

Exploring the Causal Complexity using QCA approach: Case of CEO characteristics and Social Responsibility Ratings

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This paper examines the effect of CEO characteristics on a firm's engagement in corporate social responsibility (CSR) and corporate social irresponsibility (CSIR). Based on the 'bundle' of managerial characteristics view, this study argues that sets of CEOs characteristics affect the firm's social involvement. A few prior studies examined this relationship, but they provided limited understanding by overlooking the causal complexities and interdependence among variables. Thus, in order to provide better causal understanding, this study used a qualitative comparative approach (QCA) and found that different combinations of CEO characteristics are associated with high levels of CSR and CSIR. From these results, this study contributes to the CSR literature by adopting a configurational perspective, thus providing a fresh perspective on the debate regarding what factors make a firm more socially responsible or irresponsible.

Key words: Bundle of Managerial Characteristics, CEO Characteristics, Corporate Social Responsibility, Qualitative Comparative Approach (QCA)

* 논문투고일: 2017년 5월 30일 논문수정완료일: 2017년 6월 24일 논문게재확정일: 2017년 6월 24일
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I . INTRODUCTION

Over the last few decades, there has been increasing attention to CSR (Corporate Social Responsibility), which can be defined as a firm's responsibilities encompassing the economic, legal, ethical, and philanthropic expectations that the various stakeholders have of organizations (Carroll, 1979; Clarkson, 1995). A firm's CSR engagement has been regarded as the essential factors contributing to a firm's sustainability. Due to this increasing attention, a substantial number of studies examined various factors that lead organizations to engage in socially responsible activities and disengage in irresponsible decisions (e.g., Aguilera, Rupp, Williams, & Ganapathi, 2007).

Among those factors, the effect of CEOs' characteristics has received some attention in the prior research (e.g., Manner, 2010; Oh, Li, & Park, 2016). Based on upper echelons perspective (Hambrick & Mason, 1984; Hambrick, 2007), CEOs' characteristics should be clearly associated with a firm's strategic decisions regarding social responsibility. Waldman and Siegel (2008) specifically noted "top-level managers are obviously in a position to influence these policies ... studies that ignore the role of leadership in CSR may yield imprecise conclusions regarding the antecedents and consequences of these activities" (p. 117).

In spite of these previous studies, the study propose that we have limited understanding on the effects of CEOs on a firm's social outcomes, because previous studies have not examined the complexity and interactions among CEO characteristics. Largely, prior studies (e.g., Manner, 2010; Oh, Li, & Park, 2016) have examined the independent contribution of each characteristics to a firm's social outcomes. Thus, there is a limited understanding regarding the relationship between CEO characteristics and a firm's social outcomes by overlooking the causal complexities and interdependence among variables. In order to fill such research gap, in this study, it is proposed that CEO characteristics (e.g., CEO age, tenure, duality, equity ownership, and compensation) function as "interrelated sets" (i.e., configuration approach).

In order to explore the complex interactive pattern, this study adopts a qualitative comparative approach (QCA: Ragin, 1987, 2000), a powerful tool for exploring the causal complexity. Rather than aiming to capture the relative independent contribution of each of the CEO characteristics to a firm's social outcomes (e.g., "what are the effects of CEO duality on CSR ratings?"), QCA approach instead explores what combinations of each characteristics are necessary and/or sufficient for a firm's proactive

engagement in CSR or engagement in CSIR (e.g., “what are the effects of CEO duality on CSR ratings, depending on the presence of CEO equity ownership and base salary)?”. Thus, QCA allows for the examination of the complex interactions and interdependencies among various CEO characteristics that affect a firm’s social orientation.

Using a sample of CEOs from the U.S. firms, this study found that different combinations of CEO characteristics are associated with high levels of CSR and CSIR (Corporate Social Irresponsibility). For example, results from QCA approach suggests that CEOs with a combination of (a) younger, (b) short-tenured, (c) non-duality, (d) a low level of ownership and (e) a low level of base salary are more likely to make high CSR decisions. At the same time, CEOs with a combination of (a) younger, (b) long-tenured, (c) duality, (d) a high level of ownership and (e) a high level of base salary are also associated with the high CSR activities. Thus, these findings suggest that there are different profiles of (1) CEOs who are equally effective in leading proactive CSR engagement and (2) CEOs who are detrimental in leading a firm’s CSIR conditions. From these results, this study contributes to the CSR literature by adopting a configurational perspective, thus providing a fresh perspective on the debate regarding what factors make a firm more socially responsible or irresponsible.

