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Does corporate and country corruption risk affect CEO performance? A study of the best-performing CEOs worldwide

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ABSTRACT

By combining upper echelon theory with meso theory of management, this study investigates the relationship between both corporate and country corruption risk and the performance of CEOs, while controlling for a set of individual-level variables. We used a sample of 455 observations related to 249 listed companies from a list published by the Harvard Business Review of the world's best-performing CEOs, in both developed and emerging countries, over the 5-year period between 2013 and 2017. We implemented hierarchical linear models in a three-level approach based on country- (macro), firm- (meso), and individual-level (micro) variables. We found that corporate corruption risk negatively impacts CEO performance, although this relationship is also significantly moderated by the corruption risk at the country level. Our results support the view that corporate corruption prevention devices play a strong governance role in countries with high corruption risk. By exploring the interplay between these macro- and meso-factors in explaining the micro-level of CEO performance, our paper aims to build a contextualized meso-theory of corruption risk.

1. Introduction

Companies today must comply with a growing number of national and international anti-corruption regulations due to the emergence of unethical behaviour and scandals (Székely & Knirsch, 2005). Although fresh worldwide datasets have given new impetus to business management research on corporate corruption during the last few years (e.g. De Rosa, Gooroochurn, & Gorg, 2010; Transparency International, 2014), the effect of corruption on CEO performance is far from being comprehensive.

CEOs, and especially top-performing CEOs, are associated with business success, but also with the suspicion of unethical conduct, as it is common knowledge that business success does not always go hand-in-hand with integrity and ethical practices. One meaningful example of the impact of corruption risk on CEO performance is the recent scandal surrounding the CEO of the French investment group Bolloré. In 2018, Vincent Bolloré, one of France's richest men with a net worth of $6.6 billion and a business empire in 46 African countries, was placed under formal investigation for alleged influence peddling and misuse of corporate funds. This came after accusations that he used a subsidiary of his group, an advertising agency, to sway the elections of Alpha Condé in Guinea and Faure Gnassingbé in Togo in 2009 and 2010 respectively. In return the Bolloré Africa Logistics company obtained licences to operate container ports and other lucrative business contracts in Conakry and Lomé (Alderman, 2018).

Another recent corruption scandal involved Statoil (Våland & Heide, 2005), a Norwegian multinational energy company now called Equinor, which entered a consultancy agreement with Horton Investment Ltd. – an Iranian-based company owned by the son of former Iranian President Hashemi Rafsanjani – with the aim of obtaining lucrative oil contracts in Iran. The agreement, which involved the payment of $ 18 million over 10 years, was found to be in conflict with Statoil's own ethical rules and in violation of the Norwegian anti-corruption law. Additionally, by perpetrating this act of bribery, Statoil CEO Olav Fjell not only violated his company's ethical rules and his country's anti-corruption law; he also ignored the recommendations of the internal auditors and security department, which had warned him about the irregularities of the agreement. When the company was further investigated and found guilty of breaking Norway's law, Olav Fjell was forced to resign.

Despite the frequency of illegal conducts within companies, the real impact that corruption has on CEO performance is unclear and previous literature shows not univocal findings. While corruption may allow CEOs to overcome bureaucratic obstacles and achieve their objectives more quickly (De Jong, Tu, & van Ees, 2012; Friedrich, 1972; Huntington, 1968), it should also be considered that the risk of corruption could negatively affect CEOs performance by damaging their

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reputation (Hung, 2008; Li, Xu, & Zou, 2000; Lou, 2002; Mauro, 1995).

Based on these premises, as well as the significant impact of corruption on firm life, the aim of this paper is to investigate the extent to which the interaction between firm-level and country-level corruption risk impacts CEO performance. More specifically, by drawing on Upper Echelons Theory (UET), this paper analyses the relationship between corruption risk, at the corporate and country levels, and the performance of high ranking CEOs (Carpenter, Geletkanycz, & Sanders, 2004). This research question is worthy of investigation because both business professionals and the general public are interested in understanding the extent to which the performance of a given CEO is the result of good business practices or corruption. The focus on CEOs is also interesting because, given their position at the top of the corporate hierarchy, top-performing CEOs may be suspected of using their power to influence public decisions, bribe governmental officials, and take private benefits from corruption.

Our theoretical arguments draw also on the meso-theory of management (Bamberger, 2008), which provides the best research method for more than one reason. A meso-level approach involves at least two levels of analysis (micro and macro level) that are linked through bridging propositions that aggregate the effects of lower-level variables and relate them to higher-level variables (House, Rousseau, & Thomas-Hunt, 1995). In this paper, a multi-level approach is appropriate given that the effect of corruption risk on CEO performance cannot be measured accurately without taking into consideration macro-level factors, such as the risk of corruption in a given country, meso level factors, such as the risk of corruption in a given company, and micro-level variables, such as the personal characteristics and behaviours of CEOs. By adopting a three-level approach this study provides a comprehensive understanding of the relationship between the two risks of corruption and their impact on CEO performance.

A sample of top CEOs featured in the lists of the world's best-performing CEOs, which was published by the Harvard Business Review (HBR) between 2013 and 2017, was used to evaluate the impact of firm-level and country-level corruption risk on the performance of chief executives. The sample used included 455 observations of 249 listed companies in 17 developed countries and 11 emerging countries. Hierarchical linear models (HLM) were implemented in a three-level approach based on individual-level variables (CEOs' performance and their attributes as control variables), firm-level variables (corporate corruption risk as well as other firm control variables), and country-level variables (corruption risk, its interactions with corporate corruption risk, and other country control variables).

Our results show a negative relationship between corporate corruption risk and CEO performance, suggesting that the higher the risk of corporate corruption, the lower the performance of top CEOs. However, we also find evidence of a moderating effect by the country corruption risk. Specifically, in countries characterized by a high risk of corruption, corruption risk at firm level negatively impacts CEO performance, while in countries characterized by low corruption risk, corporate corruption risk positively impacts CEO performance.

This paper contributes to the existing literature in different ways. First, our theoretical framework proposes that firm-level mechanisms, such as corporate risk of corruption, do not function in isolation but are influenced by country-level and micro-level factors. By extending its analysis to the macro-, meso-, and micro-levels, this paper addresses a call for of a multi-level approach in research on corruption (De Jong et al., 2012) and provides deeper insights into the extent to which the risk of corporate and country corruption affects CEO performance (Cuervo-Cazurra, 2016). Second, our findings show that corruption risk negatively impacts CEO performance because the disadvantages, in terms of reputation, far outweigh the benefits. By casting light on the relationship between corruption risk and CEO performance, this paper can help shareholders make more informed corporate decisions. Finally, since none of the existing studies on corruption include top CEOs, our findings also make a novel contribution to the relevant literature in this field (Hall, Blass, Ferris, & Massengale, 2004; Malmendier & Tate, 2009) by suggesting that anticorruption policies should be promoted to improve CEOs' performance.

The reminder of the paper is structured as follows. Section 2 provides a context for the research question, presents prior research, and develops the study's hypotheses. Section 3 illustrates methodology in terms of data collection, sample building, and the econometric model adopted. Section 4 discusses results. Section 5 concludes the paper.

2. Literature review and hypotheses development

2.1. Corporate corruption risk and CEO performance

CEOs play an extremely important role in the life of a business, as they are responsible for making strategic decisions in order to acquire a greater share of the market and improving profits. UET (Hambrick & Mason, 1984) underlines their pivotal role in corporate behaviours, demonstrating that CEO characteristics significantly affect the strategic decision process (Papadakis & Barwise, 2002): "strategic choices made in firms are reflections of the values and cognitive bases of powerful actors" (Carpenter et al., 2004, p. 750). Furthermore, previous literature also shows that organizational culture and leadership are strictly related aspects of a firm's life because they have reciprocal impacts on each other (Giberson et al., 2009).

Because of their engagement with multiple stakeholders, CEOs of large companies are increasingly under the scrutiny of investors, competitors, the media and society, and are subject to either fierce criticism or high praise on the basis of their firms' stock-return performances (a.k.a. CEO effect) (Hayward, Rindova, & Pollock, 2004). For example, magazines like *Forbes and Business Week* annually publish rankings of best and worst CEO performances and best and worst performing chief executives based on profitability and changes in shareholder value (DeCarlo, 2005).

High-performing CEOs are usually associated with ethical behaviour and best practices. However, there are also many examples of successful CEOs who are involved in corruption and fraud. Alternatively, some top CEOs may work for companies that are at the centre of scandals and corruption. In such cases, corruption is not an individual phenomenon but rather the result of collective unethical behaviour on behalf and to the advantage of the organization (Pinto, Leana, & Pil, 2008; Kominis & Dudau, 2018). Sometimes, when the CEOs did not themselves introduce the practice, they came to power on the back of such practices, sometimes as a reward for excelling in them (Kominis & Dudau, 2018).

The appeal of corruption derives from its effectiveness in reducing transaction costs and expediting procedures. The payment of a bribe ensures that administrative procedures are fulfilled on time or skipped over entirely (Huntington, 1968; Lui, 1985). Therefore, illegal transactions are often considered effective tools to reduce costs (Cuervo-Cazurra, 2016). Through corruption, CEOs can bypass bureaucracy and regulations and obtain competitive advantages over competitors who might be less prone to or incapable of bribery. This type of corruption is particularly widespread among CEOs operating in businesses that are subject to the "decisions of government official [who] decide who is awarded the contract, [and] the final consumers are unable to compare the quality and in many cases the cost of the products, because there are not alternative providers given that the industries tend to also be subject to local monopolies" (Cuervo-Cazurra, 2016, p. 45).

While corruption may allow CEOs to overcome bureaucratic obstacles and achieve their objectives more quickly (Friedrich, 1972; Huntington, 1968; De Jong et al., 2012), corruption practices increase costs related to the payment of bribes and can also increase agency costs due to the corruption of middle-level managers, who, rather than acting in the interest of the company by following the CEO's directions, may use bribery to serve their personal interests. All

of these costs of corruption curb firm growth, reduce firm investments, and penalize CEO performance (Fisman & Svensson, 2007; Voyer & Beamish, 2004). It should also be considered that any positive relationship between bribery and performance will not necessarily exist *ad infinitum*. In fact, the risk of corruption can negatively affect CEOs' performance by damaging their reputation (Hung, 2008; Li et al., 2000; Lou, 2002; Mauro, 1995). From this second point of view, corruption is seen as sand in the grease of commerce because it increases the firm's costs through the paying of bribes – which are a sort of additional tax – and is time-consuming in that it forces managers to entertain relationships with corrupt government officials (Kaufmann, 1997; Wei, 2000). Corruption risk also increases uncertainty within a business organization, as it is impossible to predict the future costs of bribery and, consequently, it is more difficult to make investment plans (Rodriguez, Uhlenbruck, & Eden, 2005; Wei, 1997).

