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Two Essays on Antecedents and Effects of Board Female Representation Non-Conformity

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**TWO ESSAYS ON ANTECEDENTS AND EFFECTS OF BOARD FEMALE
REPRESENTATION NON-CONFORMITY**

by

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ABSTRACT

TWO ESSAYS ON ANTECEDENTS AND EFFECTS OF BOARD FEMALE REPRESENTATION NON-CONFORMITY

Fatemeh Askarzadeh
Old Dominion University, 2021
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Despite mounting societal demands for board gender diversity, some firms deviate below traditional norms, i.e., under-conform to expectations, while others adhere to them. To explain this variation within a national context, we build on insights from the emerging corporate governance deviance theory and gender role congruity theory. Using panel data on a globally-representative set of firms, Essay 1 shows that firms with higher entrepreneurial orientation are more likely to go below the national norms for board gender diversity. Our results also reveal that having more slack resources weakens the relationship between entrepreneurial orientation and under-conformity. This study contributes to the comparative gender diversity literature and augments our knowledge of the institutional logics perspective for a global investigation of gender diversity on the board. Given the current popularity of board gender composition arguments, particularly in comparative corporate governance literature, and growing attention to the organizational agency, the intersection of these two provides a ground that is of interest for scholars of both institutional theory and corporate governance field.

Also, previous studies acknowledge the importance of isomorphic institutional norms to explain performance implications of the gender profiles of board of directors, leaving the variation within the same national or industry context unexplored. Building on insights from resource dependence theory, Essay 2 examines whether and how deviating above the industry norms (i.e., over-conformity) for female representation on boardrooms has different performance consequences for firms, depending on the stakeholder group influenced. Specifically, we find that accounting performance is reinforced as perceived by the managers and employees within the firm; market performance is unaffected as perceived by shareholders, and innovation performance is decreased as perceived by innovation resource providers. Hence, the performance effect of over-conformity depends on the stakeholder group considered. Overall, we contribute to resource dependence theory by emphasizing the role of various stakeholders in valuation of women's presence. Moreover, this study extends our understanding of the boundary conditions for value creation by female directors by focusing on corporate governance deviance literature.

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Dedicated to the memory of my beloved mom Sedigheh Soofiabadi...

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TABLE OF CONTENTS

	Page
LIST OF TABLES.....	VIII
LIST OF FIGURES.....	IX
 CHAPTER 1	
1. INTRODUCTION.....	2
2. THEORETICAL DEVELOPMENT.....	5
2.1. Corporate Governance Deviance Theory	6
2.2. Gender Role Congruity Theory.....	8
2.3. The Intersection between Institutional Logics and Agentic Behavior.....	10
2.4. The Moderating Role of Firm’s Slack Resources.....	11
2.5. The Moderating Role of the Extent of Regulatory Enforcement.....	13
3. RESEARCH DESIGN.....	15
3.1. Data and sample.....	15
3.2. Dependent variable.....	16
3.2.1. Board Female Representation Under-conformity.....	16
3.3. Independent variables.....	17
3.3.1. Entrepreneurial Orientation.....	17
3.3.2. Slack Resource.....	18
3.3.3. The extent of Regulatory Enforcement.....	18
3.4. Control variables.....	19
3.5. Analysis and Results.....	19
3.6. Robustness Tests.....	21
4. DISCUSSION.....	22
4.1. Theoretical Implications.....	23
4.2. Practical Implications	26
5. LIMITATIONS AND FUTURE RESEARCH.....	27
5.1. Conclusions.....	28
6. CHAPTER 1 REFERENCES.....	29
 CHAPTER 2	
1. INTRODUCTION.....	43

2. THEORETICAL DEVELOPMENT.....	46
2.1. Board Gender Diversity Relative to Institutional Norms.....	49
2.2. Over-conformity and Legitimacy.....	51
2.3. Board Female Representation Over-conformity and Accounting Performance.....	52
2.4. Board Female Representation Over-conformity and Market Performance.....	55
2.5. Board Female Representation Over-conformity and Innovation Performance.....	59
3. RESEARCH DESIGN.....	63
3.1. Data and sample.....	63
3.2. Dependent variable.....	64
3.3. Independent variables.....	64
3.4. Control variables	65
3.5. Analysis and Results.....	66
3.6. Robustness Check	68
4. DISCUSSION.....	69
4.1. Theoretical Implications.....	70
4.2. Practical Implications.....	74
4.3. Limitations & Future Research.....	75
4.4. Conclusions.....	77
5. CHAPTER 2 REFERENCE.....	79
VITA.....	92

LIST OF TABLES

Table	Page
1.1. Number and Percentage of Firm-Years Observations per Country for 2012-2018	37
1.2. Descriptive Statistics.....	38
1.3. Pairwise Correlation.....	39
1.4. GEE regression analysis	40
1.5. GEE regression analysis with an alternative measure (STD below the mean).....	41
2.1. Descriptive Statistics.....	86
2.2. Pairwise Correlations between Measures.....	87
2.3. Panel Data Estimations of Accounting Performance.....	88
2.4: Panel Data Estimations of Market Performance.....	89
2.5: Panel Data Estimations of Innovation Performance.....	90

LIST OF FIGURES

Figure	Page
1.1. Visual Statistics for Board Female Representation.....	91

CHAPTER 1

GENDER DIVERSITY ON CORPORATE BOARDS WITHIN THE GLOBAL ECONOMY: A CORPORATE GOVERNANCE DEVIANCE PERSPECTIVE

ABSTRACT

Despite mounting societal demands for board gender diversity, some firms deviate below traditional norms, i.e., under-conform to expectations, while others adhere to them. To explain this variation within a national context, we build on insights from the emerging corporate governance deviance theory and gender role congruity theory. Using panel data on a globally-representative set of firms, we show that firms with higher entrepreneurial orientation are more likely to go below the national norms for board gender diversity. Our results also reveal that having more slack resources weakens the relationship between entrepreneurial orientation and under-conformity. This study contributes to the comparative gender diversity literature and augments our knowledge of the institutional logics perspective for a global investigation of gender diversity on the board.

Key Words: Board Gender Diversity, Comparative Corporate Governance, Deviation, Entrepreneurial Orientation, Institutional Logics.

1. INTRODUCTION

Female presence on the board of directors has become an increasing focus of scholarly research (e.g., Guldiken, Mallon, Fainshmidt & Judge, 2018; Knippen, Shen & Zhu, 2019) and the popular press (e.g., Green, 2019; World Development Report., 2012), due to its notable impact on organizational outcomes (e.g., Adams & Ferreira, 2009; Cumming, Leung, & Rui, 2015) yet slow progress in diversification (Terjesen, Aguilera & Lorenz, 2015). Recent attempts toward addressing imbalanced gender representation on public corporate boards (e.g., Strøm, 2019; Zhang, 2012) make understanding the predictors of intentional deviation below the norm a vitally important practical matter. After mounting demands for increasing gender diversity (Zhang, 2012), board female representation has improved somewhat (Bertrand, Black, Jensen & Lleras-Muney, 2019). However, in some firms, women still face the glass ceiling, i.e., obstacles in reaching key organizational positions (2020 Women on Boards, 2017; Economist, 2011; Raleigh, 2018). As a result, board female representation in those firms deviates below the institutional average. What might explain this deviant behavior?

While the literature suggests that institutional logics, i.e., socially-constructed values, beliefs, rules, and practices (Thornton & Ocasio 1999), can influence board gender composition (e.g., Terjesen & Singh, 2008), the deviation from these logics is not well understood in comparative gender diversity literature. This study is motivated by this gap in the literature and call for research on the impact of organizational identity on strategic responses to institutional processes, which vary by different receptivity to normative constraints (Durand & Thornton, 2018; Edman, 2016). As a result of this gap, we investigate how the entrepreneurial orientation of a firm, i.e., innovativeness, risk-taking, and proactiveness (Miller, 1983) impacts the deviation in board gender composition. The rise of interest in the organizational agency, i.e., a purposive departure

from the norms of a referent group (Spreitzer & Sonenshein, 2004), has been fast and recent (Saka-Helmhout, 2020). In line with the recent researches that examine organizational agency (e.g., Edman, 2016; Newenham-Kahindi & Stevens, 2018), this study explores a potential determinant of agency in the context of board gender composition.

We use insights from the emerging corporate governance deviance theory (Aguilera, Judge & Terjesen, 2018) and gender role congruity theory (Eagly & Karau, 2002) to argue that firms with entrepreneurial orientation (EO) are more likely to deviate below the institutional norms for board gender diversity. Entrepreneurial orientation facilitates the required steps for deviant behavior, i.e., awareness, accessibility, and activation (Thornton et al., 2012). According to theorizing by Aguilera et al (2018), firms high on EO are much more likely to adopt practices that don't fit the institutional prescriptions. Furthermore, the theory suggests that they are more likely to have the confidence to deviate from traditional behavior (Phillips & Zuckerman, 2001) and more concern for novelty and nonconforming behavior (Navis & Glynn, 2011). Consequently, we explore the notion that firms with relatively strong entrepreneurial orientations are more likely to deviate below the institutional demands to increase board gender diversity since women have been traditionally considered less favorable for entrepreneurial activities (e.g., Carter, Shaw, Lam & Wilson, 2007; Marlow & Patton, 2005; Powell & Eddleston, 2013). Bold entrepreneurial action is presumed to be a masculine endeavor (Alsos, Isaksen & Ljunggren, 2006) and there are considerable stereotypes against women in entrepreneurial contexts (Balachandra, Briggs, Eddleston & Brush, 2013).

The previous literature on the determinants of board female representation is mainly divided into two streams. One stream deals with the direct and indirect impact of the macro environment and institutional explanations (e.g., Desender, Aguilera, Lópezpuertas-Lamy &

Crespi, 2016; Gabaldon, De Anca, Mateos de Cabo & GimEO, 2016; Grosvold & Brammer, 2011; Terjesen, Aguilera & Lorenz, 2015; Terjesen & Singh, 2008; Nelson & Levesque, 2007). The other stream deals with the impact of micro-level factors such as firm size, industry type and strategic leaders' attributes (e.g., Brammer, Millington & Pavelin, 2007; Fryxell & Lerner, 1989; Geiger & Marlin, 2012; Guldiken et al., 2018; Hillman, Shropshire & Cannella Jr, 2007; Hyland & Marcellino, 2002; Nekhili & Gatfaoui, 2013; Pearce & Zahra, 1992; Ryan & Haslam, 2007). These two streams have evolved separately and are focused on either institutional or organizational drivers solely. Thus, there is a need for a study that takes into account the interaction of organizational and institutional factors to explain the distribution of board gender diversity within a national setting.

Furthermore, previous gender diversity research has primarily focused on the effects of board gender composition (mainly firm performance) than its antecedents. In other words, current literature generally takes female representation on board as exogenous (Hillman et al., 2007). Given the significance of board composition and its influence on strategy formation and firm outcomes (e.g., Hambrick, 2007; Judge & Talaulicar, 2017), it is also essential to study its antecedents. We believe that this is the first study that brings organizational agency into the study of institutional processes for board female representation. Given the variation in institutional logics for board female representation across countries (e.g., Grosvold, Rayton & Brammer, 2016) and the importance of institutional demands for embedded firms (Thornton & Ocasio 1999), it's important to examine organizational practices for board gender composition with an eye on institutional demands. Overall, this study contributes to better delineation of the link between micro and macro levels of analysis for board female presence.

Finally, the literature on the determinants of board gender diversity also suffers from the lack of theory and needs finer-grained researches (Terjesen, Sealy & Singh, 2009). We contributed to this important organizational phenomenon by bringing the recently developed theory of corporate governance deviance along with gender role congruity theory. Moreover, we refine and extend corporate governance deviance theory (CGDT). While CGDT explains deviation from norms, it does not make clear the direction of deviation, i.e., whether it goes below or above the norm. Using gender role congruity theory (GRCT), we provide insight into this issue by explaining which direction is more congruent with entrepreneurial identity in the context of our study. Additionally, this study shows a boundary condition of CGDT and argues that in some conditions the impact of EO on deviation reduces.

2. THEORETICAL DEVELOPMENT

The traditional focus of institutional literature was on isomorphism, while neo-institutionalism (Powell & DiMaggio, 2012) pays more attention to the variety of organizations' responses to the institutional logic (Heugens & Lander, 2009; Powell & DiMaggio, 2012; Walls & Hoffman, 2013). Institutional logic refers to the "set of assumptions and values, usually implicit, about how to interpret organizational reality, what constitutes appropriate behavior, and how to succeed" (Thornton and Ocasio 1999: 804). Based on the institutional logics perspective (Friedland & Alford, 1991; Thornton, Ocasio, & Lounsbury, 2012), social values, beliefs, rules, and practices are the fundamental mechanisms determining organizational practices. Nonconformity can reduce the firm's legitimacy (Judge, Douglas, & Kutan, 2008), while conformance with norms allows organizations to better benefit from external resources, which in turn serve to decrease costs of operation in the environment (Geletkanycz & Hambrick, 1997). Therefore, board composition in

the same institutional context are expected to follow a similar general pattern to enhance the firm's legitimacy (DiMaggio & Powell, 1983; Dobbin, Kim & Kalev, 2011; Lynall, Golden & Hillman, 2003). In other words, adhering to institutional demands for the female presence signals credibility and improve the firm image (Perrault, 2015).

In contrast, deviance from institutional logic, i.e., "intentional behaviors that depart from the norms of a referent group" (Spreitzer & Sonenshein, 2004: 828) is also a key source for competitive advantage and survival (Meyer & Rowan, 1977). Firms that deviate from established norms gain an advantage of entrepreneurial surprise (Chen & MacMillan, 1992) and are difficult to copy and counterattack (Chen & Miller, 1994). Given the various consequences of a strategic response to institutional processes, firms differ in their preferences for institutional conformity. As a result, institutional research, which traditionally has been too centered on non-agentic institutional forces, needs to also pay attention to organizational forces (DiMaggio & Powell, 1991) to be able to explain agentic deviant behavior in terms of board gender composition.

While there is a global societal demand for increasing board gender diversity, there is notable variation across countries and some nations are more advanced than others in terms of their institutional prescriptions for female representation. In addition to the national level factors, board gender diversity can also vary depending on its industry context (e.g., Carter, Simkins & Simpson, 2003; Grosvold, Brammer & Rayton, 2007; McCormick Hyland & Marcellino, 2002). Different industries are associated with diverse female representation. Some industries are male-dominated, while some others are female-dominated (Cumming, Leung & Rui, 2015).

