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Citation: Terjesen, S., Sealy, R. & Singh, V. (2009). Women directors on corporate boards: A review and research agenda. Corporate Governance, 17(3), pp. 320-337. doi: 10.1111/j.1467-8683.2009.00742.x

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Link to published version: https://doi.org/10.1111/j.1467-8683.2009.00742.x

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Manuscript ID CGIR-2008-0267RI.R1 to be published 2009. Correct citation: Terjesen, S.; Sealy, R.; Singh, V. "Women Directors on Corporate Boards: A Review and Research Agenda", Corporate Governance: An International Review - Forthcoming

EXTENDED ABSTRACT

Manuscript Type: Conceptual (Review)

Research Question/Issue: This review examines how gender diversity on corporate boards influences corporate governance outcomes that in turn impact performance. We describe extant research on theoretical perspectives, characteristics and impact of women directors on corporate boards (WOCB) at micro, meso and macro levels: individual, board, firm and industry/environment.

Research Finding/Insights: To the best of our knowledge, this is the first comprehensive review of WOCBs, incorporating and integrating research from over 400 publications in psychology, sociology, leadership, gender, finance, management, law, corporate governance and entrepreneurship domains. In addition, we organized our findings to provide a new lens enabling the field to be readily examined by level and by theoretical perspective. The review indicates that WOCB research is about improving corporate governance through better use of the whole talent pool's capital, as well as about building more inclusive and fairer business institutions that better reflect their present generation stakeholders.

Theoretical/Academic Implications: With only one in ten papers addressing theoretical development, the predominant perspectives are human and social capital theories and gender schema at individual level; social identity, token and social networks theories at board level; resource dependency, institution and agency theories at firm level, and institutional, critical and political theories at environmental level. We provide a short synopsis of findings at each level, and conclude with an outline of fruitful directions for future research.

Practitioner/Policy Implications: There are increasing pressures for WOCBs, from diverse stakeholders such as the European Commission, national governments, politicians, employer lobby groups, shareholders, Fortune and FTSE rankings, best places for women to work lists as well as expectations from highly qualified women who are likely to leave if they see no women board members. Rationales generally draw on the business case, however the moral justice case is also used by those who seek a fairer gender balance in all aspects of society. From our review, the 'Impact' section charts the effect of WOCB at all four levels of analysis.

INTRODUCTION

As recent corporate governance scandals and the Sarbanes-Oxley legislation, Higgs Review and other initiatives draw attention to the importance of corporate governance, scrutiny has turned to the composition of corporate boards of directors. For example, the demise of Icelandic bank Kaupthing led to the immediate resignation of the entire board of directors (*The Age*, 2008). In the wake of the failure of other financial institutions such as Lehman Brothers, investors, governments and concerned parties around the world are demanding answers to questions such as that posted in two separate official blogs of *Wall Street Journal* and *Business Week*: 'Where was Lehman's Board?' (Berman, 2008; Thompson, 2008). While the market plunge has brought recent press to the attentiveness of the directors of the board, practitioners and academics have long followed board composition, including the slow advancement of women onto corporate boards, despite nearly 40 years of equal opportunities policies. A Google search reveals 340,000 webpages for female or women corporate board directors, including 25,400 webpages in Google Scholar. Extant research emerges from an interdisciplinary academic community, across psychology, sociology, leadership, gender, finance, management, law, corporate governance and even entrepreneurship. It

is timely therefore to pull together research on the nature and impact of gender diversity in board composition as a facet of corporate governance.

Female representation in corporate decision-making is an important issue for policymakers. For example, the Norwegian government requires that boards of directors of publicly held firms be comprised of at least 40% women (Hoel, 2008) and the Spanish government has committed to 40% by 2015 (De Anca, 2008). Around the world, other countries are considering legislation while developing economies such as India and China, and Middle East countries (Tunisia and Jordan) are beginning to recognise the importance of developing female talent up to board level (Singh, 2008).

To the best of our knowledge, this is the first comprehensive review of extant research on women on corporate boards (WOCB). We reviewed over 400 published references, including articles, book chapters, working papers and reports. The literature was identified through EBSCO, ProQuest and Google Scholar searches. In press and working papers were solicited by e-mail from forty scholars of gender and corporate governance who recently published in leading journals or presented papers at conferences.

In the following sections, we review the literature of women directors in three key areas: theoretical perspectives, characteristics and impact. We recognize that there are additional areas, such as initiatives to promote women to directorships; however we consider these outside the scope of our study[i]. A final section suggests directions for future studies in existing research streams, as well as major recommendations for new research agendas.

We explore each major theme across four micro, meso and macro levels: individual, board, firm, industry/environment. By individual, we refer to the individual Director, or aspirant Director. The board level captures the processes and interactions

that occur within the team. We use the 'firm' category to describe experiences in other parts of the firm, outside the board and also firm strategy and structure. Industry/environment captures the local, regional and national industrial and external environments. While these categories are overlapping given the fluid nature of business, we hope this structure guides our reader and aids future researchers. Table 1 provides an overview of the review.

Insert Table 1 about here

THEORETICAL PERSPECTIVES

The vast majority of academic literature on WOCBs (approximately 160 of 180 published articles, working papers and book chapters reviewed) does not explicitly develop a theoretical framework. Indeed, the majority of WOCB literature is descriptive[ii]. We identified twenty theory-based studies of the phenomenon of women on boards that employ a variety of frameworks at micro, meso and macro levels. The major theoretical perspectives and, in most cases, a short synopsis of findings, are described below. Consistent with the feminist mode of inquiry, most studies explore theoretical perspectives on what forces explain women's underrepresentation on corporate boards. Several theories bridge two or more levels of analysis. For example, gender self-schema is an individual perception which can be manifested in groups, firms, industries and the broader institutional environment. Some studies incorporate two or more theoretical perspectives. For example, Burke and Nelson (2002) examine how a combination of individual and organizational factors explains the exclusion of talented women from top management.

Individual

At the individual level, theoretical perspectives tend to focus on the characteristics of WOCBs (e.g. human capital, status characteristics, social capital) and the individual's gender-based perceptions (e.g. self-schema, trust).

Human Capital. Human capital theory (Becker, 1964) examines the role of an individual's cumulative stocks of education, skills and experience in enhancing cognitive and productive capabilities which benefit the individual and his/her organization. Compared to men, women have traditionally made fewer investments in education and work experience and this is reflected in lower pay and promotion (Tharenou, Latimer and Conway, 1994). Directors bring unique human capital to the board (Kesner, 1988) and individuals must obtain extensive stocks of human capital in order to be considered for directorships (Kesner, 1988). Gatekeepers, who are mostly male, do not offer women the same organizational rewards such as training and development, as well as promotion and pay (Oakley, 2000). A commonly held assumption of board selectors is that women lack adequate human capital for board positions (Burke, 2000). Singh, Terjesen and Vinnicombe (2008) dispel this myth in their study of multiple human capital dimensions of new directors of FTSE[iii] 100 firms in the UK, finding that women are more likely to have MBA degrees and international experience. Furthermore, compared to their male counterparts, new female directors are significantly more likely to have experience as smaller firm board directors, but less likely to have CEO/COO experience.

Human capital theory has been extended in other meaningful ways[iv]. For example, Westphal and Milton (2000) examine the role of a director's prior experience on his/her ability to avoid out-group biases and to exert influence on the board, finding that women are significantly less likely to have focal director experience in the majority

and to exert influence. Shrader, Blackburn and Iles (1997) leverage resource-based theories of competitive advantage to describe human capital as a key resource for the firm, bringing diversity perspectives that facilitate team problem solving.

Status Characteristics. Status characteristics theory describes how standards of ability for low-status groups (such as women) are higher than for high-status group members (e.g. men). Thus, to be perceived as being of high ability, a woman must provide more evidence than would her male counterpart (Biernat and Kobrynowicz, 1997). Considering this theory in parallel with women's traditional 'outsider' status, Hillman, Cannella and Harris (2002) find that women directors are significantly more likely to have an advanced degree than their male counterparts.

Gender Self-Schema. Self-schema is an individual's psychological construction of self, based on a number of aspects, most commonly gender. Gender self-schemas are developed from childhood and serve as mental models through which information is processed. Generally, male gender self-schemas are based on roles, norms, values and beliefs which are considered appropriate for men, such as income provider, dominance, aggression, achievement, autonomy, exhibition and endurance (Konrad et al, 2000). In contrast, female gender self-schemas are largely based on roles, norms, values and beliefs held about women such as homemaker, affiliation to others, nurturance, deference and abasement (Konrad et al, 2000). These self-schemas are present from the point at which male and female graduates evaluate and enter the workplace (Terjesen, Freeman and Vinnicombe, 2008). Gatekeepers have views of gender-appropriate behaviors, roles and expectations which may bias executive selection (Oakley, 2000).

