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WHERE ARE ALL THE WOMEN? INSTITUTIONAL CONTEXT AND THE PREVALENCE OF WOMEN ON THE CORPORATE BOARD OF DIRECTORS

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A thesis submitted for the degree of Doctor of Philosophy
University of Bath
School of Management
July 2009

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ABSTRACT

High-profile corporate scandals such as Enron and the recent banking crisis have focused attention on the corporate board of directors and the people who make up this focal group of corporate control. Legislation, corporate governance policies and best-practice frameworks have been introduced, which seek to engender boards that draw on diverse skill sets, talents and insights and create a well functioning and gender-balanced team to oversee shareholders’ interests and protect the firm as a going concern. Despite high-profile attention and many initiatives aimed at increasing gender diversity on corporate boards, women remain a minority in the vast majority of board rooms across the world. The continued absence of women from this nexus of corporate power has as yet not been subjected to systematic study. This thesis seeks to address this under-studied area, and maps the share of corporate board seats held by women across a wide sample of countries and highlights national, industry and firm level variation in the prevalence of women corporate board directors. Against this descriptive background, a series of linked studies are undertaken that take a nested perspective and consider national, industry and firm level institutional influences in explaining the large and persistent variations in female corporate board directors. The thesis is informed by institutional theory and develops a conceptual framework which is multi-level in character and reflects these different levels of analysis. In light of this framework the thesis empirically tests the role played by national, industry and firm level factors in accounting for the observed differences in the share of board seats held by women. The results of the analysis suggest that institutional context plays an important role in shaping the gender-profile of the corporate board of directors. In particular, at the national level, countries with more liberal political views, lower cultural uncertainty avoidance and a larger share of educated women have more women board directors. There are also some indications that in countries where fewer people consider themselves religious and where national governance frameworks are better embedded boards have more female directors. However, these findings are somewhat sample dependent. At the industry level, a larger share of female employees in a given industry is associated with a larger share of female board directors. Finally, at the firm level the analysis found that where the average age of the boards’ directors was lower, women held more board seats. Further investigations at the firm level revealed that where firms employed a nomination committee, women held a larger share of the boards’ directorships. This effect was further augmented when women served on the nomination committee.
WHERE ARE ALL THE WOMEN? INSTITUTIONAL CONTEXT AND THE PREVALENCE OF WOMEN ON THE CORPORATE BOARD OF DIRECTORS
INTRODUCTION
1. Introduction

Corporate boards of directors have for decades, if not centuries, been the preserve of men. Terms such as ‘old-boys network’, ‘jobs for the boys’ and ‘no place for a woman’ are colloquial manifestations of how the corporate board has been seen. Through school-ties, alumni networks and golf-course chatter, men have continued to appoint each other to board directorships and thus maintained the gender homogenous nature of corporate boards that still pervades much of the upper echelons of business to this day (Selby, 2000). Over the last two decades however, this has begun to change in some parts of the world. Major corporate scandals such as WorldCom and Enron brought into sharp focus the importance of board composition and demography. In particular, the obvious absence of women from the corporate board was noted, with some suggesting the gender homogenous nature of the board was a contributing factor to the boards’ failure in providing oversight (Erhardt et al., 2003). At the time of Enron’s collapse, women held only 12.4% of board directorships on Fortune 500 companies in the US (Catalyst, 2001), 6.4% of board directorships in the UK, 9.1% in Norway (Grosvold et al. 2007) and 9.8% of the directorships of the Canada Post’s top 500 companies (Catalyst, 2001a). In the wake of these scandals, major corporate governance initiatives were instigated to address issues of board independence, composition, structure and demography. This included the commissioning of the Higgs Report (2003) and the Tyson Report (2003) in the UK; both reports were backed by the British government and specifically addressed gender homogeneity of UK corporate boards. The introduction of the Sarbanes-Oxley act 2002 in the US and Norway’s decision to legislate for increased female board participation (Thomson, 2005; Ramirez, 2003; Terjesen and Singh, 2008) also came in the wake of corporate scandals. Corporate governance reforms particularly highlighted the positive influence women could have on board proceedings, bringing much needed talent, experience and perspective (Tyson, 2003; Erhardt et al., 2003; Carter et al., 2001). Politicians and industry federations have also increasingly made strides to draw attention to the diversity and talent that firms implicitly forego by excluding qualified women from consideration (Kurylko, 2005; Moyer, 1998; Terjesen and Singh, 2008; Higgs, 2003). Particular industries such as the automotive industry in the US are increasingly emphasising the need for a broader range of skills and talent at board level (Kurylko, 2005), and some firms, such as the American cosmetics giant Avon Inc., have highlighted their commitment to diversity by systematically appointing boards that are far more demographically diverse than the boards associated
with Enron and WorldCom. In 2009, Avon has eleven board directors, five are women and three are from ethnic minorities. However, despite increased awareness across countries, industries and firms of the importance of gender diverse boards, the share of board directorships in the UK, the US and Canada that is held by women has not radically changed since 2001. In 2007 women held 13% of board directorships in Canada (Catalyst, 2008), 14.8% in the US (Catalyst, 2007) and 11% in the UK (Sealy et al., 2007). Only in Norway did the percentage of women board directors rise sharply, in response to the affirmative action legislation which required 40% of all directorships to be held by women. In other countries the percentage of board of directors who are women is lower still; boards in Spain have only 3.2% female board directors (Campbell and Minguez-Vera, 2008), and boards in Switzerland have only 0.31% women board directors (Ruigrok et al., 2006).