2.1. Corporate Governance Deviance Theory

Organizational identity is what is central, distinctive, and enduring about an organization (Albert & Whetten, 1985). The link between identity and strategy is well-documented in the literature

(e.g., Fiol, 2001). Identity acts as a lens affecting organizational actions and helping define issues as threats or opportunities (Dutton, Dukerich & Harquail, 1994). As a result, organizational identity can impact the interpretation and preference of firms for institutional conformity. According to CGDT (Aguilera et al., 2018), the centrality of entrepreneurial identity is the primary driver of deviant behavior in corporate governance practices. Firms with entrepreneurial orientation have more tendency to pursue strategies that do not conform to institutional prescriptions.

Entrepreneurial orientation (EO) refers to the strategy-making processes that provide organizations with a basis for entrepreneurial decisions and actions (e.g., Wiklund, 1999; Wiklund & Shepherd, 2003). In this study, we assume that entrepreneurial orientation is a reasonable proxy for the overall entrepreneurial identity of the firm. Entrepreneurial orientation has three dimensions, including innovativeness, risk-taking, and proactiveness (Miller, 1983). Innovativeness as a critical source of competitive advantage (Crossan & Apaydin, 2010) is “the predisposition to engage in creativity and experimentation through the introduction of new products/services as well as technological leadership via R&D in new processes”. Risk-taking involves “taking bold actions by venturing into the unknown, borrowing heavily, and/or committing significant resources to ventures in uncertain environments”. Proactiveness refers to “an opportunity-seeking, forward-looking perspective characterized by the introduction of new products and services ahead of the competition and acting in anticipation of future demand” (Rauch, Wiklund, Lumpkin & Frese, 2009:763).

EO has been found to have significant implications for organizational outcomes (for a review see Wales, 2016). Firms with a pronounced EO have better capabilities required in each stage of the socio-cognitive process of deviance from national logic for governance practices

(Aguilera et al., 2018). These stages include awareness, accessibility, and activation (Thornton et al., 2012). Awareness refers to the recognition of alternative courses of action, accessibility describes the situation in which the likelihood of agentic behavior is increased due to the notable conflict between a firm's identity and institutional logic, and activation refers to the actual misfit between firm's practices and national logic.

Firms with high levels of EO, search more and have broader knowledge about alternative courses of action. Therefore, they are more alert to new practices (Webb, Tihanyi, Ireland & Sirmon, 2009), which in turn can serve to enhance distinctiveness. Firms with high EO are assumed to be more likely to find their own internal logic to deal with their challenges rather than blindly following the institutional direction. Consequently, entrepreneurial identity can increase governance discretion, i.e. "firm's cognitive latitude of action to consider the adoption of a deviant governance practice" (Aguilera et al., 2018: 94). Finally, the broader knowledge and the greater discretion increase the likelihood that a firm activates an alternative action that deviates from established logics (Seo & Creed, 2002). Entrepreneurial orientation increases the tendency for novel and nonconforming behavior (Navis & Glynn, 2011) and enhances the firm's confidence to deviate from the majority (Phillips & Zuckerman, 2001).

2.2. Gender Role Congruity Theory

Gender role congruity theory (GRCT) builds upon research into gender stereotypes. It argues that individuals are viewed more favorably when beliefs about how men and women should behave are congruent with the understandings of how men and women behave (Eagly & Karau, 2002). Gender stereotypes can also affect how women are judged about their abilities in entrepreneurial contexts (Buss, 1989). Entrepreneurship is historically perceived to be a male-dominated activity (Alsos et al., 2006), which can result in stereotypical bias against women. Since being involved

with entrepreneurial roles is perceived to have predominantly masculine characteristics (Gupta, Turban, Wasti & Sikdar, 2009), women have been traditionally considered less favorable for entrepreneurship positions (e.g., Carter, Shaw, Lam & Wilson, 2007; Eddleston, Ladge, Mitteness & Balachandra, 2016; Gupta et al., 2009; Marlow & Patton, 2005; Powell & Eddleston, 2013).

Organizational identity is the key filter to help firms make sense of and respond to institutional demands (Kodeih & Greenwood, 2014). Therefore, the centrality of entrepreneurial identity can impact firms' preferences for strategic responses to institutional demands for female representation. As a result, firms with relatively high EO may have a tendency to avoid normative logic that they find incongruent with their identity. Academic findings on the difference between men and women in terms of self-efficacy (Verheul, Uhlaner & Thurik, 2005), risk-taking attitudes (Byrnes, Miller & Schafer, 1999; Jeong & Harrison, 2017), entrepreneurial family background (Matthews and Moser, 1996) and entrepreneurial education (Peterman and Kennedy, 2003) may reinforce the stereotypes for gender role congruence with entrepreneurial activities.

Such stereotypes based on which women candidates are not perceived as an ideal fit for entrepreneurial positions (e.g., Powell & Eddleston, 2013) can drive female underrepresentation in firms with EO. The board of directors is the "strategic apex" of any organization and central to corporate governance (Walls & Hoffman, 2013). It should be in line with and contribute to maintaining and strengthening organizational identity. Institutional prescriptions for increasing board female representation, which aim to meet the interest of multiple stakeholders (e.g., Zhang, 2012) may conflict with perceptions toward favorable and preferred board composition. This conflict can lead to deviation, particularly in the national contexts such as the United States, in which the impetus for demographic policies primarily comes from private initiatives and interests

(Terjesen, Sealy & Singh, 2009). In general, stereotypes against women in entrepreneurship field is well-documented in gender role congruity literature (Carter et al., 2007).

2.3. The Intersection between Institutional Logics and Agentic Behavior

According to the insight from corporate governance deviance theory, we expect that firms with relatively high levels entrepreneurial orientation are more likely to deviate from institutional logics for board female representation. Additional insight from gender role congruity theory helps us to predict this deviation to be reflected in under-conformity, i.e. deviation below the norm. Reports indicate notable board female underrepresentation in high-tech industries (Vigo, 2019), which are advanced in innovativeness (Hirsch-Kreinsen & Jacobson, 2008), and this results in a smaller pool of experienced female candidates for the board of firms with entrepreneurial orientation. “Despite women higher education level overall, the men dominate in the leadership positions, in the pipeline to a board membership” (Strøm, 2019:34). Lower visibility and network around business people result in a smaller pool of qualified women for board positions. Firms with technology intensity spend more on R&D and are high in innovativeness (Fontenele, Cabral, Forte & Costa, 2016). The technology sector has a reputation for lagging in board female representation (Vell report, 2017). In 2014 technology companies in the S&P 500 had the second-lowest female representation, and despite the growing number of women in director positions on tech company boards, women were still filling only 6.8% of those positions (Equilar, 2015).

In addition to the smaller pool of female candidates for firms with EO, an alternative explanation for the under-conformity is that women may not self-select into board positions of these firms. Serving on the board of firms with entrepreneurial identity requires attitudes that women may find incongruent with theirs. For example, due to the perceptions toward gender and

risk (e.g., Jeong & Harrison, 2017), women may find the willingness to take a risk; as a primary factor in entrepreneurial orientation (Rauch, Wiklund, Freese & Lumpkin, 2004) less congruent with their attitudes. Gender stereotypes may exist in not only how people evaluate women but also how women evaluate themselves. Moreover, the organizational culture of commitment to social norms is a strong predictor of adoption of diversity practices (Dobbin et al., 2011). Therefore, firms with EO, which have mainly the culture of deviation and lack of commitment to norms (Navis & Glynn, 2011), have less tendency to adopt gender diversity reforms. Building on the reasoning mentioned above, we hypothesize that:

***Hypothesis 1:** The entrepreneurial orientation of the firm will be negatively associated with female representation on the board with respect to national and industry norms for board gender diversity (i.e., under- conformity).*

2.4. The Moderating Role of Firm's Slack Resources

Corporate Governance Deviance Theory argues that the internal governance capacity moderates the influence of entrepreneurial identity on a firm's deviance behavior. One kind of governance capacity is the firm's financial slack. Slack resources are the pool of capital above the minimum requirement for a given level of production (Nohria & Gulati, 1996) or "potentially utilizable [capital] that can be diverted or redeployed for the achievement of organizational goals" (George, 2005: 661). Firms with slack resources are believed to be better off in following their strategies. Yet, there is mixed findings for the impact of slack on organizational outcomes. On the one hand, excess resources are conceptualized as a buffer of risk so that they can facilitate engaging in radical initiatives (Wiseman & Bromiley, 1996) such as deviation from national logic. On the other hand,

slacks may foster inefficiency and passivity (Cyert & March, 1963) due to lower felt sense of urgency. Hence it can decrease the motivation required for adopting deviant behavior.

The former perspective supports the notion that the chance of firm's transition from accessibility to activation—the last stage of deviation— is heightened by having resources (Aguilera et al., 2018), because they provide more governance capacity for deviation and entrepreneurial action (e.g., Baker & Nelson, 2005; Zahra, 1996). A deviation can decrease the firm's legitimacy, and, subsequently the firm's access to external resources (Pfeffer & Salancik, 2003). This concern is alleviated by having slack.

The latter perspective, however, argues for the negative impact of slack on deviant behavior. Although firms with more slack are less dependent on external resources (Voss, Sirdeshmukh & Voss, 2008), empirical studies have mostly supported the fact that having slack inhibits risk-taking and searching for novelty (Kraatz & Zajac, 2001; Sitkin, See, Miller, Lawless & Carton, 2011). The organizational passivity caused by slack (Cyert & March, 1963; Kraatz & Zajac, 2001) can deter firms from engaging in the stages of deviant behavior including awareness, accessibility, and activation (Thornton et al., 2012). It can hinder the incentive for searching alternative courses of action, which can trigger a domino effect to decreases the latitude of action and the actual misfit between a firm's practices and national logic. Indeed, slack resources function as an “inertia” and “complacency-fostering buffer” (Sitkin, See, Miller, Lawless & Carton, 2011).

Deviance from institutional logic can be a source of competitive advantage (Chen & MacMillan, 1992; Meyer & Rowan, 1977), through which firms can enhance the reputation and financial performance (e.g., Garg, 2013). However, according to behavioral theory, an abundance of slack may result in satisfying and irrational optimism in strategy making (e.g., Cyert & March, 1963; Kraatz & Zajac, 2001), which can downplay the need for distinctiveness. Benefits of

deviation from institutional norms (e.g., Fombrun & Shanley, 1990) are less likely to attract attention in the presence of slack resources.

The latter perspective, i.e., the downside of slack, is more likely to hold about predicting nonconformity behavior. Scholars argue that slack is just beneficial when a perceived environmental threat is high (e.g., Voss et al., 2008). Nonconformity refers to the intentional departure from institutional norms (Spreitzer & Sonenshein, 2004: 828), which is unlikely to originate from a threat in the environment. Firms that decide to deviate need to exit from the inertia and complacency and to engage in distinctive behavior. This is more compatible with the latter perspective for slack resources. Hence, we expect slack resources to weaken the tendency to deviate and hypothesize that:

***Hypothesis 2:** The negative impact of entrepreneurial orientation on board gender diversity is weaker when the firm's slack is high.*

2.5. The Moderating Role of the Extent of Regulatory Enforcement

Corporate Governance Deviance Theory also argues that the extent of regulatory enforcement attenuates the impact of deviant behavior. It is particularly important to investigate the impact of regulatory enforcement because this institutional dimension is a key contextual contingency that can affect organizational behavior regarding national norms (Pache & Santos, 2010). It can also vary significantly across countries (e.g., Levi-Faur, 2006). The extent of regulatory enforcement refers to the intensity of monitoring and penalizing for illegal organizational actions (e.g., Banerjee, 2011). It makes institutional demands more formalized and puts higher pressures on firms to adhere to institutional logic. When institutional demands are “rule-like” it would be more costly for firms interested in nonconformity to deviate from national logic (Aguilera et al., 2018).

Due to the predictable sanctions for firms that violate rules, the high extent of regulatory enforcement can attenuate the nonconformity behavior of the firms. The introduction of board gender quota in Norway did not meet its goals until it was tightened in 2005 by legislating sanctions that threatened non-compliant companies to dissolution (Storvik & Teigen, 2010).

Gender equality in organizations is of particular interest to regulators and a way to appease multiple stakeholders (Dobbin et al., 2011). Despite the progress on female presence, women are still underrepresented on corporate boards (e.g., Terjesen et al., 2015). Some countries have enacted guidelines or laws to accelerate the improvement in board female representation to increase board gender diversity. Some of them have soft laws, some others have hard laws and some others have no mandate for women's presence. Evidence shows the notable variation across countries for the type of law they follow (e.g., Harvard Law School Forum on Corporate Governance, 2017).

Operating in countries with strong enforcement for board female representation hinders the likelihood that firms interested in nonconformance adopt deviant behavior. Lax regulation makes it easier for firms to fall outside the zone of conformity to national logic. In these contexts firm's deviant behavior is less likely to be prosecuted and inhibited by the regulatory frameworks (e.g., Jackson, 2007). In countries with regulations for women's presence, explicit and coercive enforcement increases the cost of not following the institutional logic. In other words, a high extent of regulatory enforcement weakens the likelihood that firms interested in deviation adopt deviant behavior. So:

Hypothesis 3: The negative impact of entrepreneurial orientation on board gender diversity is weaker when the extent of regulatory enforcement within a national economy is high.

3. RESEARCH DESIGN

3.1. Data and sample: The sample used in this paper is constructed from a dataset obtained from Bloomberg, which is a comprehensive database that tracks information for a global set of firms. We focus on publicly-traded companies in 17 major countries from 2012-2018. These countries cumulatively account for 73 percent of global GDP. We have observations from Europe (including Finland, France, Germany, Netherlands, Norway, Sweden, Switzerland, and the United Kingdom), Australasia, Asia (including China, Hong Kong, India, and Japan), Latin America (including Brazil and Mexico), the United States and Canada. Although the dataset lacks observations from some countries such as the African ones, we still cover a broad range of observations from both developing and developed countries. There are different "classifications of countries to institutional systems" for board female presence (Grosvold & Brammer, 2011: 124) and our sample has observations from at least one country in each of these classifications.

Bloomberg has available data for many countries, but we had the following set of criteria for a country to be included in our sample. First, the country should have a reporting requirement for public companies to provide financial and board-level data. Moreover, since the number of public firms is different in different countries, and some countries have only a few firms, we set a minimum of 30 firm-year observations as the generally-accepted threshold for regression. Finally, our sample should represent a geographically and institutionally diverse set of countries to allow for variation. This screening method is mainly consistent with Grosvold, Rayton, and Brammer's (2016) study.

The number of publicly-traded companies varies markedly across countries. For example, the number of listed companies in the US is more than 60 times this number in countries such as

Finland. This can overweight the impact of some countries and downplay others. To deal with this issue, our approach was to randomly select a sample of each country in such a way that their representation in the final sample is corresponding to the GDP percentage of that country in the world with a $\pm 2.5\%$ threshold. Therefore, we present a sample that fits well with the global-representation of different countries. Table 1.1 shows the number and percentage of our final firm-year observations per country.