Board

At the board level, theory focuses on group-level processes such as social identity, homophily and in-out groups. While composition is important, board processes may be even more critical to performance (Huse, 2005).

Social identity. Several related theories of social groups (e.g. attraction-selection-attrition, homophily) explore how individuals seek to surround themselves with people who share similar demographic profiles, perspectives and values, which are then reinforced in intragroup communication. Tajfel and Turner's (1986) social identity theory describes how individuals define themselves according to their membership in certain groups such as gender, race, class and occupation. Individuals consider themselves and others as either in- or out-group members and are more likely to provide higher evaluations of in-group members, making it more difficult for out-group individuals to join these groups.

These theoretical frameworks have been used, independently or in parallel, to describe women's exclusion from social networks. For example, Kanter (1977)'s work on homosocial reproduction highlights how individuals in powerful positions replicate male-dominated power structures in corporations. Leveraging theories of homosocial reproduction, Daily and Dalton (1995) describe how CEOs, who are mostly men, are more likely to lead boards composed of like others, of the same gender, as well as age, background and experience.

Following Kanter's (1977) work on tokenism, Erkut, Kramer and Konrad (2009) explore three dimensions of numerical representation of women: one woman, two women and three women. Drawing on Asch's (1951) conformity theory and the role of vision, they describe how a critical mass of three or more women creates 'normalization' where gender is no longer a barrier to communication and where

women directors are more likely to feel comfortable, supported and freer to raise issues and be active.

Westphal and Milton (2000) explore the idea that social exclusion due to minority status (e.g. as a woman) could be overcome through ingratiatory behavior. Social identity and social network and cohesion theories have also been put forward as possible explanations for the paucity of women on boards (Singh and Vinnicombe, 2004).

Social Network and Social Cohesion. The elite group can be seen as a social network. Social network theory predicts that individuals with access to resources valuable to the company are likely to have the best chance of entering the elite network. Directors are nodes in a network of organizational linkages, and contribute resources such as information and knowledge to their board, their organization and to other members of the network, sharing power and acting as a socially cohesive group (Westphal and Zajac, 1995; Windolf, 1998). A board is a privileged closed group with its own rules and ways of thinking. Directors facilitate invitations to join other boards, by recommending and sponsoring colleagues like themselves, whom they know are likely to fit the existing mould. As powerful positions are a marker of relevant experience, contacts and endorsement, those who have held CEO positions are particularly attractive to the network. Hillman, Cannella and Harris (2002) take a network theory perspective in examining how firms may wish to increase their odds of acquiring resources and surviving by becoming more central in networks and linkages to other firms. Their subsample of 89 white female and 99 white male board members reveals that women directors are more likely to join subsequent boards at faster rates than their male counterparts.

Gendered Trust. Another line of recent psychological theory enquiry is trust. Bigelow and Parks (2006) leverage gendered theories of trust to explore board relationships. While trust is variously defined in the literature, scholars in many fields identify gender differences, for example in trusting behaviour, with men more likely to have the basis of their trust in others, particularly shared group status (collective trust) and women more likely to trust both on this collective trust as well as on the basis of a personal relationship (relationship trust) (Maddux and Brewer, 2005). Building on research highlighting that women have identifiable traits that make them well positioned for roles that require trust, Bigelow and Parks (2006) report that investors are willing to invest 300% more in male-led firms than in female-led firms.

Ingratiation. Within the social psychology literature, an important dimension of interpersonal influence is ingratiatory behaviour to enhance one's attractiveness and gain favour with others. Following studies linking ingratiation to career success, Westphal and Stern's (2000) survey of 1012 top managers of Forbes 500 firms reveals that top managers who display ingratiatory behaviour toward their CEO are more likely to be appointed to boards of other firms where their CEO is a director or is indirectly connected through a board interlock network. This behaviour can help overcome the barrier of demographic minority status such as gender.

Leadership. While not directly developing the research on gender in corporate board processes, Huse and Solberg (2006)'s interviews with eight WOCBs reveal the importance of nurturing contacts, preparing for meetings, creating alliances as well as their observations about presence of power games and unequal decision-making in the process. Huse (2008) develops a conceptual framework that describes how board leadership, structures, development activities, culture and levels of openness mediate the influence of women directors on task performance. Furthermore, Huse (2008)

proposes that women will make specific contributions if they have backgrounds, personalities and behaviors which are different from men on the board and if they are perceived and treated as different from their male counterparts.

Firm

At the firm level, common perspectives include resource dependency, institutional and agency theories.

Resource Dependency. A number of studies employ a resource dependency lens which views firms as operating in an open system and needing to exchange and acquire certain resources in order to survive, creating a dependency between the firm and external units. Within the corporate governance literature, firms seek linkages with the most beneficial resources, and structure membership on the corporate board on this basis. Building on Pfeffer and Salacik's (1978) arguments that board linkages provide advice/counsel, legitimacy and communication channels, scholars highlight the important resources from directors' human capital and social capital.

Diversity scholars use the resource dependency framework to argue that today's increasingly complex and uncertain environment requires leadership from individuals who can provide a breadth of resources including prestige, legitimacy, financing, industrial/functional/geographic knowledge and diversity. For example, Siciliano (1996) reports that YMCA boards with increased gender diversity are more likely to enjoy high levels of social agency mission achievement, but less likely to achieve fundraising goals and there is no relationship to operating efficiency.

Hillman, Cannella and Paetzold (2000) significantly extend resource dependency theory to diversity on boards, outlining four director types: 'insiders', 'business experts', 'support specialists' and 'influentials'.[v] Female directors of Fortune

1000 boards are more likely to have non-business backgrounds, to hold advanced degrees and to join many boards at a faster rate than their white male counterparts (Hillman, Cannella and Harris, 2002). Women's representation on boards is linked to organization size, industry type, firm diversification strategy and the network effects of linkages to other boards with female directors (Hillman, Shropshire and Cannella, 2007). Peterson and Philpot (2007) leverage resource dependency theory and the director taxonomy to examine the likelihood for female and male director's odds of being appointed to a standing committee, finding that women's resource dependency linkages lead them to be more likely to be appointed to certain committees, but not others.

Institutional. Building on institutional perspectives of achieved legitimacy from the promotion of women to strategic positions in management, Bilimoria (2000) argues that female board member presence signals that a corporation values the success of its women. Bilimoria (2006) extends institutional legitimacy theory to explore the relationship between the presence of women on boards and the presence of women at multiple levels in the company, finding a positive relationship between female corporate board members and the following: number of women officers, number of women officers holding line jobs, presence of a critical mass of women officers, women officers with high-ranking or 'clout' titles and women among the top corporate earners.

Agency. Most corporate governance research takes an agency theory approach (Aguilera, Filatotchev, Gospel and Jackson, 2008). Agency theory describes the relationship between a principal (e.g. shareholder) and the agent of the principal (e.g. directors and managers), often considering the costs of resolving conflicts and aligning interests across groups. A common assumption in agency theory is that outside directors will act independently from their inside director counterparts and will act as good

monitors for shareholders' interest. Carter, Simkins and Simpson (2003) draw on agency theory to explore the link between gender diversity on a board and firm value, finding a positive relationship between the percentage of gender diversity on Fortune 1000 boards and firm value.

Industry and Environment

We could not identify any extant theory-based research at the industry level. Research at the environment level most commonly examines the role of institutions.

Institutional. Terjesen and Singh (2008) explore the role of the social, political and economic structures in the institutional environment on women's share of representation on corporate boards. Their 43 country study reveals that countries with higher representation of women on boards are more likely to have women in senior management and more equal ratios of male to female pay. However, countries with a shorter tradition of women's political representation are less likely to have high proportions of WOCBs.

The perspective of gender is not only an individual property, but also as an institution embedded in the workplace, occupations and occupational environments through formally defined rules, roles and responsibilities and the 'habitus' of mental structures through which individuals think about their social world. Talmud and Izraeli (1999) argue that these influences are not easily eliminated.