Previous literature identified two types of corruption at the organization level by looking at the two dimensions of beneficiary and collusion: an organization of corrupt individuals "in which a significant proportion of an organization's members act in a corrupt manner primarily for their personal benefit,", and a corrupt organization "in which a group collectively acts in a corrupt manner for the benefit of the organization" (Pinto et al., 2008, p. 688).

In the first scenario (an organization of corrupt individuals), personally corrupt behaviours that overtake a critical limit are observed, and individuals are the primary beneficiaries of this corruption at the cost of the organization (Banfield, 1975). In this case, top managers and strong CEOs are able to negotiate favourable contracts at the expense of the firm, or such contracts provide incentives for management to engage in excessive risk-taking thereby maximizing short-term return (Rose, 2016). Within the context of corruption, CEOs may benefit from bribery over the short term, and leave the potentially negative consequences of corruption in terms of risk and costs to the shareholders (Wu, 2005).

In the second scenario (a corrupt organization), "even if individuals can benefit financially from the corruption on behalf of the organization, the organization is still the primary and direct financial beneficiary" (Pinto et al., 2008, p. 686). Previous literature shows that it is plausible that this second scenario be more common among very large firms due to the growth imperatives that characterized them (Pinto et al., 2008, p. 703). In this case, the main beneficiary of the corruption is the company and not the CEO, who, on the contrary, has incentives to reduce risk of corruption to increase his performance. This is because reputation is an invaluable personal and professional asset that top managers are expected to build and preserve through best practices. Forms of corruption such as manipulation, fraud, or bribery are therefore considered serious breaches of trust. Thus, if an organization is labelled corrupt, stakeholders will also blame its CEO and lose trust in them (Brühl, Basel, & Kury, 2018). Indeed, corruption prevention is tightly linked to the CSR concept, and a socially responsible relationship with the community starts with active stakeholder engagement and corruption prevention. CSR represents a commitment to social good that creates a positive image for CEOs and restricts CEO greed (Fombrun, 1996). By promoting CSR engagement, CEOs can mitigate the likelihood of negative regulatory, legislative, or fiscal actions (Freeman, 1984; Hillman & Keim, 2001) and reduce the risk of corruption (Krishnamurti, Shams, & Velayutham, 2018).

Considering these premises, we can hypothesize that among top CEOs, who are characterized by high visibility, the risk of corruption decreases CEO performance. Following this rationale, we formulate our first hypothesis as follows:

H1 Among worldwide best-performing CEOs, a higher corporate corruption risk negatively affects CEO performance.

2.2. The moderating effect of the country corruption risk

Previous literature highlights the relevant role that contingencies have in explaining CEO behaviours and performance (Carpenter et al., 2004; Geletkanycz, 1997; Wiersema & Bird, 1993), since choices made inside of the company reflect pressure emanating from the environment (Pfeffer & Salancik, 1978). These contingencies are constituted not only by the organizational context (i.e. the risk of corruption at the corporate level) but also by the formal and informal institutional context (i.e. the risk of corruption at the country level). As Carpenter, Geletkanycz & Sanders state "there appears to be general consensus that environmental characteristics, particularly those that represent uncertainty for the firm and its managers, will have implications for the Upper Echelons model" (Carpenter et al., 2004, p. 765).

When corruption is investigated at a country level, neither developed nor developing economies should be considered as a whole. Indeed, firm-level corruption is more likely to exist in emerging markets where the environment is conducive to breeding corrupt and unethical practices (Krishnamurti et al., 2018). This is because weak corporate governance facilitates "corrupt officials in looting the already impoverished states during the process of privatization" (Wu, 2005, p. 152). When corruption is so widespread and engrained into everyday life, it cannot be easily abandoned: illicit payments, corruption, and gift-giving in the pursuit of self-interest are "normalised" (Zyglidopoulos & Fleming, 2008) and emerge as common practices in business transactions (Azmat, 2010).

Corruption can also be a barrier to institutional change in countries where its existence is tolerated by public institutions. Dishonest individuals will most likely support an institutional status quo that benefits them (García-Cabrera, Durá). For example, it has been noted that developing countries with poor regulative frameworks and corruption show a high interest in multinational companies' investments to help boost their economies (García-Cabrera & Durá). At the same time, uncertainty surrounding corrupt transactions increases the perceived operating cost of multinational companies, and deters them from investing in countries with higher levels of government corruption (Gammeltoft, Filatotchev, & Hobdari, 2012). Previous studies found that countries with higher levels of corruption tend to have less volatile stock markets (Lau, Demir, & Bilgin, 2013) and show more difficulties in attracting foreign income (Marchini, Mazza, & Medioli, 2020). Moreover, environments characterized by a high level of corruption have an adverse effect on firm efficiency (Hanousek, Shamshur, & Tresl, 2019).

Considering these premises, we can hypothesize that the relationship between corporate corruption risk and CEO performance is influenced by the environmental contingency represented by the risk of corruption at the country level. In this context, the existence of a high risk of corruption at the corporate level can reduce CEO performance, confirming the negative impact that the risk of corruption has on it. Meanwhile, the adoption of anti-corruption practices at firm level (which reduces corporate corruption risk) distinguishes the company from others in the same institutional context, qualifies it as a best-practice, gives it a strong and positive image and increases CEO performance. In these countries, due to the fact that corruption is a such a widespread phenomenon, the potential risk deriving from the decision to not invest in anti-corruption practices is higher than in countries characterized by a lower risk of corruption, making this investment useful for increasing CEO performance. Instead, in countries characterized by a low corruption risk, stakeholders suppose that the institutional context already discourages corrupt behaviors (along with the related negative effects on CEO performance), and the investments on anti-corruption practices are seen as unproductive costs instead of fruitful investments.

Considering these premises, we can hypothesize that in countries characterized by a high risk of corruption, the corruption risk at firm level negatively impacts CEO performance, while in countries charac-

terized by a low risk of corruption, the corruption risk at firm level positively impacts CEO performance.

Therefore, following this rationale, we formulate our second hypothesis as follows:

H2 Among worldwide best-performing CEOs, country corruption risk negatively moderates the relationship between corporate corruption risk and the CEO's performance.

3. Method

3.1. Data collection and variable description

3.1.1. Dependent variable: data on best-performing CEOs

We use "*The Best-Performing CEO in the World*" reports provided by the HBR to collect data on top-100 best-performing CEOs over the 5-year period between 2013 and 2017. This is a recent and so far scantly used dataset (Basole & Putrevu, 2014; García-Cabrera et al., 2019; Jones, 2013). Since 2010, HBR provides a ranking of best-performing business leaders in the world, based on the long-term increase in total shareholder return and market capitalization, looking at active CEOs for at least two years. As described in the 2017 ranking, top 100 world's best-performing CEOs is a list generated by the identification of all CEOs listed at the end of 2016 in the S&P Global 1200, an index that reflects 70% of the world's stock market capitalization and includes firms in North America, Europe, Asia, Latin America, and Australia. CEOs who had been convicted of a crime or arrested were excluded. The final list included 898 CEOs from 887 companies (several companies had co-CEOs) and 31 countries. By extracting financial data from *Datastream* and *Worldscope*, daily company returns for the entire length of each CEO's tenure were based on three metrics: i) *country-adjusted company returns* (average return for firms from the same country over the same period less a company's total shareholder return for the CEO's tenure. This measure thus excludes any increase in stock return that is merely attributable to an improvement in the general stock market of a country); ii) *industry-adjusted company returns* (calculated as above but with reference to industry return, so excluding any increases that were the result of rising fortunes for the overall industry); iii) *market capitalization change* (change in the company's equity market capitalization over the CEO's tenure, adjusted for inflation in each country and translated into US $). Then, all CEOs were ranked for each metric—from 1 (best) to 898 (worst) and it was calculated the average of the three rankings for every CEO to create the final overall financial ranking. As argued by Hansen, Ibarra, and Peyer (2013), using three metrics is a balanced and robust approach since while the first two metrics risk being skewed towards smaller companies (it's easier to get large returns if you start from a small base), the third is skewed toward larger companies, so that this list reduces sample biases related to company size. Since rankings republished in the HBR's January–February 2010 were based on a different methodology, we do not consider companies included in that list.

Interestingly for the aim of our study, CEOs are evaluated not only for their financial performance but also under the ESG framework. To measure performance on nonfinancial issues, HBR consulted with *Sustainalytics*, a leading provider of environmental, social, and governance (ESG) research and analytics that works primarily with financial institutions and asset managers, and with *CSRHub*, which collects, aggregates, and normalizes ESG data from nine research firms and works mainly with companies that want to improve their own ESG performance. An ESG rank using *Sustainalytics* ratings and another using *CSRHub* ratings were then calculated for every firm in data set. To calculate the final ranking, the overall financial ranking (weighted at 80%) and the two ESG rankings (weighted at 10% each) were combined, omitting CEOs who left office before June 30, 2017.

Thus, this measure attempts to identify 'which global CEOs actually delivered solid results over the long run' (Ignatius, 2014, p. 47). Thus, this variable is a good and appropriate measure for CEO performance, 'particularly suitable for the investigation of the relationship between CEO characteristics and performance' (Garcia-Blandon, Argilés-Bosch, & Ravenda, 2019, p. 1065).

This is a performance measure based on a ranking, similar to those adopted by prior research in football studies (e.g. Dobson & Goddard, 1998, who use annual performance measured by final league position). By focusing on top-performing CEOs, we avoid a self-selection bias that may affect many previous studies based on the reports of Transparency International (e.g. Healy & Serafeim, 2015; Krishnamurti et al., 2018; Wu, 2005). As said, these reports indeed consider world's largest publicly listed developed country multinational companies operating globally. As it is not based on CEOs' reputation or anecdote, HBR's ranking is more reliable and objective than other sources such as organizations and magazines conferring, for instance, the Forbes' "The World's Most Reputable CEOs". In addition, differently from the latter sources that are limited to CEO in the US, our dataset is worldwide and not subject to any constraint in terms of industry focus or age of the CEO.

Therefore, our dependent variable is *BESTCEO*, ranking from 1 to 100, which we reverse to make the interpretation of our results easier (i.e. after reversing, highest performances correspond to lowest ranks). However, since CEOs that are in more than one report across the five-year period can be considered 'superstar CEOs', we identify these CEOs with the variable *CEO_STAR*, which we use as an alternative dependent variable.

3.1.2. Independent variables: data on corporate and country corruption risk

Following prior recent research (e.g. Gupta, 2017; Ullah, Ahmad, Akbar, & Kodwani, 2019), we use the *Asset4* (Thomson Reuters) dataset that primarily covers firm-level information related to ESG indicators. Based on this dataset, we use one main proxy to measure corporate corruption risk (*FIRM_CORR*), that is the sum of six data points provided by *Asset4* related to the following questions: "1) Does the company have a policy to avoid bribery and corruption at all its operations? 2) Has there been a public commitment from a senior management or board member to avoid bribery and corruption in all its operations? 3) Does the company describe in the code of conduct that it strives to avoid bribery and corruption at all its operations? 4) Does the company train its employees on the prevention of corruption and bribery? 5) Does the company have appropriate internal communication tools (whistle blower, ombudsman, suggestion box, hotline, newsletter, website, etc.) to avoid bribery and corruption at all its operations? 6) Does the company describe, claim to have or mention processes in place to avoid bribery and corruption practices at all its operations?"