In the initial sample, there were missing values, and some of the firms were duplicated due to cross-listing. We deleted those firms that their country of domicile (the country where major management activities take place) was different from the country of listing to avoid multiple national logics for one firm. The remaining sample consists of 835 firms and an unbalanced panel data set of 1,689 firm-years observations ($n = 835$, $T = 1-7$, $N = 1689$) for 17 countries from 2012 to 2018. Databases we used are *Bloomberg*, *World Bank*, *United Nations Development Programme (UNDP)*, and *Hofstede Insights*.

[Insert Table 1.1 about here]

3.2. Dependent variable:

3.2.1. Board Female Representation Under-conformity refers to “intentional behaviors that depart from the norms of a referent group” (Spreitzer & Sonenshein, 2004: 828) for board female representation. To measure deviance, first, we calculate female representation using the percentage of female members on the board. Previous scholars have widely used this method (e.g., Grosvold, & Brammer, 2011; Terjesen and Singh, 2008). Then, we calculate the mean score of each industry within a specific country. We differentiate among industries because different industries have different patterns for gender diversity (e.g., Terjesen et al. 2009). We use the two-digit SIC code to define industries. To measure the mean, we include every observation that has data for gender

diversity, even those with missing values for other variables: the more data, the more precise index for female representation. In the next step, we calculate the difference between the board female percentage of each firm and the mean to measure deviance. This method is consistent with the previous studies (e.g., Deephouse, 1999; Miller & Chen, 1996; Walls & Hoffman, 2013). Finally, we define a dummy variable in which any negative deviance, i.e., score below the mean, is 1 and the rest is 0.

3.3. Independent variables:

3.3.1. *Entrepreneurial Orientation* has been long measured based on instruments that were developed decades ago. Time has come for the field to use complementary measurement approaches to the well-established psychometric approach advanced by Covin and Slevin (1989) for assessing EO (Wales, 2016). One such alternative measurement approach is using more objective, secondary measurement indicators that provide insight into EO behavior (Miller, 2011). Miller and Breton–Miller’s (2011) method represents a highly useful step toward the goal of advancing alternative operationalizations of EO (Wales, 2016). In line with this method, we measure innovativeness as “research and development expenses divided by total sales,” proactiveness as “the percentage of annual earnings reinvested within the company” or retention ratio, and risk-taking as “the risk of a price change in firm market value due to firm-specific circumstances.” This risk is called unsystematic or idiosyncratic risk and is “derived by regressing firm-specific return on a value-weighted return of the market as a whole, and retaining the root mean square error from the regression” (Miller & Breton–Miller, 2011: 1062).

To measure the idiosyncratic risk of each firm, we do a regression between the monthly returns of the firm and the market. The return of firm i is driven by a common factor and the firm-

specific shock ε_i . To capture risk, we use the traditional CAPM formula, in which $R_{i,t}$ is the return of firm i , $R_{m,t}$ is the market return, $R_{f,t}$ is the risk-free return and $\varepsilon_{i,t}$ is the idiosyncratic return.

$$R_{i,t} - R_{f,t} = \beta_{i,t}(R_{m,t} - R_{f,t}) + \varepsilon_{i,t}$$

We measure the idiosyncratic volatility of firm with the standard deviation of the residuals as follow:

$$Risk-Taking = IVOL_{i,t} = \sqrt{var(\varepsilon_{i,t})}$$

We used the summative (formative) measure for EO by using the three components of that. These components may vary independently (Lyon, Lumpkin & Dess, 2000), and this justifies using the summative rather than a reflective index (Miller & Breton-Miller's, 2011). Variables are standardized in the summative measure of EO.

Entrepreneurial Orientation =

$$\frac{\text{innovativeness} - \text{mean}(\text{innovativeness})}{SD(\text{innovativeness})} + \frac{\text{risk taking} - \text{mean}(\text{risk-taking})}{SD(\text{risk-taking})} + \frac{\text{proactiveness} - \text{mean}(\text{proactiveness})}{SD(\text{proactiveness})}$$

3.3.2. Slack Resource refers to the overall organizational capital that can be redeployed to achieve organizational goals (George, 2005; Nohria & Gulati, 1996). Free cash flow is used as the proxy of financial slack. This proxy is widely used in the literature (e.g., Cardoso, Martinez & Teixeira, 2014). To make sure that slack can affect governance capacity and to improve the causality, the firm's slack is lagged by one year.

3.3.3. The extent of Regulatory Enforcement refers to the national level intensity of monitoring and penalizing illegal organizational actions (Banerjee, 2011). We captured the extent of

regulatory enforcement using data from the World Bank database. This index varies from -2.5, as the weakest to +2.5, as the strongest score for country regulatory enforcement in each country.

3.4. Control variables:

We include several control variables that have been shown in the previous studies to impact board gender diversity. ***Firm Size***: The likelihood of female representation on board is correlated with firm size (Hillman et al., 2007). To measure firm size, we use the natural logarithm of the number of employees. ***Firm Performance***: Studies show a relationship between performance and women on board (e.g., Campbell & Mínguez-Vera, 2008; Post & Byron, 2015; Ryan & Haslam, 2007). We use the previous performance (*t-1*) measured with the net profit divided by total equity (ROE). ***Female CEO***: Based on the literature female CEO and board gender diversity are associated (Al-Mamun, Yasser, Entebang, Nathan & Rahman, 2013). We use a dummy variable that is coded as 1 when there is a female CEO. ***CEO Duality***: CEO duality has the potential to impact board gender diversity (Nekhili & Gatfaoui, 2013) To account for this impact, we control whether the CEO also chairs the board coded as 1. ***Board Independence***: Board independence can also impact female representation on board (Geiger & Marlin, 2012). We measure it by using the percentage of outsiders on the board. ***Social Culture (Power Distance, Masculinity)***: Previous studies argue that only certain aspects of culture (power distance and masculinity) contribute to the level of gender diversity (Carrasco, Francoeur, Labelle, Laffarga & Ruiz-Barbadillo, 2015). Consistently we control for these dimensions. Data for culture is obtained from the Hofstede Insights database. ***Gender Inequality***: Firms operating in countries with lower gender inequalities have a higher likelihood of having women on board (Fernandez-Feijoo, Romero & Ruiz-Blanco, 2014), This index, obtained from UNDP database (Human Development Report, 2019)

3.5. Analysis and Results:

Since our dataset includes multiple observations for firms across different years, we used the generalized estimating equations technique to avoid autocorrelation among the within-group observations. Generalized estimating equations (GEE) are suitable for handling panel data (Ballinger, 2004).

[Insert Table 1.2 about here]

[Insert Table 1.3 about here]

The descriptive statistics of all variables and pairwise correlation for the sampled firms are shown in Table 1.2 and Table 1.3. Consistent with our expectation, the correlation between entrepreneurial orientation and under-conformity is significant (0.121). As a result higher entrepreneurial orientation is associated with lower conformity to board female representation norms. Table 1.4 displays the results of the generalized estimating equations. Model 1 shows an analysis with only control variables. The unstandardized coefficient of EO is positive when it is added in Model 2. Consistent with our expectation, the model shows a strong significant positive relationship between EO and under-conformity ($\beta = 0.116$, $SE = 0.0318$, $P < .001$). These results support hypothesis 1 and corroborate our expectation that firms with higher entrepreneurial orientation are more likely to go below the national norms.

[Insert Table 1.4 about here]

In Model 3, EO interacts with slack resources to test hypothesis 2. Once again, the model indicates a significant moderating impact. According to the results, the interaction term is negative and significant ($\beta = -0.304$, $SE = 0.129$, $P < .05$), which provide empirical support for hypothesis 2. In Model 4, we test for the hypothesis that EO interacts with the extent of regulatory enforcement. The model shows an insignificant interaction, hence, we did not find empirical support for hypothesis 3. Finally, Model 5 shows the whole variables, which include control variables in

addition to the independent variables and the two moderators. In general, the results confirm the significant moderating impact of slack resources, however the same cannot be said for the regulatory enforcement.

3.6. Robustness Tests

First, as an alternative measure for under-conformity, a dummy variable is defined, in which anything that is one standard deviation below the mean has been considered as under-conformity to the norm. This is an examination of the more extreme outliers of under-conformity. The results in Table 1.5 show that there is a significant positive relationship between entrepreneurial orientation and under-conformity. Hence, our results are robust for any under-conformity but also for extreme levels of under-conformity.

[Insert Table 1.5 about here]

As another measure, we focus on the sub-sample in which board female representation is below the mean and explore the relationship between EO and continuous measure of under-conformity. The results show that the more entrepreneurial orientation the more under-conformance to institutional logic. Hence, our results are robust for both categorical as well as continuous measures of under-conformity.

Second, to decrease causality concerns, we lagged the independent variable (EO) by one year to better test our causal assumptions. The result confirms the impact of entrepreneurial orientation on the board female representation under-conformity. Furthermore, one might argue that the findings are due to the board size deviation and not the deviation in the number of women on board. The percentage of women on the board is calculated by dividing the number of women by board size. To decrease the concern that the results are affected by the impact of board size variable, i.e., the denominator, we re-run analyses for testing the deviation of board size. The same

procedure to calculate board gender diversity under-conformity is applied for board size under-conformity. The result reduces the concern that the link is due to board size impact.

4. DISCUSSION

This study explored the variation in board gender diversity between and across national governance environments. While board gender composition has garnered significant interest (Kirsch, 2018), deviance from a dominant national institutional logic is an unexplored avenue in comparative gender diversity literature. Consistent with corporate governance deviance theory (Aguilera et al., 2018) and gender role congruity theory (Eagly & Karau, 2002), we found that a firm high in risk-taking, innovativeness and proactiveness as represented by entrepreneurial orientation is more likely to deviate below institutional logic for board female representation. These findings are consistent with the underrepresentation of women in high-tech industries (Vigo, 2019).

Our findings also revealed a boundary condition and showed that when the amount of slack in the firm is high, the impact of EO on under-conformity reduces. This is consistent with the behavioral theory (Cyert & March, 1963), which argues that slack creates organizational passivity and decreases the motivation for novelty and distinctiveness. Having a high amount of slack hinders the three stages of deviant behavior including awareness, accessibility, and activation (Thornton et al., 2012). It appears to discourage the search for alternative courses of action, which can finally decrease the latitude of action and result in the actual misfit between the firm's practices and national logic. Indeed, our findings showed that slack resources function as an “inertia” and “complacency-fostering buffer” (Sitkin, et al., 2011) to deter deviant behavior.

While CGDT argues for the strengthening impact of governance capacity on the link between EO and nonconformity, we showed that this impact might be contingent on the type of

governance capacity. In our study, financial slack resources as a kind of governance capacity weakened the impact of EO on deviance. This negative moderation is not in line with CGDT prediction and sheds light on the potential contingency nature of governance capacity.

Contrary to our expectation, we did not find a significant impact of regulatory enforcement on the link between EO and under-conformity. This insignificant result is potentially due to the multiplicity of regulatory policies to overcome the gender imbalance (Senden, 2014) and the relatively non-mature nature of gender quota regulation. In other words, the type of regulation may matter more than overall extent of regulatory enforcement. As such, this finding also contributes to our understanding of CGDT as well.

4.1. Theoretical Implications

Using corporate governance deviance theory to explain institutional nonconformity to board female representation logic, we respond to the call for more research on the impact of organizational identity on strategic responses to institutional processes (Durand & Thornton, 2018). Given the popularity of board gender composition, particularly in comparative corporate governance literature (Knippen et al., 2019), and growing attention to the organizational agency (Saka-Helmhout, 2020), the intersection of these two provides a ground that is of interest for scholars of both institutional theory and corporate governance field.

Contribution to gender diversity literature: While current limited yet growing studies on the antecedents of female representation (Guldiken et al., 2018; Hillman et al., 2007) focuses on either institutional factors or organizational factors, we advance the literature by bringing the organizational agency into the study of institutional processes for board gender composition. Doing so, we overcome the inability of previous studies to explain the variation of governance

practices within a country (García-Castro, Aguilera & Ariño, 2013) for female presence. Board female representation has mainly taken as exogenous (Hillman et al., 2007). This study is one of the few that explore the antecedent of female representation with a key difference. The micro and macro level antecedents have evolved separately in the literature and no study has linked these two levels together. By linking national logic and organizational level factors to better explain organizational behavior, we contribute to the comparative gender diversity literature. In general, our findings suggest the entrepreneurial orientation of the firm as an underlying explanation of why some firms go below the national norm for board female presence.

Moreover, the literature on the antecedent of board female representation suffers from the paucity of theory and needs finer-grained researches (Terjesen et al. 2009). The majority of current studies are descriptive and do not have a sound theoretical foundation. Bringing the CGDT and GRCT into the field contributes to board gender diversity literature and helps to a better explanation of board gender composition. Finally, our study provides a global perspective on board gender diversity that is unique to the literature. The few studies that examine board gender diversity in a global context (e.g., Grosvold & Brammer, 2011, Grosvold et al., 2016; Terjesen & Singh, 2008; Terjesen et al., 2015) focus on the average board female presence across countries. Using a globally-representative set of firms, our study moves away from the average and consider distribution within each country.

Contribution to corporate governance deviance theory: This study also extends and refines the corporate governance deviance theory (Aguilera et al., 2018). First, this is one of the initial attempts to respond the call for an empirical test of the theory (Aguilera et al., 2018) and provides strong support for this recent conceptual advance in the context of the board of directors, which is a unique and central part of governance mechanism (Daily et al., 2003; Walls & Hoffman, 2013).

Particularly, board gender composition is one of the most visible attributes of firms (Lynall et al., 2003) and is highly influenced by societal norms (Zajac & Westphal, 1996). As a result, it is a suitable field to examine institutional deviance. Second, we show the potential contingency nature of governance capacity, as the moderator of the corporate governance deviance model.

As opposed to CGDT predictions, financial slack resources as a kind of governance capacity was found to weaken the impact of EO on deviance. While this result confirms the moderating impact of governance capacity, it calls into question the direction. Further researches might shed light on the contingency nature of governance capacity. Third, we probe into the type of deviance and argue the direction of nonconformity. Deviation from norms can take place by either going below the norm, i.e. under-conformity or exceeding the norm, i.e., over-conformity (Heckert & Heckert, 2002). While CGDT differentiates between these two, it does not provide insight into predicting firm behavior as regard to deviance direction. In this study, we argue that firms with EO are more likely to deviate below norms for board female representation given the gender role congruity impact (Eagly & Karau, 2002). A similar approach can be used for other governance practices and other complementary theories to describe the direction of the nonconformity of firms with EO.