This enduring variation in the prevalence of women on the corporate boards across countries raises a number of important questions: why is there such a large difference between the numbers of board seats women occupy in different countries? Is the rate of female board participation for a given country uniform within the country? Which industries are women attracted to? How does national context influence board demography? Does national culture matter? Are women discriminated against? Do women want corporate board directorships? This thesis will attempt to answer some of these questions.

The starting premise of this thesis was a desire to better understand the observed cross-national variation in the share of board seats occupied by women. However, in the course of planning and executing the cross-national analysis designed to help explain these discrepancies, further layers of analytical complexity became apparent. As I will show, not only does the rate of female board participation vary on a country-by-country basis, but also across industries within countries. Reported national and industry averages often mask substantial within-industry, and within-country variation. From this observation, the research evolved to include multiple levels of analysis, taking into account not only country context, but also drivers of board diversity at the industry and firm level. The need to address country, industry and firm level factors, suggested a nested research approach was required, starting with the broadest context at the national level, before evaluating the contributions of industry and firm characteristics in accounting for the presence or absence of female corporate board directors.
Reflecting the research motivation to understand the role of national and industry context in explaining the demographic gender characteristics of corporate boards, this thesis is informed by institutional theory. Institutional theory builds on a rich disciplinary heritage covering sociology, political science and economics, making it particularly suitable to the analysis of complex, multi-level, phenomena such as the different rates of female board participation.

This chapter has three distinct objectives: firstly, to explain why the prevalence of women on the corporate board of directors is an important topic of research with a substantial intellectual and practical heritage; secondly, to outline the aims, objectives and structure of this thesis; finally, to articulate what research contributions the thesis makes. The next section establishes the rationale for the research.

1.1 The importance of women on the board

The sustained dearth of women on the corporate board of directors has generated widespread scholarly interest (Adams and Flynn, 2005; Singh and Vinnicombe 2004, Arfken et al., 2004; Sheridan and Milgate, 2003, 2005; Smith et al., 2006; Burke and Mattis, 2000; Thomson, 2005; Erhardt et al., 2003; Carter et al., 2001; Hillman and Cannella, 2002, 2007). This growing body of conceptual and empirical work has cumulatively articulated a strong case attesting to the importance of female board directors and what opportunities firms that fail to consider female board candidates may miss. In particular, both a strong normative and a commercial case have been established in favour of increasing the role of women on the board.