One point is assigned for each negative answer, so that the lower is the final score and the lower is the corporate corruption risk. We believe this measure of corruption risk well reflects a firm's disclosure of anti-corruption systems in place and top management's commitment to eliminate corrupt practices. Our proxy is the extent to which operational risk with respect to corrupt practices in the firm is controlled, although the possibility of a firm falsely disclosing good practices while following bad ones cannot be entirely ruled out. However, to this regard it should be noted that *Asset4* does not solely rely on the feedback of the company, but also on multiple sources, such as stock exchanges filings, annual reports, company websites and various other media outlets in order to verify the accuracy and quality of the information.

At a country level, firms in our sample operate in different countries and face different policy environments and economic settings. Since corruption is defined and perceived differently in different cultures (Michailova & Worm, 2003) and the threshold for breaking anti-corruption legislation differs across nations (Fernando & Sim, 2011), we need to consider an indicator of institutional corruption and weak legal systems. Different indices may be adopted to this aim. For example, Casino-Martínez, López-Gracia, Mestre-Barberá, and Peiró-Giménez (2019) use the index of economic freedom estimated by *The*

Heritage Foundation in collaboration with *The Wall Street Journal*. In this paper, following De Beule and Duanmu (2012), we use the World Governance Indicator related to control of corruption (*COUNTRY_CORR*) provided by the World Bank. Since the firm-level corruption is expressed in negative terms (i.e. as a risk) and country-level corruption is expressed in positive terms (i.e. as control of corruption), to make consistent these two different levels of corruption, we calculated the reverse value of country-level corruption. So doing, it represents the risk of corruption at a country level.

Existing studies show that higher corruption within a country is associated with worse corporate governance (Donadelli, Fasan, & Magnanelli, 2014). Therefore, we explore the existence of either substituting or complementing effects of corporate governance by introducing an interaction term (*COUNTRY_CORR*FIRM_CORR*) between country- and firm-level corruption risk and how this term impacts on best-performing CEOs.

3.1.3. Control variables: data on CEO-, firm-, and country-level control variables

We include CEO- and firm-level control variables. Following prior research on CEO variables (e.g., Orens & Reheul, 2013), we first consider if the CEOs are either insider or outsider to the country in which the company operates (*CEO_INSIDER*). Indeed, perceptions of social responsibility of immigrant entrepreneurs coming from less-developed countries are influenced by their home country contextual factors such as culture, institutional environment, and level of socio-economic development (Azmat, 2010). For example, CEOs from countries which are tolerant of bribery may be more likely to be involved in irresponsible business practices via irregular payments and ignore legal requirements in the host country.

Secondly, it has been suggested that CEO objectives and interests change over time, from CEO leadership development during the early stages of CEO time in office towards monitoring during the latest stages (Zona, 2014). Furthermore, as CEOs become older, both their career and financial security needs take on new meaning and it takes time for a CEO to gain the respect and confidence within an organization (McKnight & Tomkins, 2004). For these reasons, we also include *CEO_TENURE* as a control variable.[1] We include *CEO_DUAL* to take into consideration whether the CEO is also chair of the board of directors. For example, Tang (2017) finds that the effect of CEO duality on firm performance is negative, when the CEO has dominant power relative to other executives and when the board has a block-holding outside director.

Finally, we consider CEOs education — i.e. whether they have an MBA (*CEO_MBA*) and/or an engineering degree (*CEO_ENGINEER*) — which is reflected in the characteristics of the organizations, through a wide array of cognitive, psychological and social characteristics (Orens & Reheul, 2013). Indeed, CEO education is associated with a higher capacity for information processing, a higher level of open-mindedness, higher tolerance for ambiguity, higher integrative complexity, less risk aversion and better information about the external environment (Barker & Mueller, 2002; Hambrick & Mason, 1984; Wiersema & Bantel, 1992). Particularly, top managers with an educational background in engineering often involve themselves more deeply in operational issues of their company, show a more complete understanding of technology and innovation, high levels of research and development spending, and tend to stay closer to their core business (Tyler & Steensma, 1998), and this leads to stronger overall performance (Garcia-Blandon et al., 2019). Similarly, Bertrand and Schoar (2003) conclude that CEOs with MBA degrees obtain return on assets higher than non-MBA graduates. Controlling for CEOs with engineering backgrounds is also useful because the educational background of CEOs is not homogeneous across sectors (i.e., CEOs with engineering backgrounds are more usual in the industry sector than in financial services companies, whereas the opposite situation holds for CEOs with MBA). Data on CEO-level were extracted from the HBR, which provides information on many CEO attributes. However, when this information was not available for each of the five HBR reports, we hand-collected missing information on these CEOs' attributes. We also included a variable proxing for specific skills, as provided by *Asset4* (*SPECIFIC_SKILLS*), since it may contribute to explain CEOs' success. Indeed, expert CEOs show richer knowledge that is helpful in managerial decision-making (e.g., von den Driesch, Da Costa, Flatten, & Brettel, 2015). Moreover, a CEO with superior operating ability will implement operating decisions (such as revenue-increasing and cost-cutting strategies, capital and labour investment, etc.) more effectively (Choi, Han, Jung, & Kang, 2015).

As to firm-level control variables, we first included size and age of the company proxied by, respectively, the natural logarithm of market capitalization (*SIZE*) and the number of years since its foundation (*FIRM_AGE*). We also proxy for potential CEO-shareholder conflict by including the ownership concentration (*OWNER_SHARE*) as the percentage of the single biggest owner (by voting power), and the net operating free-cash flows on assets ratio (*FCF_RATIO*). Particularly, since free cash flows are due to management's operating efficiency, there may exist a negative relationship between free cash flows and agency costs and as a result a higher CEO performance.

Since firms with better corporate governance have higher performance, we also included traditional corporate governance mechanisms such as the number of directors seating on the board (*BOARD_SIZE*) and the percentage of independent directors (*BOARD_INDEP*). Boards are expected to evaluate CEO performance and take action when needed to protect shareholder interests (Golden & Zajac, 2001). However, paying attention only to quantitative measures of CEO performance may not be sufficient and especially board members should detect the CEO leadership style in order to look out for potentially disruptive behaviour (De Vries, 1992). The mixed results of previous research studies (e.g., Dalton, Daily, Johnson, & Ellstrand, 1999; Yermack, 1996) dissuaded us from establishing a one-sided direction to examine the relation between board size and CEO performance. We also account for the presence of female board members (*BOARD_DIVERS*). We finally included a one-year lagged CSR performance measure as proxied by the 'Social' pillar of the ESG construct from *Asset4* (*CSR*), as well as a one-year lagged firm performance measure as proxied by its ROA (*ROA*).

At a country level, we included a dummy variable to account for civil law versus common law countries (*CIVIL_LAW*). Finally, we consider both industry and year fixed-effects. Especially, industry effects (based on *Industry Classification Benchmark Level 2* industry classification) are relevant, given the presence of relatively high agency costs in corruption-sensitive industries (Donadelli et al., 2014). In our econometric model (as shown in paragraph 3.4.), we include the variables defined in Table 1.

3.2. Sample building

Top-100 best-performing CEOs are not obviously the same across the five years (2013–2017) considered, and this allows us to extend our sample of listed companies. Specifically, our final sample is based on 249 listed companies, equals to 455 observations from 28 different emerging and developed countries, indicating a rich representation of geographical, cultural, legal, and institutional diversity. However, a number of countries such as Austria, Chile, Finland, Italy, Papua Nuova Guinea, Russian Federation, South Korea, and Taiwan has only one or two observations in our sample. Therefore, although we use best-performing CEOs scores from the HBR between 2013 and 2017 to form our sample, we do not have a time-series for all companies, but an un-

[1] We do not consider CEO age because this was found to be highly correlated to CEO tenure in our empirical tests. Moreover, CEO tenure and CEO age are often considered as synonymous, and some overlap between each other does exist within the UET.

Table 1
Variables description.

Variable	Description
Panel A: Main variables of interest	
BESTCEO	Our dependent variable (individual-level). This is the reverse value of the score ranking from 1 to 100, as provided by the *HBR*.
CEO_STAR	An alternative dependent variable assuming a value of 0 if the CEO is present only once in the top-100 ranking across 2013–2017, 1 if he/she is present twice, and 2 if the CEO is present three or more times.
FIRM_CORR	Our proxy of corporate corruption risk (firm-level). This is the sum of six data points related to bribery and corruption, as provided by *Asset4*.
COUNTRY_CORR	Our proxy of country corruption risk (country-level). This is the reverse value of a *World Governance Indicator*, reflecting perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests, as provided by the *World Bank*.
Panel B: CEO-level control variables (main source: *HBR*)	
CEO_INSIDER	Dummy variable assuming a value of 1 whether the CEO is insider to the firm's country, 0 otherwise.
CEO_TENURE	Natural logarithm of the difference between the year of the observation and the year the person became CEO.
CEO_DUAL	Dummy variable assuming a value of 1 whether the CEO is also the chair of the board of directors, 0 otherwise.
CEO_MBA	Dummy variable assuming a value of 1 whether the CEO has an MBA, 0 otherwise.
CEO_ENGINEER	Dummy variable assuming a value of 1 whether the CEO has an engineering degree, 0 otherwise.
SPECIFIC_SKILLS	Continuous variable ranging from 0 to 100, as provided by *Asset4*.
Panel C: Firm- and country-level control variables (main source: *Asset4 - Thomson Reuters*)	
SIZE	Natural logarithm of the firm market capitalization.
FIRM_AGE	Natural logarithm of the company age at the year of the observation since its foundation.
OWNER_SHARE	Ownership concentration proxied by the single biggest owner.
FCF_RATIO	Net operating free-cash flows on assets ratio.
BOARD_SIZE	Number of directors sitting on the board.
BOARD_ INDEP	Percentage of independent directors sitting on the board.
BOARD_DIVERS	Percentage of women sitting on the board.
CSR	One-year lagged CSR performance proxied by the 'Social' pillar of the ESG construct.
ROA	One-year lagged firm performance proxied by the return on assets.
CIVIL_LAW	Dummy variable assuming a value of 1 whether the company is located in a civil-law country, 0 otherwise.

balanced panel sample. In particular, 55% of companies has only one year of observation (i.e. the best-performing CEO appears only once across five years), 25% has two years of observations, 14% has three years of observations, 4% has four years of observations, and only 2% is covered from 2013 to 2017 reports. As said above, best-performing CEOs that are in more than one HBR report/year (45%) are used as an alternative dependent variable (*CEO_STAR*) to *BESTCEO*.