Contribution to entrepreneurship literature: Little is known about the board gender composition of firms with entrepreneurial orientation. One notable exception is the study of Kroll, Walters and Le (2007), in which suitable post-IPO board composition of entrepreneurial firms is explored. Our multilevel study suggests that firms with entrepreneurial orientation have lower board female representation than the average of the institutional context in which they operate. Several authors have suggested the benefit of conducting multi-level research in the EO domain (Wales, 2016). Institutional logics considerations contribute to the field and help to a better

explanation of governance preferences of a firm with EO, particularly their board compositions. Moreover, there has been limited knowledge of the causal mechanisms in EO–performance relationships (Wiklund & Shepherd, 2011). There is a need for theory integration in the field to explain mediating influences in EO-performance relationships (Wales, 2016). Although we do not examine performance, our study introduces a potential mediation that can shed light on this link. Given the significance of female representation in institutional context (Lynall et al., 2003; Zajac & Westphal, 1996) and the performance implications of deviance from institutional logics (Geletkanycz & Hambrick, 1997; Garg, 2013; Meyer & Rowan, 1977) deviation below the board female representation logic can impact the organizational performance of the firm with EO.

4.2. Practical Implications

The benefits of board gender diversity are manifold. It enforces ethical behavior, increases transparency, and improves corporate governance (e.g., Gul, Srinidhi & Ng, 2011). Despite the recent attempts to improve female presence on public corporate boards, there is still a notable imbalanced gender representation (e.g., Strøm, 2019; Zhang, 2012). There is a need for studies that bolster our understanding of how and why firms respond differently to board female representation logic. To push for better representation of women on board, policymakers need to know which firms tend to deviate from normative prescriptions. It is particularly important to pay attention to the under-conformity behavior of firms with entrepreneurial identity. Because these firms have the potential to trigger institutional change through establishing a new set of norms (Aldrich & Fiol, 1994), which can counteract the institutional attempts to balance gender representation. Moreover, our findings have clear implications for female board candidates to make them more informed about the distribution of female presence within the institution. Our

findings represent opportunity areas for women trying to advance to the corporate elite and reach to key organizational positions.

5. LIMITATIONS AND FUTURE RESEARCH

This study has some limitations that can provide directions for future research. First, the proxy we used for entrepreneurial orientation is crude and only captures the external manifestation of EO. Despite the high reliability of such archival measures for EO, even the best, most-often used measures may suffer from construct validity concerns (Lyon et al., 2000). This operationalization does not fully capture the concept of EO, nor overall entrepreneurial identify. Future studies can use a measurement that is more richly characterized (for a review see Wales, 2016).

Second, it is important not to overgeneralize our findings that come from a sample of publicly-traded firms. The significance of institutional conformity may not be the same for private firms, which have less public scrutiny around their governance practices. There is an opportunity for scholars to examine board composition in other settings, such as family firms or non-profit organizations.

Third, we did not take into account the performance implications of under-conformity for board female representation. The deviation can impact organizational outcomes, however, there is an ongoing debate on the type of impact (Carpenter, 2000). Future research would benefit from studying how departure from the national norms of gender diversity can impact firm performance for different versions of nonconformity (Heckert & Heckert, 2002).

A fourth and final limitation is that we assume that women, once on the board, are speaking up and influencing deliberations. However, membership on the board doesn't always lead to a contribution to boardroom deliberations (e.g., Pugliese & Wenstøp, 2007). In-depth field studies

are required to overcome this limitation. Additionally, we did not differentiate women's presence in different board committees. A more detailed research design can be applied to explain female representation patterns in various committees. Future research can also explore female representation patterns for TMT or CEO positions.

5.1. Conclusions

Despite these limitations, our findings contribute to a global perspective on board gender diversity and explain the variation of female representation within a national context, which is unexplored in the literature. This study is the first global study to provide a more theory-based and nuanced perspective on why some firms conform to institutional norms, while others under-conform to these norms for board female representation.

6. CHAPTER 1 REFERENCES

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TABLE 1.1
Number and Percentage of Firm-Years Observations per Country for 2012-2018

Country	% Global GDP	Number of Firm-Years	% of Firm-Years	Difference between % Global GDP & % Representation in the Sample
Australia	1.8	56	3.31	1.5
Brazil	2.7	16	0.94	-1.7
Canada	2.3	55	3.25	0.9
China	14	280	16.57	2.5
Finland	0.4	37	2.19	1.7
France	3.4	97	5.74	2.3
Germany	5	128	7.57	2.5
Hong Kong	0.7	55	3.25	2.5
India	2.7	33	1.95	-0.7
Japan	6.7	116	6.86	0.1
Mexico	1.7	55	3.25	1.5
Netherlands	1.2	60	3.55	2.3
Norway	0.7	25	1.48	0.7
Sweden	0.8	56	3.31	2.5
Switzerland	0.99	60	3.55	2.5
United Kingdom	3.99	110	6.51	2.5
United States	24.1	450	26.64	2.5
Unbalanced Panel: n = 835, T = 1-7, N = 1689				

TABLE 1.2
Descriptive Statistics

Variable	Mean	Std.Dev.	Std.Err.	[95%_Conf	Interval]
Under-Conformity	.453	.498	.0123	.4284982	.4769072
EO	-.722	1.849	.0458	-.8117885	-.6319958
Innovativeness	.028	.048	.0012	.0261206	.0307916
Proactiveness	.633	.264	.007	.6200365	.6457352
Risk Taking	.071	.047	.0012	.068366	.0728937
Regulatory Enforcement	1.205	.885	.0219	1.16218	1.248213
Slack	.229	1.26	.0312	.1677006	.2901556
Firm Size	9.301	1.951	.0483	9.206288	9.395932
Performance	.16	.188	.0047	.1505303	.1688551
Female CEO	.042	.202	.0050	.0325868	.0521798
Duality	.261	.439	.0109	.2396990	.2824140
Board Independence	.629	.237	.590	.6177211	.6408471
Power Distance	.511	.183	.453	.5029241	.5206870
Masculinity	.587	.191	.473	.5781490	.5967033
Gender Inequality	.161	.092	.002	.1562428	.1651577

TABLE 1.3
Pairwise Correlation

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) Under-conformity	1.000														
(2) EO	0.121*	1.000													
(3) Innovativeness	0.050*	0.444*	1.000												
(4) Proactiveness	0.108*	0.735*	0.062*	1.000											
(5) Risk Taking	0.073*	0.738*	0.016	0.291*	1.000										
(6) Regulatory Enforcement	0.009	-0.166*	-0.002	-0.080*	-0.213*	1.000									
(7) Slack	-0.039	0.034	0.044	-0.011	0.039	-0.021	1.000								
(8) Firm Size	-0.112*	-0.380*	-0.059*	-0.275*	-0.361*	0.018	-0.077*	1.000							
(9) Performance	-0.087*	-0.120*	-0.020	-0.128*	-0.075*	0.046	0.014	0.042	1.000						
(10) Female CEO	-0.136*	0.004	-0.010	-0.019	0.032	-0.008	0.045	-0.086*	0.102*	1.000					
(11) Duality	-0.026	0.075*	-0.016	0.109*	0.039	-0.026	-0.011	-0.119*	-0.043	-0.000	1.000				
(12) Board Independence	0.039	-0.043	0.067*	0.022	-0.143*	0.551*	-0.027	0.043	0.023	-0.045	-0.110*	1.000			
(13) Power Distance	-0.023	0.103*	-0.026	0.023	0.176*	-0.890*	0.019	0.054*	-0.078*	0.006	0.116*	-0.665*	1.000		
(14) Masculinity	-0.115*	0.169*	0.010	0.173*	0.124*	-0.275*	0.022	-0.113*	-0.029	0.011	0.196*	-0.338*	0.262*	1.000	
(15) Gender Inequality	0.002	0.154*	-0.131*	0.207*	0.165*	-0.429*	-0.017	-0.127*	0.057*	0.039	0.096*	-0.117*	0.405*	0.272*	1.000

* shows significance at the 0.05 level

TABLE 1.4
GEE regression analysis predicting board female representation under-conformity

Variable	Model 1		Model 2		Model 3		Model 4		Model 5	
	β	SE	β	SE	β	SE	β	SE	β	SE
Constant	2.145***	.476	2.071***	.478	1.942***	.480	2.208***	.682	1.943***	.687
Firm Size	-.146***	.0277	.106***	.0299	-.0892**	.0304	-.107***	.0302	-.0914**	.0306
Firm Performance _{t-1}	-.927**	.321	-.814*	.322	-.816*	.323	-.824*	.322	-.826*	.323
Female CEO	-1.845***	.366	-1.846***	.367	-1.855***	.367	-1.858***	.368	-1.880***	.368
Duality	-.105	.120	-.103	.120	-.125	.121	-.0945	.124	-.124	.124
Board Independence	.00125	.315	-.0924	.317	-.188	.322	-.0973	.319	-.180	.323
Power Distance	.0555	.432	-.0957	.435	-.223	.438	-.278	.740	-.259	.740
Masculinity	-1.53***	.304	-1.67***	.308	-1.59***	.313	-1.66***	.312	-1.56***	.316
Gender Inequality	.764	.665	.671	.670	.804	.674	.730	.691	.964	.696
EO			.116***	.0318	.106**	.0324	.136**	.0501	.145**	.0494
EO* Slack					-.304*	.129			-.330*	.131
Slack					-.663**	.252			-.707**	.259
EO* Regulatory Enforcement							-.0182	.0344	-.0368	.0349
Regulatory Enforcement							-.0471	.136	-.0198	.137
Chi2	82.74		94.43		97.71		94.79		98.38	

† p = 0.1 * p = 0.05, ** p = 0.01, *** p = 0.001

TABLE 1.5

GEE regression analysis predicting board female representation under-conformity with an alternative measure (STD below the mean)

Variable	Model 1		Model 2		Model 3		Model 4		Model 5	
	β	SE	β	SE	β	SE	β	SE	β	SE
Constant	-1.726*	.738	-1.805*	.744	-1.855*	.750	-.641	1.043	-.631	1.053
Firm Size	-.246***	.0334	-.214***	.0356	-.214***	.0365	-.194***	.0362	-.198***	.0370
Firm Performance t_{-1}	-1.148**	.404	-1.018*	.400	-.973*	.399	-1.016*	.405	-.983*	.404
Duality	-.0760	.144	-.0664	.144	-.0676	.145	-.0136	.147	-.0111	.148
Board Independence	-.149	.448	-.240	.452	-.186	.456	-.445	.462	-.390	.465
Power Distance	2.16***	.552	2.05***	.554	2.10***	.559	.663	1.07	.684	1.07
Masculinity	2.35***	.533	2.26***	.538	2.18***	.548	2.04***	.540	1.96***	.549
Gender Inequality	2.540**	.776	2.482**	.778	2.555**	.780	2.039*	.797	2.102*	.804
EO			.0929*	.0363	.0911*	.0366	.0112	.0490	.0131	.0510
EO* Slack					-.183†	.105			-.154	.109
Slack					-.181	.144			-.135	.147
EO* Regulatory Enforcement							.0877*	.0371	.0812*	.0380
Regulatory Enforcement							-.245	.177	-.255	.178
Chi2	157.3		161.7		164.4		168.1		170.4	

† p = 0.1 * p = 0.05, ** p = 0.01, *** p = 0.001

CHAPTER 2

DOES IT PAY TO EXCEED INSTITUTIONAL EXPECTATIONS FOR FEMALE REPRESENTATION ON CORPORATE BOARDS? A DEVIANT GENDER ROLE THEORY PERSPECTIVE

ABSTRACT

Previous studies acknowledge the importance of isomorphic institutional norms to explain performance implications of the gender profiles of board of directors, leaving the variation within the same national or industry context unexplored. Building on insights from resource dependence theory, we examine whether and how deviating above the industry norms (i.e., over-conformity) for female representation on boardrooms has different performance consequences for firms, depending on the stakeholder group influenced. Specifically, we find that accounting performance is reinforced as perceived by the managers and employees within the firm; market performance is unaffected as perceived by shareholders, and innovation performance is decreased as perceived by innovation resource providers. Hence, the performance effect of over-conformity depends on the stakeholder group considered. Overall, we contribute to resource dependence theory by emphasizing the role of various stakeholders in valuation of women's presence. Moreover, this study extends our understanding of the boundary conditions for value creation by female directors by focusing on corporate governance deviance literature.

Keywords: Non-Conformity, Resource dependence theory, Positive Deviance, Board Female Representation, Gender Role Theory, Institutional Logics.

1. INTRODUCTION

Due to historical under-representation of women on corporate boards, there are increasing attempts by policymakers to encourage gender equality in boardrooms. These policies are mainly derived by growing evidence suggesting that female representation brings numerous desirable organizational outcomes. These outcomes include, but are not limited to, higher accounting performance (Abdullah, Ismail, & Nachum, 2016; Singh, Vinnicombe & Johnson, 2001), better market performance (Campbell & Minguez-Vera, 2010), and improved social responsibility behaviors (Boulouta, 2013). Evidence shows that large diversity-promoting firms have experienced abnormal positive returns on the date of female director announcement (Ellis & Keys, 2003). In addition, there is increasing recognition that women are often blocked from C-suite and board-level positions due to the glass ceiling (Lewellyn & Muller-Kahle, 2020). Hence, there is also a moral argument that it is more fair to have more women serving on corporate boards.

While most firms choose to conform with institutional norms, others seek to go beyond these norms (i.e., over-conformity) with the hope to gain more legitimacy. However, deviating from the prevailing institutional logic can result in unique costs and benefits based on different perspectives leaving practitioners and policy-makers unsure about the performance implications of board female representation exceeding institutional norms. The reasoning of institutionalists argues in favor of conforming behavior; however, the competitive analysis perspective discusses that non-conformity can enhance firm performance by bypassing traditional practices and providing a competitive advantage through differentiation (Miller, Breton-Miller & Lester, 2013). While normative (objective) conceptions ignore deviance admiration, reactivist (subjective) definitions of deviance, view over-conformity as positively evaluated behaviors. Indeed, Heckert

and Heckert (2002) integrate these two perspectives to underscore the role of various stakeholders in evaluating institutional responses.

Further, mixed findings associated with women's presence complicate assessing consequences of non-conformity to board female representation logic. Despite numerous research studies suggesting benefits with board female representation, there are also many studies showing that it can have a negative impact on organizational outcomes, including the accounting performance (Mínguez-Vera & Martin, 2011) or stockholders' value (Bennouri, Chtioui, Nagati & Nekhili, 2018; Bøhren & Strøm, 2010). These contradictory findings coupled with increasing calls from external stakeholders to enhance female representation create a lot of ambiguity for managers. In sum, the equivocal position of literature for the performance implications of deviant institutional responses makes understanding *whether and how over-conformity to board female representation logic can yield systematic firm performance outcomes* a vitally important practical matter.

