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Do gender differences persist? An examination of gender diversity on firm performance, risk, and executive compensation

Alexa A. Perryman [a], Guy D. Fernando [b], Arindam Tripathy [c,*]

[a] Milgard School of Business, University of Washington — Tacoma, Tacoma, WA 98402, United States
[b] School of Business, State of University of New York, Albany, NY 12222, United States
[c] Milgard School of Business, University of Washington — Tacoma, Tacoma, WA 98402, United States

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ABSTRACT

Women have made great strides in recent years in climbing the corporate ladder, yet the current corporate landscape suggests that obstacles still exist before true gender equity is achieved. We investigate the impact of gender diversity in top management teams (TMTs) on firm performance and firm risk, in conjunction with examining the moderating effect of gender diversity on executive compensation. We find that firms with greater gender diversity in TMTs show lower risk and deliver better performance. In turn, female executives were found to be paid less than their male colleagues, even at the TMT level. However, as gender diversity in the TMT increases, compensation differences between the genders decrease. As such, we highlight a failure in the employment market place and also point to continuing challenges faced by female executives in their search for parity in TMTs.

In recent years there has been a resurgence of focus on women in management roles (Hillman, Shropshire, & Cannella, 2007; Jurkus, Park, & Woodard, 2011; Melero, 2011), perhaps due to the fact women have made considerable advances. For example, based on 2012 household data, women make up almost 39% of all individuals employed in management occupations (Bureau of Labor Statistics, 2013) and the number of *Fortune 500* companies with female CEOs has reached a record high of 21 (Catalyst, 2013). On the other hand, despite improvement in overall employment trends women still remain underrepresented as a whole as top managers and CEOs (Hillman et al., 2007), making gender a relevant topic of consideration for both researchers and practitioners.

We seek to add to current research by focusing on female top executive roles with regards to both firm and individual level outcomes. We begin by discussing the relevant research on gender diversity (hereafter defined as the proportion of female executives in the TMT) to ground our hypotheses in prior research. Specifically, we examine how increases in gender diversity for top executives may influence risk-taking behaviors by the firm, performance of the firm, and gender-based compensation differences at the executive level. The findings suggest, somewhat paradoxically, that increasing gender diversity in the TMT both reduces risk and increases performance. We also find that gender diversity in the TMT moderates the gender wage gap by showing that the compensation gap between male and female executives decreases as the number of women in the top management team increase. These findings contribute to the literature as a whole by examining both macro and micro outcomes in a unified context rather than a piecemeal approach. Additionally, the analyses differ from prior research in terms of measurement, as the proportion of top female executives is used rather than concentrating on the gender of the CEOs only, which will focus the analyses on solely on a yes/no count. This subtle shift enables additional, broader insights into how female executives impact the business world. We conclude with the implications of these findings for both theory and practice.

1. Literature review & hypotheses

Work on gender often falls under the larger scope of diversity research. Diversity, broadly defined, is "any significant difference that distinguishes one individual from another" Kreitz (2008, p.102). Proponents of diversity maintain that different opinions from diverse groups make for better-quality decisions, with views from underrepresented groups thought to stimulate consideration of non-obvious alternatives (McLeod & Lobel, 1992) and be of particular value in making judgments in novel situations. Overall, heterogeneity in decision-making and problem-solving styles produces better decisions through the operation of a wider range of perspectives and a more thorough, critical analysis of issues. This is of particular importance, since upper echelons theory dictates that top managers are responsible for, and critically influence, a firm's strategic decisions, with prior research suggesting that the

* Corresponding author.
E-mail addresses: aap13@uw.edu (A.A. Perryman), gfernando@albany.edu (G.D. Fernando), tripathy@uw.edu (A. Tripathy).

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characteristics of those managers influence organizational functioning (Finkelstein & Hambrick, 1989). Demographic diversity, in this case with the focus being on gender, is associated with cognitive diversity – in that being female is associated with different perceptual views and potential solutions for problems (Dutton & Duncan, 1987). Thus increasing the number of female top managers is one means to broaden the range of cognitive perspectives at a firm's disposal to recognize strategic opportunities, find alternatives, and handle environmental changes (Wiersema & Bantel, 1992).

A sense-making approach also lends support to the need for gender diversity. Sense-making is an adaptive process through which organizations scan and interpret their environment and take action (Daft & Weick, 1984). Having top managers with varying outlooks and interpretations is critical to understanding complex environments, both within and outside the organization as the same reality can be perceived by diverse managers in different but complementary ways, while still acting effectively as a team without directly clarifying any interpretative ambiguity that may exist (Weick, 1995). Gender diversity thus may allow top managers to effectively reach common goals and decisions, regardless of whether they share the same meanings or views.