We also noted that in our sample best-performing CEOs are all male, with very few exceptions. Therefore, while we cannot measure if CEO gender impacts on its performance, this evidence is relevant, given that firms with male CEO are found to have higher propensity to bribe than their female counterparts (Tuliao & Chen, 2017).

3.3. Descriptive statistics

Table 2 shows sample distribution and Anova results of main variables of interest by country (Panel A) and by industry (Panel B). Our sample includes 397 (87%) observations from the following 17 developed countries – Australia, Austria, Belgium, Finland, Canada, Denmark, France, Germany, Italy, Japan, Netherlands, Norway, Spain, Sweden, Switzerland, UK, and the US – and 58 (13%) observations from the following 11 emerging market countries – Argentina, Brazil, China, Chile, Hong Kong, India, Mexico, Papua New Guinea, Russian Federation, South Korea, and Taiwan. The largest number of firms analysed in our paper is located in the US (44%), the UK (8%), and France (8%).

On average, best of best-performing CEOs belong to South Korea, Denmark, and Spain (only in Table 2 *BESTCEO* is not reversed). Highest scores of corporate corruption risk are related to companies operating in Hong Kong, Japan, and Switzerland; finally, lowest levels of country corruption risk are present in Denmark, Norway, and Finland. All variables of interest show statistically significant differences among countries at level of 1%. As to the industry, *Consumer services*, *Consumer goods*, and *Financials* are the sectors more represented in our sample. Both corporate and country corruption risk show statistically significant differences across industries, whereas best-performing CEOs do not.

Table 3 shows descriptive statistics for all variables, which are winsorized at the 1st and 99th percentiles. The mean value of *FIRM_CORR* is 1.82 out of 6, which means that the corruption risk is about 30% on average. Our main variable of interest *BESTCEO* is significantly correlated to both corporate- (negatively) and country-level (positively) of corruption risk: while the higher is the corporate corruption risk, the lower is the CEOs performance, this latter is greater in countries where the corruption risk is higher. As to other control variables, a few CEOs are of nationalities that differ from their companies (i.e. they are not insiders). Over a quarter of the CEOs have MBAs, and nearly as many had studied engineering.

3.4. Econometric model adopted

In order to test our hypotheses, we adopt the following main econometric model:

$$BESTCEO_{it} = \beta_0 + \beta_1 FIRM\_CORR_{it} + \beta_2 COUNTRY\_CORR_{it} + \beta_3 COUNTRY\_CORR * FIRM\_CORR_{it} + \beta CEO/Firm/CountryControls_{it} + Industry\ fixed\text{-}effects + Year\ fixed\text{-}effects + \varepsilon_{it}$$

In this model, the macro level is the institutional environment including the corruption risk (*COUNTRY_CORR*); the meso level focuses on listed firm corruption risk (*FIRM_CORR*) and its interaction with the macro level; and the micro level relates to the CEO performance (*BESTCEO*).

Analyses involving multi-level variables should be completed using techniques that account for their non-independence such as HLM (Mathieu & Taylor, 2007). HLM is the best method for examining multilevel effects (Misangyi, Elms, Greckhamer, & Lepine, 2006) because it permits complex error structures and can thus model dependence between levels of analysis; it has high statistical power, and addresses the problem of collinearity between corporations and industries. Meso-models also have the capacity to test cross-level moderation where an upper-level variable acts to moderate the relationship between lower-level variables. In this sense, we transcend the limitation of previous studies (e.g. Orlitzky, Louche, Gond, & Chapple, 2017) as to categorical effects and investigate the impact of continuous variables (i.e. both corporate and country corruption risk) on CEO performance.

HLM is a random-intercept model, which can accurately assess nested data by allowing group intercepts to vary, while the regression coefficients remain fixed across groups. We started by running an 'empty' model. This allows us to determine what portion of the variance in *BESTCEO* is due to level 2 differences (e.g. country, industry, year) as compared to level 1 differences. After running the null model, we decided to pursue a multilevel model with both country and year

Table 2
Sample distribution and Anova of main variables.

Panel A – By country

Country	Obs.	%	BEST CEO	FIRM CORR	COUNTRY CORR	Country	Obs.	%	BEST CEO	FIRM CORR	COUNTRY CORR
Argentina	5	1.1	39.4	1	.42	*Japan*	19	4.2	52.79	3.6	−1.57
Australia	6	1.3	83.5	1.5	−1.82	*Mexico*	9	2.0	44.89	2.4	.72
Austria	1	0.2	99	1	−1.52	*Netherlands*	3	0.7	46.33	1.3	−1.96
Belgium	10	2.2	36.5	2.2	−1.56	*Norway*	3	0.7	46	1	−2.25
Brazil	12	2.6	38.83	1.5	.18	*Papua N.G.*	1	0.2	99	1	.92
Canada	22	4.8	68.23	1.64	−1.89	*Russia*	2	0.4	32	2	1.01
Chile	1	0.2	97	2	−1.04	*South Korea*	2	0.4	4.5	1	1.28
China	5	1.1	68.4	5	.34	*Spain*	12	2.6	25.75	1.3	-.57
Denmark	10	2.2	21.2	1	−2.24	*Sweden*	9	2.0	38.56	1.2	−2.11
Finland	2	0.4	62	2	−2.19	*Switzerland*	3	0.7	66.33	2.7	−2.12
France	36	7.9	43.5	2	−1.31	*Taiwan*	2	0.4	36.5	1	-.82
Germany	21	4.6	52.29	1.4	−1.83	*UK*	37	8.1	55.95	1.6	−1.81
Hong K.	12	2.6	71.58	4.5	−1.62	*US*	199	43.7	49.69	1.6	−1.36
India	8	1.8	44.88	2.4	.52	**Total**	**455**	**100**	**49.78**	**1.8**	**−1.31**
Italy	3	0.7	40.33	1	-.09	**F**			**2.91*****	**6.95*****	**1616.92*****

Panel B – By industry

Industry	Obs.	%	BESTCEO	FIRM_CORR	COUNTRY_CORR
Basic materials	38	8.4	55.87	1.53	-.73
Consumer goods	76	16.7	46.63	1.79	−1.27
Conumer services	89	19.6	51.12	2.33	−1.38
Financials	66	14.5	55	1.64	−1.49
Health care	45	9.9	45.67	1.47	−1.61
Industrials	58	12.7	47.19	1.55	−1.29
Oil & Gas	17	3.7	46.82	1.65	−1.16
Technology	35	7.7	38.2	1.86	−1.37
Telecommunication	17	3.7	60.35	2.29	−1.24
Utilities	14	3.1	60.86	2.07	−1.01
Total	**455**	**100**	**49.78**	**1.82**	**−1.31**
F			**1.86***	**2.75*****	**5.65*****

*, **, *** statistically significant with $p \leq .1, .05, 0.01$ respectively.

grouping. There are two statistics that largely determine if one should pursue a multilevel model. The first one is the likelihood ratio (LR) test, measuring the significance. Since the p-value is statistically significant ($chi^2 = 15.68$, $p < .000$), we can reject the null hypothesis and conclude that there are group-level effects in our data. The second statistic is the intra-class correlation (ICC) or rho value, measuring the effect size. There is no objective cut-off for a good ICC. A flexible rule is that an ICC of .10 or higher strongly suggests that the effects of nesting cannot be dismissed. Since our value for country is 0.17, we conclude the effect-size of group-level variance (country) on our dependent variable (*BESTCEO*) is relevant enough. The LR test was not significant for industry grouping, and the ICC showed the industry variance was very low. However, when we combine country and industry groupings, the ICC increases to 0.26. Therefore, we conclude that our data is nested and that HLM is an appropriate approach.

4. Results and discussion

4.1. Main results

Table 4 shows results for the multivariate analysis. Looking at our first hypothesis, we estimated the impact of our corporate corruption risk proxy (*FIRM_CORR*) on best-performing CEOs ranking (*BESTCEO*). Our results show a negative relationship between best-performing CEOs and *FIRM_CORR* (β: 3.721, $p < .05$), suggesting that the lower is the corporate corruption risk, the higher is the rank of CEO performance. Thus, results of our regression model 1 confirm our first hypothesis: corporate corruption risk has a negative impact on best-performing CEOs. These latter are likely to adopt corporate corruption prevention programmes in order to increase or maintain the high-status they reached. We also note that *COUNTRY_CORR* is not significant, so that top-100 best-performing CEOs are seemingly not affected by the corruption risk existing in the country in which they operate.

Model 2 tests our second hypothesis about a moderation effect of country corruption risk. The interaction term is statistically significant and negative, so confirming the existence of a buffering effect, that is the negative impact of corporate corruption risk on best-performing CEOs is not simply weaker when we include the interaction term, but it also changes its direction. In other words, in countries where the corruption is lower, the higher is the corporate corruption risk, the higher is the CEO performance, as shown in Fig. 1.

Particularly, when firm-level corruption risk raises, CEOs rank increases from 63rd to 58th (i.e., five positions are gained on average). On the contrary, in high corruption countries CEOs rank decreases from 60th to 65th. Interestingly, the best and the worst CEO are both related to a higher corporate corruption risk but they vary according to the country corruption risk. While the worst CEO rank (65th) comes from the combination of high country corruption risk with high corporate corruption risk, the best CEO rank (58th) is related to a scenario of low country corruption risk with high corporate corruption risk. Differently said, best-performing CEOs (i.e. 58th and 60th ranks) are those able to moderate corporate corruption risk according to the corruption risk of the country in which their company operates.

Table 3
Descriptive statistics and Pearson's correlations.