The business case for increasing the number of female board directors rests on the finding that women bring much needed talent and a number of strategic and financial benefits to the firms on whose boards they serve. Research shows that women directors make a sustained and impactful contribution to corporate strategy. In particular, their contributions are noted in revenue generation and marketing, improved financial performance, and talent retention and development (Wolfman, 2007; Kanner, 2004; Daily and Dalton, 2003; Hillman et al., 1998; Adler, 2001; Catalyst, 2007a; Carter et al., 2003; Erhardt et al., 2003). For companies producing products for individual consumption, female corporate board directors represent a key resource. Research suggests women play a role in over 80% of all
consumer purchase decisions made in the US, and are responsible for $3.7 trillion expenditure on consumer products and services (Wolfman, 2007; Kanner, 2004). In this regard, female corporate board directors are pivotal in ensuring corporate product placement and promotion strategies appeal to female consumers. Female corporate board directors are not only well qualified to determine how and where products are sold, they have also shown an aptitude for spotting profitable product and marketing opportunities aimed specifically at the female consumer (Fryxell and Lerner, 1989; Burke and Mattis, 2000). For example, the sports apparel company Nike made the decision to introduce a specific product range aimed at women after a female director suggested this was an untapped market (Singh et al., 2001).

A related strategic consideration of why women have a role to play on the corporate board relates to talent retention and development. Business relies on the strength of its human capital to succeed, and building a strong executive pipeline of qualified women ready to take on responsibility at board level is crucial if firms want to continue the trend of positive outcomes associated with female board directors. Research shows there to be a direct link between the percentage of board seats held by women and the number of women in key senior executive positions (Daily and Dalton, 2003). Female board directors have an important role to play as a signalling resource to ambitious younger women who see that it is possible to reach the upper echelons of business as a woman (Bernardi et al., 2006; Thomson, 2005). Currently serving female board directors can also act as mentors to women knocking on the boardroom door and enable the next generation to acquire the requisite network of contacts for attaining board directorships. Consequently, the long-term future of the next generation of qualified female board directors is closely linked with the presence of female board directors today. This gives added impetus for firms to consider the current gender composition of their board, as it will affect the future development of their strategic competencies.

The evidence suggests women also have a positive influence on firm performance (Hillman et al., 1998; Adler, 2001; Catalyst, 2007; Carter et al., 2003; Erhardt et al., 2003). Hillman et al. (1998) found that shareholders benefited from increased board diversity, companies with more women and minorities on their boards showed higher shareholder returns than those with fewer. Similarly Adler (2001) identified a strong positive correlation between firm profitability and the number of women occupying senior
executive positions of Fortune 500 companies. The influential women’s advocacy group Catalyst (2007a) revealed the results of their two-year study in 2007 which showed that on average, where women held a larger proportion of the available board seats of Fortune 500 companies, shareholders saw a return on equity 35.1% higher than those with the lowest level of female board directors. These findings were consistent with previous research by Erhardt et al. (2003) and Carter et al. (2001) which also showed the positive influence female board directors had on firm financial performance.

Although scholarly research has developed a robust argument in favour of increased gender heterogeneity, the board has been subjected to two dichotomous views at an operational level: its perceived enhanced independence on the one hand (van der Walt and Ingley, 2003; Selby, 2000; Mattis, 2000), versus increased conflict and delayed decision-making on the other (Erhardt et al., 2003; Knight et al., 1999; Hambrick et al., 1996). Board performance will be affected by the combined intellectual capital available, and the experiences, competencies and views of its members (Nicholson and Kiel, 2004). The broader the talent pool from which board members has been picked, the more capable the board should be. The contrasting view is that diversity produces some practical problems in terms of board dynamics. With a more diverse range of views and opinions, consensus may be harder to achieve, which in turn may delay decision-making and devolve personal responsibility (Erhardt et al., 2003; Knight et al., 1999; Hambrick et al., 1996). On balance, the argument suggests that that board diversity adds more to a company than it takes away; and increases rather than decreases the board’s independence. Selby (2000) makes this point when noting that, “directors with diverse skills, experiences and backgrounds are more likely to raise questions that add to, rather than simply echo, the voice of management” (p 239).