II. THEORETICAL BACKGROUND

The main premise of this paper is that a firm’s social outcomes (i.e., both CSR and CSIR) will vary with the CEOs’ characteristics, consistent with upper echelons perspective (Hambrick & Mason, 1984; Hambrick, 2007). Upper echelons perspective assumes that a firm’s decisions and outcomes are a reflection of managerial characteristics. Since executive characteristics such as “age, functional background, and educational experiences are taken as observable proxies for the psychological constructs” (Carpenter, Geletkanycz & Sanders., 2004: 750), it is reasonable to assume that a firm’s engagement in CSR and/or CSIR is associated with its CEO’s characteristics and incentives (age, tenure, duality, equity ownership and fixed pay).

1. Literature Review

Previous studies examine how CEO characteristics affect a firm's strategic decisions, including social responsibility. This paper examines the effects of CEO age, tenure, duality, equity ownership and compensation structure. The effects of each CEO characteristic on a firm's CSR and CSIR has been mixed; however, consistent with upper echelons perspective (Hambrick & Mason, 1984; Hambrick, 2007), these characteristics should be associated with a firm's decisions on social responsibility or irresponsibility.

(1) CEO Age

CEOs' age reflects their career time horizon (Gray & Cannella, 1997; Matta & Beamish, 2008) in strategic decision making. Prior studies (e.g., Davidson, Xie & Ning, 2007; Matta & Beamish, 2008) have found that old CEOs, especially when they are close to retirement, are less likely to make long-term oriented decision (e.g., CSR) due to their shortened time horizon. As CSR usually pays off in the long-term (Burke & Logsdon, 1996), proactive CSR tends to necessitate CEO's longer time horizon (i.e., younger age). Empirically, a few prior studies (e.g., Oh, Chang, & Zheng, 2016) reported that CEO age is associated with a firm's social engagement.

(2) CEO Tenure

Previous studies (e.g., Henderson, Miller & Hambrick, 2006 ; McClelland, Barker & Oh, 2012; Miller, 1991) found that as CEOs gain tenure, they are likely to have a lack of adaptability, which is often referred as "fixed paradigm problem". Thus, CEO tenure may be an important variable reflecting the flexibility of managerial paradigm. CEOs with extended tenure have the attitude of '*stale in the saddle*' (e.g., Miller, 1991), thus became rigid to maintain the status-quo (Hambrick & Fukutomi, 1990). In this sense, CEO's adaptability and flexibility is a function of their tenure. Based on the concept of managerial paradigm perspective, empirically, a number of studies (e.g., Oh et al., 2016) found that CEO tenure is an important factor affecting a firm's social engagement.

(3) CEO Duality

When CEO also serves as the chairperson of the board, it suggests a CEO's domination over the board of directors (Baysinger & Hoskisson, 1990; Boyd, 1995). Under the condition of CEO duality, the discussions in the board room are significantly influenced by CEO largely due to unity of command (Finkelstein & D'aveni, 1994); however, proactive CSR engagement requires a diverse perspective to meet various stakeholders' interests (Clarkson, 1995). However, CEO duality may narrow the organizational attention toward a firm's social issues. Also, previous studies (e.g., Johnson & Greening, 1999; Wang & Dewhirst, 1992) reported the positive relationship between outside director proportion and a firm's CSR. When there is CEO duality, the positive impact of outside director may be reduced by CEOs' power over the corporate board.

(4) CEO Ownership

Agency theory (Jensen & Mecklings, 1976) suggests that CEOs' equity holdings, as a key incentive mechanism, tie their decision to shareholder's long-term interests (e.g., Dechow & Sloan, 1991). In examining the effects of managerial ownership on CSR, Johnson and Greening (1999) reported that managers who have equity holdings tend to show a high level of CSR in quality products and services. If a high level of CSR contributes to a firm's long-term value (Orlitzky, Schmidt & Rynes, 2003), CEOs' equity ownership may increase managerial incentives to engage in CSR.

(5) CEO Base Salary

Previous studies (e.g., Deckop, Merriman, & Gupta, 2006; Mahoney & Thorne, 2005) found that the structure of executive compensation affects the incentive of decision makers such as CEOs. Agency theory (Jensen & Mecklings, 1976) suggests that well-designed CEO's compensation structure is effective way to align the interests between the managers and shareholders. Managerial compensation structure consists of base salary (e.g., short-term fixed pay) and long-term incentives (e.g., stock options, restricted stock awards). Empirical findings suggest that socially responsible actions are associated with long-term variable pay. Deckop et al. (2006) found that manager's

compensation structure emphasizing long-term orientation leads to CSR. In contrast, if CEOs are paid largely based on base salary, they are more likely to engage in self-serving behavior. For example, similarly, McGuire and colleagues (2003) found that base salary has a positive association with weak social performance. Since CEOs with a high level of fixed compensation are rewarded regardless of a firm's performance, they are less likely to pay attention to a wide range of stakeholders.