Variables	Mean	Std. Dev.	1	2	3	4	5	6	7	8
1. BESTCEO	51.22	28.88								
2. FIRM_CORR	1.82	1.35	-.20*							
3. CEO_INSIDER	.83	.38	-.11*	.11*						
4. CEO_TENURE	14.34	8.81	.05	.20*	.18*					
5. CEO_DUAL	.57	.50	.09	.05	.14*	.08				
6. CEO_MBA	.27	.45	-.01	-.13*	-.08	-.08	.08			
7. CEO_ENGINEER	.29	.45	.13*	.03	-.10*	-.09	.05	.01		
8. SPECIFIC SKILLS	50.14	21.36	-.14*	.05	.11*	.07	.12*	-.08	-.14*	
9. SIZE (,000)	48,11	56,10	.14*	-.01	.05	-.04	.06	.02	.10*	.05
10. FIRM_AGE	60.78	47.29	-.15*	-.03	.02	-.16*	-.05	.00	-.02	-.08
11. OWNER_SHARE	20.68	18,17	.01	.24	-.03	-.09	-.11*	-.14*	.13*	-.03
12. FCF_RATIO	.13	.10	.16*	-.05	.02	-.07	-.07	-.07	.00	.13*
13. BOARD_SIZE	11.73	3.02	.19*	-.25*	-.04	-.05	-.08	-.01	.08	-.26*
14. BOARD_INDEP	63.45	27.08	-.02	-.15*	.01	.02	.34*	.18*	-.10*	.08
15. BOARD_DIVERS	20	12.96	.08	-.19*	-.12*	-.11*	.04	-.08	-.08	-.18*
16. CSR	63.57	20.60	.23*	-.40*	-.11*	-.09	-.08	-.05	.02	-.26*
17. ROA	9.24	7.25	.13*	.07	.03	-.12*	-.06	.02	-.06	.11*
18. CIVIL_LAW	.39	.49	.15*	.08	-.10*	-.05	-.18*	-.24*	.20*	-.31*
19. COUNTRY_CORR	−1.31	.68	.11*	.07	.09*	.00	.22*	-.04	.14*	.01
Variables	9	10	11	12	13	14	15	16	17	18
10. FIRM_AGE	-.12*									
11. OWNER_SHARE	-.00	-.02								
12. FCF_RATIO	.22*	-.06	-.00							
13. BOARD_SIZE	.03	.15*	.05	-.19*						
14. BOARD_INDEP	.09*	-.04	-.55*	.08	-.23*					
15. BOARD_DIVERS	.09*	.10*	-.29*	.06	.21*	.26*				
16. CSR	.16*	.16*	-.02	.09	.31*	-.00	.39*			
17. ROA	.17*	.03	.04	.72*	-.13*	.02	-.00	.05		
18. CIVIL_LAW	-.09*	-.04	.39*	-.06	.18*	-.62*	.02	.17*	-.08	
19. COUNTRY_CORR	.02	-.18*	.40*	-.10*	.05	-.15*	-.34*	-.07	-.06	.21*

*denotes statistically significant with $p \leq .05$.

Therefore, we find evidence supporting our second hypothesis. If we exclude the idea that in countries with lesser corruption distresses CEOs improve their performance by paying briberies, the significant and negative interaction term (i.e. an increase in CEO performance) may be explained as the result of lower costs related to the corruption risk prevention programmes in countries where the corruption is lower. In other words, a substitutive effect does exist between corporate corruption risk and country corruption risk: in countries where the corruption risk is low, best-performing CEOs invest less in anti-corruption devices, so tolerating a higher corporate corruption risk, whereas corporate corruption prevention plays a strong governance role in countries with high corruption risk, thus contributing to CEO performance.

However, in order to really rule out that CEOs perform better as a consequence not only of higher corruption prevention, but also as a result of a lower corruption control (i.e. high CEOs performance stems from bribery activity), model 3 introduces a quadratic effect of corporate corruption risk (*FIRM_CORR*^{2}). A positive and significant sign of this term would design a non-linear U-shaped relationship between corporate corruption risk and best-performing CEOs, that is the latter may stem from investing not only highest, but also lowest expenditures in corruption control. In other words, CEOs may obtain great economic results also because of corrupt behaviour, as long as they can hide their conduct.

Our model shows an insignificant quadratic effect, so confirming that best-performing CEOs are *only* those who highly invest in corruption control in countries where the corruption risk is significant. This is a relevant result, indirectly confirming our first hypothesis.

As to CEO-level control variables, both CEO tenure and duality are positively correlated to CEO performance, whereas among CEO education variables only *SPECIFIC SKILLS* is negatively related. Particularly, given that the coefficient of CEO tenure is significant, in model 4 we additionally examine the role of this variable by including a quadratic effect. Indeed, since CEOs performance is strictly related to the stability within the company, we aim to check if shorter and longer tenures may better explain CEOs performance. The variable *CEO_TENURE*^{2} is significant and negative (an inverted U-shaped describes this non-linear relationship), thus best-performing CEOs are those with an intermediate tenure, whereas longer- or shorter-term CEOs tenure produce lower performance rankings.

Another issue strictly related to the CEO tenure and its performance is the persistence of CEOs in the best-performance ranking. Therefore, in models 5 and 6, we replace the dependent variable *BESTCEO* with *CEO_STAR*, assuming a value of 0 if the CEO is present solely once in the top-100 best-performing CEO across the five-year period (55%), 1 if the CEO occupies top-100 ranking for two years (25%), and a value of 2 if the CEO was present across three or more years (20%). Both models still show a significant and negative relationship of corporate corruption risk with *CEO_STAR*, so that CEOs of companies that pay less attention to corruption prevention programmes are not likely to get the status of 'CEO star'. However, now the coefficient of the moderation term is positive, so that in countries where the corruption risk is higher, an increase in corporate corruption risk increases the likelihood to become a CEO star.

Finally, as to country- and firm-level control variables, firm size, board size, ROA, and the dummy variable *CIVIL_LAW* all positively impact on CEO performance.

Table 4
HLM results of best-performing CEOs on country and corporate corruption.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Main variables of interest	**BESTCEO**			**CEO_STAR**		
FIRM_CORR	**−3.721****	**−3.750*****	**−5.496****	**-.081*****	**-.080*****	**-.153*****
	(-2.48)	(-2.69)	(-2.05)	(-2.88)	(-3.03)	(-5.71)
FIRM_CORR ^{2}			.543			.025**
			(.73)			(1.98)
COUNTRY_CORR	2.937	3.677	2.815	.006	-.021	-.036
	(1.12)	(1.4)	(1.08)	(.14)	(-.36)	(-.63)
COUNTRY_CORR*FIRM_CORR		**−2.786****	**−2.716****		**.054****	**.055*****
		(-2.36)	(-2.35)		(2.55)	(2.99)
CEO-level control variables						
CEO_INSIDER	−7.807	−7.803	−8.952*	-.058	-.058	-.083
	(-1.52)	(-1.48)	(-1.70)	(-.70)	(-.61)	(-.94)
CEO_TENURE	.462**	.445**	1.099***	.003	.003	.020***
	(2.32)	(2.24)	(3.99)	(.76)	(1.32)	(5.94)
CEO_TENURE ^{2}			-.035***			-.001***
			(-3.48)			(-7.64)
CEO_DUAL	4.730**	4.435*	3.546	.160**	.166**	.138**
	(2.04)	(1.88)	(1.37)	(2.39)	(2.42)	(2.02)
CEO_MBA	−1.743	−1.383	−2.253	-.088	-.095	-.114*
	(-1.08)	(-.86)	(-1.37)	(-1.14)	(-1.33)	(-1.71)
CEO_ENGINEER	4.764	4.823	4.173	-.006	-.007	-.02
	(1.23)	(1.32)	(1.12)	(-.08)	(-.16)	(-.47)
SPECIFIC SKILLS	-.092	-.089	-.107	-.001	-.001	-.002
	(-1.10)	(-1.08)	(-1.25)	(-.82)	(-1.22)	(-1.64)
Firm-level control variables						
SIZE	5.526***	5.503***	5.260***	.045	.045	.037
	(4.27)	(4.39)	(3.95)	(1.15)	(1.41)	(1.06)
FIRM_AGE	−3.059	−2.864	−3.686*	.024	.02	.001
	(-1.09)	(-1.00)	(-1.80)	(.64)	(.60)	(.05)
OWNER_SHARE	.003	.001	.05	.003	.003	.005**
	(.03)	(.01)	(.5)	(1.55)	(1.58)	(2.31)
FCF_RATIO	15.476	11.441	11.683	1.177**	1.256***	1.360***
	(.77)	(.57)	(.60)	(2.32)	(4.04)	(2.93)
BOARD_SIZE	1.153**	1.309**	1.673***	-.003	-.006	.005
	(2.09)	(2.3)	(3.24)	(-.26)	(-.48)	(.44)
BOARD_ INDEP	.002	.011	.024	-.001	-.001	-.001
	(.02)	(.12)	(.29)	(-.73)	(-.97)	(-.68)
BOARD_DIVERS	.017	.026	-.002	.001	.001	-.000
	(.18)	(.28)	(-.02)	(.21)	(.09)	(-.01)
CSR	.108*	.089*	.082	-.003*	-.003*	-.003**
	(1.95)	(1.66)	(1.57)	(-1.76)	(-1.79)	(-2.40)
ROA	.598***	.646***	.791***	.007	.006**	.009**
	(2.82)	(2.97)	(3.95)	(1.15)	(2.28)	(2.14)
Country-level control variable						
CIVIL_LAW	1.820***	11.236***	1.136***	.009	.001	-.032
	(3.68)	(3.66)	(3.31)	(.10)	(.01)	(-.57)
Industry fixed-effects						
Consumer Goods	1.412	1.50	1.916	-.313**	-.314**	-.314***
	(.20)	(.22)	(.33)	(-2.13)	(-2.26)	(-2.61)
Consumer Services	7.944	7.693	8.199	-.107	-.102	-.096
	(1.11)	(1.12)	(1.29)	(-.75)	(-.70)	(-.75)
Financials	7.601	7.383	7.284	-.079	-.075	-.081
	(1.12)	(1.12)	(1.16)	(-.54)	(-.60)	(-.78)
Health Care	9.929	1.651*	1.123*	-.310*	-.324*	-.342**
	(1.54)	(1.70)	(1.71)	(-1.78)	(-1.93)	(-2.34)
Industrials	8.117	8.095	11.755**	-.305**	-.305**	-.213*
	(1.43)	(1.51)	(2.21)	(-2.14)	(-1.99)	(-1.65)
Oil & Gas	12.253	11.438	12.048	-.396***	-.381**	-.371***
	(1.45)	(1.35)	(1.44)	(-2.74)	(-2.40)	(-2.58)
Technology	14.494*	14.982**	14.210**	-.484**	-.494**	-.524***
	(1.9)	(2.02)	(2.19)	(-2.50)	(-2.31)	(-2.71)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Main variables of interest	**BESTCEO**			**CEO_STAR**		
Telecommunications	−4.592	−4.632	−3.033	-.308	-.307	-.264
	(-.52)	(-.53)	(-.37)	(-1.36)	(-1.54)	(-1.61)
Utilities	−9.957	−1.972	−11.42	-.174	-.154	-.157
	(-1.01)	(-1.12)	(-1.20)	(-.94)	(-1.01)	(-1.07)
Constant	−56.573**	−56.306**	−58.037***	-.459	-.464	-.478
	(-2.43)	(-2.43)	(-2.61)	(-.62)	(-.61)	(-.62)
Model Summary						
Mean (max) VIF: 2.34 (4.77)						
Wald-Chi ^{2} *(sig.)*	145.57***	150.54***	175.07***	512.62***	358.95***	403.61***
Log *pseudo-likelihood*	−1920.34	−1918.50	−1909.70	−363.71	−362.43	−350.80

*, **, *** statistically significant with p ≤ .1, .05, 0.01 respectively. Z-statistics between brackets. Year fixed effects included. "Basic material" is the dummy industry reference category.