In addition to arguments that emphasise the business case for increased female participation at board level, an important strand of the literature makes the normative case for greater board diversity, arguing that it is unethical for groups of people to be denied access to societal power on the basis of their gender, race, religion or any other individual traits unrelated to their ability. The literature argues that society would benefit and companies would better reflect their customers and stakeholders by increasing the gender diversity on their boards, stating that business should view diversity as a positive attribute in its own right rather than a matter of compliance and political correctness (Carver, 2002;
Garratt, 1997; Keasey et al., 1997). In particular, the stakeholder argument has generated an important strand of literature attesting to the importance of women corporate board directors. Research has found that women corporate board directors are attuned to the role of the board as stakeholders and their board participation has been found to increase corporate philanthropy in the form of charitable giving (Wang and Coffey, 1992; Williams 2003). A further line of argument suggests that boards should make diversity a central issue on the board’s agenda, and explicitly recognise the normative implications of having excessively homogenous boards (Mattis, 2000).

Despite the well documented benefits associated with an increase in the proportion of board seats held by women and the emphasis placed on board independence and diversity in national corporate governance codes and legislative frameworks, the world’s boardroom remains largely male. As chapter 5 will show, when considering the proportion of women board directors at the aggregate national level, no country in the world today has gender parity or a female majority in their corporate board ranks.

To better understand why countries, industries and firms show such large variation in the proportion of board seats held by women and to highlight levers that business and governments can pull to improve the board’s gender heterogeneity, this thesis will investigate the role played by national, industry and firm level institutional determinants in helping or hindering women’s chances of acquiring corporate board seats.

### 1.2 Research rationale

Research to date has largely omitted considering the board’s wider institutional context, be that at the national, industry or firm level, as an influence on board composition. National institutions such as a country’s regulatory environment, the influence of national culture and the role played by such factors as religion and education systems have not been extensively scrutinised in the literature on female corporate board participation, despite widespread recognition in the broader managerial and corporate governance literature that institutional context is important for a range of business outcomes (Parboteeah et al., 2008, 2003, Cullen et al., 2004; Spencer and Gomez, 2004; Munir 2002).

At the industry level, scholars have successfully established that industry does play a role in determining the pattern of female board participation (Elgart, 1983; Hillman et al., 2007;
Brammer et al., 2007). However, little is known about which particular industry drivers affect the gender demography of corporate boards.

Regarding firm level influences on women corporate board directors, studies rooted in social psychology have illuminated important patterns of inter-personal board dynamics (Westphal 1999; Westphal et al., 2001; Westphal and Stern, 2007) and how these influence board composition. However, no study has investigated the impact of the nomination committee on redressing the gender balance in the board room. Nomination committees represent a corporate governance intervention specifically designed to make the process of board appointments more transparent and meritocratic by intervening in the personal relationships that have helped shape the gendered face of boards to date, but little is understood about the role of the nomination committee in increasing the share of board directorships held by women.

By placing the board and the character of the board’s gender composition in the context of its broader institutional environment, this research seeks to establish which country, industry and firm level institutions enable and prevent women from attaining corporate board directorships.

Having outlined the research rationale for the thesis, the next section will address the second objective, and outline the aims, objectives and structure of this thesis.

1.3 Aims, objectives and structure of thesis

The thesis has five objectives:

I. To review comprehensively extant conceptual and empirical literature on the prevalence of women on the board, to identify emerging themes and gaps in the knowledge regarding female board participation, and to place this literature within the broader context of research on boards of directors.

II. To develop a conceptual framework, which is informed by theoretical gaps and emerging themes in the literature, that addresses institutional influences on women’s prevalence on corporate boards, and which encompass influences at the macro (country), meso (industry) and micro (firm) levels.
III. To provide a clear and comprehensive insight into the international variation in the prevalence of women on corporate boards across countries and industries.

IV. To evaluate empirically the relevance of national, industry and firm level institutional factors in accounting for the prevalence of women on corporate boards.

V. To assess implications of empirical findings for theory and managerial practice.

Structurally, this thesis is divided into nine chapters, which largely follow the order of the objectives outlined above. This chapter has provided a flavour of the content and structure of the thesis, and is followed by a literature review articulated in chapter 2. This literature review comprehensively assesses extant scholarly research on women on the corporate board, and places this research in the wider context of research on boards of directors.

Chapter 3 develops the core theoretical contribution of the thesis and articulates a multi-level framework informed by institutional theory which accounts for national, industry and firm level influences on the prevalence of women on the board.

Chapter 4 outlines the methodology and research strategy adopted for this PhD. The chapter discusses the nature of comparative and multi-level research, but does not detail the particular statistical methods employed in the empirical chapters. Following Bowen (2000), methodological detail of this kind will appear alongside each individual study.

