO transformational leadership on firm performance (e.g., Ling, Simsek, Lubatkin, & Veiga, 2008; Zhu, Chew, & Spangler, 2005), we aim to contribute further evidence to this link by relying exclusively on secondary data. This approach allows us to study the leadership style of the CEOs of some of the world's largest companies for whom primary data would be difficult if not impossible to collect (see Appendix A for our full

sample). Past research on CEOs has also successfully relied on secondary data to assess CEOs' narcissistic personality (Chatterjee & Hambrick, 2007) and CEOs Big 5 personality traits (Paterson, Smith, Martorana, & Owens, 2003). Additionally, this methodological approach responds to calls for more objectively assessed leadership indicators and less reliance on subordinates as the primary data source (Antonakis & House, 2014; Bass & Riggio, 2006; Hunter, Bedell-Avers, & Mumford, 2007).

2. Transformational Leadership

Transformational leadership theory has gone through multiple adjustments over 30 years of research and nowadays transformational leaders are usually defined as leaders who inspire and motivate followers to transcend their self-interests for collective purposes (Bass, 1999; Bass & Riggio, 2006; Banks, McCauley, Gardner, & Guler, 2016; Lord, Day, Zaccaro, Avolio, & Eagly, 2017). Despite some criticism concerning its operationalization (see Van Knippenberg & Sitkin, 2013), more recent evidence suggests that transformational leadership theory can be characterized in terms of four sub-dimensions to describe how transformational leaders can influence their followers (Deinert, Homan, Boer, Voelpel, & Gutermann, 2015). These dimensions are idealized influence (i.e., behaviors permitting leaders to serve as role models for their followers and to receive admiration, respect, and trust), inspirational motivation (i.e., leaders' ability to effectively communicate a compelling vision of attractive future states, to provide meaning and challenge to followers' work, and to arouse team spirit and optimism), intellectual stimulation (i.e., the degree to which leaders question assumptions in order to foster innovative and creative problem solving), and individualized consideration (i.e., leaders' efforts in noticing individual followers' needs for achievement and growth by acting as a coach or mentor).

Although some scholars have advocated the use of an overall operationalization of transformational leadership, based on high correlations between the four sub-dimensions (e.g., DeRue Nahrgang, Wellman, & Humphrey 2011; Tejeda, Scandura, & Pillai, 2011), Van Knippenberg and Sitkin (2013) have strongly argued against exploring transformational leadership as an overall construct. They argue that there is no theory-based configurational rationale for an additive approach (i.e., summing the scores on four sub-dimensions into an overall score) or an interactive approach (i.e., any of the four sub-dimensions becomes more effective the more the leaders exhibit behaviors pertinent to other sub-dimensions) being more appropriate than combining different sub-dimensions into an overall construct (Van Knippenberg & Sitkin, 2013). They also suggest that different sub-dimensions are likely to impact different outcomes under different boundary conditions and through different mediating mechanisms, and therefore research should examine them separately in order to empirically and conceptually account for any such differences. Based on these arguments, and recent evidence that supports a multidimensional nature of transformational leadership (e.g., Antonakis & House, 2014; Deinert et al., 2015; Parr, Hunter, & Ligon, 2013), we use the four sub-dimensions separately to explore the effects that CEOs might have on company performance.

2.1 Transformational Leadership and Performance

Transformational leadership theory has garnered substantial support over the years (Deinert et al., 2015; Judge & Piccolo, 2004; Parr et al., 2013; Wang, Oh, Courtright, & Colbert, 2011). Previous studies have confirmed the positive impact of transformational leadership on different outcomes, including job satisfaction (Braun, Peus, Weisweiler, & Frey, 2013), organizational commitment (Parr et al., 2013), creativity and innovation (Anderson, Potočnik,

& Zhou, 2014; Gumusluoglu & Ilsev, 2009; Khosravi, Newton, & Rezvani, in press), and employee well-being (Parr et al., 2013).

Considering the notion that transformational leadership potentially causes performance beyond expectations, a growing body of research has investigated the spectrum of possible performance effects of transformational leadership (DeRue et al., 2011; Lord et al., 2017; Wang et al., 2011; Waldman, Javidan, & Varella, 2004). Extant empirical work has grown to such an extent that various meta-analyses have been published on the connection between transformational leadership and performance (Lowe, Kroeck, & Sivasubramaniam, 1996; Judge & Piccolo, 2004; Wang et al., 2011). These meta-analyses have confirmed that transformational leadership positively influences different indicators of performance, ranging from subordinate perceptions of leader effectiveness, leader job performance, sales performance, to profit. However, at the organizational level, when firm performance was operationalized in terms of financial data, the relationships between transformational leadership and performance indicators were significantly smaller compared to relationships between transformational leadership and subjective performance measures.

The theory of transformational leadership and trickle-down models of leadership effects suggest different explanations as to how and why CEOs may influence their companies' performance (Bass, 1999; Tucker, Ogunfowora, & Ehr, 2016). Any CEO is likely to shape organizational success by exerting influence on their direct reports in top management teams (Wang et al., 2011). We could expect that executives with transformational leadership styles serve as role models for leaders at lower management levels, whereby their behaviors trickle-down and stimulate transformational leadership throughout the organization, thus leading to better firm performance (Waldman & Yammarino, 1999).