2. Bundle of Managerial Characteristics

There has been a growing call that more attention should be paid toward how individual characteristics operate together as a bundle (e.g., Misangyi & Acharya, 2014) or as a “system of interdependent elements” (Aguilera et al., 2008: 482). This study, thus, draw upon and integrate existing theoretical arguments to specify the fundamental mechanisms that constitutes a bundle of managerial characteristics.

As described in the literature review section, there has been limited consensus regarding which CEO characteristics are essential to lead better corporate social outcomes or to avoid corporate wrongdoing. As a response, this study proposes an integrate view of managerial characteristics – the effects of CEO characteristics depend on their working together included each of the attribute elements. For example, the mutual presence of different CEO characteristics (e.g., CEO tenure and ownership) may improve a firm's social outcomes whereas the presence of CEO ownership alone may not be effective. Likewise, the simultaneous absence of certain combination of CEO characteristics (e.g., CEO age and base salary) may be effective to avoid a firm's wrongdoing, but the absence of base salary alone may not be enough to avoid such outcomes.

III. METHODS

1. Configurational Approach: QCA

Qualitative Comparative Analysis (QCA) was developed to figure out the complex causal relationship (Ragin, 1987, 2000), which allows for the systematic examination of different sets of causal factors. While an in-depth explanation of QCA method is

beyond the scope of the this study, the central features of fsQCA is provided below (see Greckhamer, Misangyi, Elms, & Lacey, 2008 for a detail of the set-theoretic method aimed at management scholars).

Recently, there has been increasing number of management scholars (e.g., Fiss, 2007; Haxhi & Aguilera, 2016) who adopted this methodology. QCA assumes that causal relationship cannot be easily understood because “(a) outcomes of interest rarely have any single cause, (b) causes rarely operate in isolation from each other, and (c) a specific causal attribute may have different and even opposite effects depending on context.” (Greckhamer et al. 2008: 697). Therefore, QCA is based on the combinational logic, such that any single cause does not leads to the organizational outcome in isolation, rather it always contributes to the outcome in the context of the presence or absence of other causal factors.

The QCA approach is fundamentally differs from conventional statistical analysis such as multiple regression analysis. Conventional statistical estimation examines the separate contribution of independent variable in predicting the dependent variable to claim the causal relationship. For example, in regression analysis, researchers examine how each CEO characteristic (e.g., CEO age), in isolation, make contribution to explaining the variance in a firm’s CSR ratings. In contrast, in the QCA approach, cases sharing the same outcome (e.g., high level of CSR) are compared to investigate the common causal conditions — usually as a combination of causal factors (e.g., presence of age and tenure, but absence of CEO duality) across these outcomes. Thus, QCA provides a more nuanced examination of the causal relationships between variables and it is more appropriate for the analysis of configurational complexity.

2. Sample

The initial sample of CEOs was drawn from the 2005 GMI Ratings (formerly known as Corporate Library) database (e.g., Oh, Chang, & Kim, 2016). This study measured corporate social responsibility using Kinder, Lydenberg, Domini (KLD) Research and Analytics. While the QCA approach has been used in studies with large sample size (e.g., Misangyi & Acharya, 2014), it is ideal for the small to intermediate size sample (e.g., 5–50). Therefore, the sample firms in this study should be active in either CSR and CSIR ratings. Specifically, in order to be sampled, firms had to have either CSR or CSIR ratings higher than 5 in KLD. Furthermore, CEOs who have been in the

position less than a year were excluded because such CEOs may have limited influence over a firm's social engagement. After this sample procedures, complete data from all archival data sources (described below) were available for 105 CEOs as a final sample. In order to ensure causal relationship, a lagged research design is adopted. All CEO characteristics (independent variables) were measured in 2005, while KLD data (outcome variables) was measured in 2006.

3. Variables and Calibration

In QCA method, calibration requires transforming conventional archival data to qualitative thresholds such as full membership (i.e., fully-in), the crossover point, and full non-membership (i.e., fully-out). For each calibration, this study sets these thresholds based on extant theory and utilized the direct calibration method in the fsQCA software to transform the CEO characteristics measures into set memberships (e.g., Fiss, 2011; Ragin, 2008). In this study, crisp set QCA, where dichotomous calibration (i.e., 0 for fully-out and 1 for fully-in) is used.