Chapter 5 provides an overview of the proportion of board seats occupied by women across countries and industries. The chapter establishes differences between, but also within countries, and drills down to firm-level variation in board gender homogeneity. This chapter forms the backdrop to the following three empirical chapters.

Chapter 6 is an empirical chapter which evaluates the importance of national institutional context in accounting for the prevalence of women on the board in a multi-national context. In particular, the chapter focuses on the regulative, normative and cultural elements of the broader national environment.
Chapter 7 is an empirical multi-level analysis that extends the empirical research from chapter 6 to encompass the relative role played by national, industry and firm level institutional characteristics in accounting for the prevalence of women on the board.

Chapter 8 completes the nested research perspective and provides a contrasting view to chapter 7 by analysing whether nomination committees increase the share of female board directors, and whether the particular gender composition of the nomination committee itself influence subsequent appointments of women board directors. The study adopts a matched-pairs analysis to determine if the nomination committee is a useful intervention for increasing the share of corporate board directorships held by women.

Chapter 9 takes a broad view of the findings from chapters 5, 6, 7 and 8, drawing together the results and insights from these distinct examinations and discusses the findings, and suggests implications for theory and management practice. The chapter also evaluates limitations of the research, suggests future lines of enquiry and concludes the thesis.

**Figure 1.1 Nested structure of the thesis**

![Nested structure of the thesis](image)

### 1.4 Research contributions

This thesis makes four particular contributions. Firstly, as far as it has been possible to ascertain, this is the first large-scale systematic cross-national and cross-industry study of the prevalence of women board directors. Secondly, this thesis will analyse the proportion of board seats held by women in a nested perspective. Whereas previous research has considered either higher level influences such as national or industry characteristics as explanatory variables for women’s presence or absence on the board, this research will adopt a nested approach as reflected in figure 1.1 and, through a series of related studies,
evaluate the role played by national, industry and firm level institutional characteristics in influencing boards’ gender demography and in doing so shed light on several research questions that have so far not been explored. Thirdly, institutional theory informs the analysis in this thesis. Previous research on female corporate board directors has largely been conceptualised in terms of board level theories. By widening the theoretical lens and applying institutional theory, this thesis outlines the wider context within which women acquire board seats, specifically considering the role of regulative, normative and cultural factors. Finally, at the firm level this thesis investigates the role played by the nomination committee in furthering women’s attempts to enter the board room. No other study has so far looked specifically at the role played by the use and composition of the nomination committee for increasing the share of board positions held by women, despite its explicit intention to make the board recruitment process less opaque.

1.5 Chapter summary
This chapter has articulated the case for why the prevalence of women on the corporate board of directors is an important topic of research, outlined the aims, objectives and structure of this thesis, and stated the research contributions this thesis seeks to make. The next chapter provides a comprehensive literature review of extant scholarly research into women corporate board directors. This review places this particular body of research in the context of board literature more broadly, and from this develops an agenda for future research.
LITERATURE REVIEW
2. Literature Review
This chapter sets out a detailed analysis of the extant academic literature on women corporate board directors and highlights prominent conceptual and empirical themes within this body of research. In addition to a review of research into women on the corporate board of directors, the chapter will place this particular segment of board research in the wider context of empirical and conceptual research concerned with the role, structure, process and composition of corporate boards, and the different forms of governance systems that boards operate in. This chapter will review current research frontiers in gender diversity on the board and from this articulate a research agenda which would extend these frontiers in productive directions.

This chapter has three objectives: firstly to assess dominant themes in empirical and conceptual research concerned with boards of directors; secondly to critically review the literature on women on the board; thirdly, to highlight research opportunities yet to be explored within this body of research.

2.1 Research concerning boards of directors
The literature concerned with women on corporate boards sits within a wider body of research that addresses a broad range of aspects relating to the corporate board of directors. In particular, it owes much to the conceptual discussions of the role and purposes of boards of directors and is informed by several significant themes that emerge from the empirical literature on corporate boards. This section reviews the conceptual and empirical literature on boards of directors in order to provide a broad context for the subsequent discussion of the literature on female board directors.