Nelson and Levesque (2007) highlight the presence of institutional factors such as occupational sex discrimination, childcare responsibilities, stereotypes and gender schemas that may influence the presence of women on boards of high-growth, high potential firms undergoing initial public offering, but do not test these ideas in their

empirical study. It is important to acknowledge the interrelationships among these theories. For example, the institutionalized expectation that women should fulfil caring responsibilities presents a major barrier for women seeking to combine career and motherhood, or increasingly, elder care.

Critical Management. Adams and Flynn (2005) take an innovative and multi-dimensional critical theory approach to better understand how established processes can confine change in terms of gender representation on corporate boards. They identify constraining factors at individual, group (e.g. psychological perspectives), firm and external environment levels and use the knowledge creation framework to describe how individuals create actionable knowledge through structural, cognitive and relational dimensions of board members and their networks.

CHARACTERISTICS

A large body of census research, predominantly conducted in Western countries, reports basic characteristics. This section reviews literature along the four levels.

Individual

Demographics. Since the 1990s, a substantial body of literature considers the demographics. A consistent finding is that women directors are significantly younger than their male counterparts, with comparisons in the range of 53 years for the UK's FTSE 100 female directors, compared to 56 for males (Sealy, Singh and Vinnicombe, 2007). Australian statistics are similar: women's average age is 53 and men's is 61 (Ross-Smith and Bridge, 2008). Peterson and Philpot's (2007) U.S. Fortune 500 study reports women and men's average ages to be 56 and 60 respectively. Burgess and Tharenou (2002)'s meta-analysis of Australian, US and Canadian studies find that

between 65-71% of women directors are married. Earlier, Burke and Kurucz (1998) find just 47% of women directors are married. Women directors with children comprise 44% in Australia and 70% in the USA and Canada, although the Australian sample includes dependent children (Burgess and Tharenou, 2002). Women insiders hold fewer directorships, have less powerful titles, occupy more staff positions and earn less than men (Zelchowski and Bilimoria, 2004).

Social Capital. In the 1980s and 1990s, UK female directors were significantly more likely to have a title, whether academic (Dr., Professor) aristocratic (Lady, Honourable), civic or political (Dame, Baroness); however this is not the case presently (Sealy et al, 2007). In the US, there is a preference for "branded women" directors, i.e. those with Ivy League universities, signalling upper class status (Mattis, 2000). In a study of women directors in the Middle East, Singh (2008b) notes that the majority of Jordan's women directors are connected to the controlling or founding family, signalling the importance of "wasta" (connections).

Westphal and Milton (2000) examine how network ties affect minority directors' influence on the rest of the board, finding that a minority director with previous board experience can mitigate out-group biases. Minority directors can build social network ties with other directors, enabling them to create the perception of similarity with the majority (Westphal and Milton, 2000). In Australia, women who successfully obtain board positions have long-standing, close relationships with other female directors (Sheridan, 2001).

Human Capital. Hillman et al (2000) develop a taxonomy of four director roles based on human capital experience: insiders, business experts, specialists, and community influentials. Women and African-American Fortune 500 firm directors are more likely to have non-business backgrounds, hold advanced degrees and join boards

at a faster rate than their white male counterparts (Hillman et al, 2002). Minority groups who gain post-graduate qualifications can compensate for effects of discrimination and subjective bias in selection procedures (Hillman et al, 2002).

Peterson and Philpot (2007) conclude that the women currently holding 13.2% of US Fortune 500 directorships are as highly qualified as men, coming from various positions of power and authority in public and private organizations (Branson, 2006), government, law firms, not-for-profit organizations and academia. The proportion of men and women categorized as business experts or support specialists (67.1% vs. 66.8%) is not significantly different. Singh et al (2008) profile human capital of FTSE 100 board appointments, finding female appointees are more likely to hold an MBA degree and have minor board experience, and somewhat more experience on international boards. Men are somewhat more likely to have experience in CEO/COO/MD roles and women are significantly less likely to be Executive Directors (EDs) (3.6%), but no less likely to be *business experts* (Singh et al, 2008). Both UK and US studies show that women are more likely than men to be *community influentials* (Hillman et al, 2007; Singh et al, 2008). A somewhat unexpected finding in Singh et al's study was that almost 25% of women appointed in 2001-2004 already had FTSE100 board experience. Women hold significantly more multiple directorships; 5% of women, but <1% of men have two or more seats (Sealy et al, 2007). The recycling of a small group of women means that they become extremely experienced as directors. But the recycling perpetuates only a small group of women candidates. For example, of 150 new director appointments in 2007, whilst 30 [20%] went to women, only five had not previously held a FTSE board position. Farrell and Hersch (2005) suggest the over-representation of women with multiple directorships is an argument for a shortage of supply, indicative of a limited number of qualified candidates.

Of Canada's 278 female directors, 90% are university graduates, and approximately 25% have one or more professional designations. However, whilst the majority are full-time employees (57%), 13% own businesses, 21% serve as independent consultants and about half were less than 45 years old (Burke, 1995). Peterson and Philpot (2007) find that female Inside Directors (IDs) are significantly more likely to be founder or family members (45.5%) than are male IDs (12.9%), suggesting perhaps that thwarted by a lack of career progression, women leave to start their own businesses. Nelson and Levesque (2007) report that women in high-growth, high-potential firms achieve executive roles at a younger age than women in Fortune 500, but so do men.

Evidence from the US and UK clearly refutes the claim that women lack the "right" human capital for directorships. Women directors' combination of human capital assets differs from traditional (and generally more male) accumulation, but brings added value to boards. However, regardless of the reality, several studies reveal that it is the perceptions of women that are also often a problem. For example, Mattis (2000) cites a Catalyst 1993 survey in which CEOs fear appointing a women to the board due to a belief that women are unqualified (Burke, 1997) and a concern that they will have a "women's agenda". In addition, CEOs are afraid to appoint women not currently holding a directorship, but do not hold the same fear for men (Peterson and Philpot, 2007). Although Heilman and Haynes (2005) present evidence that prior work experience can counteract negative expectations of a woman's performance, women are presumed to be less competent than men (by both men and women) in a male-dominated environment (Carli, 1990). Unequivocally successful women are then disliked for contravening gender roles (Eagly and Karau, 2002), unless they can also prove their femininity or communal traits (Heilman and Okimoto, 2007). In Australia,

conceptions of leadership include core values such as heroism, physical and emotional toughness and self-reliance (Sinclair, 1998). This masculine ideology of leadership perpetuates the status quo of who looks like a leader, and the perception is that a leader is not a female.

A UK study reports that 40% of CEOs believe women have not been in the pipeline long enough, compared to only 28% of senior women (Catalyst and Opportunity Now, 2000). In both the UK and US there are tenure differences between male and female board members, but only of approximately two years. Zelechowski and Bilimoria (2004) point to more significant pipeline issues in their study of 40 non-CEO female and 60 non-CEO male IDs. While there are no sex differences in experience-based qualifications of board or corporate tenure, female IDs hold less powerful corporate titles, fewer multiple directorships, occupy more staff functions, and earn considerably less than male IDs, implying that women are both under-valued and under-utilized in the executive suite and corporate governance (Zelechowski and Bilimoria, 2004). There are clear implications for pipeline theory, since the CEO pipeline is based on the treatment of and value give to the top IDs and women do not appear to be as well strategically placed to inherit a CEO role as their male colleagues (Zelechowski and Bilimoria, 2004).

In FTSE 100 firms, the percent of female executive committee members has increased; sixty companies now have women in their top team, totalling 16% of senior executive roles (Sealy et al, 2007). Women's roles have also broadened, suggesting more varied routes to the board. Whilst human resources and company secretary roles continue to dominate, there is an increasing variety of other roles for women on these committees, including divisional/regional CEO, MD, CFO, and COO.

Board

Structure and Size. Several single-country studies of board level characteristics exist; however cross-country comparisons are difficult given the different corporate governance structures, for example the two-tier system of separate supervisory and executive boards in parts of continental Europe and the Middle East (Singh and Vinnicombe, 2003), and Principal and Acting board members in some South American countries (Mulcahy, 2007). A consistent finding is that the larger the board, the greater the number of female directors (Sealy et al, 2007; Hyland and Marcellino, 2002; Brammer et al, 2007; Singh, 2008), however some countries cap the number of directors on their boards.