(1) Outcome Variables

KLD is a firm's social responsibility rating provider that assess a range of areas associated with interests of various stakeholders. KLD ratings consist of multiple sub-areas: *Environment, Community, Diversity, Employee Relations, Human Rights, Product Quality and Safety, and Corporate Governance*. Each sub-area has ratings for several strengths and concerns items, each of which is scored as 1 if the firm satisfies the criteria established for a rating. For example, if a company has consistently donated more than 1.5% of earnings to charity, the firm gains one strength score in community area. Likewise, a firm has paid substantial fines for violations of environmental regulations, the firm gains one concern score in environment area. In this study, net value of KLD (i.e., sum of strengths minus sum of concerns) was used to capture a firm's orientation toward to CSR and CSIR. Thus, positive score indicates that the firm is more socially responsible (i.e., more number of socially responsible actions than irresponsible actions) whereas negative score indicates that the firm is more socially irresponsible. In our sample, the mean of KLD net value is 1.20 with standard deviation of 5.24.

Calibrating the measures is the first step for the fuzzy set analyses. Calibration refers to measures' transformation into sets (Fiss, 2007). This study calibrated membership *in the set of firms with "high CSR"* if the net value of KLD score is positive 5 or larger (e.g., 5,6,7 etc.). Likewise, *the set of firms with "high CSIR"* was calibrated if the net value of KLD score is negative 5 or smaller (e.g., -5,-6,-7, etc.).

4. Causal Variables

All causal variables, CEO characteristics, were collected from the GMI Ratings and a firm's proxy statement (i.e. SEC Form DEF 14A), a statement required of a firm when soliciting shareholder votes. A publicly-traded company is required to file its proxy statement with the U.S. Securities and Exchange Commission.

(1) CEO Age

CEO Age was measured in years in the focal year. Since aged CEO may have different time horizon for social responsibility decision (Oh, et al., 2016), CEOs over the age of 60 were coded as being members in the set of aged CEO (CEO Age = 1) whereas those who are younger than 60 were coded as not being members in this set (CEO Age = 0).

(2) CEO Tenure

CEO Tenure was measured by the number of years since he or she was appointed as CEO. CEOs who have served in the position for 6 years or longer were coded as being members in the set of long-tenured CEO (CEO Tenure = 1) whereas those who have served 5 years of shorter were coded as not being members in this set (CEO Tenure = 0).

(3) CEO Ownership

CEO ownership was measured as the per cent of total outstanding common shares owned by the CEO. Since our sample firm is relatively large publicly traded firms in

the U.S., a substantial number of CEOs do not have meaningful ownership level, compared to a firm's market cap, that can be reported in a proxy statement (e.g., less than 0.01%). Therefore, CEOs who reported ownership level were coded as being members in the set of CEOs with equity ownership (CEO Ownership = 1) whereas those who did not were coded as not being members in this set (CEO Ownership = 0).

(4) CEO Duality

CEO duality is a dummy variable coded as '1' (CEO Duality = 1) when CEOs also serve as the chairperson of board, '0' otherwise (CEO Duality = 0). Because this is binary, the variable itself is used in the analysis without any calibration.

(5) CEO Base Salary

Lastly, *CEO Base Salary* was calculated by the ratio of base salary to CEO total annual compensation. CEOs with base salary more than 5% were coded as being members in the set of CEOs with a high level of fixed base salary (CEO Base Salary = 1) whereas CEOs with base salary less than 5% were coded as not being members in this set (CEO Base Salary = 0).

The means, standard deviations, and correlations for the CEO characteristics and KLD net value are presented in Table 1.

[Table 1] Descriptive Statistics

	Mean	S.D.	1	2	3	4	5
1. KLD Net Score	1.20	5.24					
2. CEO Age	55.30	5.50	-0.18				
3. CEO Tenure	4.38	5.06	-0.06	0.42***			
4. CEO Ownership	0.01	0.06	0.21*	0.07	0.15		
5. CEO Duality	0.73	0.45	-0.17	0.40***	0.26	-0.14	
6. CEO Base Salary	0.18	0.14	0.08	-0.10	-0.10	0.25**	-0.03

Note: *p < 0.05, **p < 0.01, ***p < 0.001, Two-tailed coefficient test

IV. RESULTS

All analyses used the fs/QCA 3.0 software package. Table 2 presents the results of the crisp set analysis and shows the configurations that are sufficient for achieving high levels of CSR and CSIR. This study used the notation introduced by Ragin and Fiss (2008). In this notation, large circles denote core conditions (i.e., results from parsimonious solution only) and small circles denote peripheral conditions (i.e., results from both parsimonious and intermediate solution). The colored full circles represent conditions that should be present, and crossed-out circles indicate conditions that have to be absent. Blank spaces indicate a situation where the condition may be either present or absent (i.e., don't care or don't matter). The coverage score is a measure that how many cases have this configuration to the outcome, thus it provides an indication of the goodness-of-fit of solutions.