2.1.1 Conceptual perspectives on boards of directors
The dominant perspective on the role and importance of corporate boards of directors stems from the principal-agent paradigm of financial economics (Jensen and Meckling, 1976; Lynall et al., 2003, Daily et al., 2003). The principal-agent model, or agency theory, owes much to Berle and Means’s (1932) seminal work which highlighted the division between firm ownership and operational control that had arisen in the modern corporate form, and which brought benefits through the employment of specialised management with relevant knowledge and skills (Fama and Jensen, 1983). However, Berle and Means also
noted the potential for conflicts of interest that arose out of dispersed share ownership and the growth of specialised professional management. Formally, the principal-agent model notes that the owners of companies, the shareholders or ‘principals’, are often separate from the managers of the company, the ‘agents’, and that because of this separation the agents often have an informational advantage over principals (Jensen and Meckling, 1976). Under agency theory, managers are assumed to act in their own interests and these interests do not necessarily accord with those of the principals. Self-serving managers are expected to maximise their personal utility before that of the shareholders (Jensen and Meckling, 1976) and, in that sense, the ‘model of man’ embodied in the principal-agent model sees management acting as “some form of homo-economicus…individualistic, opportunistic and self-serving” (Davis et al., 1997, p 20). The fact that in this particular perspective management’s utility primarily derives from pecuniary and status-related rewards rather than an intrinsic satisfaction related to the successful performance of the company can lead to managerial decisions that are sub-optimal from the perspective of principals. Management may engage in acquisitive ‘empire-building’ activities, risk-reducing corporate diversification, and prestige-generating corporate philanthropy (Ong and Lee, 2001; Denis and McConnell, 2003), which may, or may not, result in better shareholder value.

From an agency theory stance the board of directors is designed to perform a variety of functions that are intended to minimise the costs associated with the separation of ownership and control (Daily et al., 2003; Denis and McConnell, 2003). In particular, the principal-agent model implies that boards of directors should play a central role in reducing the degree of informational asymmetry between principals and agents by carrying out an effective monitoring and reporting role. This recognition suggests that it is important that the board of directors is, at least to some degree, independent of operational management in order for this monitoring function to be appropriately carried out (Davis et al., 1997). This view has stimulated significant discussion of the importance of the presence of outside or non-executive directors and the separation of the board chairperson’s role from operational matters in creating a board that is sufficiently independent to effectively fulfil its monitoring responsibilities (Davis et al., 1997; Boyd, 1995; Green, 2004). Outside board directors are seen to provide a voice in the board room that is independent of executive management. Outside directors are expected to take a reasoned view of executive management’s proposals, and at all times assess the firm’s
strategy in light of what will bring the most benefits to the shareholders. In so doing outside directors exert pressure on executive management not to act out of personal utility-maximising motives. Outside board directors are believed to help neutralise the agency problem, and bring alignment between the management and the shareholders’ interests, and consequently improve financial performance (Daily et al., 2003; Peng, 2004). Similarly, the separation of the role of the CEO and the Chairman of the Board has been held to enhance board independence. Separating the role of the CEO and the Chairman diminishes the CEO’s power base and puts in place a more independent scrutiny of executive management’s suggestions, which from an agency perspective would suggest stronger, more robust decision-making at board level and enhanced financial performance (Boyd, 1995; Beatty and Zajac, 1994; Finkelstein and D’Aveni, 1994).

A second important role of boards of directors relates to aligning the incentives of the agents with those of the principals such that the former are inclined to act in the interests of the latter. Central to creating this alignment of incentives between managers and owners is the design and implementation of appropriate remuneration packages (Daily et al., 2003; Conyon, 2006). In particular, systems designed to align the interests of principal and agent typically include schemes whereby senior managers are awarded shares, or options to buy shares, at reduced rates (Jensen and Meckling, 1976), or contractual links between the level of executive compensation and bonuses to the levels of returns made to shareholders (Buck et al., 2003). An alternative view of CEO remuneration is reflected in Bebchuk et al. (2002). Here, the authors propose that rather than viewing a pay structure that is linked to performance as a way to combat agency problems, such a pay structure is in fact part of the principal-agent problem. Agents are able to influence the board and the process which determines their compensation, and in doing so are able to extract financial rewards that are not necessarily in the interest of the shareholders, but rather “might lead to the use of inefficient pay structures and produce suboptimal incentives” (Bebchuk, et al., 2002, p 846)