Upper echelon and sense-making lend support to the notion that the decisions of top managers influence firm outcomes, but do not explain how risk preferences, be they an aversion to or propensity for, shape those decisions. Risk taking is an important consideration in human behavior and equally important in a business context as many economic interactions involve some aspect of risk. One approach to theories of risk taking is to attempt to explain the differences between situations that promote risk-taking versus risk aversion. Prospect theory is a behaviorally driven theory that removes the assumption that individuals are universally rational, utility maximizing decision makers and instead focuses on how decisions are framed (Kahneman & Tversky, 1979; Tversky & Kahneman, 1992). Under this theory, the framing of expected performance outcomes are such that individuals are presumed more risk averse when prospects are positive and risk seeking when prospects are negative. In a business context, this translates to high performance associated with risk aversion and poor performance with risk seeking, making for a negative risk–return relationship known as Bowman's paradox (Bowman, 1980, 1982). Bowman's original (1980) work suggested that this relationship could be the result of management that enables firms to better adapt to environmental conditions, which would suggest that better strategic fit equates to better performance outcomes.

In terms of how this relates to gender diversity, universal consensus regarding gender effects in strategic and competitive contexts does not exist. (García-Gallego, Georgantzís, & Jaramillo-Gutiérrez, 2012). Instead, there is pervasive, consistent evidence that there are gender differences in risk taking in other contexts (e.g., lotteries, drinking behavior, prisoner's dilemma, etc.) that has led to the underlying assumption that differences in strategic settings are due, at least in part, to gender differences in risk preferences and attitudes. The underlying assumption is that women are more risk averse than men (Charness & Gneezy, 2012; see Byrnes, Miller, & Schafer, 1999 for a meta-analysis). We do not seek to refute prior work, but instead further examine the role of women in a strategic setting and examine risk propensities in aggregate, as part of the TMT, rather than individually.

1.1. Firm risk and performance

Increased gender diversity in top management roles has been shown to enhance monitoring processes, and may be a viable substitute mechanism for stronger corporate governance control (Gul, Srinidhi, & Ng, 2011; Melero, 2011). Greater gender diversity in TMTs also may lead to broader and deeper considerations of strategic choices (Upadhyay & Zeng, 2014), along with more open, thoughtful consideration of divergent views and more complete information processing (Van Knippenberg, De Dreu, & Homan, 2004).

If top female executives, viewed in aggregate as part of TMTs, tend to pursue paths of more prudent risk, they are likely to voice these opinions and attempt to persuade other top executives to follow suite. Research indicates that in certain circumstances, pursuing less risky activities does not equate to sub-optimal performance choices (Khan & Vieito, 2013). A study of US fund managers supports this view, with female managers achieving comparable performance as male managers despite adopting different risk strategies (Atkinson, Stanley, Baird, & Frye, 2003). Thus, even with more prudent risk attitudes performance is still likely to increase, but the increases are more likely to be steady and consistent. Research also has found gender diversity of senior managers to be associated with higher earnings quality and higher stock returns after the IPO process (Krishnan & Parsons, 2008) as well as higher firm profitability relative to the average for their sector (Erhardt, Werbel, & Shrader, 2003).

Given prior research, it is not suggested that increased gender representation in TMTs influences risk-taking via its effect on performance, but rather that women, on average, may be more risk averse than men, which influences TMT decision-making and firm risk-taking. Looking at firm risk and firm performance, the influence of increased gender diversity may indirectly result in firms having less large returns (i.e., taking less risk) while simultaneously having fewer huge losses (i.e., having more stable performance increases). From a theoretical standpoint, prospect theory can be extended to consider the role organizational conditions may play in influencing the perception of risk among decision-makers and their propensity to risk (March & Shapira, 1987), whereas Bowman's original 1980 work suggests strategic conduct as an explanation to the risk–return paradox.

Strategic conduct, however, can be viewed in relation to managerial decision-making or from a contingency perspective. From a contingency perspective, strategic conduct suggests that good management practices may prove beneficial. Stated more directly, the risk–return paradox may be the result of heterogeneity of strategic management capabilities (Anderson, Denrell, & Bettis, 2007). Based on the above discussion, we posit that increased gender diversity of TMT may be one such difference in capabilities that influence risk, which, in turn, influences performance. Stated formally, we hypothesize that:

Hypothesis 1. Firms with greater gender diversity in the TMT will display less risk than firms with lower levels of gender diversity.

Hypothesis 2. Firms with greater gender diversity in the TMT will display higher performance than firms with lower levels of gender diversity.

1.2. Compensation

The idea that females receive less compensation than males is not new, however the gap may be narrowing. The gender wage gap has been found to lessen when the firm is led by a female CEO (Bell, 2005) and recently Elkinawy and Stater (2011) found the gap to be diminishing at the CEO level. As the percentage of women in top management roles increases it is important to check if progress is being made with regard to compensation. Until equal status is reached in both representation and compensation, gender equality cannot exist in the business world.

One often cited factor for compensation differences is human capital, which is made up of task-related abilities and measured by factors such as educational achievement, prior work experience, and proven leadership ability (Blau & Kahn, 2000). As women have already succeeded in attaining top executive positions, an argument can be made that human capital should not be a determining factor in compensation differences. As such, other more socially based factors are offered to account for these potential differences.

Women make up a small percentage of top executives, those who advance to the top are more likely than not to be the lone female.

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