Roles. Peterson and Philpot (2007) extend earlier studies (Kesner, 1988; Bilimoria and Piderit, 1994) which suggest that men and women have different board roles, with women less likely to serve on key committees. Whilst women are less likely to be on executive committees and more likely to be on public affairs committees, gender is no longer a significant factor in the likelihood of being on the nomination, compensation, finance or audit committees (Peterson and Philpot, 2007). In Fortune 500 firms, women IDs hold 6% of the seats. Again, care must be taken when making international comparisons, as this ID figure of 6% represents 6% of all female-held board seats. In the UK, female EDs hold 3.6% (2007) of the total number of ED seats (Sealy et al, 2007). Using the comparable figure of the female-held seats, the percentage is 10.7%.

Composition. Corporate governance reforms in the US (Sarbanes-Oxley, 2002) and UK (Higgs Review, 2003; Tyson Report, 2003) have resulted in a better balance between executive and non-executive positions and greater diversity (Arfken et al,

2004). For example, in the UK, 2007 witnessed the lowest number of executive and total directorships in recent history, suggesting keen competition for executive seats (Sealy et al, 2008). This is often cited, however, as an explanation of why women have achieved non-executive director (NED) but not ED roles[vi]. Daily et al (1999) track changes in Fortune 500 WOCBs between 1987 to 1996, noting a significant increase in the number of female directors and the number of companies with female directors, but no increase in the number of female CEOs (2) and a decline (from 11 to 8) in number of female IDs. Given that a stint on board as an ID/ED is the most common route to CEO, Daily et al (1999) concludes that the number of female CEOs is unlikely to grow substantially in the near future. In a separate study of Fortune 500 firms in the 1990s, Farrell and Hersch (2005) report that the likelihood of a firm adding a woman to its board is significantly negatively affected by the percentage of WOCBs in the previous year. The probability is greatly increased, however, when a female director leaves: companies are likely to want to replace a woman with another woman, clearly showing that gender impacts the choice of director. Erkut, Kramer and Konrad's (2009) interviews with 37 WOCBs, 12 CEOs and seven Company Secretaries reveal different dynamics when there are one, two or three women on the board. Academics have long challenged individualistic explanations of leadership effectiveness, giving evidence of the need to have a critical mass. Erkut et al (2009) discuss how dynamics move from invisibility to conspiracy to normality, and that it is only at that point that the diversity of group appears to become a group responsibility.

Firm

Size. A number of studies report correlations between a firm's size, by revenue or market capitalization, and the number of WOCBs (Peterson and Philpot, 2007;

Terjesen and Singh, 2008; Hyland and Marcellino, 2002; Burke, 2000). Both in the UK and US the distribution of female directors decreases the further down the FTSE or Fortune listing, belying the myth that it is easier for women to succeed in smaller firms (Sealy et al, 2007). Again, international comparisons are difficult as some countries' firms (e.g. US) are larger than others.

Shareholder Distribution. Stakeholder theory purports the need to take into account the wider interests of stakeholders, which is affected by the concentration of the majority or minority shareholders (Carter et al, 2003; Hillman, Keim and Luce, 2001). Institutional investors can compel companies to greater diversity (Gillan and Starks, 2000). Kang et al (2007) find that shareholder concentration is significantly negatively associated with independence and gender, although not with age. They imply, therefore, that those organizations with higher shareholder concentration are not under as much pressure to promote board diversity.

Performance. Women directors' impact on the board is covered in the next major section of this review; here we consider performance as a firm characteristic. Women are more likely than men to serve in precarious management positions, a phenomenon Ryan and Haslam (2005; 2007) describe as the glass cliff. This organizational context makes it harder for women to perform and be perceived to perform effectively. However, Farrell and Hersch (2005) report that women tend to serve on boards of better performing firms and suggest that shortage of supply allows women to self-select the firms, or that these firms are able to focus more on diversity goals. Fortune's top diversity-promoting firms (1998-2002) experience positive, significant abnormal returns on the female director announcement date (Ellis and Keys, 2003). Similarly, of 353 Fortune 500 companies (1996-2000), the 88 with the highest representation of women on top management teams experienced significantly higher

returns on equity and total return to shareholders compared to the 89 firms with the lowest women's representation (Catalyst, 2004). Hillman et al (2007) find when a firm is linked to other firms with female directors, it is more likely to have WOCBs. All this, however, is exploring a link between gender diversity and performance, not establishing causality. Shrader et al (1997) describes evidence of some negative accounting measures and WOCBs, but as Erkut et al (2009) also suggest, a critical number of female board members is needed before they can exert a positive influence, and most of their sample have only one female director. Nelson and Levesque (2007: 214) argue that organizations undergoing regulatory and market review during initial public offering have a "greater opportunity and motivation to design a governance structure that responds to public concerns about independent oversight" and therefore a more diverse leadership. However, as the high-growth high potential firm struggles to "join the big boys", it may also become institutionalized in terms of trying to look more like their aspirants, discarding distinctive practices and conforming to a norm. In their sample of 100 IPO and 100 Fortune 500 companies, Nelson and Levesque (2007) identify only one female CEO and one female Board Chair. There are higher percentages of WOCBs in the Fortune 500 than the IPO companies, and for technology intensive or venture-capital-backed firms, the percentages are the lowest. In the IPO firms, almost 60% of executive teams and 80% of boards do not have a single woman on them, compared to Fortune 500 figures of 41% and 14% respectively.

Industry and Environment

A number of studies present correlations between particular industry sectors and an increased number of WOCBs, e.g. retail, finance, media, banking, and health care (Hyland and Marcellino, 2002; Brammer et al, 2007; Hillman et al, 2007; Fryxell and

Lerner, 1989; Joy, 2009; Sealy et al, 2007). However, findings are inconsistent and there are discrepancies on the index of companies as to what types of organization are included. Kang et al (2007) find industry type is significantly associated with independence and age, but not gender diversity.

As previously mentioned, based on resource dependency theory, one might expect more women directors in industries with a higher female workforce (Hillman et al, 2007). However, the opposite is not necessarily true as Sealy et al (2007) show: FTSE 100 companies in male-oriented industries (mining, oil) have women in their top positions. Brammer et al (2007) also suggest that close proximity to consumers plays a more significant role in affecting board diversity than does industry workforce, reflecting the influence of a firm's external business environment.

International Differences. One challenge in making international comparisons is the lack of a universal set of measures. For example, the European Professional Women's Network (2008) uses a varying number of companies from each European country and takes no account of firm size or board structure. Generalisability of findings across national boundaries is difficult due to different cultural, economic and regulatory environments (Kang et al, 2007), capital markets (Joy, 2008), sample sizes (Burgess and Tharenou, 2002) and effectiveness of government mechanisms.

Within-country Differences. As well as national differences, within larger nations such as the USA, there may also be significant regional differences. Goodman et al (2003) focuses on medium to large companies in Georgia, whereas Hyland and Marcellino (2002) study Long Island, the fourth most affluent region in the US where 31% of individuals have a first degree (national average = 17%) and 56% of women age 16 or over are in the workforce (national average = 48%). Helms et al (2008) monitor

Tennessee, with lower than national and international statistics on WOCBs and a suggestion that the American South is less accepting of gender diversity.

Private versus Public Initiatives. In Australia, there is no formal requirement for private or listed companies to consider board diversity, in contrast to the government sector which has 30 years of public policies to ensure boards are diverse or reflect the broader community (Ross-Smith and Bridge, 2008). Similarly in New Zealand, a microcosm of Western business, with only 1600 companies with more than 100 employees, women hold just 7% of board directorships, and 63 of the top 100 companies have no WOCBs (MacGregor and Fontaine, 2006). In contrast, women constitute over 35% of state sector board directorships (Hawarden and Stablein, 2009). These contrasting findings point to the danger of averaging national statistics, which would lead to misrepresentation.

Cultural Attitudes, Infrastructure and Public Policy. Different countries' socio-political beliefs and attitudes to women, work and families have a significant effect on both the possibility of individual women's career progression and the country's macro-economic environment. Within Europe contrasting attitudes, and therefore policies, led to some of the highest and lowest rates of WOCBs globally (see Figure 1.)