Deviance from institutional norms has been widely examined in strategy research, and previous studies acknowledge that organizations are subject to institutional norms, however, the key implications of this behavior are largely underexplored (Philippe & Durand, 2011; Bascle, 2016), particularly with respect to gender diversity research. Moreover, the concept of over-conformity is marginalized in deviance literature, which mainly focuses on going below the norm (i.e. under-conformity) as the non-conformity behavior (Heckert & Heckert, 2002).

The complexity of the relationship between female board presence and performance as well as the impact of institutional logic on this link speaks of the need for more nuanced consideration (Post & Byron, 2015). The outcomes created by female directors rest on two arguments, which both are affected by institutional context (Abdullah et al., 2016; Terjesen &

Singh, 2008). First, women view themselves and behave differently than men (Barbulescu & Bidwell, 2013). Second, women are perceived differently than men by stakeholders (Ryan & Haslam, 2007). Accordingly, a vast body of literature examines the institutional factors that drive corporate governance practices, specifically firms' choice for board female representation (e.g., Terjesen, Aguilera & Lorenz, 2015). However, to the best of our knowledge, there is no study that directly explores the various performance implications of exceeding institutional norms.

In this study, we develop our theory in the context of multiple industries in the USA and consider three different aspects of firm performance to better understand the performance implications of female board representation. We argue the performance largely depends on the stakeholder perception of the over-conformity and hence, varies significantly with the type of performance considered. We believe this is the first study to theoretically and empirically examine the relationship between the organizational response to board female representation over-conformity and the performance in various formats.

We develop a concept of female representation deviance that extends the existing studies of value creation of female directors in three ways. First, we distinguish between the impact of female directors for those firms that conform to and those who deviate from the institutional logic for female representation. Second, we differentiate between the types of deviation and focus on a less explored non-conformity behavior referred to as over-conformity. Third, we take the position that firm performance has different indicators and the influence of female directors might vary depending on the type of performance considered (i.e., accounting, market, or innovation). In addition, we contribute to resource dependence theory, which argues that board of director members provide resources that can change power in and around organizations and environmental dependencies through linking the firm to external agencies (Pfeffer & Salancik, 1978). We argue

that this effect is perceived differently with different stakeholders (i.e., managers and employees, shareholders, and resource providers) dealing with female directors.

2. THEORETICAL DEVELOPMENT

There is a long-standing interest in the study of conformity to institutional norms, i.e., socially constructed values, beliefs, rules, and practices (Thornton & Ocasio 1999) in organizational theory research (DiMaggio & Powell, 1983; Pfeffer & Salancik, 1978). Institutional theorists believe that adopting practices that meet institutional demands results in higher legitimacy. This is necessarily important for firm practices that are broadly noticed such as board composition (Lynall, Golden & Hillman, 2003). Firms with higher levels of legitimacy have better access to resources (Greenwood, Raynard, Kodeih, Micelotta & Lounsbury, 2011), more support from stakeholders (e.g., Choi & Shepherd, 2005), and better funding from investors (e.g., Cohen & Dean, 2005). Unusual governance practices can make stakeholders suspicious about the firm, and firms violating the norms risk punishment.

On the other hand, deviant behavior provides a chance to seize new competitive opportunities in order to improve performance (Greenwood & Suddaby, 2006). Deviant behavior is associated with novelty and distinctiveness and is a type of aggressive behavior that can differentiate the firm. Firms that deviate from corporate governance norms are expected to possess an entrepreneurial identity that helps them take on relatively radical initiatives (Aguilera, Judge & Terjesen, 2018). For example, there are some arguments that firms can only enhance total shareholder returns by competing aggressively. Consequently, being entrepreneurially aggressive is expected to entail risk-taking, proactive initiative, and pioneering innovation. This logic suggests that investors recognize distinctive behavior and will put a premium on the market values of firms that exhibit more entrepreneurial orientation.

In addition to the difference between conformity and non-conformity of gender representation on the board, the distinction between the type of non-conformity (i.e., under- and over-conformity) needs to be considered. Unfortunately, the literature has paid little attention to over-conformity (Heckert & Heckert, 2002). Traditionally deviation was mainly equivalent to under-conformity and was evaluated negatively (e.g., Robinson & Bennett, 1995), but more recent studies have suggested that deviation is a broad concept, and deviance admiration is not only possible but likely (e.g., Vadera, Pratt & Mishra, 2013; Warren, 2003). Heckert and Heckert (2002) divide social reactions to over-conformity into rate-busting (over-conforming to norms associated with negative evaluations), and positive deviance (over-conforming to norms associated with positive evaluations). These different evaluations show that not only conformity and non-conformity have different consequences, but the type of non-conformity can make changes and needs nuances consideration.

The consequences of conformity to norms can increase with the importance of that norm. We expect conformity with female representation to be important because it meets at least four out of the six criteria that Bascle (2016) mentions to determine a norm's importance; (1) board female representation is calculable, (2) it relates to other social dimensions (such as gender equality and minority empowerment policies), (3) powerful parties (usually governments and social agencies) support it, and (4) it is more prescriptive than proscriptive (firms are encouraged to increase the presence of women on board). Therefore, we expect that conformity to board female representation to elicit a relatively strong stakeholder reaction that is easily observed and valued differentially.

Despite the benefits of conformity, many firms deviate from the dominant institutional logic because they usually face multiple logics that can conflict with each other. Deviation from board female representation norm is not uncommon given the mixed evidence for the performance

implications of board female representation, which ranges from a positive accounting performance or market reaction (Campbell & Minguez-Vera, 2010; Singh et al., 2001), to negative accounting performance or stockholders value (Adams & Ferreira, 2009; Bennouri et al., 2018; Bøhren & Strøm, 2010) to non-existent link (Carter, D'Souza, Simkins, & Simpson, 2010).

Furthermore, the strategic management literature has recently started to pay attention to the differential impacts of female representation on firm performance depending on the construct utilized (Abdullah et al., 2016). “A broader conceptualization of business performance would include emphasis on indicators of operational performance (i.e., nonfinancial) in addition to indicators of financial performance” (Venkatraman & Ramanujam, 1986: p804). At the financial level, accounting performance indicates how the gendered board actually performs historically, while market performance mainly indicates how the gendered board is expected to perform in the future. At the operational level, performance outcomes, such as firm innovativeness, reveal how functional excellence is achieved within the firm. Having both financial and non-financial constructs provides a better understanding of the impact of over-conformity accommodating the contextualized nature of non-conformity.

In this study, we take insights from resource dependence theory to explain how female representation over-conformity influences various performance outcomes. Resource dependence theory (RDT) focuses on the importance of resources—including human resources—to change the power within organizations and manage the environments (Pfeffer & Salancik, 1978). Drawing from RDT, we identify the role of women in resource provision to affect firm behavior. Central to RDT is the concept of power or control over vital resources (for a review please see Hillman, Withers & Collins, 2009). Boards enable firms to obtain resources and minimize dependence (Pfeffer, 1972) and RDT is one of the most successful lenses for understanding board (Hillman et

al., 2009). RDT acknowledges that board composition is not random but a response to the condition in the external environment (Pfeffer, 1972). Board composition should match the resources provided by the board with the need of the organization.

RDT is a key determinant of board composition (Daily & Schwenk, 1996). While the RDT traditionally assumes that board composition should focus on resource-rich directors for higher performance (Hillman et al., 2009), we relax this assumption in this study. Specifically, we argue that female representation can be valued differently by different stakeholder groups, and therefore, the performance metric that focuses on different stakeholder groups will vary by metric. Taken together we identify the importance of audience in evaluating board female representation over-conformity as a source of variation in performance. Moreover, we argue that the impact of resources that directors bring into the boardroom on the firm might vary considering organizational response to institutional logic. For example, one of the benefits directors bring to organizations is legitimacy (Pfeffer & Salancik, 1978), however, after reaching the institutional norm, the additional legitimacy, and hence value of those resources can change.

2.1. Board Gender Diversity Relative to Institutional Norms

While there is a global societal demand for increasing board gender diversity, particularly in recent decades, there is notable variation across countries. For example, while in the U.S. the percentage of board seats held by women reached all-time high (about 27%) for S&P500 in 2019 (ISS Analytics), in countries such as Japan, female representation is meager. Previous scholars have identified a variety of national systems to explain the national logic for female representation and cluster countries (e.g., Grosvold & Brammer, 2011; Terjesen and Singh, 2008).

According to Grosvold and Brammer's (2011) study, from an economic perspective, liberal market economies have a larger share of women on boards compared to coordinated market

economies, which are more suited to the male-model of full-time employment. From a national business system perspective, the compartmentalized system places more focus on general skills rather than promotion structure (Whitley, 1992) in favor of women, who have less history in firms. From a legal perspective, the English origin legal system supports higher gender diversity. Finally, from a cultural perspective, women's presence in the Anglo system is less than Nordic or Eastern European cultures. In sum, there is a clear difference in female representation across countries due to the various national norms (e.g., Aguilera & Jackson, 2003; Iannotta, Gatti, & Huse, 2016; Marquardt & Wiedman, 2016). As much as national differences, in some countries such as the USA, there are also regional differences driving within-country differences (Terjesen, Sealy & Singh, 2009).

In addition to the national and regional level factors, board gender composition can also vary depending on its industry context (e.g., Carter, Simkins & Simpson, 2003; Cumming, Leung & Rui, 2015). While firms in the banking and finance sectors have male-dominant boards of directors, "some industries, such as food processing, clothing (textile, garment) manufacturing, medicine, and biological product manufacturing, the retail clothing trade, food and beverage services, hotels, tourism, radio, film and television, and publishing, have been characterized as female-dominated" (Cumming et al., 2015: 1576). Likewise, female representation in non-profit sectors is also more than in for-profit ones (Terjesen et al. 2009). The industry impacts women's opportunity to advance to top organizational levels (McCormick Hyland & Marcellino, 2002), therefore changes female presence in corporate boards.

The institutional logic can determine the performance consequences of board female representation (Terjesen & Singh, 2008). Previous studies acknowledge that the impact of board female presence on organizational outcomes depends on the institutional context (Abdullah et al.,

2016; Ahern and Dittmar, 2012). For example, in emerging economies, due to more negative views of women shaped by deep-seated unfavorable attitudes toward women in power, the participation of women on board has a negative impact on market performance (Abdullah et al., 2016).

Nevertheless, not all firms within the same institutional context are the same. While the traditional focus of institutional literature was on isomorphism, neo-institutionalism pays more attention to the variety of organizations' responses to the institutional logic and considers agentic behavior (Heugens & Lander, 2009; Powell & DiMaggio, 2012). Confirming that deviant behavior is not uncommon, corporate governance deviance theory argues that firms with entrepreneurial orientation (i.e., innovativeness, risk-taking, and proactiveness) are likely to adopt deviant behavior in governance practices (Aguilera et al., 2018). Deviant firms do not adhere to institutional logic so their performance is expected to be different from those operating within the conformity zone.

2.2. Over-conformity and Legitimacy

Over-conformity is relatively an overlooked aspect of deviance and can be evaluated differently by a social audience (Heckert & Heckert, 2002). There are some situations that firms can gain more legitimacy by exceeding the norm. This situation is called “unattainable-ideal” and refers to the monotonic growth of legitimacy with increasing degrees of conformity. The number of publications a scholar has is an example of this norm, for which no optimum exist.

There are also situations that after a certain degree of conformity, the legitimacy remains constant. This “attainable-ideal” situation refers to monotonically increasing legitimacy rewards for conformity up to a point, with no additional legitimacy afterward. For a driving license test, after approval by the officer, the driver is no greater a hero if he is an excellent driver than he is average.

In some other situations, deviation in both sides (i.e., under and over-conformity) is disvalued. This situation is called “preferred-value” and refers to a continuous increase in legitimacy up to an optimum level with monotonic decreases thereafter. For example, if a supervisor is asked to coordinate three projects each season, approaching that number increases the legitimacy, but exceeding that drives criticism for too much pressure. Assessing the impact of institutional response cannot occur without considering these varied types of legitimacy (Bascle, 2016; March, 1954).

2.3. Board Female Representation Over-conformity and Accounting Performance

Accounting performance—in the form of profitability and mainly represented by return on asset or equity—is a long-standing and traditional mainstay of strategic management approaches to gauge how well a firm can use its assets (Otley, 2001). Previous research acknowledges that the quality and competence of board members can make difference in accounting performance (e.g., Post & Byron, 2015). One of the major resources that determine the value of directors is the input they bring such as counsel and novel perspective (Pfeffer & Salancik, 1978). Due to the traditional barriers for women in attaining roles at high levels of organizations (Davidson & Cooper, 1992), women who make it into boardrooms are typically the survivors of discriminatory processes and therefore tend to be exceedingly competent (Eagly & Carli, 2003). This competency increases the value of female directors as a resource in the eyes of internal stakeholders. Internal stakeholders including the managers and employees use resources to enhance firm performance, and their perception toward female directors affects the effectiveness of women of firm performance.

To compensate for gender biases, female directors are expected to be more proficient than male executives are in a wide variety of skills. In addition to competency, women usually have different occupational backgrounds than their male counterparts (Barbulescu & Bidwell, 2013)

helping them improve problem-solving related decisions (Daily, Dalton & Cannella, 2003) and positively change board functioning (Terjesen, Couto, & Francisco, 2016). Women as minorities often bring a new viewpoint to solve complicated issues and help in reducing biases in the formulation of strategy (Francoeur, Labelle & Sinclair-Desgagné, 2008).

The resource dependence theory considers the role of resources in affecting firm behavior (Pfeffer & Salancik, 1978). Prior experience of executives is important and can explain the value they bring into boardrooms (Hambrick, 2007). Access to particular expertise can leverage the role of female directors and their unique experiences garnered in other fields can contribute to high-quality board decision making within the board. Increased female representation may influence both what information is brought to bear in decision-making and how decisions are made. Taking together with other research, women are more likely to benefit from the non-business background and a portfolio of experience that help them understand certain situations better than their male counterparts (Arfken, Bellar & Helms, 2004). Managing the diverse stakeholders' needs require diversified skills and experiences.