[Table 2] CEO Characteristics and Corporate Social Outcomes

	Configuration for High CSR		Configuration for High CSIR	
	1	2	3	4
CEO Age	⊗	⊗	●	●
CEO Tenure	⊗	●	⊗	●
CEO Duality	⊗		●	⊗
CEO Ownership	⊗	●	●	●
CEO Base Salary	⊗	●	●	●
Consistency	0.80	1.00	1.00	1.00
Raw Coverage	0.12	0.14	0.06	0.06
Unique coverage	0.12	0.14	0.06	0.06
Overall solution consistency		0.90		1.00
Overall solution coverage		0.26		0.12

Notes: 1. Full circle indicates the presence of a condition and crossed-out circle indicates the absence of a condition.

2. Large circle indicates core conditions (i.e., parsimonious solution) and small circles indicates peripheral conditions (i.e., intermediate solution).

The results consist of two configurations for both high CSR and high CSIR conditions with relatively high consistency values—the consistency values between 0.8 and 1.00

with the overall solution consistency ranged from 0.90 and 1.00. The consistency indicates “how closely a perfect subset relation is approximated” (Ragin, 2008: 44); A perfectly consistent subset relation is ideal (i.e., consistency value of 1), a minimum consistency of 0.80 is typically recommended (Misangyi, & Acharya, 2014: 1692). Regarding the overall coverage, the solutions account for 26% of membership for the high CSR outcomes and 12% of membership for the high CSIR for the high CSIR outcomes. Coverage is a measure of empirical relevance, which is similar to R^2 in conventional OLS regression. Unique coverage reflects the relative importance of each particular configuration (Fiss, 2011).

1. Analysis of Necessary Conditions.

The necessity condition test in fs/QCA examines whether one of the CEO characteristics is individually enough to generate the high CSR or high CSIR. In our data, in examining the CEO characteristics leading to high CSR, the absence of CEO age reached the conventional threshold for causal necessity (consistency = 0.85) with the consistency value of 0.91. This means that the absence of CEO age (CEOs with age of 60 years or older) may be necessary in leading high CSR. However, in examining the effects of CEO characteristics on high CSIR, no CEO characteristics do not reach the threshold for causal necessity. This suggests that that none of the CEO characteristics individually does not play a significant role in affecting the high level of CSIR.

2. Analysis of Sufficient Conditions.

The next step is to test whether different combinations of causal factors (i.e., CEO characteristics) are associated with the outcomes in terms of causal sufficiency. As reported in Table 2, in terms of each configuration, configuration 1 suggests that CEOs with a combination of (a) younger, (b) short-tenured, (c) non-duality, (d) a low level of ownership and (e) a low level of base salary are more likely to make high CSR decisions. Also, configuration 2 suggests that CEOs with a combination of (a) younger, (b) long-tenured, (c) a high level of ownership and (d) a high level of base salary are also associated with the high CSR activities. These two configurations are equally effective in leading to a firm’s proactive engagement in CSR.

Likewise, configuration 3 and 4 shows the combinations of CEO characteristics that lead to high level of CSIR. Configuration 3 suggest that CEOs with a combination of (a) older, (b) short-tenured, (c) duality, (d) a high level of ownership and (e) a high level of base salary are associated with a firm's CSIR decisions. Lastly, configuration 4 shows CEOs with a combination of (a) older, (b) long-tenured, (c) no duality, (d) a high level of ownership and (e) a high level of base salary also make socially irresponsible decisions. These two configurations are also conditions that leads to a firm's CSIR.

V. DISCUSSION

The purpose of this paper is to examine the configuration of CEOs' characteristics that make firms more responsible or irresponsible. Based on the upper echelons perspective, this paper suggests that a CEO's characteristics (i.e., age, tenure and duality) have impacts on firms' CSR engagement or disengagement. Using a sample of 105 CEOs of U.S. based firms, this study found that there are different configurations leading to high CSR and/or high CSIR conditions, suggesting the complexity of cause-and-effects patterns. In this sense, the configurational approach used, in this study, to examining the bundle of CEO characteristics that leading CSR and CSIR helps advance theory on corporate social outcome as a bundle of top managers' characteristics.