In relation to idealized influence (or charisma), executives are likely to shape their companies' performances by providing a collective sense of mission and communicating their most important values and beliefs (Bass, 1999). They are also likely to act as role models in their organizations and provide a better structure and guidance to others about what is expected from them which could translate into better company performance overall (Parr et al., 2013). Executives are also expected to influence company performance through inspirational motivation by providing their followers with meaning, challenging expectations, and exhibiting strong commitment to organizational goals (Bass, 1999). Thus, they manage to motivate their employees and align their efforts to realize their performance expectations, which in turn may positively impact performance at all organizational levels. Through intellectual stimulation, CEOs encourage their followers to challenge and question shared assumptions, pursue improvement, and promote problem-solving and discussion in order to achieve intellectual growth, creativity, and innovation which ultimately translates into improved company performance (Bass, 1999).

Finally, CEOs can shape their companies' performances through individualized consideration by paying attention to individual needs and encouraging individual growth and achievement. This may positively impact their followers' performance which in turn potentially contributes to overall firm performance (Bass, 1999).

Another theoretical approach that could help explain CEO leadership effects on firm performance is the upper echelons theory (Hambrick & Mason, 1984). This approach suggests that top managers greatly influence organizational outcomes and some research has suggested that it is their charismatic leadership style or idealized influence that is most likely to make a difference in firm outcomes, including performance results (Waldman et al., 2004). However, it is worth noting, that some studies failed to provide evidence for the relationship between CEO transformational leadership style and firm performance, particularly when

transformational leadership was operationalized in terms of idealized influence (Agle, Nagarian, Sonnenfeld, & Srinivasan, 2006; Tosi et al., 2004; Waldman, Ramirez, House & Puranam, 2001). Some critics of leadership research practices have also questioned the common use of subjective leadership assessments obtained from followers using questionnaires (Hunter et al., 2007). They have called for more objective methods in evaluating transformational leadership in order to validate the implications of the theory based on measures other than followers' perceptions of their leaders (Antonakis & House, 2014; Bass & Riggio, 2006; Hunter et al., 2007).

Following this suggestion, our study collected data on both CEOs' transformational leadership style and firm performance exclusively from secondary data sources to minimize common method biases (which arguably can inflate reported relationships between leadership and performance). Our main research question is:

Research Question: What is the relationship between CEO transformational leadership and company performance?

More specifically, based on the reviewed theory and existing evidence, we suggest that:

Hypothesis 1: CEO transformational leadership operationalized in terms of idealized influence is positively related with firm performance.

Hypothesis 2: CEO transformational leadership operationalized in terms of inspirational motivation is positively related with firm performance.

Hypothesis 3: CEO transformational leadership operationalized in terms of intellectual stimulation is positively related with firm performance.

Hypothesis 4: CEO transformational leadership operationalized in terms of individualized consideration is positively related with firm performance.

3. Methods

3.1 Sample and Procedure

Our sample focused on widely known, publicly-listed companies because (1) we expected higher media coverage of such firms and their CEOs, resulting in more publicly available data sources such as newspaper articles and other press releases on the CEOs' leadership and (2) firm performance was operationalized in financial terms for which we needed access to accounting information. Two stock market indices were considered to ensure the exclusive selection of companies trading on the stock market. The Standard & Poor's 100 (S&P 100) highlighted the largest and most established US companies (S&P Dow Jones Indices, 2014). In order to increase the generalizability of our findings, we also used the Financial Times Stock Exchange Eurotop 100 (FTSE Eurotop 100) for selecting European companies (FTSE, 2010). Asian companies were excluded since the collection of secondary data sources would be impeded by language obstacles.

We randomly selected 75 companies from a population of 200 of the largest, publicly-listed US and European firms. Low media coverage of some CEOs' leadership styles further reduced the sample to 50 companies. Based on Agle et al.'s (2006), all CEOs had to be in their roles for at least two years in order to realistically expect them to have influenced firm performance as CEOs. Applying this criterion, a further eight CEOs were eliminated from the sample. The final sample comprised of 42 companies which, based on Industry Classification Benchmark's (ICB) (FTSE Russell, 2014), belonged to 16 different industries. The three most dominant industries were banking (six companies), insurance, and personal or household goods (four companies each). US firms accounted for 47.6% of the sample. Appendix A provides a comprehensive list of all studied firms with the names of their CEOs whose transformational leadership style was assessed.

Regarding the demographic characteristics, an overwhelming majority of the CEOs were male (92.9%) with an age range of 41 to 83 years and an average age of 57.29 years ($SD = 7.81$). The CEOs' company tenures ranged from 3 to 52 years with an average company tenure of 20.93 years ($SD = 12.63$). Tenure in the CEO role ranged from 2 to 44 years (in the case of Warren Buffett at Berkshire Hathaway), with the average CEO tenure of 7.81 years ($SD = 7.82$). A total of 57% of the CEOs were European, with British CEOs representing the largest group, almost one third of the CEOs were American citizens, and around 10% had other nationalities (Canadian, Australian, and Indian) with 7% holding dual nationalities.