Insert Figure 1 about here

Some European countries have strong public policy initiatives. Traditionally considered a country with a strong macho culture, the Spanish government requires 40% female representation on boards by 2015 (de Anca, 2008). Spain is following Norway's example, where the government first encouraged and then mandated that all publicly listed companies have 40% female boards by January 2008 (Hoel, 2009). Sweden proposed quotas and fines but has not yet implemented legislation (Maitland,

2004). Changes in many European women's working lives are predominantly driven by public policy, and it will be interesting to see if corporate initiatives will now take advantage of this talent pool. The USA model is in stark contrast to Europe as the impetus for demographic change comes almost entirely from private initiatives. Former Soviet Bloc countries are among the highest ranking for women in management (Wirth, 2002) and on corporate boards (see Figure 1.) Under communism, women worked and had families. Highly subsidized childcare was the norm, and in an egalitarian social system, women gained relatively powerful social and economic positions. As Wittenburg-Cox and Maitland (2008: 206) share in their recent book, *"it is no surprise that Germany's first female Chancellor, Angela Merkel, is an East German. She was raised in a system that taught her to think she could lead."*

Terjesen and Singh (2008)'s institutional perspective examines social, political and economic macro-environmental forces: presence of women in senior management, women's historical role in government leadership and the gender pay gap. Based on a 43 country dataset, they report that in countries where more women made it to the boardroom, there are also significantly more women in senior management and legislature positions, smaller gender pay gaps and, interestingly, a shorter period of women's political representation.

Economic Environment. Many of the studies incorporate data from the economic boom period of the 1990s, which Nelson and Levesque say should represent the best-case scenario for women. However, Arfken et al (2004) point to a peak of merger-and-acquisition activity in 2000, with many organizations merging their boards as well as their companies. This led to a reduction in the overall numbers of available positions, which limits the opportunity for board diversity.

IMPACT

Individual

Tokens and minority members. Women and others different to the dominant group are likely to face tokenism when they are the sole representative of their group characteristic (Kanter, 1977). The dominant group tends to see women first as female, embodying the sex role stereotype, and only later as individuals. This makes it difficult for women directors to be heard and importantly, listened to on an equal basis to other board members. Erkut, Kramer and Konrad (2009) find that such issues are reduced when there is more than one female director. They refer to a critical mass as when there were two or more women and found an impact on male colleagues, who were less likely to dismiss comments made by a woman, and an impact in the boardroom, where the culture was said to have been warmer and more open to wider discussions. The real change occur when there are three or more women on the board (Erkut et al, 2009) and women feel more comfortable, less constrained about what the men would think, and their interactions became more positive. Importantly, diversity becomes not a "woman's issue" but group responsibility and the critical mass normalized women's presence as leaders (Erkut et al, 2009).

Role models. Women directors are role models who inspire others. Role modelling differs from mentoring where there is direct contact between partners, but many mentors are also be role models. Some women directors are careful about their role modelling behaviours so that they present an accomplished self (Singh, 2008). Executives below director level, especially women, watch and learn what to do and what not to do. Women directors are an important part of others' work identity development (Sealy and Singh, 2006). Sealy (2008) explores whether role models are

important for senior women, and investigates how organizations select and profile top women, some of whom are FTSE 350 non-executive directors.

Diversity supporters. Whilst women at lower levels in firms may hope that female directors will advocate women's issues, there is evidence that this may be a 'poisoned chalice' that many senior women are reluctant to accept (Ashford, Rothbard, Piderit and Dutton, 1998). Perhaps WOCBs understand better the political arena and are more aware of the consequences if they were to fail. Bradshaw and Wicks (2000) find that Canadian WOCBs do not have a feminist change agenda, but see their role with the same priorities as those of male directors, protecting shareholder value. Bradshaw and Wicks (2000) express surprise at how few acts of resistance were reported by their female director interviewees. Women directors in engineering firms advise other women not to be crusaders, but rather engage leaders to take up the advocacy role (Singh, 2008), and to follow the "tempered radical" (Meyerson and Fletcher, 2000) small wins approach in their own divisions.

Board

Governance performance. A Canadian study of private sector, public sector and not-for-profit boards (Brown, Brown and Anastasopoulos, 2002) reveals that boards with three or more women are significantly different from all male boards. Three-quarters of boards with women explicitly identify criteria for measuring strategy, compared to less than half of all-male boards, and 94% of boards with three or more women explicitly monitor the implementation of corporate strategy, compared to only two-thirds of all-male boards (Brown et al, 2002). There are similar statistics regarding conflict of interest guidelines, and ensuring a code of conduct for the organization. Furthermore, boards with two or more female directors place more importance on the

use of search consultants than other boards, which is likely to reduce the influence of the old boys' network and increase transparency of selection. Boards with women directors are also more likely to have higher levels of board accountability, with formal limits to authority and formal director orientation programmes. Boards with three or more females are likely to ensure more effective communication among the board and its stakeholders. In addition, such boards are significantly more active in promoting non-financial performance measures such as customer satisfaction, employee satisfaction and gender representation, as well as considering measures of innovation and corporate social responsibility.

In the UK, FTSE 100 firms with women directors adopted and reported the new governance practices recommended by the Higgs Review earlier than firms with all male boards. The significant differences in 2004 include having director induction and training, a regular review of board performance and the balance of board skills, knowledge and experience, and director succession planning structures, including approval for the use of external search consultants (Singh and Vinnicombe, 2004).

Decision Making. Better corporate governance is achievable through sharing a broader and different range of experiences and opinions (Fondas and Sassalos, 2000). Homogenous boards tend not to recognise how similarly members think because these values are the norm for them (Maznevski, 1994). Women have different experiences of the workplace, marketplace, public services and community, and therefore women directors bring a different voice to debates and decision-making (Zelechowski and Bilimoria, 2004)

On board behaviours and boardroom culture. Women's boardroom presence leads to more civilized behaviour and sensitivity to other perspectives (Fondas and Sassalos, 2000; Bilimoria, 2000). Huse and Solberg (2006) report that women lighten

up the boardroom atmosphere. However Huse (2009) finds no relationship between the proportion of women directors and the openness of the board culture in Norwegian firms, but when women's backgrounds differ from those of men, their contributions to the board working style are recognized. Huse warns that teasing out how women actually contribute is complex, because women contribute in different ways to the variety of governance tasks that the board is entrusted with. Women directors feel that their presence makes the board more sensitive to women's issues (Burke, 1997).

Singh (2008a) examines gendered boardroom cultures in engineering, high technology and scientific organizations. Directors with experience of working with women directors say that men are inclined to very political behaviour that is tempered when women are present, partly because women want to get on with the task in hand rather than "play games." Other comments are that a male-only group can get carried away with the big agenda and miss a lot of the detail that women would pick up on. Male directors say that in the presence of women directors, men change their language, become more civilized, and moderate their masculinity. In their view, this led to more effective performance and better governance.

On board independence. Women directors can enhance the independence of the board (Fondas and Sassalos, 2000). Izraeli (2000) comments that women are likely to take the role seriously, preparing conscientiously for meetings, a finding echoed by Huse and Solberg (2006). Women directors also frequently ask questions, meaning that decisions are less likely to be nodded through. CEOs report that women become more vocal and active as directors when there are three or more females (Konrad et al, 2008).

On board skills, knowledge and experience. Women directors contribute unique skills, knowledge and experience to their boards, but their feminine attributes may be masked in boardroom cultures that do not allow expressive behaviours. This can

lead to the board having female representation but only masculine behaviours, losing the benefits of diversity (Sheridan and Milgate, 2005). Some CEOs have to persuade female and male directors that it is okay to express intuition and emotion, and that "feminine intuition" about some proposed strategy might well be just what the board needed to hear (Singh, 2008). Whilst this is an essentialist view of female talents, emotional intelligence of both women and men is increasingly valued at the very top.

Firm

Corporate financial performance. Many researchers explore the impact of women directors on firm level financial performance, reporting mixed results, although more positive relationships are found in recent studies. There is certainly a relationship between the presence of women directors and higher market capitalization in Fortune 500 (Catalyst, 2004) and FTSE 100 firms (Singh and Vinnicombe, 2001, 2003). In the FTSE 100 study, the larger the firm's market capitalization, the greater the likelihood is for multiple women directors, however market capitalization can be seen as a proxy for size. Firms with women directors are more likely to have larger workforces as well as larger boards (Burke, 2000; Singh and Vinnicombe, 2001). The internal talent pool is larger, arguably providing more opportunities for challenge and growth, and more routes to the top for women than in smaller firms.

Research studies use a variety of performance measures to examine the link with board diversity, but results are mixed. A study of 200 Fortune 500 firms by Shrader, Blackburn and Iles (1997) finds that the percentage of women on the board (averaging 8% in these firms in 1992) is negatively related to firm financial performance (ROE, ROA, ROI and ROS) measured in 1993 but positively related to the proportion of women in management.