1. Theoretical and Practical Implications

Based on empirical findings, this study makes important contributions to the fields of both strategic management and business ethics. First, this study confirms, but expands the scope of the upper echelons perspective (Hambrick & Mason, 1984; Hambrick, 2007). According to upper echelons perspective (see Carpenter et al., 2004 for a review), the characteristics and incentives of CEO influence organizational decision-makings and subsequent firm-level outcomes. This study further confirms that a CEO's characteristics significantly affect a firm's CSR and CSIR, as there are only a few studies examining the roles of CEO characteristics (e.g., Manner, 2010; Oh et al., 2014). In this sense, this study sheds additional light on stream of research examining the factors making a firm responsible and/or irresponsible.

Second, more importantly, by relying on QCA, this study shows there are causal complexity underlying the outcome of interests; in this case, social responsibility and irresponsibility. Results suggest that there is interdependence among CEO characteristics, suggesting the “causal complexity”. Such causal complexity refers that several different combinations of contributing factors can be sufficient for the same outcomes (i.e., high CSR and high CSIR). A specific attribute (e.g., CEO ownership) may have different, even opposite causal mechanism depending on the configuration of other contributing factors. For example, the presence of CEO ownership may be detrimental (configuration 1) or contribute to (configuration 2) to high CSR depending on the combinations of other CEO characteristics. At the same time, the presence of CEO ownership may lead to a firm’s CSIR (configuration 3 and 4). Therefore, researchers should recognize that non-independence or interdependence between causal factors exists.

Third, previous studies have typically treated CEO characteristics individually, and evidence on any single factor leading to CSR or CSIR has not been conclusive. The findings in this study suggest that CEO characteristics may function as a ‘bundle’ rather than independently. In other words, the mechanism of CEO characteristics may complement or substitute each other. Complementarity exists when “one *and* the other factor” need to be present to lead the outcome of interests. For example, in configuration 2, CEO’s extended tenure and equity ownership should be together in order to achieve high CSR. Likewise, substitution exists when “one *or* the other factor” needs to be present. Instead of examining the effects of any contributing factors, configuration approach allows researchers to examine the complex dynamics (e.g., complementary vs. substitutive effects), thus provide more nuanced understanding of cause-and-effect relationships.

Lastly, this study emphasizes the role of “equifinality” (Gresov and Drazin, 1997), such that a similar level of organizational outcome can be achieved with different combination of contributing factors in various ways (i.e., functional equivalence). As reported, configuration 1 and 2 are both effective in encouraging the firm socially responsible. Likewise, configuration 3 and 4 are both detrimental by leading the firm socially irresponsible. Therefore, organizations should be flexible in selecting CEOs in order to enhance social performance. For example, if the CEO is short-tenured, the firm may benefit from not providing chairperson position, equity ownership and a high proportion of base salary (see configuration 1). On the contrary, if the CEO is long-tenured, providing equity ownership and fixed-salary based compensation may be

equally effective (see configuration 2). In this case, offering CEOs the chairperson of the board does not make a significant difference (as CEO duality is “does not matter” condition).

2. Limitations and Future Research

There are some limitations of this study that suggest possibilities for future research. First, given that our sample is drawn from the CEO of large U.S. firms, the results of this study may have limited generalizability. For example, national difference or institutional context may change the magnitude of CEO effects on organizational outcomes. Future research may benefit from replicating the studies using different samples. Furthermore, QCA approach does not make inference about the population characteristics from a sample observations, generalization outside this sample should be cautious.

Second, although supported by upper echelons perspective (Hambrick & Mason, 1984), this study used the “observable” CEO characteristics (e.g., CEO age) as proxy measurement for cognitive and psychological attributes (e.g., CEO’s time horizon) of CEOs. There is a limitation to use visible characteristics to capture invisible theoretical constructs (Carpenter, et al., 2004). Therefore, future studies might examine the relationship between CEO characteristics and a firm’s social outcome using other research methods such as executive survey and interviews.

Third, while KLD rating is widely used in the previous studies (e.g., Mattingly & Berman, 2006; Oh et al., 2016) examining a firm’s social responsibility, it is not without limitation (e.g., Chatterji, Levine & Toffel, 2009). Thus, future studies may benefit from using alternative measures, such as a firm’s philanthropic giving, in order to check robustness of current study. Furthermore, given that there are multiple areas in KLD scores, some areas may be more sensitive to CEO characteristics. Thus, future researchers might examine whether there is a stronger relationship between CEO characteristics and certain sub-areas (e.g., corporate governance, employee relationship, etc.) of KLD.

Fourth, upper echelons perspective (e.g., Hambrick, 2007) argues that characteristics of executive groups (i.e., top management team) rather than individuals (i.e., CEO), often provides better explanations of organizational outcomes. Thus, future studies can benefit from considering the effects of TMT characteristics on social outcomes using QCA approach.