3.2 Measures

CEO's transformational leadership. CEO transformational leadership was assessed using information collected from newspapers and business magazines. In order to increase reliability only certain types of sources were considered. Data was obtained following a systematic procedure starting with an electronic search on CEOs' leadership styles on the EBSCO database and the online archives of the Financial Times, The Guardian, The Economist, Forbes Magazine, and Fortune Magazine. Keyword combinations of CEO names, the term 'leadership', and the company name were used to identify articles. These sources were chosen for the data collection on CEOs' leadership because they are known to publish pieces on famous business leaders and other key authorities (e.g., "Person in the News" corner in the Financial Times), thus serving as a valuable source of data concerning the CEOs' leadership styles. All chosen publications are internationally reputable and circulated in different regions which was important given our consideration of CEOs from different countries. They are also known to include business leaders in their readership and hence more likely to publish news on them. Depending on individual CEO's media coverage, information on their leadership styles was drawn from two to eleven sources, with an average of more

than four sources for each CEO. The Financial Times was the most cited source. CEO interviews or speeches, cover stories on CEOs or articles focusing particularly on the CEOs' personalities or leadership were the preferred sources.

The qualitative data gathered on CEOs' leadership had to be quantified for our data analysis. Directed content analysis (Hsieh & Shannon, 2005; Potter & Levine-Donnerstein, 1999) was used to profile CEOs' leadership styles based on the identified data sources. Existing sub-dimensions of transformational leadership, namely, idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration served as the four initial categories. Next, an operational definition was generated for each category (see Appendix B), drawing on sample leadership behaviors captured in the Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 1997) as well as theoretical descriptions offered in key transformational leadership texts (Avolio, Bass & Jung, 1999; Bass, 1999; Bass & Reggio, 2006). This stage also involved generating an extensive list of key words and phrases used to describe each dimension in existing transformational leadership literature (see Appendix C). These operational definitions and key words/phrases were then applied during the coding process to highlight specific text from all the media sources for each category.

A structured approach to content analysis, based on a predetermined set of categories and codes, was adopted because it is commended for its efficacy in extending existing theory (Hsieh & Shannon, 2005) and a well-defined coding scheme enables replication and minimizes biases during the coding process (Harris, 2001). We also checked for reproducibility reliability of the coding process by using an independent coder to assess whether the coded data had been assigned under the correct categories. The categories and sub-categories were generated using existing transformational leadership literature such as the MLQ, which has been subject to some criticism (e.g., Van Knippenberg & Sitkin, 2013).

However, overall it enjoys sufficient reliability and validity and continues to be used frequently in leadership research (Antonakis & House, 2014; Wang et al, 2011).

Once the CEOs' profiles were created, we asked a panel of three judges to assess the CEOs' leadership styles. According to Parry, Mumford, Bower, and Watts (2014), individuals with some expertise in leadership are suitable as judges for assessing a person's leadership. We asked three research staff with a background in I/O psychology and organizational behavior to act as judges in this study. They were asked to evaluate to what degree each CEO engaged in behaviors characteristic of transformational leadership using a 4-point scale ranging from 1 ("no degree") to 4 ("full degree"). To minimize rating biases we created detailed instructions for all judges. We also anonymized the CEO profiles to minimize potential familiarity bias and the risk of judges being influenced by their prior knowledge of the CEOs or company when providing their ratings. We checked whether there was enough interrater agreement among the three judges by calculating the interrater agreement ($r_{wg(j)}$) index (James, Demaree, & Wolf, 1984), average deviation index ($ADI_{(j)}$ - Burke, Finkelstein, & Dusig, 1999), and intraclass correlation coefficient ($ICC(1)$). The mean interrater agreement index $r_{wg(j)}$ across all leadership dimensions was .50 ($SD = .15$), ranging from .30 (idealized influence) to .65 (individualized consideration). These values show moderate levels of agreement (Biemann, Cole, & Voelpel, 2012). The mean values of the average deviation index $AD_{M(j)}$ across all leadership dimensions was .39 ($SD = .08$), ranging from .31 ($SD = .26$) to .49 ($SD = .28$), and the average $ICC(1)$ across all variables was .35 ($SD = .18$), ranging from .19 (idealized influence) to .60 (individualized consideration). These results show satisfactory levels of agreement between the judges (Dunlap, Burke, & Smith-Crowe, 2003). Based on these results, the three individual ratings of transformational leadership for each CEO were combined into one rating by calculating the average of the judges' evaluations.

Firm Performance. Firm performance was operationalized by means of accounting-based measures (Richard, Devinney, Yip, & Johnson, 2009). Given reliability concerns for financial figures, three ratios were used to verify the hypothesized relationship, ensuring that this relation was consistent across different measures of performance (Agle et al., 2006). Following previous studies, the ratios of net profit margin and return on assets were selected as indicators for firm performance (Agle et al., 2006; Reina, Zhang, & Peterson, 2014; Tosi et al., 2004; Waldman et al., 2001; Waldman et al., 2004). Operating profit margin was also used. The net profit margin is a widely used ratio to get insights into firm profitability and is derived by dividing a company's net income by sales. Return on assets is computed by dividing the net income by the company's total assets and indicates how efficiently a company uses its assets. The operating profit margin considers figures regarding the operating business of a company and is calculated by dividing the operating income by net sales (Weetman, 2006). According to Agle et al. (2006), there is no theoretical basis for the assumption that a CEO may have a higher impact on one accounting measure compared to another. Nevertheless, the operating profit margin with its exclusive focus on a company's operating business, disregarding effects of other income types, extraordinary gains or losses, taxation, and interest payments, was considered as a supplementary performance indicator. Market-based ratios, such as shareholder return ratios, were not considered as such figures are expected to be subject to a higher degree of extraneous noise (Agle et al., 2006).