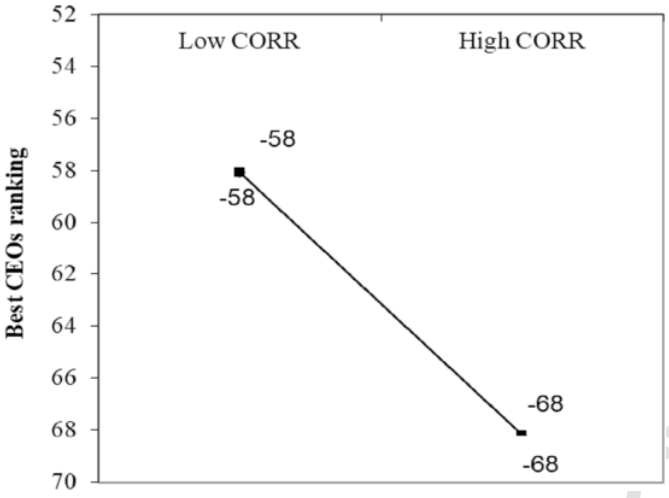

Fig. 1. The moderating effect of country corruption risk on the relationship between corporate corruption risk and best-performing CEOs.

4.2. Robustness tests: sample selection, sample attrition, and endogeneity concerns

To maximize sample size, we use an unbalanced panel in which some country/sector observations are under-represented. Although we control for both industry and year fixed-effects (country fixed-effects could not be included together with *COUNTRY_CORR*), the use of quasi-panel data may still run the risk that results are driven by the inclusion of a specific country or industry in the sample that drives the results in a given direction.

In order to address potential concerns related to the use of quasi-panel data and to control for over representation in our sample of some countries (US, UK, and France) and sectors (consumer services, consumer goods, and financials) as Table 2 shows, we re-estimate our main regression models removing each of the above unbalanced countries and industries at a time from the sample. The results (not tabulated for the sake of brevity) show a remarkable stability of the estimated coefficients to changes in the sample along the country or the sector dimension. Therefore, we conclude that our unbalanced panel sample does not affect our main findings.

We also checked for sample selection bias. The top-100 best performing CEOs ranking is based on three metrics (country-adjusted company return, industry-adjusted company return, and market capitalization change), and represents a balanced and robust approach since "while the first two metrics risk being skewed toward smaller companies […] the third is skewed toward larger companies" (Hansen et al., 2013, p. 92). Although this approach would reduce sample biases related to company size, we recognize that best CEOs may not represent a randomly selected sample. Therefore, we adopt the Heckman (1979) two-stage regression procedure to control for potential self-selection bias in sampling process. In the first stage, we estimate a probit model in which the dependent variable is a dummy variable with a value of one for top-50 best-performing and zero for bottom-50 CEOs, and the independent variables are CEOs' characteristics, other than industry and year fixed-effects. In the second stage, we estimate a HLM with all variables and we include the Inverse Mills Ratio (IMR) extracted from the first regression. Results from the output equation show that the IMR is not significant (i.e. there is no a sample selection bias), and the coefficients on *FIRM_CORR* and *FIRM_CORR*COUNTRY_CORR* are still statistically significant.

Although there are many theoretical and empirical reasons to exclude that sample attrition may distort our results, we also control for this potential bias. Overall, including industry and year fixed-effects helps account for potential sample attrition bias that is associated with stable factors (Ziliak & Kniesner, 1998). The CEOs ranking is remarkably consistent across time and most CEOs drop off because of a significant decline in stock price. Indeed, unlike rankings that are based on subjective evaluations or short-term metrics, CEOs ranking relies on objective performance measures over a chief executive's entire tenure (McGinn, 2017).

In our study, panel attrition may be a source of bias if the CEOs loss is not random (e.g. for corruption scandals) and the variables affecting attrition are correlated with our outcome variables. Although our sample shows high attrition rates, we note that HBR's CEOs ranking excludes executives who had been convicted of a crime or arrested, and there is a large body of literature that demonstrates that even a high attrition rate is a non-issue as long as it is random (e.g. Alderman et al., 2000; Fitzgerald, Gottschalk, & Moffitt, 1998). However, we test if attrition biases our estimates in several ways. First, we rerun our two main regression models including only CEOs with at least two observations over the five-year period (we lose 248 observations), in order to retain sufficient sample size and to reduce sample attrition at the same time. Our results do not change. Second, by adopting the Heckit technique (Heckman, 1979), we first run a probit model estimating the probability that the 87 CEOs belonging to the HBR 2013 ranking drop out of the sample in the HBR 2014 ranking and so on for the next years. Then, we regress *BESTCEO* ranking of a given year on our independent variables, attrition dummy, and the interactions of the attrition dummy with country- and corporate-level corruption risk. Since coefficients of the attrition dummy and the interactions are not statistically significant, we conclude that our results are not sensitive to attrition bias. Finally, since our purpose is to determine whether coefficients of the explanatory variables differ for those CEOs that were lost from those that were still present, we performed a joint significant test (F-test) of the attrition dummy and its interaction variables. The results show that the coefficients on the attrition indicator and all of its interaction terms are jointly insignificant, indicating that the CEOs lost to

follow-up ranking are not systematically different from the remaining sample. Thus, we can safely exclude the CEOs lost to follow-up and the potential attrition bias need not be a concern in our study.

While the time-series version of the rank-data model adopted in our paper does make more efficient use of the available data, it would bring up some problems of temporal interdependence in CEO ranks, that is the fact that the membership of CEO rankings changes every year. Therefore, following prior research (e.g. Shih, Adolph, & Liu, 2012) we rerun our regression models for each year separately, without any pooling of rankings across years. Overall, our cross-sectional results hold.

Notwithstanding performing fixed-effects, estimations can also reduce the endogeneity bias and produce consistent results (e.g. Nikolaev & Van Lent, 2005), we recognize that endogeneity of explanatory variables is a relevant empirical challenge when considering the linkage between corporate corruption and performance (Van Vu, Tran, Van Nguyen, & Lim, 2018). The endogeneity is an issue involving bribery and any measure of performance (Vial & Hanoteau, 2010), including best-performing CEOs. Indeed, corrupt bureaucrats establish taxes, administrative hurdles, and delays to extort bribes in line with firms' perceived capacity to pay them (Krammer, 2019). In this sense, we believe that best-performing CEOs are more likely to face bribing demands, given their greater ability to pay, as perceived by bureaucrats (Svensson, 2003).

We adopt an approach to address this issue based on instruments that disentangle the link between *BESTCEO* and *FIRM_CORR*. We re-estimate the basic models using a two-stage least square method with an instrumental variable approach. Following prior research (e.g. Fisman & Svensson, 2007; Krammer, 2019), we instrumented a firm's corruption using the average corruption risk by other firms operating within the same industry and location (i.e., excluding the focal firm). This *AVG_CORR* score seems appropriate because it is highly correlated with the firm's corruption ($r = 0.865$, $p < .05$), but not highly correlated with the focal firm's *BESTCEO*. In this test for endogeneity, the first regression consists of regressing corporate corruption risk with the instrument and the other explanatory variables. The residuals from this regression are further used as an explanatory variable (along with the control variables) in the second regression with *BESTCEO* as the dependent variable. Results showed that the residuals were statistically insignificant to *BESTCEO*. We also use Durbin and Wu–Hausman tests for checking endogeneity. The null hypothesis of the Durbin and Wu–Hausman tests is that the variable *FIRM_CORR* can be treated as exogenous. Here both test statistics are not significant (Durbin $chi^2 = 0.248$, $p = .619$; Wu–Hausman $F = 0.234$; $p = .629$), so we accept the null of exogeneity.

Finally, the quality of formal and informal institutions as to country corruption risk (*COUNTRY_CORR*) can be considered exogenous to the best-performing CEOs since it is measured at the country level and therefore cannot be significantly influenced by the individual actions of CEOs.

4.3. Robustness tests: BESTCEO transformations and alternative proxies for corporate and country corruption risk

We adopt three different transformations of *BESTCEO* to show that our results are robust to a different way of representing ranking. In line with prior literature adopting ranking measures as dependent variable (e.g. Dobson & Goddard, 1998), we first calculate the percentile rank ($BESTCEO\_Rank_{it}$), which has the advantage of being distribution free, correcting for kurtosis and skewness, by using (i-1)/(N-1) where i is the rank of a given CEO and N is the number of ranks in the sample (100). Second, we calculate the normal score ($BESTCEO\_norm_{it}$), which has more exact statistical properties than rankings, by using the inverse of the cumulative density normal function (dense i)/((maxdense) + 1)). Finally, we generate the log-odds (logit) of CEO rank ($BESTCEO\_logit_{it}$), a continuous variable proposed by Szymanski and Smith (1997), as log (rank/(100-rank)). The untabulated results for the above alternative dependent variables are consistent with our main results.

We also use three alternative proxies for corporate corruption risk, which are all scores extracted from *Asset4* ranging from 0 to 100. The first is the average of three scores related to the policy, implementation, and improvement of anticorruption devices. As to *policy*, "credit will be given to companies who have a policy on either of the following elements: Community Involvement, Bribery and Corruption, Political contribution or Business Ethics". A 'Yes' will also be awarded to companies who endorse the Global Sullivan Principles and are signatories of the UN Global Compact or follow the OECD guidelines. As to *implementation*, "credit will be given to companies who describe the implementation of their community policy through a public commitment from a senior management/board member, through processes in place or through improvement tools on the following elements: Community Involvement, Bribery and Corruption, Political contribution or Business Ethics". Finally, as to *improvement*, "companies who have specific objectives to be achieved on Community Involvement, Bribery and Corruption, Political contribution or Business Ethics will be awarded a "Yes" for this indicator". Again, we find a statistically significant and negative relationship with *BESTCEO* and a negative coefficient for the interaction term.

The second proxy of corporate corruption risk is a score related to the controversies. The main question formulated by *Asset4* is the following: "Is the company under the spotlight of the media because of a controversy linked to bribery and corruption, political contributions, improper lobbying, money laundering, parallel imports or any tax fraud?". The third proxy is still a score but related to the controversies costs. In this case, *Asset4* asks: "All real or estimated penalties, fines from lost court cases, settlements or cases not yet settled regarding controversies linked to business ethics in general, political contributions or bribery and corruption, price-fixing or anti-competitive behaviour, tax fraud, parallel imports or money laundering in US dollars". For these two latter proxies the relationship with *BESTCEO* is insignificant. This seems consistent with our main results showing a negative relationship between corporate corruption risk and CEO performance, given that top-100 best-performing CEOs should be far from corruption scandals and related controversies.

Finally, as an alternative proxy of country corruption risk we use the "Corruption Perception Index" provided by Transparency International, which has been used by previous authors (e.g. Campos, Lien, & Pradhan, 1999). Again, using this proxy does not change our results.