Female directors are expected to exhibit more feminine roles such as sympathy (Eagly 1987), and these feminine attributes can be leveraged to improve the functionality of corporate boards in several ways. First, prior research shows that females are adept at developing trust with others (Maddux & Brewer, 2005). Trust plays an important role in task coordination, communication, information exchange, and surveillance (Currall & Judge, 1995). Second, another role associate with women is flexibility, which enhances women's ability to manage uncertain situations (Rosener, 1995). Third, female directors are expected to be less power-oriented than male directors and more inclined to share power (Adams & Funk, 2012), which can facilitate collaboration. Fourth, females have been shown to be better than males in resolving conflicts (e.g.,

Nielsen & Huse, 2010), because they are socialized to value nurturing and cooperative arrangements (Eagly & Johnson, 1990). Accordingly, women's presence is a valuable resource that can facilitate the formulation and implementation of strategies, therefore, helps the firm exploit the opportunities and neutralize the threats in the environment.

Taken together with other research, there is almost universal agreement in the academic literature that independent members can increase transparency and board monitoring within the firm. Women, by not belonging to the old networks of boardrooms, correspond more closely to the concept of independent directors (Adams & Ferreira, 2009). In addition, their presence gives rise to the level of board activity (Virtanen, 2012), because women attend more meetings and are more ready for the meetings (Adams & Ferreira 2009; Pathan & Faff 2013). More female directors are usually characterized by more monitoring of the CEO and greater alignment with the interests of shareholders' participation in decision-making (Adams & Ferreira, 2009).

The advantages that women can bring to the boardroom need to be valued and create value in order for them to contribute to performance. Profitability is an indicative of how well a firm efficiently utilizes its resources to generate profit, therefore, the value of resources should be perceived positively so they can generate profitability. Repeated interactions between internal stakeholders, such as managers and employees, and female directors provide opportunities for this positive perception and mitigate the deep-rooted negative gender stereotypes that might hinder the aforementioned benefits of high board female representation. Therefore, we do not expect that an optimum level of conformity with board female representation norms exists, after which the board's functionality reduces. In addition to the advantages of female directors for accounting performance acknowledged by previous studies (please see the Meta-analysis of Post & Byron,

2015), firms that exceed the gender diversity norm benefit from differentiation which can create reputational benefits both inside and outside of the firm.

In sum, profitability is a traditional measure of operational efficiency and it is determined using principles of accounting. Hence, the key stakeholders likely to be influenced by gender over-conformity will be internal, operational members. The most direct operational members influenced by female board members will be the top management team who will be subjected to higher levels of scrutiny and transparency. In addition, the rest of the organization is likely to be influenced by the reputational benefits of over-conformance to a desired standard, and perhaps even gain a competitive advantage in recruitment and retention of women. Therefore, the net positive perceptions of the internal stakeholders matter and should be able to generate genuine operational efficiencies that lead to enhanced profitability. We also expect these perceptions to be positive due to close interactions between internal stakeholders and female directors, which provide less room for negative stereotypes. Building on these arguments, we hypothesize that:

***Hypothesis 1.** Over-conformity with board female representation logic reinforces accounting performance in the form of higher profitability (i.e. unattainable-ideal).*

2.4. Board Female Representation Over-conformity and Market Performance

Market performance refers to the behavior of a security in the public equity marketplace, reflecting shareholders' perceptions and expectations of the long-term value of a firm. While shareholders can exist within and outside of the firm, the vast majority of public firms based in the USA are external to the firm, predominantly held by pension funds (Economics 21, 2014). Institutional investors own about 78% of the market value of the U.S. broad-market and Russell 3000 index, and above 80% of the large-cap S&P 500 index (Pensions & Investments, 2017). As

a result, shareholders mainly consist of external actors, who have less direct interaction with female directors, as compared to internal organizational stakeholders, and hence, are more likely to rely on stereotypes.

Previous research suggests that shareholders perceive women differently than they perceive men, and react differently to their presence (Lee & James, 2007). This perception may affect the demand for female directors and the corporate environment they experience as board members (Ryan & Haslam, 2007). According to RDT, directors have access to resources that can be leveraged in the relationship between firm and external actors including external shareholders. Market performance reflects the shareholders' valuation of resources a firm holds, including the representation of female directors. Therefore, we conceptualize the value women add to the boardroom from the perspective of institutional shareholders.

Oddly, the way that corporate America and most companies in the world operate hinders easy communication between shareholders and directors. There are increasing calls from shareholders to make connections with directors (Strätling, 2003), however, there are still not enough policies providing for shareholder-director engagement. Investors need to learn about the firm and the board through public documents and there are rare opportunities to make immediate contact with directors even in annual meetings (Dealbook, 2014). Lack of opportunity to interact with directors exacerbates the information asymmetry between directors and institutional investors increasing the role of stereotypes in making a judgment about directors.

Stereotypes toward women can generally hinder their effectiveness in positions of power, therefore their value from resource perspective (Eagly, 1987). For accounting performance, the close interaction between the perceiver (managers and employees) and female directors mitigates the negative stereotypes permitting less biased valuation of women as resources. However, for

market performance due to more information asymmetry between shareholders and female directors, these stereotypes start to play a moderate role. There is evidence suggesting that repeated encounters with a person increase the depth of knowledge about that person (Häfner & Stapel, 2009). This motivates customized processing and can decrease the impact of stereotypes. We can expect this opportunity to know female directors increases with the extent of engagement of different stakeholders with them. This translates into lower stereotypes by internal stakeholders and higher stereotypes by external stakeholders.

Market performance does not necessarily reflect the accounting performance of a firm (Lee & James, 2007). Rather, it is influenced by general market conditions as well as the collective evaluation of shareholder's expectations regarding future cash flows. Since these shareholders are also human evaluators operating from a distance, their gender biases are much likely to play a key role in their overall evaluation. While shareholders benefit from women's presence in several ways (e.g., Campbell & Minguez-Vera, 2010), these advantages have been mainly valued for the participation of female directors as minorities. The presence of a few women with male directors is likely to please shareholders in order to avoid being perceived as "backward". But, when firms have female representation that is notably above other firms in the industry, in the eyes of institutional investors, women's role changes from a secondary and moderating actor to an active one with the power.

From a societal perspective, women are generally viewed unfavorably for positions that are associated with power, control, and authority, a setting that typifies board positions (Eagly, 1987). More specifically, according to gender stereotypes, women are expected to be communal, showing empathy and concern for others; while men are expected to show more bold, agentic behavior (Konrad, Ritchie Jr, Lieb & Corrigan, 2000). Due to the absence of enough history of

dominant female representation in upper echelon positions traditionally linked with powerful agentic behavior makes evaluating their contribution difficult, creating uncertainty with women's presence above the norm. Taken together, the deeply rooted unfavorable attitudes toward women in positions of power may signal that the firm has abandoned its focus on economic objectives to an over-emphasis on social objectives.

Having board female representation that is not notably different from other firms in the industry is less likely to activate gender stereotypes, as it is perceived as a common practice. Exceeding above the norm of the institutions increases the risk a firm is exposed to. While this risk can translate into a differentiation strategy and enhance accounting performance through competitive advantage, shareholders may not prefer taking this risk. Indeed, there is evidence suggesting that risk-averse investors may discount women's nomination to the boardroom due to few precedents on which they can rely to evaluate the performance of female directors (Litov, Moreton & Zenger, 2012). Because there is information asymmetry between shareholders and firms, equity prices do not fully reflect the performance-based value of firms. This information asymmetry decreases the tendency of shareholders to embrace additional risks.

Managers and employees are more directly exposed to the target and are less likely to believe that women are not suitable for power positions. This allows the boardroom to leverage female attributes such as flexibility and conflict resolution to enhance board effectiveness. For institutional investors, they are more likely to rely on the existing negative gender stereotypes due to their distant relationship mostly framed by official documentation. Particularly, when firms adopt over-conformity to norms, the embedded uncertainty in this unique position increases information costs (Stiglitz, 2002), hindering an ever-increasing legitimacy with female representation. While shareholders encourage responding to institutional demands and not being

laggards, they discourage being pioneers given the associated risks with female representation over-conformity. Hence, due to negative stereotypes toward female directors, which remains due to lack of enough interaction between them and shareholders, we put forth the following hypothesis:

***Hypothesis 2.** Over-conformity to board female representation logic decreases market-based performance (i.e. preferred-value).*

2.5. Board Female Representation Over-conformity and Innovation Performance

A broader conceptualization of performance includes indicators of non-financial performance referred to as “operational” performance (Venkatraman & Ramanujam, 1986). By considering operational performance, we are able to go beyond the exclusive use of financial indicators and examine the black box of key factors that lead to financial performance. Managers are particularly attentive to operational performance constructs that help them have a sustainable competitive advantage since they are more proximate (Venkatraman & Ramanujam, 1986). One of the most widely used operational performance indicators is innovativeness. For firms to survive in intensive competition, creativity and innovation are crucial to prosperity and survival, especially within developed economies (Porter, 1990).

The RDT focuses on access to resources, and one of the main resources for innovativeness is information. In order to promote innovation, a very select group of stakeholders influences the flow of information. Having a good position within the network increases access to information and facilitates R&D activities. Innovativeness requires collaboration with other firms that are successful in innovation and conduct R&D projects, and is highly dependent on access to critical resources (Rojas, Solis & Zhu, 2018). An organization’s position within a network matters for

access to information as well as the opportunity of making networks with another focal firm, particularly high-tech partnership (Hagedoorn, Roijakkers & Van Kranenburg, 2006). Negative gender stereotypes can hinder women's access to networks, which could result in lower access to resources required for innovativeness. This is consistent with the tendency for maintaining the token status of women in the high tech firms, which mainly operate within the old boy network (Wheadon & Duval-Couetil, 2019).

This negative perception of arms-length resource providers operating within the firm's innovation ecology may result in diminished information flows into and out of the organization. While a regular gender composition may not attract specific attention, for boards with female representation higher than the norm, gender might become an important evaluation criterion, therefore, the perception of resource providers toward women becomes vital for firms. For firms with female representation above the norm, the disadvantage of women in access to networks becomes more noticeable and influential compared to firms with a norm level of women. This can decrease the value of women in firms that seek innovativeness.

Resource providers evaluate board of directors based on its potential to behave innovatively. Therefore, they assess women's presence based on (1) its impact on innovation as well as (2) access to alternative other external resources that can expedite innovation outcomes.

First, there is an ongoing debate on the link between female representation and innovativeness and much left unknown about how gender composition influences the innovation performance of a firm (Strohmeyer, Tonoyan & Jennings, 2017). For a firm to have a good innovation performance, in addition to being able to come up with novel ideas, the competence for taking considered risk is required (Amabile, 1988).

While there is evidence in favor of gender diversity and creativity (Galia & Zenou, 2012; Robinson & Dechant, 1997), many scholars argue against any substantial benefits of female representation for innovativeness. For example, Strohmeier and associates (2017) find that firms with more women in leadership positions tend to exhibit less innovation than those headed by men. There are some arguments that diversity of opinions may decrease cohesiveness among board members resulting in impeded decision-making (Goodstein, Gautam & Boeker, 1994; Triana, Miller & Trzebiatowski, 2014). Diversity may introduce conflict and degrade interactions, which could hinder the ability of firm for successful innovativeness. This may concern external resource providers looking for innovation outcomes by firm so it can yield, productive collaborations with network partners.

In general, the literature has an equivocal position for the relationship between female representation and innovation, risk-taking competency also becomes a concern for resource providers in regard to women. There is support from multiple disciplines that women, including those in executive roles, are more risk-averse and conservative in decision-making than men (Jeong and Harrison, 2017; Kirsch, 2018). While higher perceived risk leads to more information gathering and more risk adjustment (i.e., increasing control over outcomes or reducing exposure to potential loss) (Pablo, Sitkin, and Jemison, 1996), in general, there are negative stereotypes assuming women are not inclined to take risk (e.g., Badura, Grijalva, Newman & Jeon, 2018). These stereotypes are especially salient for external resource providers, who usually do not have repeated encounters with the board members, and with less encounter, there is less depth of knowledge about people (Häfner & Stapel, 2009). For firms that exceed above the norm for female representation, compared to those residing in the conformity zone, it becomes more challenging to overcome the traditional negative gender stereotypes of resource providers.

Second, in addition to negative perception toward women in terms of direct impact on innovation, stakeholders evaluate them negatively in terms of access to alternative resources facilitating innovativeness indirectly. Beyond the monitoring and controlling role of the board of directors (Daily et al., 2003), one key responsibility of boards is to bring resources to the firm (Pfeffer, 1972; Hillman, Cannella & Paetzold, 2000). These resources can help firms managing challenges and better deal with external organizations (Boyd, 1990; Pfeffer, 1972). The scarcity of external resources underscores the importance of using social and professional ties to overcome the difficulties of access to essential resources (Stuart & Sorenson, 2003). Unlike traditional social science, the relationship between actors is focal, and best organizations are not necessarily those with the best resources, but those with a better web of relationships referred to as networks (Burt, 1992). Based on two prominent strands of social network literature including network status (Lin, 1999) and network diversity (e.g. Burt, 1992; Granovetter, 1983), the extent to which networks consist of contacts with higher status positions and the extent to which networks consist of different types of contacts can impact access to valuable resources.

Gender composition of owners and directors is an important feature in the chance of access to external resources, and anecdotal evidence suggests female disadvantage in the eyes of resource provider (e.g., Buttner & Rosen, 1989; Drago, Millo, Ricciuti & Santella, 2012; Brush, Greene, Balachandra & Davis, 2018). While early work regarding networks indicated that women have more diverse networks (Ibarra 1992, 1993), more recent works by ruling out the role of families, suggest that in a global network of interlocking directors, women do not have a strong position (Drago et al., 2012). Moreover, women's network usually consists of some specific contacts, usually other female directors, which can be valuable but if female representation exceeds the

norm, compared to competitors, a firm might lose access to other networks. This decreases the value of women in the eyes of focal firms in the network looking for innovation collaboration.

Taken together, resource providers are likely to have negative perceptions toward women in a leadership position for their direct and indirect impact on innovativeness (e.g., Drago et al., 2012); which is more noticeable when firms exceed the norm for board female representation. Furthermore, women, as newcomers to this innovation network, are less likely to have access the networking ideas and resource flows. Hence, we hypothesize that:

***Hypothesis 3.** Over-conformity to board female representation logic decreases innovation performance (i.e. preferred-value).*

3. RESEARCH DESIGN

3.1. Data and sample

The sample used in this paper is constructed from a dataset obtained from Bloomberg, which is a comprehensive database that tracks financial and non-financial information for a large set of firms. We focus on publicly-traded companies in multiple industries in the U.S. from 2009-2019. In the initial sample, there were missing values, and some of the firms were duplicated due to cross-listing. We deleted those firms whose country of domicile (the country where major management activities take place) was different from the country of listing to avoid multiple national logics for one firm. The final sample with data for board female representation consists of 3,670 firms and an unbalanced panel data set of 29,980 firm-years observations ($n = 3670$, $T = 1-11$, $N=29,980$) for 12 industries. After dealing with missing values for each indicator, for accounting performance $N= 18299$, for market performance $N=17887$, and for innovation

performance N=6086. All of the below variables including the control variables are extracted from Bloomberg and consist of observations from 2009-2019.