Drawing on 1993 and 1998 data for 112 Fortune-listed firms, Erhardt, Werbel and Shrader (2003) examine the link between executive board diversity (25%; measured as the percentage of nonwhites and females on the board in 1997 and 1998) and ROA and ROI, using a five year interval to control for market fluctuation. They report a positive association with both financial indicators, suggesting that board diversity impacts overall firm performance, but not gender diversity.

Another study of 797 Fortune 1000 firms' board diversity finds that compared to firms with all-male boards, firms with at least two women on the board performed better on Tobin's Q and ROA (Carter, Simkins and Simpson, 2003). However, Rose (2007) reports no relationship between Tobin's Q and gender diversity on Danish boards, and speculates that women directors are so few and the culture so closed at the top (only 4% of supervisory directorships held by women) that assimilation of the attitudes and behaviours of existing male directors becomes inevitable for WOCBs, leading to negation of women's diversity advantages.

The presence of multiple female directors is associated with higher revenues, according to a study by Catalyst (1997) of the Fortune 500 firms, where the top 100 companies by revenue are twice as likely to have multiple women on board compared to the bottom 100 companies. Burke (2000) also finds a similar correlation in top Canadian companies. Catalyst (2004) reports a positive link between gender diversity on boards and the bottom line as measured by return on investment and total return to shareholders in a sample of 353 Fortune 500 companies, with ROI being 35% and TRS being 34% higher in the group of firms with higher female representation in the top management team.

Female Director Appointment Announcements. The immediate impact when a female director is appointed is another area of research interest. A study of Singapore

firms finds a positive 2.3% increase in share value over the two days following appointments of 34 female directors in 30 firms between 1988 and 2001, and this is enhanced when the new appointment is a female CEO. However there is no relationship between the proportion of women on the board and shareholder value (Ding and Charoenwong, 2004). Hence women directors are welcomed by Singaporean investors at the time of their appointment. Lee and James (2007) investigate the impact of appointment of female CEOs in the US on shareholder value, finding a more negative reaction to a female CEO compared to a male CEO and to female top team appointments, but less negative to a female CEO appointed from within the firm**,** compared to an outside hire.

'Glass Cliff' Effect. The 'glass cliff' phenomenon describes how women are more likely than male directors to be placed in precarious situations (i.e. onto boards of poorly performing companies in periods of decline) (Ryan and Haslam, 2005). Poor performance is not associated with a recent appointment of a female director, and during a general economic downturn, companies that appointed a woman enjoy share price increases, though still suffer poor performance. When in executive positions, new women directors are highly visible and in danger of being criticized for their leadership style and individual abilities, which could result in a tarnished reputation if the downturn continued, whilst the context of their appointment at an unpropitious time was overlooked (Ryan and Haslam, 2005). Adams, Gupta and Leeth (2008) investigate female leadership appointments in US firms (1992-2004), finding that women tend to be appointed to CEO positions when firm performance is relatively good. Stock price performance preceding CEO appointments either favours females or there is no gender difference.

Ryan and Haslam (2008) further investigate WOCB appointments on both accountancy-based and stock-based measures, finding no relationship between women's presence on boards and 'objective' accountancy-based measures of performance (ROA, ROE), thereby supporting the recent Adams et al. (2008) study. However, there is a significantly negative relationship with Tobin's Q (Ryan and Haslam, 2008).

Although these studies indicate mixed results regarding the relationship between WOCBs and various measures of financial performance, this should not diminish the validity of the view that gender diversity in the boardroom is beneficial to shareholder value. After a new male director is appointed, if there is a change in shareholder value either in the immediate or longer term, this would be unlikely to be attributed to his male gender – so why should we expect a female appointee to add directly to the corporate bottom line? We expect female directors to add value in many qualitative ways as indicated in this paper, which would not be discernable directly in the balance sheet in the short term. Diversity is part of exemplary corporate governance that enhances long-term shareholder value (Robinson and Dechant, 1997; Brown, Brown and Anastasapoulos, 2002).

Shareholders and ethical investors. Bilimoria (2000) draws attention to the fact that powerful investors, such as union pension funds with many female members, are voicing concerns about the lack of gender diversity on US corporate boards, and that this would increase pressure on Chairs and CEOs to encourage female director appointments. Echoing this, Brown, Brown and Anastasopoulos (2002) comment that Canadian institutional shareholders are interested in board diversity, as they seek to invest in firms with good governance. Investors may see outcomes of good diversity management (such as women on the board) as an indicator of forward planning and future value in a globalising world where sensitivity to different cultures and diversity is

essential for long term survival. Companies with all male boards or those that have a large female workforce, or sell products targeted at women are particularly likely to be challenged by stakeholders. Women are increasingly the decision makers when it comes to major purchases such as houses, cars and holidays. Women directors may suggest new ways of bringing products to market, based on their personal experience as female customers. Where companies use market segmentation approaches, women's involvement in strategic decision-making is essential in developing the firm's capability to identify and tailor products to women (Daily et al, 1999).

Corporate responsibility and philanthropy. WOCBs may impact corporate responsibility, as a study of corporate social responsiveness orientation in S&P firms indicates that women directors are more oriented towards discretionary elements of corporate responsibility than men (who are more concerned about economic performance). However, there are no significant gender differences with regard to the legal and ethical dimensions of corporate responsibility (Ibrahim and Angelidis, 1994). Favoured explanations are that women are more likely to be outside directors, and boards with more outsiders tend to be more philanthropic, or that women directors are younger and hence represent a generation gap. Williams' (2003) study of Fortune 500 firms from 1991-94 finds a link between WOCBs and the firm's charitable support of community and cultural activities, but not for education. Williams (2003) suggests that women directors may find the influence on giving as a source of power, and speculates that as women take up more powerful committee roles, they may be less attracted to these aspects of corporate responsibility. Organizations with more equal representation of female and male board members are more able to fulfil social agency missions (Siciliano, 1996).

Organizational legitimacy and corporate reputation. WOCBs have symbolic value both internally and externally. Where women hold executive directorships, firms are likely to gain legitimacy from female employees and from potential recruits as 'female-friendly employers' with career tracks that advance women as well as men. Having women on the board, particularly in executive positions, makes it more difficult to claim that there is significant sex discrimination in the firm. CEOs surveyed as early as 1995 (Catalyst, 1995) comment that there is external political pressure and the feeling that it was the right thing to do. Interestingly, one CEO reports pressure from his wife, daughters and granddaughters who were scrutinising his performance on recruiting women to top positions!

Other women, in networks, as mentors, as inspirational role models. The number of women corporate directors on Fortune 500 boards is positively related to the number of women officers, number of women holding line management jobs, number of women holding high-ranking titles, number of women in the top earners of the company and a critical mass of women officers, the (Bilimoria, 2006). Senior women felt inspired when the first female director is appointed to an engineering board, seeing the appointment as a "huge milestone". However the absence of women at board level leads to mixed results, with some women determined to be the first female director, and others feeling that their gender is an inevitable barrier to the top (Singh, 2008). In a survey of 219 senior women, 66% feel very optimistic about their careers if there are women directors on their board, rising to 69% when there are female executive directors (Singh, 2008). Seventy percent of the women strongly agree that when there are no women at the top who have children, this is an indicator that it is difficult to combine career and family in that organization.

Women directors provide mentoring and networking opportunities for more junior women to develop their careers (Bilimoria, 2000). Women directors are good at networking with other women (Catalyst, 1995) and often act as speakers at networking events, which women find very inspiring, and an opportunity to ask how the director had overcome the career and work/family challenges that attendees are experiencing (Singh, Vinnicombe and Kumra, 2004). These interactions increase the potential for women to find a wider variety of female role models, enabling them to emulate behaviours from a number of women as well as men, which Ibarra (1999) suggests is more beneficial than drawing on a single role model.

Recruitment and retention. The presence of female directors symbolises career possibilities to prospective recruits, and also contributes to increased retention of women (Bilimoria, 2000). This is important when the economic cost of losing a well-qualified woman is estimated as at least one and a half times her salary (ABA, 2000).

Industry and Environment

We did not find any example of the impact of women directors at the industry level. However, we did find examples at the environmental level.

Citizens. Women's presence as directors signifies that women play a full part as citizens of organizations and society. However, for them to have voice as citizens, the environment needs to be open to their influence, and in the past, the women who succeeded were pioneers or "travellers in a male world" (Marshall, 1984). More recently the trend is for "superwomen": highly paid, working all hours, and flying around the globe. But for many, that comes at a personal cost, either not having children or outsourcing childcare.