Critiques of the principal-agent model and of interpretations of the board as a vehicle to minimise agency costs argue that agency theory is too simplistic (Aguilera and Jackson, 2003; Donaldson, 1990; Rousseau, 1998; Lubatkin et al., 2005). For example, agency theory assumes all owners share the common objective of maximising shareholder returns whether they are family members, hedge funds or pension funds. Such a reductionist
perspective underplays the motives of other stakeholders such as employees (Aguilera and Jackson, 2003). Donaldson (1990) criticised agency as insufficiently nuanced, a view echoed by Lubatkin et al. (2005), who proposed that the agency model of man might be relevant in the US and reflect managerial behaviour in this particular national institutional context. Other countries however, might emphasise other values, which conflict with the utility-maximising, self-serving manager inherent in the traditional agency model.

In response to these critiques of the principal-agent paradigm, a variety of alternative conceptual perspectives on corporate boards has emerged. In particular, stewardship theory is often juxtaposed and contrasted with agency theory (Ong and Lee, 2001; Roberts et al., 2005). The key distinction between the agency and stewardship perspectives centres on the “model of man” embodied in their behavioural assumptions (Davis et al., 1997; Sundaramurthy and Lewis, 2003; Donaldson and Davis, 1991). Whereas agency theory assumes that managers are self-serving, utility-maximising and opportunistic (Sundaramurthy and Lewis, 2003), the stewardship “model of man” is one who is collectivist, cooperative and maximises utility by meeting the organisation’s and shareholders’ objectives (Donaldson and Davis, 1991; Davis et al., 1997). Within stewardship theory pecuniary incentives are less important, whilst intrinsic satisfaction is more so (Donaldson and Davis, 1991). Since managers want to perform well in running the organisation, the interests of managers and owners are inherently less divergent (Bruce et al., 2005). Furthermore, because of the absence of divergent objectives, there is no need to separate the role of the chief executive from that of the chairman of the board (Ong and Lee, 2001). As Donaldson and Davis (1991) argue, “stewardship theory focuses not on motivation of the Chief Executive Officer (CEO), but rather facilitative, empowering structures, and holds that fusion of the incumbency of the roles of chair and CEO will enhance effectiveness and produce, as a result, superior returns to shareholders than separation of the roles of chair and CEO” (Donaldson and Davis, 1991, p 52). Under stewardship theory, the board’s role is one of empowering and collaborating with management (Ong and Lee, 2001; Roberts et al., 2005). The board is seen as being fundamentally facilitative and exists to collaborate with operational managers in taking actions that are in the best interest of the company (Huse, 2005a). In particular, boards are concerned with “whether or not the organisational structure helps the executive to formulate and implement plans for high corporate performance. Structures will be
facilitative of this goal to the extent that they provide clear, consistent role expectations and authorise and empower senior management” (Donaldson and Davis, 1991, p 51-2).

A third significant theory of the role of boards of directors, resource dependence theory, asserts that firms try to exert control over their external environment, and sees the corporate board as an important lever is doing so (Muth and Donaldson, 1998). The idea that a firm and its environment, or context, are interdependent was established by Selznick (1949) but came to the fore in the 1960s (Katz and Kahn, 1966; Buckley, 1967; Thompson, 1967). Pfeffer (1972) considered the role and structure of the board and concluded that “board size and composition are not random or independent factors, but are, rather, rational organizational responses to the conditions of the external environment” (Pfeffer, 1972, p 226). In other words, resource dependence theory focuses on how board directors can build bridges with the firm’s external environment. It views the board as “an important boundary spanner that makes timely information available to executives” (Zahra and Pearce, 1989, p 297). The resource dependent view of the firm’s board argues that the intrinsic value of the board lies in its ability to connect the firm with external resources (Daily et al. 2003; Daily and Schwenk, 1996; Dalton et al., 1998; Zahra and Pearce, 1989). By utilising their network of business contacts, the board reduces strategic, competitive and environmental uncertainty and manages extrinsic dependencies (Huse, 2005a). “The primary role of boards…is to serve as resource providers” (Lynall et al., 2003, p 418). As the unit of analysis under the resource based theory has moved from the board to the company as a whole, where the board is but one tool at the firm’s disposal, there is no explicit ‘model of man’ associated with the resource dependent theory. The directors’ link with external resources should provide firms with a better functioning organisation, improved performance and odds of survival (Daily et al., 2003). The degree to which directors’ resources are essential to the firm’s performance may depend on exogenous circumstances such as where the firm is in the corporate life cycle and how well it is performing financially (Johnson et al., 1996; Pfeffer, 1972).