VI. CONCLUSION

In this paper, the effect of CEO characteristics on a firm's engagement in corporate social responsibility (CSR) and corporate social irresponsibility (CSIR) are examined. Consistent with the upper echelons perspective, this study found that CEOs characteristics matter in the firm's CSR and CSIR ratings. However, unlike the conventional regression approach assuming each characteristic contributes to the organizational outcome *independently*, this study adopts a qualitative comparative approach (QCA), which is based on the assumption of *interdependence* among variables (Ragin, 1987, 2000). There are equally effective or detrimental combinations of CEO characteristics affecting a firm's social outcomes. From these results, this study contributes to the CSR literature by adopting a configurational perspective, thus providing a fresh perspective on the debate regarding the antecedents of a firm's social responsibility or irresponsibility.

[REFERENCES]

- Aguilera, R. V., Rupp, D. E., Williams, C. A., & Ganapati, J. (2007). Putting the S back in corporate social responsibility: A multilevel theory of social change in organizations. *Academy of Management Review*, 32(3), 836-863.
- Aguilera, R. V., Filatotchev, I., Gospel, H., & Jackson, G. (2008). An organizational approach to comparative corporate governance: Costs, contingencies, and complementarities. *Organization Science*, 19(3), 475 - 492.
- Baysinger, B., & Hoskisson, R. E. (1990). The composition of boards of directors and strategic control: Effects on corporate strategy. *Academy of Management Review*, 15(1), 72-87.
- Boyd, B. K. (1995). CEO duality and firm performance: A contingency model. *Strategic Management Journal*, 16(4), 301-312.
- Burke L. & Logsdon, J. M. (1996). How corporate social responsibility pays off. *Long Range Planning*, 29, 495-502.
- 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.
- Carroll, A. B. (1979). A three-dimensional conceptual model of corporate performance. *Academy of Management Review*, 4(4), 497-505.
- Chatterji, A. K., Levine, D. I., & Toffel, M. W. (2009). How well do social ratings actually measure corporate social responsibility?. *Journal of Economics & Management Strategy*, 18(1),

125-169.

- Clarkson, M. E. (1995). A stakeholder framework for analyzing and evaluating corporate social performance. *Academy of Management Review*, 20(1), 92-117.
- Davidson III, W. N., Xie, B., Xu, W., & Ning, Y. (2007). The influence of executive age, career horizon and incentives on pre-turnover earnings management. *Journal of Management & Governance*, 11(1), 45-60.
- Dechow, P. M., & Sloan, R. G. (1991). Executive incentives and the horizon problem: An empirical investigation. *Journal of Accounting and Economics*, 14(1), 51-89.
- Deckop, J. R., Merriman, K. K., & Gupta, S. (2006). The effects of CEO pay structure on corporate social performance. *Journal of Management*, 32(3), 329-342.
- Finkelstein, S., & D'Aveni, R. A. (1994). CEO duality as a double-edged sword: How boards of directors balance entrenchment avoidance and unity of command. *Academy of Management Journal*, 37(5), 1079-1108.
- Fiss, P. C. (2007). A set-theoretic approach to organizational configurations. *Academy of Management Review*, 32(4), 1180-1198.
- Fiss, P. C. (2011). Building better causal theories: A fuzzy set approach to typologies in organization research. *Academy of Management Journal*, 54(2), 393 - 420.
- Gray, S. R., & Cannella, A. A. (1997). The role of risk in executive compensation. *Journal of Management*, 23(4), 517-540.
- Greckhamer, T., Misangyi, V. F., Elms, H., & Lacey, R. (2008). Using qualitative comparative analysis in strategic management research: An examination of combinations of industry, corporate, and business-unit effects. *Organizational Research Methods*, 11(4), 695-726.
- Gresov, C., & Drazin, R. (1997). Equifinality: Functional equivalence in organization design. *Academy of Management Review*, 22(2), 403-428.
- Hambrick D. C. (2007). Upper echelons theory: An update. *Academy of Management Review*, 32(2): 334-343.
- 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.
- Hambrick, D. C., & Fukutomi, G. D. (1991). The seasons of a CEO's tenure. *Academy of Management Review*, 16(4), 719-742.
- Haxhi, I., & Aguilera, R. V. (2016). An institutional configurational approach to cross-national diversity in corporate governance. *Journal of Management Studies*. DOI: 10.1111/joms.12247.
- Henderson, A. D., Miller, D., & Hambrick, D. C. (2006). How quickly do CEOs become obsolete? Industry dynamism, CEO tenure, and company performance. *Strategic Management Journal*, 27(5), 447-460.
- Jensen, M. C. & Mecklings, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3: 305-360.
- Johnson, R. A., & Greening, D. W. (1999). The effects of corporate governance and institutional ownership types on corporate social performance. *Academy of Management Journal*, 42(5),

564-576.