Talent. Women directors are part of the talent pool for other directorships. Executive directors may seek their first non-executive post, or plan to move into a portfolio career with several NED positions. As part of the talent pool, women influence perceptions held by search consultants about the appropriateness of women for board appointments. They also influence and normalise the attitudes of Chairs and CEOs that women should be part of the talent pool at all levels.

Symbols in media. When women are appointed to corporate boards, there is often a press fanfare that the glass ceiling has at last been broken, which Catalyst and Female FTSE indices clearly disprove with the almost imperceptible change in the proportion of women executive directors in both the US and UK over the last ten years. Female directors' photographs are frequently displayed in the press, often alongside comments on their clothes, hairstyles and family status, using space that could be better allocated to their achievements and actions (Krefting, 2002). Unfortunately this practice shows no sign of diminishing.

Figure 2 maps out the linkages described above across the four levels of analysis. With the key path shown in bold with larger arrows and indirect paths shown as dotted lines, Figure 2 shows that through human, social and cultural capital, board diversity is derived from individual director diversity (especially where there is a critical mass of women). Through board level processes such as quality of decision-making, board diversity influences governance outcomes, which in turn, impact firm level financial, social and reputational outcomes.

Board processes are influenced by and influence individual directors. For example, minority directors often experience tokenism from other members both at an individual and group levels. Tokenism may hinder acceptance of women's boardroom contributions, thereby negatively impacting performance, but this may be mitigated by

social ties to existing board members. Through advocacy of a woman director by a chairman, for example, individual women may achieve positive outcomes such as increased confidence and interlocking directorships. Such personal outcomes may influence the environment as chairmen and search consultants generally become less hostile to appointing diverse individuals.

Firm characteristics such as larger size influence board characteristics, with a consistent correlation between market capitalization and the number of women directors. Firms with predominantly female consumers are facing increasing calls for women's voices to be heard in the boardroom. Firm characteristics and processes such as succession planning schemes and mentoring programs influence retention, often assisted indirectly by female directors who symbolise the possibilities of progress for women. Firm and environment level characteristics combine to influence selection of women CEOs, as in the 'glass cliff' effect. Social, political and economic environmental characteristics such as national or regional cultures and government mechanisms also influence board selection processes, e.g. through quotas as in Norway, enabling women to play full citizenship roles in society. More female directors means an increase in potential role models for younger women, that can change the environment and attitudes towards women on the board. More women gaining non-executive directorships means that search consultants have a larger and experienced talent pool which to make their recommendations.

Insert Figure 2 about here

It is clear from this review that women play an influential role on corporate boards, but there are still major barriers to their access to such elite positions. When boards do include women, then there is evidence that corporate governance improves. We conclude with a detailed outline of future research directions at the four levels.

FUTURE RESEARCH

Individual

As extant literature is predominantly based on publically available information, truly innovative research would tap into the female directors' experiences. Several directions are promising. First, as both Sheridan and Milgate (2005) and Huse and Solberg (2006) report that women directors partly attribute their selection to high visibility, an impression management lens could help answer questions such as: How do WOCBs manage their career stages? What strategies are applied in the public domain versus in the boardroom?

A second promising area, also outlined by Ross-Smith and Bridge (2008) and Zelechowski and Bilimoria (2004), is the elaboration of director profiles including career paths and networks. Such in depth investigations, traditionally facilitated by archive data, could benefit from interviews and the utilization of life history calendars which take into account portfolio career perspectives (See Freedman et al, 1988 for an overview of methodology.) Research could explore the dynamics of the appointment process, considering a 360-degree perspective to capture the reasons for successful and unsuccessful applications. Furthermore, WOCBs' post-board careers warrant further study. What linkages might former directors make between their old boards and their new positions? For example, until 2006, Lehman Brothers' board included Dina Merrill (a former actress who appeared in *Caddyshack II*), and who is now a trustee to several community organizations (Berman, 2008; Wikipedia, 2008). Might other former directors join universities as executives-in-residence? Furthering career perspectives, we concur with Nelson and Levesque (2007) that much could be learned from women who exited. Key questions from a career perspective include: When and why do potential or

actual women directors 'opt out' (Mainiero and Sullivan, 2007)? In terms of human and social capital theories, extant research has examined 'what it takes' to be named to boards - might there be potential sets which are unattractive in the selection process, for example an association with a company which has bankrupted? Research could explore gender differences.

Third, if some women have many board appointments available to them (Farrell and Hersch, 2005) and given the increased responsibility of being on a board and the pressure for limited directorships, what are women's selection criteria for serving on boards? Many of the above research questions, as well as below directions for board and firm research, could be explored using narratives from published autobiographies, such as Carly Fiorina's (2007) memoir, *Tough Choices*.

Board

The "black box of the boardroom" has eluded most researchers - with Huse's (2008) board observations an exception. Researchers could help answer the tough questions, especially in the wake of recent corporate governance failures: What role have WOCBs played in the pre-crisis decisions and post-crisis leadership of such corporations? Are WOCBs likely to be members or chairs of the increasingly common board ethics committees and governance committees?

It would be interesting to obtain the views of Chairs and other board members about the relative usefulness of diverse human capital and social capital resources of incoming directors once they have been fully integrated into the board and its key committees. Might there be ambiguous resources that never come to fruition? How does the Chair's view compare with that of the other directors?

Another stream could explore the board's link to other firms, such as executive search consulting firms. How do these firms participate in board recruitment and skills assessment? Does gender diversity play a role?

Links should be developed with other disciplines, such as corporate environmental studies, to identify how boards with women directors actually deal with increasingly important environmental issues. Do WOCBs take a different perspective in boardroom debates on corporate social responsibility, green environmental issues, or policies that influence the environment for employees on issues such as work/life balance?

Firm

There are suggestions that some firms address the visible lack of diversity by appointing a single non-executive/outside director, rather than addressing the longer-term issue of an underdeveloped talent pool of senior women. Therefore, more research into executive team demography would bring this issue to light, addressing the issue of the pipeline. Key questions include: Are women executives mobile across companies, e.g. to be part of the talent pool in Firm A, but selected to serve on the board of Firm B? Websites such as theyrule.com facilitate the collection of networking data.

There is a continual call for research which "proves" the added value of women on corporate boards to the bottom line. However, we caution that it is unreasonable to expect one female director to bring about a financial contribution soon after appointment. Researchers could concentrate on the direct outcomes of having more WOCBs, and look at when and how women contribute most effectively in their role as corporate board directors. Other key questions include: How do WOCBs impact relationships with key stakeholders such as fund managers or individual potential

employees? What role do women directors play in various corporate social responsibility initiatives as well as sustainability as a facet of corporate cultural and life cycle planning.

Industry and Environment

As explained earlier, industry research is uncommon. Thomas' (2001) longitudinal study of female directors in top British retailing firms (1956-1997) introduces a standard for research in other sectors. Why are WOCBs found in certain industries? Do women directors move across industries? Are women entering the workforce aware of role models in certain industries, and does this affect their occupational and organizational choices?

Initial investigations into the effects of regulations such as Sarbanes-Oxley (2002) and recommendations in the Higgs Review (2003), which do not explicitly detail guidelines on diversity by sex, suggest these have nevertheless impacted the accessibility of board positions to women (Sealy et al, 2007). Further questions here include: What impact do non-sex diversity initiatives have on WOCBs?

As globalization brings new arenas such as China, India, Brazil and Russia under the spotlight, it would be useful to understand how the globalising environment influences women getting to the board. Another area of interest is the fast-modernising Middle East, where corporate governance and stock markets are not yet mature, but increasing access to education for women and changing career and family patterns are influencing the access and participation of women at decision-making levels in the business world.

Most firms are required to report their corporate board demographics in proxy statements and annual reports, but in most countries it is not mandatory to report this

information on the entire executive team. We know little about the impact on industry, and how women's wider range of experiences in private and public sectors influence the community, for example as school governors and mentors to teenage girls.

As the lack of female access to corporate boardrooms is an international phenomenon, the field would benefit from further international studies. More countries (led by Catalyst in US and Canada) now conduct a census of WOCB. The European Commission regularly updates WOCB statistics on the top 50 companies in all EU countries But deeper investigation is needed beyond the statistics, and more collaboration is needed amongst the researchers so that there is transparency about board structures and governance systems, methodologies and sampling decisions. Taken together, future research should consider multiple levels of analysis- the individual, board, firm and industry/environment.