Following Waldman et al. (2004), performance figures were averaged over a four-year time period from 2010-2013 to provide a reliable measure of performance and to guard against random fluctuations and anomalies in the data, facilitating higher comparability of firms. All figures were obtained from Thomson Datastream, which is an established professional service providing comprehensive, accurate, and timely data and standardized

ratios which are adjusted to eliminate differences in accounting practices allowing firms to be compared on performance figures (Thomson, 2007).

Control variables. The hypothesized relationships between CEO transformational leadership dimensions and firm performance were adjusted for a range of control variables. First, we introduced the baseline company financial performance, operationalized in terms of a four-year average performance before the CEOs took over the leadership of their companies. Since the CEOs in our sample took over this role at different points in time, the four years considered to calculate the baseline performance varied for each company. In most cases, the immediate four years were considered – for instance, if the CEO took over in 2009, the baseline performance consisted of an average performance across 2005, 2006, 2007, and 2008. For nine cases in which the CEOs took over either in 2011 or 2012 and two cases in which the CEOs had been in the role since 1979 and 1970, respectively, we considered the most recent four years prior to 2010. In this way, the baseline performance did not overlap with the predicted 2010-2013 company performance in any of the cases.

We also controlled for firm size, CEO tenure, and overall tenure in the company since these variables are likely to confound the effects of CEO leadership on performance (Agle et al., 2006; Ling et al., 2008; Tosi et al., 2004; Waldman et al., 2004). Firm size was measured in terms of log values of number of employees. The CEO tenure was computed as the number of years a CEO has held this position prior to 2014. The CEO company tenure was calculated as the number of years a CEO had worked for the company prior to 2014. We also controlled for the company location, operationalized as a dummy variable (1 - Europe; 0 - USA), because there were significant differences across all three performance indicators between US and European companies. All information on control variables came from secondary data sources.

4. Results

The descriptive statistics and correlations among the studied variables are presented in Table 1. Inspirational motivation and intellectual stimulation were positively correlated with all firm performance indicators. Individualized consideration positively correlated with return on assets. We also noted marginally significant correlations between individualized consideration and operating profit margin and net profit margin respectively. Idealized influence did not significantly correlate with any of the performance indicators.

Insert Table 1 about here

Next, we tested our hypotheses by means of hierarchical regression analyses. Due to the limited sample size, we ran equations for each transformational leadership dimension separately, in each case controlling for company baseline performance, firm size, CEO overall tenure in the company, CEO role tenure, and company location. All predictor variables were standardized. We present the summary of these results in Table 2. Although only the effects at $p < .05$ or lower were considered significant, we also made a note of the effects at $p < .10$ to show tendencies in the data.

Insert Table 2 about here

After adjusting the analyses for the control variables, our results showed a similar pattern as the correlation analysis. Whereas idealized influence had no relationship with any of the firm performance indicators, we observed significant positive relationships between inspirational motivation and net profit margin ($\beta = .37; p < .05$) and return on assets ($\beta = .24; p < .05$). Intellectual stimulation was positively related with operating profit margin ($\beta = .26; p < .05$) and net profit margin ($\beta = .34; p < .05$). We also found marginally significant relationships between individualized consideration and operating profit margin ($\beta = .21; p <$

.10) and return on assets ($\beta = .21; p < .10$). Inspirational motivation was also found to have a marginally significant relationship with operating profit margin ($\beta = .22; p < .10$). On the whole, these results partially support our hypotheses 2 and 3 in that CEO's transformational leadership style in terms of inspirational motivation and intellectual stimulation positively predicts most firm performance indicators even when adjusted for a range of control variables, including the company's baseline performance. Our hypotheses 1 and 4 were not supported.

4.1 Supplementary analyses

We have conducted additional analyses using a different panel of judges who were asked to code the transformational leadership styles of 42 CEOs using the non-anonymized profiles. For avoidance of doubt, these judges did not rate the anonymized CEO profiles in our main analyses. The second panel of judges was composed of two faculty members with a research background in I/O psychology and two graduate students undertaking their master's degrees with knowledge of leadership theories. The pattern of results was largely the same for idealized influence, inspirational motivation, and intellectual stimulation. In case of individualized consideration, the results using non-anonymized profiles showed a significant, positive effect of individualized consideration on ROA ($\beta = .23; p < .05$). Full details about these supplementary analyses are available in Appendix D.