3.2. Dependent variables

Accounting performance. For accounting performance, Return on Equity (ROE), computed as net income divided by shareholder's equity, which is a widely used proxy for organization-wide performance (Bennouri et al., 2018), has been considered to show the success of firms in using their resources to add value to their assets.

Market performance. For market performance, we measured the commonly used Tobin's Q indicator, computed as the market value of a company divided by its assets' replacement cost, which is used to capture shareholders' perceptions and expectations of the long-term value of a firm (e.g., Post & Byron, 2015).

Innovation performance. For this operational performance measure, we focused on the extent of patents produced by the corporation. For the proxy, we used a continuous indicator that Bloomberg provides using the company's reports for patents. "The account title may be standardized and slightly different from the original account title in the company's financial statement".

3.3. Independent variables

Board Female Representation Over-conformity is measured using a categorical variable related to the level of conformity relative to the prevailing institutional logic. Three categories (i.e., under-conformity, conformity, and over-conformity) are formed based on the position of female representation regarding the institutional norm. This approach provides comparisons between different levels of deviance and enables us to test our hypotheses for their performance implications.

To differentiate between types of deviance, we take $\mu \pm SD$ as the cutoff point. First, we measure board female representation by calculating the percentage of female members on the board, which has been widely used in the literature (e.g., Grosvold, & Brammer, 2011; Terjesen and Singh, 2008). Then, the average (μ) of female representation per year per industry has considered as the base. Observations within the $\mu \pm SD$ range have been considered as conformity, while under-conformity refers to observations with female representation lower than $\mu - SD$, and female representation higher than $\mu + SD$ represents over-conformity.

[Insert Table 2.1 about here]

3.4. Control variables

We include several control variables that have been shown in the previous studies to impact firm performance.

Size. Prior research has shown that the size of firms tends to impact firm performance directly and indirectly (Connolly & Hirschey, 2005). Firm size is measured as the logarithm of assets in the firm.

Outsider. Some scholars argue that a greater proportion of independent directors on the board of a firm can increase firm performance (Terjesen et al., 2016). The Outsiders variable is measured as the percentage of independent directors in the boardroom.

Leverage. The extent of total financial debt to asset referred to as the leverage ratio is another variable that impacts the level of risk in organizations and is reported to be negatively correlated with performance (Mahakud & Misra, 2009).

Payout Ratio. This variable measures the percentage a company paid out in dividends and repurchases of common shares. It is a major factor affecting firm performance (Ouma, 2012).

Duality. CEO duality is a dummy variable that reflects whether a CEO is also the board chair. Duality has been reported to influence performance (e.g., Boyd, 1995).

Free Cash Flow. This measure refers to operating cash flow minus capital expenditures. It represents the cash that firms can generate after laying out the money required to maintain or expand their assets. Free cash flow is reported to have a correlation with firm performance (Brush, Bromiley & Hendrickx, 2000).

R&D Expenditure. This variable refers to research and development expenditures as a percentage of revenue (net sales). Morbey (1988) found a strong association between R&D spending and subsequent performance.

3.5. Analysis and Results

Since our sample has multiple observations for firms across different years, we used the generalized estimating equations technique to avoid autocorrelation among the within-group observations. Generalized estimating equations (GEE) are suitable for handling panel data (Ballinger, 2004).

Figure 2.1 shows some visual statistics about the distribution of female representation across industries and years, along with the frequency of different institutional responses to the norms of the industry. Part A shows a smooth increasing trend for board female representation over time. Part B shows an average of around 11% for female representation on our sample and a notable number of firms with 0% female representation. Part C shows a fair distribution of our observations over different industries and part D shows a normal distribution of institutional responses to female representation logic.

[Insert Figure 2.1 about here]

Table 2.1 summarizes the descriptive statistics for our variables and Table 2.2 shows the pairwise correlation between variables. Since categorical variables cannot enter correlation equations, the independent variable is eliminated from the table. However, assessing the variance inflation factors of our variables show that the maximum VIF is 1.59 and multicollinearity is not an issue (Hair, Anderson, Babin & Black, 2010).

[Insert Table 2.2 about here]

Table 2.3 shows the results for accounting performance measured as ROE. In addition to over-conformity, the results for under-conformity have also been reported to support the notion that non-conformity has different manifestations and under-conformity and over-conformity can have different implications. Our findings show that under-conformity is associated with lower accounting-based performance than conformity ($\beta = -1.80, p < 0.05$), over-conformity has higher accounting-based performance than under-conformity ($\beta = 4.86, p < 0.001$) and conformity ($\beta = 3.06, p < 0.001$). In sum, hypothesis 1 is supported by our data suggesting that board female over-conformity will increase the accounting performance (i.e., unattainable ideal).

[Insert Table 2.3 about here]

Table 2.4 presents the coefficient estimates of the regression equation for market performance. In Model 1, we include the control variables set. In Model 2, we set conformity as the base category to be able to compare it with the over-conformity. The insignificant difference between conformity and over-conformity leaves hypothesis 2 unsupported.

[Insert Table 2.4 about here]

Table 2.5 then suggests a negative impact of over-conformity on innovativeness compared to conformity ($\beta = -78.70, p < 0.05$) supporting the assertion of hypothesis 3 that exceeding above the norm causes a decrease in innovation performance.

[Insert Table 2.5 about here]

Overall, our data show that firms with over-conformity to board female representation experience a greater accounting performance, however, this is not reflected in market performance. This indicates a misalignment between board functionality and perception toward that. Finally, our results show that firms adopting over-conformity have a significantly lower innovation performance than those that conform. In sum, the performance effect of gender over-conformity appears to be in the eye of the beholder.

3.6. Robustness Check

First, we test the results for an alternative measure of over-conformity, which is a continuous departure from the mean. Therefore, we focus on observations in which female representation is above the mean and compute over-conformity as the difference between board female representation and the mean. According to this test, the results hold.

Second, to deal with endogeneity, we used a lagged dependent variable (Lu, Ding, Peng & Chuang, 2018) as an instrument to estimate our full theoretical model. Such an approach in estimating a full model is not supported by the GEE estimator, which is more appropriate to account for various correlation structures (e, g. exchangeable, independent, and autoregressive) of the covariates. Greene (2003) outlines a generalized least square approach with stringent asymptotic normality assumption in which a lagged dependent variable is appropriate. We follow Greene (2003) and estimate our theoretical model using a GLS estimator and use the lagged dependent variable as an instrumental variable. According to the results for this test our original assertions hold.

4. DISCUSSION

The surge of female representation on corporate boards is unprecedented in the past decade. This has given rise to the interest in understanding the contribution of women to firm performance (Kirsch, 2018), especially knowing the boundary conditions that explain when female representation is perceived more desirable (Byron & Post, 2016). In this study, we examined the rarely acknowledged link between board female representation over-conformity to the institutional logic and financial and non-financial performance implications.

Our multi-industry sample of 3,670 American publicly traded firms from 2009-2019 supports the pillars of our argument, namely, the influence of organizational response to institutional logic on value creation by female directors, the differential effect of deviation based on the type of non-conformity, and the variation of performance implication across different indicators. This study seeks to enrich the understanding of the effect of female representation over-conformity on firm performance by showing that compliance with institutional logic has a different impact on performance than deviance from it. Our results speak for the importance of considering not just the institutional context for corporate governance logic, but the firm's response to these logics when studying value creation by female directors.

While our results show that firms with a relatively high level of female representation benefit from high accounting performance due to a combination of good characteristics associated with female directors and a differentiated position regarding the competitors, the reactions of shareholders and external resource providers are remarkably different. Recently, Mateos De Cabo, Gimeno, Grau & Gabaldon (2020) in a gender diversity imitation game study found that firms with over-conformity with female representation tend to decrease it to the average of their industry, while firms with under-conformity do not have the same mimetic tendency to increase it to the

average. This can be detrimental for board female representation over time by pulling down the average; therefore, it is of paramount importance to understand why this pattern exists. Our study explains that the negative reaction of external stakeholders to over-conformity despite a positive accounting performance may serve as a discouraging factor forcing firms to push back from over-conformity to female representation. Also, our study argues that over-conformity can exacerbate the negative gender stereotypes and more encounters between resource providers and female directors or a stronger access to alternative resources (e.g., network) are required for female directors to decrease the challenges for firms with over-conformity.

The study of board female representation deviance is of notable merit because board gender composition is one of the most visible attributes of firms (Lynall et al., 2003) and the way women actually behave and are perceived to behave are highly contingent on societal norms (Zajac & Westphal, 1996). Our findings offer several theoretical and practical implications.

4.1. Theoretical Implications

Using organizational response to institutional logic to explain the value creation of female directors, we respond to the call for more research on the boundary conditions of this value (Byron & Post, 2016) and its variation over different performance indicators for female representation (Post & Byron, 2015). Given the current popularity of board gender composition arguments, particularly in comparative corporate governance literature (Knippen, Shen & Zhu, 2019), and growing attention to the organizational agency (Saka-Helmhout, 2020), the intersection of these two provides a ground that is of interest for scholars of both institutional theory and corporate governance field.

Contribution to Resource Dependence Theory

Resource dependence theory is one of the widely used theories in gender and diversity field and a successful lens for understanding boards (Hillman et al., 2009). While this theory explains the sources and consequences of power in affecting firms, we argue that these consequences can vary depending on who perceives them. Performance has multiple indicators, each of which deals with different types of stakeholders. For directors to be able to influence the power and dependence within organizations and in regard to external environment, they should be able to operate properly. However, sometimes other actors who are working with female directors can impede their functionality. As a result, the same factor can have different impacts on power and dependence based on how different stakeholders provide ground for that factor to create influence. While internal stakeholders utilize women's advantage to increase power and decrease dependence, external stakeholders due to their negative perception toward women do not provide ground for using the same advantages.

We draw on gender stereotypes to differentiate among different stakeholders based on how they may perceive women suggesting that the negative stereotypes toward female directors vary depending on the perceiver. This is the first study that tests the impact of gender stereotypes on multi-dimensional indicators of performance using a dataset that includes firms from different industries. Our results shed light on which indicator is mostly affected by negative stereotypes and indicate variations of gender stereotypes. We refer to the evidence suggesting that repeated encounters with a person increase the depth of knowledge about that person (Häfner & Stapel, 2009) to show that resource providers and shareholders have more negative gender stereotypes than managers and employees. Therefore, we suggest that gender stereotypes have different manifestations for these stakeholders, which in turn affect the value they put on women's presence.

So we enrich RDT by arguing that the same factor can be either valuable or detrimental in different situations.

We also extend RDT by arguing that the value of a factor in affecting power and dependence is not necessarily ever increasing. In other words, for a factor that positively influences firm's position in regard to the control of resources and power, there might be a limit for this influence. While a factor is valuable from RDT perspective, we argue that applying institutional logic and subsequent organizational response to that can change the impact of a factor in a way that a positive impact can turn into a negative one given the position a firm takes in regard to institutional norm.

Contribution to Gender & Diversity Literature

By integrating insights from gender stereotypes and resource perspective, we argue that gender stereotypes can be used as a valuable resource in favor of firm in situations that close interaction with female directors helps managers and employees to better understand those female attributes that can be helpful in leadership positions and use them to facilitate collaboration and enhance the functionality of boardroom. Adding insight from social network literature, we also suggest that the weak position of women in access to strong and varied networks reduces the likelihood that resource providers find an opportunity to know female directors and use it as a way to decrease the uncertainty and associated stereotypes toward women in power. In sum, we advance gender literature to better explain the application of gender stereotypes for value creation by female directors, especially in regard to agentic behavior of organizations.

We also contribute to gender and diversity literature by arguing how the organizational response to institutional logic can act as a boundary condition, changing the value creation of board female representation. Arriving at the conclusion that board female representation has a positive

impact on performance in some countries and negative in some others can be insufficient without considering the organizational response to institutional logic. There is a stream of literature suggesting that the potential impact of female representation on organizational outcomes is sensitive to organizational characteristics (e.g., Anderson, Reeb, Upadhyay & Zhao, 2011; Hillman, Shropshire & Cannella, 2007). Another stream acknowledges that performance consequences are embedded in institutional context (e.g., Abdullah et al., 2016; Black, Jang & Kim, 2006). Using insights from resource dependence theory, this study joins the conversations about the variation of board female representation effect on firm performance by theorizing on the extent of conformity to institutional logic.

Contribution to the Corporate Governance Deviance Literature

Focusing on outcomes, this study advances corporate governance deviance literature. While previous studies discuss an actor-centered institutional approach to explain corporate governance practices (Aguilera & Jackson, 2003; Aguilera et al., 2018) little is known about the performance implication of various organizational responses to corporate governance practices within the same institutional context. Corporate governance deviance theory explains the antecedents and argues that the entrepreneurial orientation of firms gives rise to deviant behavior (Aguilera et al., 2018), leaving the way adopting deviation can differently change financial and non-financial performance underexplored.

According to corporate governance deviance theory, having an innovativeness mindset embedded in the entrepreneurial orientation of firms is shown to drive deviation from corporate governance norms (Aguilera et al., 2018), however, interestingly we showed that adopting over-conformity for some governance practices can eventually decrease innovation performance. One might expect to see that taking radical initiative and non-conformity to norms should lead to more

innovativeness. However, our results indicate that for female representation logic it can even decrease innovative outcomes. Scholars need to examine this relationship in a different context as the nature of this relationship seems to be highly contingent on the type of governance practice. The widespread policy interest in promoting innovative practices related to women speaks of the importance of scientific evidence that sheds light on this relationship (Ahl & Nelson, 2015).

Moreover, we enrich governance deviance literature by underscoring the importance of considering the type of performance. This research takes a multi-dimensional approach and by showing the variation across different levels of performance, it serves to boost our understanding of the specificity of the link between female representation and performance. There are calls for more research that rather than mainly focusing on financial performance to explain the value creation of women on the board, examine other increasingly important issues such as how feminine perspective may affect innovation research (Alsos, Hytti, & Ljunggren, 2016; Brush, Eddleston, Edelman, Manolova & McAdam, 2020).

Finally, we differentiated between the type of non-conformity, which is not very common in the literature, and applied it to a less explored but important field named gender diversity. Examining agentic behavior for board female representation is very recent and the notable exception (Mateos De Cabo et al., 2020) do not consider performance implications. Due to high public scrutiny for board female representation, stakeholders might be sensitive to organizational response to the norm making this context a suitable one to study implications of corporate governance deviance literature.