CONCLUSION

The aim of this paper was to review the most up-to-date and significant studies of women on corporate boards. We have identified what is known about how WOCB influences corporate governance and firm performance. We argue that this occurs through multi-level processes, as shown in Figure 2. The evidence shows that gender diversity on corporate boards contributes to more effective corporate governance through a variety of board processes, some of which do not show up as a direct influence on the firm's bottom line, as well as through individual interactions. As well as governance outcomes, women directors contribute to important firm level outcomes as they play direct roles as leaders, mentors and network members as well as indirect roles as symbols of opportunity for other women, and inspire them to achieve and stay with their firm. More recognition is needed for their valuable contribution to firm value.

But as the WOCB demographics indicate, as corporate citizens most women do not yet have an equitable share in the governance of the firms in which they enact their careers.

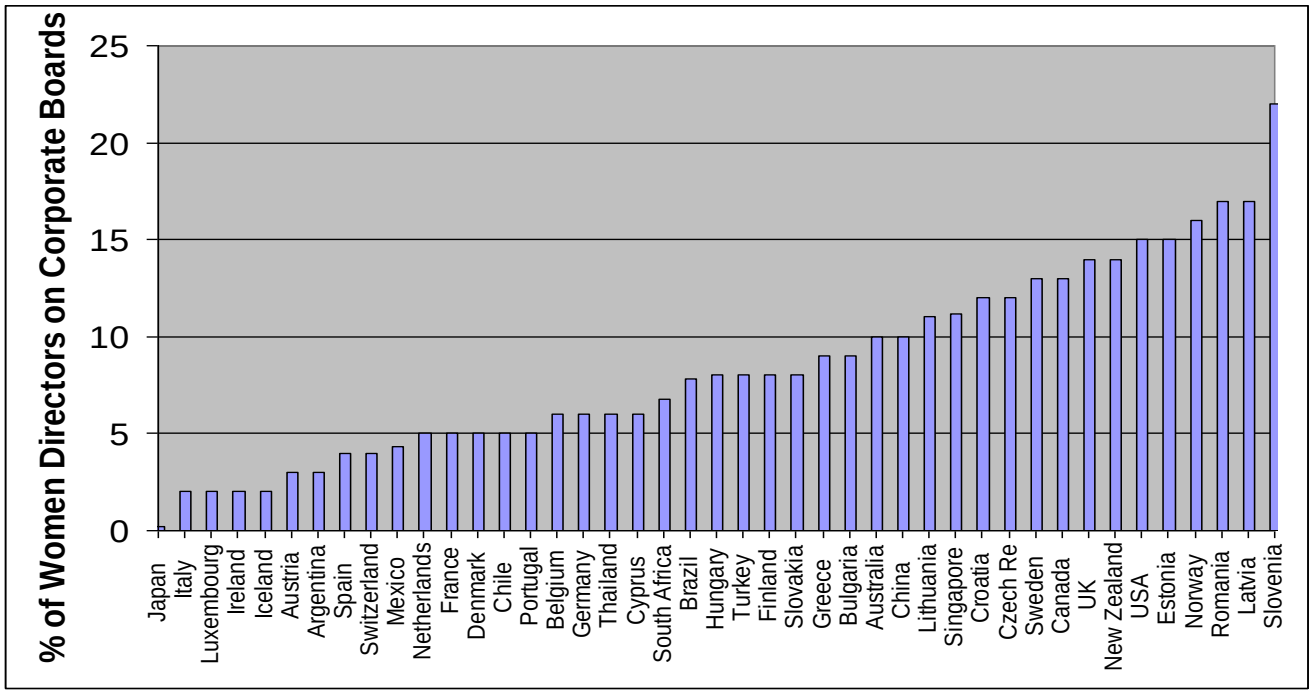
Much research interest has focused where data are readily available (e.g. board and director demographics and firm level financial data), rather than accessing boards directly. The lack of theoretical development in the overwhelming majority of the 180 documents reviewed indicates an urgent need for more scholarship in this field.

As Bilimoria (2000) comments, more efforts need to be made to disseminate research findings so that a stronger business case can be established. There has been considerable progress in terms of benchmarking across an increasing number of countries. Policies vary from overt intervention such as the quotas in Norway, to a conscious non-intervention approach, such as the US. Governments monitor the implementation and effectiveness of diversity policies and practices, using robust research results to design interventions. Research into women on corporate boards is an important tool, not only for making an academic contribution, but to provide the basis for change, not just for a more equitable but also for a more effective gender representation at the decision-making levels of the corporate world.

Table 1: Women on Corporate Boards of Directors: Review structure

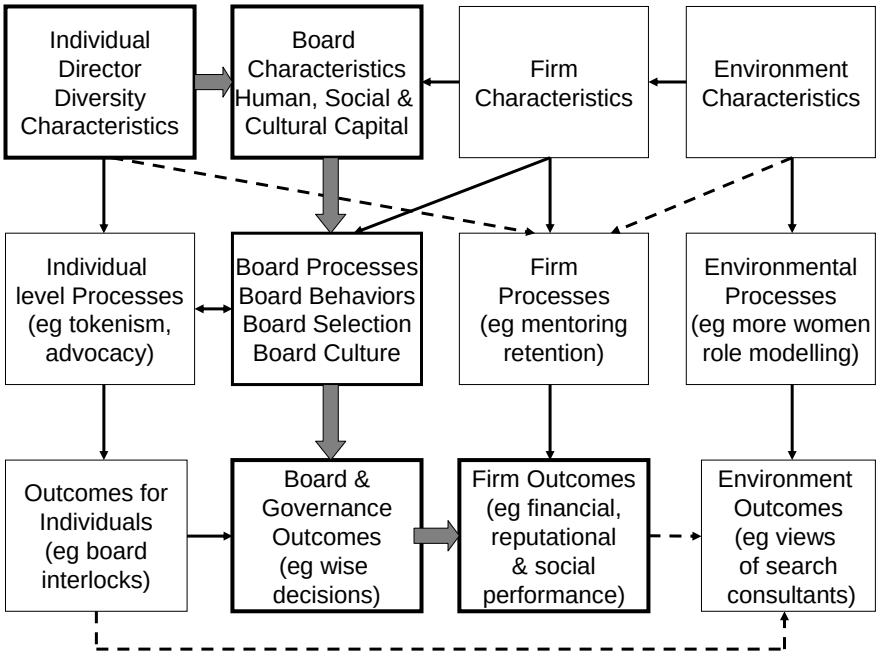
	Theory (representative citation)	**Characteristics**	**Impact**
Individual	Human Capital Status Characteristics Gender Self-Schema	Demographics Social Capital Human Capital	Tokens and minority members Role models Diversity supporters
Board	Social Identity Social Network and Social Cohesion Gendered Trust Ingratiation Leadership	Structure and Size Roles Composition	Governance performance Decision-making Behaviors and culture Independence Skills, knowledge and experience
Firm	Resource Dependency Institutional Agency	Size Stakeholder distribution Performance	Financial performance (announcements, 'glass cliff' effect) Shareholders and ethical investors Corporate responsibility and philanthropy Organizational legitimacy and corporate reputation Other women (networks, mentors, inspirational role models) Recruitment and retention
Industry and Environment	Institutional Critical Management	International differences Within-country differences Private vs Public initiatives Cultural attitudes, infrastructure & public policy Economic environment	Citizens Talent Symbols in media

Figure 1: Percentage of Women on Corporate Boards



Source: Terjesen and Singh (2008)

Figure 2: Characteristics and Outcomes of Gender Diversity on Corporate Boards



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[i] We also do not consider other types of board diversity such as race, ethnicity and nationality.
[ii] When applicable, these studies are cited in subsequent sections on characteristics and impact.
[iii] FTSE 100 stands for *Financial Times* Stock Exchange's top 100 companies by market capitalization.
[iv] Linkages to board and firm needs are articulated in the resource dependency section below.
[v] Having obtained specific knowledge in functional areas in the firm, inside directors offer expertise in corporate strategy. Second, business expert directors have career experience as directors in other large firms, in similar markets, and offer diverse opinions and network ties. The third category, support

specialists, offer expertise in particular areas such as financial or legal realms. Community influentials often come from politics, clergy or academia and offer an understanding and linkage to this community.
[vi] The terms “Non-Executive Director” and “Outside Director” refer to individuals on the board who do not have executive roles in the firm. The terms “Executive Director” and “Inside Director” describe firm employees who have roles on the board.