5. Discussion

5.1 Theoretical contributions

Although a substantial body of evidence supports the idea that transformational leaders positively affect followers to achieve higher levels of performance, more recent research has shown mixed findings (Agle et al., 2006; Chun, Cho, & Sosik, 2016; Jung,

Chow, & Wu, 2003; Han, Liao, Taylor, & Kim, 2018; Ling et al., 2008; Ng, 2017; Nguyen, Mia, Winata, & Chong, 2017; Tosi et al., 2004; Waldman et al., 2001). Using an alternative method of assessing CEO transformational leadership style on a sample of both European and US companies, this paper aimed to revisit the relationship between CEO transformational leadership and firm performance relying exclusively on secondary data. Overall, our findings are aligned with meta-analyses in which positive relationships between transformational leadership style and firm performance were observed (Lowe et al., 1996; Judge & Piccolo, 2004; Wang et al., 2011). However, we note that not all transformational leadership dimensions significantly predicted firm performance, and in some cases only marginally significant relationships were observed. These findings support the extant literature's recommendation to study transformational leadership across four separate sub-dimensions rather than as an overall construct (Deinert et al., 2015; Van Knippenberg & Sitkin, 2013). We turn to these results in more detail next.

The strongest effects of transformational leadership on firm performance were observed in the case of intellectual stimulation and inspirational motivation. These findings suggest that encouraging followers' creativity and stimulating them to try out new problem-solving approaches drives firm performance the most. We could further argue that CEOs who clearly communicate the vision of their companies and show strong commitment to this vision and the achievement of corporate goals positively affect firm performance. In support of these arguments are examples of specific behaviors from our qualitative analysis in which we noted that CEOs who scored high on intellectual stimulation would *“move employees around the company to avoid thinking in functional silos”*, *“serve as a major creative force behind this company's most dynamic inventions”*, and *“want his employees to have their own opinions”*. Those scoring high on inspirational motivation would engage in behaviors such as *“setting the pace and motivating people to achieve apparently impossible tasks and*

unreachable targets”, “*setting goals that stretch people beyond their comfort zones*”, and “*urging managers from the top down to be role models*”.

Individualized consideration was also related to two performance indicators, although its relationship with them was only marginally significant. In our qualitative analysis, we observed that those CEOs scoring high on individualized consideration are known “*to have an intense focus on people*” and “*for managing by walking around*”. In one case, the CEO also “*moved his office down to the ground floor next to the staff canteen to be more accessible*”. These findings suggest that leaders appreciating followers as individuals with distinctive needs, goals, and aspirations might have a positive effect on firm performance.

However, our findings failed to confirm any effect of idealized influence on firm performance. Idealized influence, which concerns leaders’ personal qualities and followers’ attributional processes about their leaders, can be interpreted as a substitute of charisma (Bass & Riggio, 2006; Conger & Kanungo, 1998). In our qualitative analysis, we observed that those CEOs who scored high on idealized influence were characterized as “*not only credited and admired by her own employees but also outside the company*”, “*highly admired and respected by colleagues and friends for his rare mix of social prowess and sophisticated mathematical skills*”, “*a person who has an easy manner, who is direct and funny but also serious and full of charisma*”, and “*“a popular and motivational force in the company”*”.

Our findings are not entirely contradictory with past research which has also reported mixed findings on CEOs’ charisma and firm performances. Whereas some studies reported no evidence of charismatic CEOs leading firms to achieving higher levels of performance (Agle et al., 2006; Tosi et al., 2004; Waldman et al., 2001), others provide support for this relationship (Jung et al., 2003; Ling et al., 2008). We would like to argue that the lack of support for positive effect of idealized influence on firm performance is due to the levels of analysis. As noted by Wang et al. (2011), empirical research has mainly analyzed this

relationship at the individual level focusing on the leader- follower relationship and its impact on a follower's performance. Charisma or idealized influence refers to followers' perceptions of their leader. Therefore, a closer relationship between followers and their leader might amplify effects on followers' performance, leading to a stronger impact of charisma on performance at the individual level. The lack of significant effects of charisma on performance at the firm level can be further supported by our qualitative findings reported above. Although the most charismatic CEOs in our sample possessed desirable attributes, such as being admired, respected, and seen as funny, we suggest that these attributes are not enough for them to significantly shape their company performance.

Recent research on CEO charisma supports this line of reasoning, highlighting that firm performance is too distant an outcome for CEOs to have any direct impact on (Hambrick & Quigley, 2014; Wowak, Mannor, Arrfelt, & McNamara, 2016). On the one hand, these studies suggest that future research should focus on outcomes that are more proximal to the CEOs, such as strategic change or corporate social responsibility. On the other hand, research could specifically explore what mechanisms connect the CEO charisma or idealized influence to firm performance. For instance, at the firm level of large companies, as investigated in the present study, the impact of CEOs' charisma or idealized influence on firm performance might be mediated by different structure-related variables which could explain the lack of direct effects of CEO charisma on firm performance (Agle et al., 2006; Clark, Murphy, & Singer, 2014; Tosi et al., 2004; Waldman et al., 2001). A recent study has found that CEO charisma impacts firm performance through transformational leadership climate and organizational identity strength (Boehm, Dwertmann, Bruch, & Shamir, 2015). While we could not explore these mediating mechanisms in our current study, future research could explore this further.