- Mahoney, L. S., & Thorne, L. (2005). Corporate social responsibility and long-term compensation: Evidence from Canada. *Journal of Business Ethics*, 57(3), 241-253.
- Manner, M. (2010). The impact of CEO characteristics on corporate social performance, *Journal of Business Ethics*, 93, 53-72.
- Matta, E., & Beamish, P. W. (2008). The accentuated CEO career horizon problem: Evidence from international acquisitions. *Strategic Management Journal*, 29(7), 683-700.
- Mattingly, J. E., & Berman, S. L. (2006). Measurement of corporate social action discovering taxonomy in the Kinder Lydenburg Domini ratings data. *Business & Society*, 45(1), 20-46.
- McClelland, P. L., Barker, V. L., & Oh, W. Y. (2012). CEO career horizon and tenure: Future performance implications under different contingencies. *Journal of Business Research*, 65(9), 1387-1393.
- McGuire, J., Dow, S., & Argheyd, K. (2003). CEO incentives and corporate social performance. *Journal of Business Ethics*, 45(4), 341-359.
- Miller, D. (1991). Stale in the saddle: CEO tenure and the match between organization and environment. *Management Science*, 37(1), 34-52.
- Misangyi, V. F., & Acharya, A. G. (2014). Substitutes or complements? A configurational examination of corporate governance mechanisms. *Academy of Management Journal*, 1681-1705.
- Oh, W. Y., Chang, Y. K., & Cheng, Z. (2016). When CEO career horizon problems matter for corporate social responsibility: The moderating roles of industry-level discretion and blockholder ownership. *Journal of Business Ethics*, 279-291.
- Oh, W. Y., Chang, Y. K., & Kim, T. Y. (2016). Complementary or Substitutive Effects? Corporate Governance Mechanisms and Corporate Social Responsibility. *Journal of Management*, doi: 10.1177/0149206316653804.
- Oh, W. Y., Li, Z., & Park, S. (2016). The effects of CEO characteristics and incentives on corporate social responsibility. In *Corporate Responsibility* 162-182). R. Manos and I. Drori (Eds.) Palgrave Macmillan UK.
- Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies*, 24(3), 403-441.
- Ragin, C. (1987). *The comparative method. Moving beyond qualitative and quantitative strategies.* Berkeley, Los Angeles and London: University of California Press.
- Ragin, C. (2000). *Fuzzy-set social science.* Chicago: University of Chicago Press.
- Ragin, C. C., & Fiss, P.C. (2008). Net effects analysis versus configurational analysis: An empirical demonstration. In C. C. Ragin (Ed.), *Redesigning social inquiry: Fuzzy sets and beyond*. 190 - 212. Chicago: University of Chicago Press.
- Waldman, D. A., & Siegel, D. (2008). Defining the socially responsible leader. *Leadership Quarterly*, 19(1), 117-131.
- Wang, J., & Dewhirst, H. D. (1992). Boards of directors and stakeholder orientation. *Journal of Business Ethics*, 11(2), 115-123.

QCA 방법론을 활용한 인과관계 복잡성의 연구: 최고경영자 특성 조합과 기업의 사회적 성과 지수 사례

오 원 용

본 연구에서는 CEO의 특성의 조합이 기업의 사회적 책임(CSR) 및 무책임(CSIR)에 미치는 영향을 조사하였다. 연구에서는 CEO의 연령, 재임기간, 이사회위원장 겸임 여부, 주식보유, 성과체계 등의 요소가 기업의 사회적 성과에 영향을 미칠 것이라고 가정하였다. 각 요소의 복잡한 인과관계성 (causal complexity)을 측정하기 위하여 본 연구는 정성적 비교 방식 (Qualitative Comparative Approach: QCA)를 활용하였다. 분석 결과는 다양한 CEO 특성의 특정 조합이 각각 기업의 책임 및 무책임의 결과를 가져올 수 있음을 제시하고 있다. 단순히 개별 요소가 독립적으로 기업의 사회적 책임에 영향을 미치는 것이 아니라, 다양한 조합을 활용한 인과 관계의 복잡성을 제시함으로써 본 연구는 기업의 사회적 성과의 선행 요소를 밝히는 연구 분야에 대안적 연구 방법론을 제시하고 있다.

핵심어: 경영진 특성 조합, 최고경영자 특성, 기업의 사회적 책임, 질적비교 연구 방법론