5. Conclusions

In order to prevent the corruption risk, CEOs have to implement a strategic architecture (e.g. ethical conduct codes and effective compliance systems) that monitors any illegal behaviour. In this study, we investigated the relationship between corporate corruption risk and CEO performance, using a sample of best-performing CEOs of both developed and emerging countries. Our results indicate that best-performing CEOs show lower corporate corruption risk and this is consistent with Lopatta, Jaeschke, Tchikov, and Lodhia (2017), who find firms with higher profitability (ROA) have lower corruption risk. However, we also infer that in countries where the corruption is lower, the impact of corporate corruption risk on the CEO performance is positive, and different from what occurs in countries with high corruption risk. This is consistent with the substituting effect of corporate corruption prevention programmes as a signal of corporate governance quality in countries with high corruption risk.

In particular, our results reveal that when corruption control macro-institutions are weak, corporate anti-corruption meso-institutions serve as their substitute, that is country- and firm-level corruption prevention seem to substitute one another. Therefore, by showing how the interface between listed firms' governance and country corruption risk relates to CEOs performance, our findings contribute to the ongoing de-

bate about the relative roles of country-level governance and firm-level governance in affecting CEO performance, that is being either substitutes or complementary (e.g., Doidge, Karolyi, & Stulz, 2007; Durnev & Kim, 2005). Companies' corruption prevention acts as a governance mechanism, not complementing but substituting for a country's corruption control. This is also consistent with the view that if a company has a low corruption risk and a country shows a low corruption risk, one would not expect the corporate corruption to affect strongly the CEO performance. In contrast, this latter is likely to increase in countries with high corruption environment as a consequence of stronger corporate anti-corruption programmes.

Our study contributes to previous literature in different ways. First, while the existing literature is based either on cross-country or firm-level analyses, our study combines the investigation of both country and company corruption risks on the level of individual agents (i.e. CEOs), thus contributing to explain their performance as a function of public policies, institutions, and corporate governance. Second, we contribute to the emerging literature on 'CEO status', 'superstar CEOs' or 'CEOs celebrity' literature linking CEO status to CEO risk-taking incentives or behaviour (e.g., Malmendier & Tate, 2009; Roussanov, 2010). Third, our findings provide evidence of the validity of the UET and the meso-level approach as to CEO performance. Specifically, on one hand, we extend the most recent stream of research related to the UET by analysing the extent to which contextual factors, such as the risk of corruption in the organizational and environmental contexts, influence CEOs performance, thus determining their position in top performing CEOs rankings (Carpenter et al., 2004). On the other hand, our paper aims to build a contextualized meso-theory of corruption risk. Meso-theorizing integrates institutional contextual variables and micro decision-making (such as anti-corruption programmes), and it is particularly well-suited to address the recent calls for building theory in context (e.g., Bamberger, 2008; Johns, 2006). Thus, our meso-theorizing offers new insights by extending established theories such as UET to new domains (corruption risk) and levels of analysis (i.e. country, corporate, and individual) (Hitt, Beamish, Jackson, & Mathieu, 2007; Mathieu & Chen, 2011). In fact, corruption is a phenomenon enacted by individuals in context. Notwithstanding the rich literature on corruption, there has been very limited attention of the individuals (e.g. CEOs) enacting or preventing the corruption as well as the influence of context. To address this critical gap, we draw on insights from both micro- and macro-organizational literatures, to advance and test a meso-theory of corruption risk. This meso-theory explains how, controlling for various attributes of CEOs, different countries and conditions of corporate corruption risk influence CEO performance.

Finally, our paper also reflects recent calls for the application of meso research methodologies. In particular, the meso approach avoids a potential missing variables bias and controls for possible interrelationships between macro and meso governance mechanisms and CEO performance, thus taking into account possible substitution effects between different levels of governance. We believe that this combination of three different levels of analysis may help to better understand the corruption effects.

Our findings have implications for corporate governance regulators as well as owners in selecting CEOs. Key findings of this study can be utilized to increase awareness and widen perspective on the impact that reducing bribery can have on best-performing CEOs. These can also be useful in the selection of CEO, design of educational programs on corruption prevention as well as government and non-governments' programs and policies to reduce corruption events.

Our study has some limitations. First, we only consider CEOs that were included in the HBR study. This may arise some generalizability issues. However, a specific sample based on top-100 managers is not so different, for example, from the *Fortune 500* companies selected by the S&P500 index. Moreover, as Garcia-Blandon et al. (2019) note, prior studies showing a relationship between ESG and financial performance do not hold when we put the focus on the top performing CEOs. Therefore, investigating the causes behind these differences is an interesting line of research. In fact, one main assumption in our investigation is that corporate corruption may be adopted as a 'solution' for becoming a best-performing CEO, whereas 'normal top managers' may be not interested in questions of visibility.

Uncited references

Hauser & Hogenacker, 2014; Sullivan, 1994.

References

L. AldermanVincent Bolloré, French billionaire, faces a rare corruption inquiry25th Aprilhttps://www.nytimes.com/2018/04/25/business/vincent-bollore-french-billionaire-corruption-inquiry.html2018

Alderman, H., Behrman, J.R., Kohler, H.P., Maluccio, J.A., & Watkins, S.C. (2000). Attrition in longitudinal household survey data: Some tests for three developing-country samples. Policy research working paper: Vol. 2447. Washington D.C: The World Bank.

Azmat, F. (2010). Exploring social responsibility of immigrant entrepreneurs: Do home country contextual factors play a role? European Management Journal, 28(5), 377–386.

Bamberger, P. (2008). Beyond contextualization: Using context theories to narrow the micro-macro gap in management research. Academy of Management Journal, 51, 839–846.

Banfield, E.C. (1975). Corruption as a feature of governmental organization. The Journal of Law and Economics, 18, 587–605.

Barker, V.L., III, & Mueller, G.C. (2002). CEO characteristics and firm R&D spending. Management Science, 48(6), 782–801.

Basole, R.C., & Putrevu, J. (2014). On leadership, alliance formation, and enterprise transformation. Journal of Enterprise Transformation, 4(1), 28–50.

Bertrand, M., & Schoar, A. (2003). Managing with style: The effect of managers on firm policies. Quarterly Journal of Economics, 118(4), 1169–1208.

Brühl, R., Basel, J.S., & Kury, M.F. (2018). Communication after an integrity-based trust violation: How organizational account giving affects trust. European Management Journal, 36(2), 161–170.

Campos, J.E., Lien, D., & Pradhan, S. (1999). The impact of corruption on investment: Predictability matters. World Development, 27(6), 1059–1067.

Carpenter, M.A., Geletkanycz, M.A., & Sanders, W.G. (2004). Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition. Journal of Management, 30(6), 749–778.

Casino-Martínez, A., López-Gracia, J., Mestre-Barberá, R., & Peiró-Giménez, A. (2019). An agency approach to debt maturity of unlisted and listed firms in the European setting. European Management Journal, 37(3), 339–352.

Choi, W., Han, S., Jung, S.H., & Kang, T. (2015). CEO's operating ability and the association between accruals and future cash flows. Journal of Business Finance & Accounting, 42, 619–634.

Cuervo-Cazurra, A. (2016). Corruption in international business. Journal of World Business, 51(1), 35–49.

Dalton, D.R., Daily, C.M., Johnson, J.L., & Ellstrand, A.E. (1999). Number of directors and financial performance: A meta-analysis. Academy of Management Journal, 42(6), 674–686.

De Beule, F., & Duanmu, J.L. (2012). Locational determinants of internationalization: A firm-level analysis of Chinese and Indian acquisitions. European Management Journal, 30(3), 264–277.

De Jong, G., Tu, P.A., & van Ees, H. (2012). Which entrepreneurs bribe and what do they get from it? Exploratory evidence from vietnam. Entrepreneurship: Theory and Practice, 36(2), 323–345.

De Rosa, D., Gooroochurn, N., & Gorg, H. (2010). Corruption and productivity: Firm-level evidence from the BEEPS survey. The World Bank.

De Vries, M.K. (1992). The CEO who couldn't talk straight: And other tales from the boardroom. European Management Journal, 10(1), 39–48.

DeCarlo, S. (2005). The best and worst bosses. Forbes, 175(10), 109.

Dobson, S.M., & Goddard, J.A. (1998). Performance and revenue in professional league football: Evidence from granger causality tests. Applied Economics, 30, 1641–1651.

Doidge, C., Karolyi, G.A., & Stulz, R.M. (2007). Why do countries matter so much for corporate governance? Journal of Financial Economics, 86(1), 1–39.

Donadelli, M., Fasan, M., & Magnanelli, B.S. (2014). The agency problem, financial performance and corruption: Country, industry and firm level perspectives. European Management Review, 11(3–4), 259–272.

von den Driesch, T., Da Costa, M.E.S., Flatten, T.C., & Brettel, M. (2015). How CEO experience, personality, and network affect firms' dynamic capabilities. European Management Journal, 33(4), 245–256.

Durnev, A., & Kim, E.H. (2005). To steal or not to steal: Firm attributes, legal environment, and valuation. The Journal of Finance, 60(3), 1461–1493.

Fernando, M., & Sim, A.B. (2011). Strategic ambiguity and leaders' responsibility beyond maximizing profits. European Management Journal, 29(6), 504–513.

Fisman, R., & Svensson, J. (2007). Are corruption and taxation really harmful to growth? Firm level evidence. Journal of Development Economics, 83(1), 63–75.

Fitzgerald, J., Gottschalk, P., & Moffitt, R. (1998). An analysis of sample attrition in panel data. Journal of Human Resources, 33(2), 251–299.

Fombrun, C. (1996). Reputation: Realizing value from the corporate image. Boston, MA: Harvard Business School Press.

Freeman, R.E. (1984). Strategic management: A stakeholder approach. Cambridge, UK: Cambridge University Press.