Finally, although the effect sizes of observed relationships between transformational leadership dimensions and firm performance were not strong, it should be noted that similar effect sizes were observed in previous research that also operationalized firm performance in terms of objective data (Judge & Piccolo, 2004; Wang et al., 2011). For instance, Judge and Piccolo (2004) reported an estimated corrected correlation of $r = .55$ when the data for both the leadership and performance variables was obtained from the same source, whereas this correlation was of $r = .28$ when the data on studied variables was obtained from different sources. Therefore, the small effect sizes in this study are most likely due to minimizing the common source bias by drawing on data collected from independent sources to avoid inflated correlations. Smaller effect sizes can also be explained by the size of the companies sampled. In the current study, we only considered the largest US and European publicly listed companies. Although Ling et al. (2008) found that the CEO transformational leadership style had a strong impact on performance in small and medium-sized US companies, Agle et al. (2006) suggest that the role of CEOs in large companies differs from that in smaller companies. While CEOs of larger firms are often more involved with public relations activities and capital allocation, the CEOs of smaller firms are more involved in running the operational business. We suggest that these arguments may also explain smaller effect sizes observed in the current study.

Overall, our findings support the premises of transformational leadership theory. The evidence for different patterns of relationships between different transformational leadership sub-dimensions and firm performance indicators provides support for the conceptualization of transformational leadership as four distinct sub-dimensions rather than as an overall construct (Deinert et al., 2015; Van Knippenberg & Sitkin, 2013). Our findings also corroborate the upper echelons assumption that CEOs play a key role in affecting firm

performance as our findings were adjusted for performance before the CEOs took on their leadership role (Hambrick & Mason, 1984; Hambrick & Quigley, 2014).

5.2 Limitations and recommendations for future research

While our alternative approach to evaluating CEOs' leadership styles supports transformational leadership theory, it has certain limitations. First, although random sampling of the most widely known US and European publicly-listed companies was used, the sample itself only comprised of 42 companies. Also, our sample was limited to US and European companies. Therefore, we would recommend future research to increase the sample size by also covering publicly-listed companies from other regions of the world, such as Asia and Australia. A larger and more varied sample in terms of location would not only increase the statistical power in detecting significant results, but would also allow a more robust generalization to the overall population. Furthermore, with a larger sample size an estimation of the effects of each transformational leadership dimension on firm performance could be made while simultaneously controlling for the effects of the other three dimensions, which would provide a more robust test of such effects.

Second, although we used secondary data to code the CEOs' leadership styles and focused on newspapers and business magazines with reputable journalism practices and credentials, ultimately the press might be biased about CEOs' leadership styles based on companies' performance results. While transformational leadership might explain superior performance, it is also possible that exceptional performance causes positive attributions about the leader (see Shamir, 1992), and this reversed causality in the leadership-performance link has been discussed previously (e.g., Van Knippenberg & Sitkin, 2013). We tried to address this concern by using anonymized CEO profiles during the rating process and by controlling for pre-CEO company performance.

However, to resolve the question of causality in the relationship between CEO transformational leadership and firm performance, future research should concentrate on longitudinal and experimental research. For instance, Dvir, Eden, Avolio, and Shamir (2002), in their longitudinal, randomized field experiment found that leaders who received transformational leadership training led their teams to higher levels of performance. Although the replication of such an experiment may be difficult, if not virtually impossible, with respect to large publicly-listed companies, there might be an opportunity to study smaller companies in order to make inferences regarding causality in the relationship between CEO transformational leadership and firm performance. Future research could also replicate our study by coding CEOs' transformational leadership using secondary sources on a yearly basis and explore potential reciprocal relationships between transformational leadership styles and firm performance over time. Such studies would only be possible for those CEOs who receive extensive media coverage, which might potentially limit the generalizability of findings.

Third, the use of press material to create profiles for the CEOs' leadership coding also involved the selective use of information from newspapers and magazines. We tried to minimize attribution and selection biases by drawing on more than one data source per CEO and by adhering to predetermined coding categories as explained in the method.

Finally, critics of present leadership research have called for studies that explore how top-level executives impact organizational processes which determine companies' financial performances (Yukl, 2008). This suggests that, although the volume of empirical research on transformational leadership in general, and on its relationship with performance in particular, is huge, more research is needed to clarify the underlying mechanisms of this relationship at the company level.

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Table 1

Descriptive statistics and Pearson correlations between the studied variables

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13
1. OPM - baseline performance	13.18	8.72													
2. NPM - baseline performance	8.08	9.63	.67**												
3. ROA - baseline performance	6.48	6.06	.60**	.68**											
4. Firm size	11.61	.90	-.18	.04	.04										
5. CEO role tenure	7.81	7.83	-.02	-.08	-.15	-.09									
6. CEO tenure company	20.93	12.63	.17	.19	.29+	.14	.43**								
7. Company location	.52	.51	-.34*	-.29+	.40**	.02	-.20	-.38*							
8. Idealized Influence	3.02	.70	-.02	.08	.03	.33*	-.11	.15	-.05						
9. Inspirational motivation	3.25	.71	.25	.08	.43**	.08	-.38*	.01	-.22	.19					
10. Intellectual stimulation	3.28	.63	.18	.05	.28+	.06	-.31*	-.06	-.08	.09	.66**				
11. Individualized consideration	3.22	.89	.14	.04	.22	.11	-.38*	-.13	-.05	.29+	.50**	.40**			
12. OPM	14.88	7.78	.73**	.42**	.46**	-.26+	.00	.25	-.39*	-.07	.37*	.36*	.26+		
13. NPM	9.65	5.93	.62**	.31*	.39*	-.06	-.07	.33*	-.35*	-.10	.43**	.38*	.26+	.86**	
14. ROA	6.61	4.86	.45**	.27+	.74**	.08	-.10	.38*	-.47**	.03	.52**	.34*	.34*	.49**	.59**

Note. $N = 42$

+ $p < .10$; * $p < .05$; ** $p < .01$; Firm size is measured in terms of log values of number of employees; CEO role tenure and CEO company tenure are measured in years; Company geographical location is a dummy variable (1 – Europe); OPM (operating profit margin), NPM (net profit margin), and ROA (return on assets) are measured in terms of %.