4.2. Practical Implications

Despite all progress toward female representation, their presence in Fortune 500 companies is still far below half of the boardroom (ISS Analytics). We show that despite increasing calls from

governments and policymakers, there is no extra reward in the stock market for firms that have female representation higher than their industry competitors. That may explain why these firms tend to decrease their female representation over time (Mateos De Cabo et al., 2020) and calls for attention from policymakers to find a solution to avoid the discouragement and subsequent push back from increasing board female representation. Also, our study argues that over-conformity can exacerbate the negative gender stereotypes and more encounters between resource providers and female directors or a stronger network for women is required to decrease the challenges for firms with over-conformity.

For managers, strategies for female representation should be formed with recognition of female representation norms within an institutional context. Managers need to be cognizant of the boundary conditions of value creation by female directors including when their presence exceeds the norm. In addition, our findings show that the opportunity and challenges associated with over-conformity differ across different indicators. So the decision for organizational response to board female representation institutional logic should be made with an eye on the type of desired performance. For managers that seek accounting performance, exceeding above the norm might be an ideal strategy; however, for those who seek innovation performance, more consideration is required. Finally, for female directors who seek to enhance their impact on board, which requires more support stakeholders, trying to increase the level of interaction is a proper way to make positive perceptions. Close interaction and repeated encounters with employees and managers, institutional investors and resource providers will boost the chance of women to overcome the negative gender stereotypes and work more efficiently.

4.3. Limitations and Future Research

This study has some limitations that should be acknowledged and can provide directions for future research. First, our results need to be verified in multi-country samples. There is a significant difference between developed and emerging economies in terms of perception toward women. In emerging markets, there are more unfavorable attitudes toward women in positions of control and power (Abdullah et al., 2016). Moreover, female directors in these countries can differ from developed countries in terms of capabilities and access to resources. By considering the norm of the country, we address this concern, but the generalizability of our findings needs to be confirmed in different contexts.

Second, we acknowledge that we do not directly measure the perception of stakeholders toward women. Our argument is tested based on the potential impact of their perception on firm's performance. Given the abstract nature of value, and the highly tied link between performance and resource value we believe that our different indicators of performance are outcomes of the perception of stakeholders. However, future studies would benefit from qualitative studies that take a more nuanced examination of this perception and its impact on performance.

Third, performance has numerous indicators. Future research can examine different operationalization of financial, operational, and effectiveness levels. It can also go beyond the simple measures and include performance dynamism, which refers to the absolute change between the prior year and the focal year (Chatterjee & Hambrick, 2007). There is evidence supporting the view that boards with greater gender diversity have lower performance volatility (dynamism) (Bernile, Bhagwat & Yonker, 2018), and this can be examined with female representation position regarding the norm. Another manifestation is performance extremeness, which refers to the firm's absolute difference from the industry average (Chatterjee & Hambrick, 2007). Compromising the insights from institutional theory and strategic perspective, one might expect that deviation in both

sides gives rise to extreme performance, which can be reflected in big profit, originated from distinctiveness, or big loss, originated from misevaluation of governance setting. Further, women are expected to bring unique preferences and views resulting in heterogeneity in the boardroom and ultimately less extreme outcomes. Future research needs to shed light on this link.

Finally, we assume a direct causal relationship between board gender diversity and firm performance. While firm performance remains a central interest of both practitioners and scholars, there might be a more intermediate effect, such as board decision-making outcomes or influence on organizational culture. As such, future studies of more intermediate outcomes would be instructive. Furthermore, due to the lack of previous conceptual and empirical work, there may be a moderating influence that clarifies this relationship. As such, future studies examining moderating influences should be considered.

4.4. Conclusions

This is the first study that explains the rarely acknowledged link between agentic behavior and firm performance by board female representation. While female representation is highly contingent on societal expectations (Lynall et al., 2003; Zajac & Westphal, 1996), and previous studies acknowledge that norm matters in explicating the outcomes associated with female presence (Terjesen & Singh, 2008), surprisingly, little attention has been paid to the position a firm takes regarding the norm. Scholars need to go beyond mere considering the norm of a country and rather than suggesting that women's presence in emerging and developed economies are different, explain how within the same context, positions in regard to the norm (e.g., exceeding the norm) can yield different results. This concurrent investigation of institutional and organizational behavior enhances our understanding of the value creation by female directors.

Due to the inconsistent results in previous gender composition-firm performance studies (e.g., Bennouri et al., 2018; Singh et al., 2001), this study ignores the moral argument for board composition that largely represents the wider society. This utilitarian perspective reflects the state of the policy debates, but we would be remiss if we did not mention non-utilitarian arguments for more representative boards. From academia to business and society, the effects of gender quotas are under scrutiny. Several reported misalignment between the moral solutions to increase gender equality (e.g., introducing board gender quota) and firm's performance (Raleigh, 2018) speaks of the importance of joint consideration of ethical and economic perspectives in regard to board female representation. In this study, we discuss the outcomes associated with exceeding the institutional norm. Our arguments open numerous ground for future studies to examine how institutional logic paired with organizational response determines the performance consequences of corporate governance practices.

5. CHAPTER 2 REFERENCES

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TABLE 2.1
Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	28855	-17.151	354.891	-26301.482	474.856
Tobin's Q	28064	4.879	26.615	0	1727.602
Innovativeness	9509	247.626	2373.697	-68.4	159315
Deviance
Conformity	29980	.679	.467	0	1
Under-conformity	29980	.169	.375	0	1
Over-conformity	29980	.152	.359	0	1
Size	28952	6.78	2.156	-9.21	15.069
Outsider	28072	76.873	14.013	0	100
Leverage	28939	61.375	3645.953	0	607547.73
Payout Ratio	18948	288.63	25256.374	-1932.823	3449100
Duality	28262	.382	.486	0	1
Free Cash Flow	28605	220.463	2350.423	-85909	127491
R&D Expenditure	20164	441.345	11341.982	-6264.966	1299100

TABLE 2.2
Pairwise Correlations Between Measures
(N = 6086)

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) ROA	1.00									
(2) Tobin's Q	-0.01*	1.00								
(3) Innovativeness	0.01	-0.00	1.00							
(4) Size	0.10*	-0.01*	0.20*	1.00						
(5) Outsider	0.06*	-0.00	0.03*	0.27*	1.00					
(6) Leverage	-0.82*	0.00	0.02*	-0.08*	-0.04*	1.00				
(7) Payout Ratio	0.00	0.00	0.01	0.00	-0.00	0.00	1.00			
(8) Duality	-0.01	-0.01	0.04*	0.08*	-0.03*	0.00	-0.01	1.00		
(9) Free Cash Flow	0.00	-0.00	0.34*	0.21*	0.05*	-0.00	-0.00	0.04*	1.00	
(10) R&D Expenditure	-0.02*	0.00	-0.00	-0.05*	0.00	0.00	-0.00	-0.01	-0.01	1.00

* shows significance at the .01 level

TABLE 2.3
Panel Data Estimations of Board Female Representation Over-conformity and Accounting Performance

Variables	Dependent Variable: ROE		
	Model (1)	Model (2)	Model (3)
Size	-1.39*** (0.20)	-1.52*** (0.21)	-1.52*** (0.21)
Outsider	-0.07** (0.02)	-0.06* (0.02)	-0.06* (0.02)
Leverage	0.24*** (0.02)	0.24*** (0.02)	0.24*** (0.02)
Payout Ratio	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Duality	1.54** (0.58)	1.52** (0.58)	1.52** (0.58)
Free Cash Flow	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)
Deviance			
Non-conformity	Conformity	–	1.80* (0.77)
	Under-conformity	-1.80* (0.77)	–
	Over-conformity	3.06*** (0.73)	4.86*** (1.00)
	Constant	13.90*** (2.36)	16.04*** (2.44)
N	17686	17686	17686
Year Fixed Effect	YES	YES	YES
Chi-Square	281.9	307.9	307.9

GEE (generalized estimating equations) with exchangeable correlation structure

Standard errors in parentheses

† p<0.1, * p<0.05, ** p<0.01, *** p<0.001

TABLE 2.4
Panel Data Estimations of Board Female Representation Over-conformity and Market Performance

Variables	Dependent Variable: Tobin's Q		
	Model (1)	Model (2)	Model (3)
Size	-0.75*** (0.11)	-0.80*** (0.11)	-0.80*** (0.11)
Outsider	0.04*** (0.01)	0.04** (0.01)	0.04** (0.01)
Leverage	0.11*** (0.01)	0.11*** (0.01)	0.11*** (0.01)
Payout Ratio	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Duality	0.77* (0.32)	0.79* (0.32)	0.77* (0.32)
Free Cash Flow	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)
Deviance			
Non-conformity	Conformity	–	0.97* (0.43)
	Under-conformity	-0.97* (0.43)	–
	Over-conformity	0.46 (0.41)	1.42** (0.55)
	Constant	2.37† (1.28)	3.26* (1.32)
N	17887	17887	17887
Year Fixed Effect	YES	YES	YES
Chi-Square	219	226.2	226.2

GEE (generalized estimating equations) with exchangeable correlation structure

Standard errors in parentheses

† p<0.1, * p<0.05, ** p<0.01, *** p<0.001

TABLE 2.5
Panel Data Estimations of Board Female Representation Over-conformity and Innovation Performance

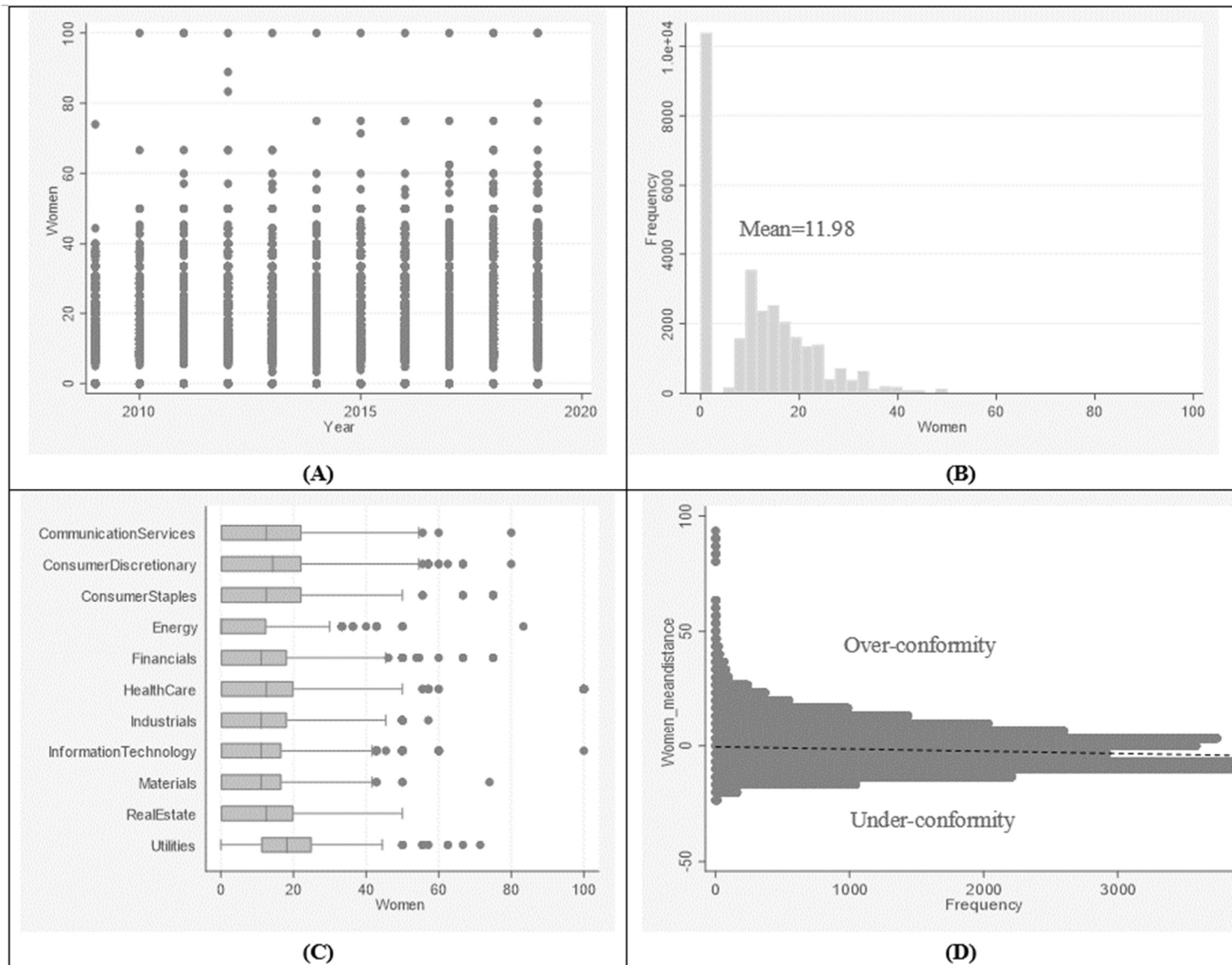
Variables	Dependent Variable: Patent Count		
	Model (1)	Model (2)	Model (3)
Size	255.30*** (24.29)	255.30*** (24.35)	255.30*** (24.35)
Outsider	-0.08 (1.67)	0.16 (1.68)	0.16 (1.68)
Leverage	0.41 (1.21)	0.43 (1.21)	0.43 (1.21)
Payout Ratio	-0.00 (0.042)	-0.00 (0.042)	-0.00 (0.042)
Duality	17.37 (37.21)	18.29 (37.19)	18.29 (37.19)
Free Cash Flow	0.23*** (0.01)	0.23*** (0.01)	0.23*** (0.01)
R&D Expenditure	11.36** (4.32)	11.26** (4.32)	11.26** (4.32)
Deviance			
Non-conformity	Conformity	–	-1.08 (44.88)
	Under-conformity	–	–
		1.08 (44.88)	–
	Over-conformity	-78.70* (39.92)	-79.78 (59.41)
Constant		-1761.80*** (210.50)	-1784.80*** (212.30)
N	6086	6086	6086
Year Fixed Effect	YES	YES	YES
Chi-Square	553.7	558.0	558.0

GEE (generalized estimating equations) with exchangeable correlation structure

Standard errors in parentheses

† p<0.1, * p<0.05, ** p<0.01, *** p<0.001

FIGURE 2.1
Visual Statistics for Board Female Representation



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- Explanation: proposal defended in August 2019

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- Explanation: Sharif University is the highest-ranked university of Iran

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Dissertation: Simulation of wind turbines with fractional order

- Explanation: Only the first 100 people out of near 400,000 corrivals can enter this position.
-
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