Friedrich, C.J. (1972). The pathology of politics, violence, betrayal, corruption, secrecy and propaganda. New York, NY: Harper & Row.
Gammeltoft, P., Filatotchev, I., & Hobdari, B. (2012). Emerging multinational companies and strategic fit: A contingency framework and future research agenda. European Management Journal, 30(3), 175–188.
Garcia-Blandon, J., Argilés-Bosch, J.M., & Ravenda, D. (2019). Exploring the relationship between CEO characteristics and performance. Journal of Business Economics and Management, 20(6), 1064–1082.
García-Cabrera, A.M., & Durán-Herrera, J.J. (2016). MNEs as institutional entrepreneurs: A dynamic model of the co-evolutionary process. European Management Journal, 34(5), 550–563.
García-Cabrera, A.M., Durán-Herrera, J.J., & Suárez-Ortega, S.M. (2019). Multinationals' political activity for institutional change: Evidence from Spain during the international crisis of 2008. European Management Journal, 37(5), 541–551.
Geletkanycz, M.A. (1997). The salience of "culture"s consequences': The effects of cultural values on top executive commitment to the status quo. Strategic Management Journal, 18(8), 615–634.
Giberson, T.R., Resick, C.J., Dickson, M.W., Mitchelson, J.K., Randall, K.R., & Clark, M.A. (2009). Leadership and organizational culture: Linking CEO characteristics to cultural values. Journal of Business and Psychology, 24(2), 123–137.
Golden, B.R., & Zajac, E.J. (2001). When will boards influence strategy? Inclination × power = strategic change. Strategic Management Journal, 22(12), 1087–1111.
Gupta, K. (2017). Are oil and gas firms more likely to engage in unethical practices than other firms? Energy Policy, 100, 101–112.
Hall, A.T., Blass, F.R., Ferris, G.R., & Massengale, R. (2004). Leader reputation and accountability in organizations: Implications for dysfunctional leader behavior. The Leadership Quarterly, I 5, 515–536.
Hambrick, D.C., & Mason, P.A. (1984). Upper echelons: The organization as a reflection of its top managers. Academy of Management Review, 9(2), 193–206.
Hanousek, J., Shamshur, A., & Tresl, J. (2019). Firm efficiency, foreign ownership and CEO gender in corrupt environments. Journal of Corporate Finance, 59, 344–360.
Hansen, M.T., Ibarra, H., & Peyer, U. (2013). The best-performing CEOs in the world. Harvard Business Review, 91(1), 81–95.
Hauser, C., & Hogenacker, J. (2014). Do firms proactively take measures to prevent corruption in their international operations? European Management Review, 11(3–4), 223–237.
Hayward, M.L., Rindova, V.P., & Pollock, T.G. (2004). Believing one's own press: The causes and consequences of CEO celebrity. Strategic Management Journal, 25(7), 637–653.
Healy, P.M., & Serafeim, G. (2015). An analysis of firms' self-reported anticorruption efforts. The Accounting Review, 91(2), 489–511.
Heckman, J. (1979). Sample selection bias as a specification error. Econometrica, 47(1), 153–161.
Hillman, A.J., & Keim, G.D. (2001). Shareholder value, stakeholder management, and social issues: Wha's the bottom line? Strategic Management Journal, 22(2), 125–139.
Hitt, M.A., Beamish, P.W., Jackson, S.E., & Mathieu, J.E. (2007). Building theoretical and empirical bridges across levels: Multilevel research in management. Academy of Management Journal, 50(6), 1385–1399.
House, R.J., Rousseau, D.M., & Thomas-Hunt, M. (1995). The meso paradigm: A framework for the integration of micro and macro organizational-behavior. Research in Organizational Behavior, 17, 71–114.
Hung, H. (2008). Normalized collective corruption in a transitional economy: Small treasuries in large Chinese enterprises. Journal of Business Ethics, 79(1–2), 69–83.
Huntington, S.P. (1968). Political order in changing societies. New Haven, CT: Yale University Press.
Ignatius, A. (2014). The best performing CEOs in the world. Harvard Business Review, November, 47–56.
Johns, G. (2006). The essential impact of context on organizational behavior. Academy of Management Review, 31(2), 386–408.
Jones, D.A. (2013). Trans-cultural leadership architecture: Implications for an effective eurasian trading partnership. International Journal of Intercultural Information Management, 3(3), 242–255.
Kaufmann, D. (1997). Corruption: The facts. Foreign Policy, 107, 114–131.
Kominis, G., & Dudau, A. (2018). Collective corruption–How to live with it: Towards a projection theory of post-crisis corruption perpetuation. European Management Journal, 36(2), 235–242.
Krammer, S.M. (2019). Greasing the wheels of change: Bribery, institutions, and new product introductions in Emerging Markets. Journal of Management, 45(5), 1889–1926.
Krishnamurti, C., Shams, S., & Velayutham, E. (2018). Corporate social responsibility and corruption risk: A global perspective. Journal of Contemporary Accounting and Economics, 14(1), 1–21.
Lau, C.K.M., Demir, E., & Bilgin, M.H. (2013). Experience-based corporate corruption and stock market volatility: Evidence from emerging markets. Emerging Markets Review, 17, 1–13.
Li, H., Xu, L.C., & Zou, H.F. (2000). Corruption, income distribution, and growth. Economics & Politics, 12(2), 155–182.
Lopatta, K., Jaeschke, R., Tchikov, M., & Lodhia, S. (2017). Corruption, corporate social responsibility and financial constraints: International firm-level evidence. European Management Review, 14(1), 47–65.
Lou, Y. (2002). Corruption and organization in Asian management system. Asia Pacific Journal of Management, 19, 405–422.
Lui, F.T. (1985). An equilibrium queuing model of bribery. Journal of Political Economy, 93(4), 760–781.
Malmendier, U., & Tate, G. (2009). Superstar CEOs. Quarterly Journal of Economics, 124(4), 1593–1638.
Marchini, P.L., Mazza, T., & Medioli, A. (2020). Corruption and sustainable development: The impact on income shifting in European international groups. Corporate Social Responsibility and Environmental Management, 27(2), 717–730.
Mathieu, J.E., & Chen, G. (2011). The etiology of the multilevel paradigm in management research. Journal of Management, 37(2), 610–641.
Mathieu, J.E., & Taylor, S.R. (2007). A framework for testing meso-mediational relationships in organizational behavior. Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 28(2), 141–172.
Mauro, P. (1995). Corruption and growth. Quarterly Journal of Economics, 110(3), 681–712.
McGinn, D. (2017). The best-performing CEOs in the world 2017. Harvard Business Review, 95(6), 66–71.
McKnight, P., & Tomkins, C. (2004). The implications of firm and individual characteristics on CEO pay. European Management Journal, 22(1), 27–40.
Michailova, S., & Worm, V. (2003). Personal networking in Russia and China: Blat and guanxi. European Management Journal, 21(4), 509–519.
Misangyi, V.F., Elms, H., Greckhamer, T., & Lepine, J.A. (2006). A new perspective on a fundamental debate: A multilevel approach to industry, corporate, and business unit effects. Strategic Management Journal, 27(6), 571–590.
Nikolaev, V., & Van Lent, L. (2005). The endogeneity bias in the relation between cost-of-debt capital and corporate disclosure policy. European Accounting Review, 14(4), 677–724.
Orens, R., & Reheul, A.M. (2013). Do CEO demographics explain cash holdings in SMEs? European Management Journal, 31(6), 549–563.
Orlitzky, M., Louche, C., Gond, J.P., & Chapple, W. (2017). Unpacking the drivers of corporate social performance: A multilevel, multistakeholder, and multimethod analysis. Journal of Business Ethics, 144(1), 21–40.
Papadakis, V.M., & Barwise, P. (2002). How much do CEOs and top managers matter in strategic decision-making? British Journal of Management, 13(1), 83–95.
Pfeffer, J., & Salancik, G.R. (2003). The external control of organizations: A resource dependence perspective. New York, NY: Harper & Row.
Pinto, J., Leana, C.R., & Pil, F.K. (2008). Corrupt organizations or organizations of corrupt individuals? Two types of organization-level corruption. Academy of Management Review, 33(3), 685–709.
Rodriguez, P., Uhlenbruck, K., & Eden, L. (2005). Government corruption and the entry strategies of multinationals. Academy of Management Review, 30(2), 383–396.
Rose, C. (2016). Firm performance and comply or explain disclosure in corporate governance. European Management Journal, 34(3), 202–222.
Roussanov, N. (2010). Diversification and its discontents: Idiosyncratic and entrepreneurial risk in the quest for social status. The Journal of Finance, 65(5), 1755–1788.
Shih, V., Adolph, C., & Liu, M. (2012). Getting ahead in the communist party: Explaining the advancement of central committee members in China. American Political Science Review, 106(1), 166–187.
Sullivan, D. (1994). Measuring the degree of internationalization of a firm. Journal of International Business Studies, 25(2), 325–334.
Svensson, J. (2003). Who must pay bribes and how much? Evidence from a cross section of firms. Quarterly Journal of Economics, 118(1), 207–223.
Székely, F., & Knirsch, M. (2005). Responsible leadership and corporate social responsibility: Metrics for sustainable performance. European Management Journal, 23(6), 628–647.
Szymanski, S., & Smith, R. (1997). The English football industry: Profit, performance and industrial structure. International Review of Applied Economics, 11(1), 135–153.
Tang, J. (2017). CEO duality and firm performance: The moderating roles of other executives and blockholding outside directors. European Management Journal, 35(3), 362–372.
Transparency International (2014). Transparency in corporate reporting: Assessing the world's largest companies. Transparency international report.
Tuliao, K.V., & Chen, C.W. (2017). CEO duality and bribery: The roles of gender and national culture. Management Decision, 55(1), 218–231.
Tyler, B.B., & Steensma, H.K. (1998). The effects of executives' experiences and perceptions on their assessment of potential technological alliances. Strategic Management Journal, 19(10), 939–965.
Ullah, S., Ahmad, S., Akbar, S., & Kodwani, D. (2019). International evidence on the determinants of organizational ethical vulnerability. British Journal of Management, 30(3), 668–691.
Våland, T., & Heide, M. (2005). Corporate social responsiveness: Exploring the dynamics of "bad episodes". European Management Journal, 23(5), 495–506.
Van Vu, H., Tran, T.Q., Van Nguyen, T., & Lim, S. (2018). Corruption, types of corruption and firm financial performance: New evidence from a transitional economy. Journal of Business Ethics, 148(4), 847–858.
Vial, V., & Hanoteau, J. (2010). Corruption, manufacturing plant growth, and the asian paradox: Indonesian evidence. World Development, 38(5), 693–705.
Voyer, P.A., & Beamish, P.W. (2004). The effect of corruption on Japanese foreign direct investment. Journal of Business Ethics, 50(3), 211–224.
Wei, S.J. (1997). Why is corruption so much more taxing than tax? Arbitrariness kills. *Working paper* 6255. National Bureau of Economic Research.
Wei, S.J. (2000). How taxing is corruption on international investors? The Review of Economics and Statistics, 82(1), 1–11.
Wiersema, M.F., & Bantel, K.A. (1992). Top management team demography and corporate strategic change. Academy of Management Journal, 35(1), 91–121.

Wiersema, M.F., & Bird, A. (1993). Organizational demography in Japanese firms: Group heterogeneity, individual dissimilarity, and top management team turnover. Academy of Management Journal, 36(5), 996–1025.
Wu, X. (2005). Corporate governance and corruption: A cross-country analysis. Governance: An International Journal of Policy, Administration, and Institutions, 18(2), 151–170.
Yermack, D. (1996). Higher market valuation of companies with a small board of directors. Journal of Financial Economics, 40, 185–211.
Ziliak, J.P., & Kniesner, T.J. (1998). The importance of sample attrition in life cycle labour supply estimation. Journal of Human Resources, 507–530.
Zona, F. (2014). Board leadership structure and diversity over CEO time in office: A test of the evolutionary perspective on Italian firms. European Management Journal, 32(4), 672–681.
Zyglidopoulos, S.C., & Fleming, P.J. (2008). Ethical distance in corrupt firms: How do innocent bystanders become guilty perpetrators? Journal of Business Ethics, 78(1–2), 265–274.

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