Table 2

Summary of the regression analyses results

		OPM		NPM		ROA	
		β	ΔR^2	β	ΔR^2	β	ΔR^2
Step 1	Baseline company performance	.62**	.59**	.16	.27*	.59**	.62**
	Firm size	-.18		-.14		.02	
	CEO tenure	-.10		-.26		-.14	
	CEO tenure company	.16		.35*		.20	
	Company location	-.14		-.22		-.19	
Step 2	Idealized influence	-.04	.00	-.18	.03	-.06	.00
Step 2	Inspirational motivation	.22+	.04+	.37*	.10*	.24*	.04*
Step 2	Intellectual stimulation	.26*	.06*	.34*	.10*	.15	.02
Step 2	Individualized consideration	.21+	.04+	.25	.05	.21+	.04+

Note. $N = 42$.

+ $p < .10$; * $p < .05$; ** $p < .01$. Baseline company performance was entered in terms of operating profit margin, net profit margin, and return on assets depending on what outcome was predicted. Transformational leadership dimensions were entered in the second step in separate equations to increase the statistical power due to the limited sample size.). OPM = operating profit margin, NPM = net profit margin, and ROA = return on assets.

Appendix A

Sampled companies and their CEOs

Company	Continent	CEO
Pfizer	US	Ian Read
Enel	Europe	Fulvio Conti
IBM	US	Virginia Rometty
Nike	US	Mark Parker
Bank of America	US	Brian Moynihan
Volkswagen	Europe	Martin Winterkorn
Boeing	US	Jim McNerney Jr
Chevron	US	John S. Watson
Morgan Stanley	US	James Gorman
Standard Chartered	Europe	Peter Sands
Allianz	Europe	Michael Diekmann
3m	US	Inge Thulin
Imperial Tobacco	Europe	Alison Cooper
Zurich Insurance Group	Europe	Martin Senn
Tesco	Europe	Philip Clarke
Home Depot	US	Frank Blake
Vodafone Group	Europe	Vittorio Colao
Continental	Europe	Elmar Degenhart
Dow Chemical	US	Andrew Liveris
Nestle	Europe	Paul Bulcke
UBS	Europe	Sergio Ermotti
AXA	Europe	Henri de Castries
Google	US	Larry Page
Sanofi	Europe	Chris Viehbacher
Eni	Europe	Paolo Scaroni
Monsanto	US	Hugh Grant
Twenty-first century fox	US	Rupert Murdoch
Glaxosmithkline	US	Andrew Witty
Lloyds Banking Group	Europe	António Horta-Osório
Deutsche Post	Europe	Frank Appel
HSBC	Europe	Stuart Gulliver
Comcast	US	Brian Roberts
Berkshire Hathaway	US	Warren Buffett
Henkel	Europe	Kasper Rosted
Time Warner	US	Jeff Bewkes
Eon	Europe	Johannes Teysen
L' Oreal	Europe	Jean Paul Agon
McDonalds	US	Don Thompson
Statoil	Europe	Helge Lund
AT&T	US	Randall L. Stephenson
Barclays	Europe	Antony Jenkins
Pepsico	US	Indra Nooyi

Appendix B

Guideline for the CEOs profiling in terms of their leadership style

IDEALIZED INFLUENCE

Transformational leaders behave in ways that allow them to serve as role models for their followers. The leaders are admired, respected, and trusted. Followers identify with the leaders and want to emulate them. Leaders are endowed by their followers as having extraordinary capabilities, persistence, and determination. Idealized influence is distinguished in leaders' behavior and attributes that are made concerning leaders by followers. The following sample items represent idealized influence behavior.

- The leader emphasizes the importance of having a collective sense of mission.
- The leader talks about his / her most important values and believes.
- The leader acts in ways that build other's respect for him / her.
- The leader considers the moral and ethical consequences of decisions.
- The leader goes beyond self-interests for the good of the group.

INSPIRATIONAL MOTIVATION

Transformational leaders behave in ways that motivate and inspire those around them by providing meaning and challenge to their followers' work. Team spirit is aroused. Enthusiasm and optimism are displayed. Leaders get followers involved in envisioning attractive future states and create clearly communicated expectations that followers want to meet. They further demonstrate commitment to goals and the shared vision. The following sample items represent inspirational motivation behavior:

- The leader articulates a compelling vision of the future.
- The leader talks enthusiastically about what needs to be accomplished.
- The leader expresses confidence that goals will be achieved.

INTELLECTUAL STIMULATION

Transformational leaders stimulate their followers' efforts to be innovative and creative by questioning assumptions, reframing problems, and approaching old situations in new ways. There is no public criticism of individual members' mistakes. New ideas and creative problem solutions are solicited from followers, who are included in the process of addressing problems and finding solutions. Followers are encouraged to try new approaches and their ideas are not criticized because they differ from the leader's ideas. The following sample items represent intellectual stimulation behavior:

- The leader gets others to look at problems from many different angles.
- The leader seeks different perspectives when solving problems.
- The leader suggests new ways of looking how to complete assignments.

INDIVIDUALIZED CONSIDERATION

Transformational leaders pay special attention to individual follower's needs for achievement and growth by acting as coach or mentor. Followers and colleagues are developed to higher levels of potential. Individualized consideration is practiced when new learning opportunities are created along with a supportive climate. The leader recognizes and demonstrates acceptance of individual differences. A two-way exchange in communication is encouraged, and management by walking around workspaces is practiced. Interactions with employees are personalized as the leader remembers previous conversations and is aware of individual concerns. The individually considerate leader listens effectively. The leader delegates tasks as a means of developing followers. Delegated tasks are monitored to see if followers need additional support and to assess progress and ideally followers do not feel they are being checked on. The following sample items represent individualized consideration behaviors:

- The leader spends time teaching and coaching.
- The leader considers individuals as having different needs, abilities, and aspirations from others.

Note: Based on Avolio, B., & Bass, B. M. (1995). *Multifactor Leadership Questionnaire. Short Version: MLQ 5X*. Mind Garden and Bass, B. M., & Riggio, R. E. (2006). *Transformational Leadership. 2nd ed.* New Jersey: L. Erlbaum.

Appendix C

Key search words and phrases for transformational leadership dimensions

Idealized influence	Inspirational motivation	Intellectual stimulation	Individualized consideration
Seen as a role model (inspires emulation)	Paints: - a compelling vision - an attractive future	Question & challenge assumptions	Focuses on individual needs
Admired	Creates commitment to a shared vision	Innovative	Individually considerate
Respected	Offers a:	Creative & careful problem-solving	Gives personal attention
Trusted	- sense of mission	Looks at old problems in new ways	Focuses on individual growth & achievement
Charismatic	- sense of purpose	Reframing problems	Develops follower potential
Self-confident	Clearly communicates (high) expectations	Finding solutions	Coaches
Determined	Provides meaning & challenge	See difficulties as solvable problems	Advises
Persistent	Focuses efforts	Can halt crises by questioning assumptions	Empathetic
Elicits obedience	Encourages team spirit	Critical, independent thinking	Effective listener
Inspires: - confidence - loyalty	Emphasizes collective accomplishment	Sees leader's job as wider, more long-term oriented (allows diagnosing problems, exploring new opportunities & generating solutions)	Knows differences among employees
Public image as confident & successful	Underlines group goals	Promotes intelligence	Personal responsibility for caring
Excites	Generates optimism	Encourages improvement	Willing to delegate
Ethical & moral conduct	Expresses important purposes, in a simple/easily comprehensible way	Emphasizes rationality/rational solutions	Gives challenging assignments
Exerts power & influence (within & outside organization)	Energizing	Underlines continuous learning	Prefers face-to-face communication (personalized communication)
Willing to take calculated risks	Realignment to group values (over personal values)	Stimulates discussion/participation	
Identification with leader & his/her vision	Encourages extra effort on behalf of the organization	Emphasizes adapting/improving technologies	
		Selects intellectually stimulating employees for promotion	
		'Best' & 'brightest' hired/developed	
		No public criticism of individuals	

Note. The idealized influence (II) and inspirational motivation (IM) dimensions are sometimes offered as a single factor of charismatic-inspirational leadership in existing literature. Bass (1999) is particularly useful in delineating between the two – II includes leader behaviors as well as follower attributions (for example being *seen as* successful) whereas IM emphasizes a leader's ability to inspire and encourage effort on behalf of the organization.

Appendix D

Summary of the regression analyses results using non-anonymized profiles in coding CEO transformational leadership

		OPM		NPM		ROA	
		β	ΔR^2	β	ΔR^2	β	ΔR^2
Step 1	Baseline company performance	.62**	.59**	.16	.27*	.59**	.62**
	Firm size	-.18		-.14		.02	
	CEO tenure	-.10		-.26		-.14	
	CEO tenure company	.16		.35*		.20	
	Continent	-.14		-.22		-.19	
Step 2	Idealized influence	.15	.02	.13	.02	.12	.01
Step 2	Inspirational motivation	.30*	.09**	.34*	.11*	.26*	.06*
Step 2	Intellectual stimulation	.29*	.07*	.38*	.12*	.20+	.03+
Step 2	Individualized consideration	.21+	.04+	.22	.04	.23*	.05*

Note. $N = 42$. A different panel of judges was used to code the non-anonymized profiles of the CEOs in our sample (see Appendix A for their full names).

+ $p < .10$; * $p < .05$; ** $p < .01$. Baseline company performance was entered in terms of operating profit margin, net profit margin, and return on assets depending on what outcome was predicted. Transformational leadership dimensions were entered in the second step in separate equations to increase the statistical power due to the limited sample size. OPM = operating profit margin, NPM = net profit margin, and ROA = return on assets.