The fourth theory to be applied to corporate boards is institutional theory. Institutional theory is a multifaceted conceptualisation, encompassing influences from economics, political science and sociology, which will be more fully explored in the next chapter. In this chapter, institutional theory will only be considered as far as it is reflected in research on corporate boards of directors. The strand of institutional theory most often reflected in
research on corporate boards is the notion of legitimacy and isomorphism (Parker et al., 2007; Peng, 2004; Li and Harrison, 2008; Young et al., 2000; Myllys, 1999; Chizema, 2008). These elements of institutional theory were first fully articulated by DiMaggio and Powell (1983). Isomorphism refers to the process by which firms adapt to their wider institutional context by adopting embedded practices and in doing so gain legitimacy and enhance their prospects of survival. Kondra and Hinhg (1998) discussed executive turnover in the context of low firm performance. They posited that isomorphic industry pressures played a decisive role in executive job security. If individual firm performance was consonant with industry average, boards were inclined to keep the sitting CEO. However, if firm performance fell compared with industry performance, the board would likely call for a change in management, even if performance was above the market average. This, they argued, suggested boards felt isomorphic pressures to conform to industry standards for successful survival and growth. Considering firms’ likelihood of surviving the process of going public, Certo (2003) suggested that the board’s perceived cumulative prestige in terms of human and social capital was likely to impact on investor interest and enthusiasm for investing. In particular, Certo suggested that “board prestige enhances organizational legitimacy” (p 435). Following a similar logic, Lynall et al. (2003) considered the role and composition of the corporate board for firms at the early stage in the firm’s life cycle and suggested that once firms were large enough to consider an initial public offering (IPO), the cumulative prestige of the board, as reflected in profile, network and background of its board directors, acted as a signal of legitimacy to the market, attracting a higher initial offer price.

At first glance, resource dependence theory and institutional theory may appear similar. Both theories stress the wider context within which firms operate and how boards, and by extension firms, respond to their environment. Oliver (1997) in her comparative analysis of the two theories draws particular attention to two distinct areas where resource dependence and institutional theory differ: different sources of external power and different processes linking the firm with its environment. From a resource dependence perspective, Oliver argues the emphasis is on control of resources, which results in active exchange and interaction with the wider firm environment to reduce uncertainty. Institutional theory on the other hand suggests power is in the hands of those who influence the norms, values and beliefs which firms adapt through the process of isomorphism to acquire legitimacy. Her
second observation is that rather than emphasising uncertainty reduction, institutional theory is concerned with organizational persistence.

Lawrence and Lorsch (1967, 1969) have been widely credited with conceptualising the last major theory applied to board research that will be considered here; contingency theory. Contingency theory is based on the logic of instrumental utility (Lawrence and Lorsch, 1967; Donaldson, 2000; Hambrick and Cannella, 2004), and is predominantly a theory of organisational structure, rather than an explicit board level theory. However, scholars have applied contingency theory to the corporate board of directors and corporate governance structures more widely (Aguilera et al., 2008; Huse, 2005a; Corbetta and Salvato, 2004). The central tenet of contingency theory rests on the premise that managers can observe and anticipate changes in the structural environment within which the firm operates and adjust its internal structures and strategies so as better to match the prevailing environmental conditions. Firms adapt according to their own particular circumstances (Singh et al., 1986; Fligstein and Feeland, 1995; Aguilera et al., 2008, Gupta et al., 1994). Thus, “organizational structures have to be matched to the contextual demands of size, environment and technology” (Patti, 2004, p 139). The contingency view of the board refers to its composition in terms of the characteristics and competencies inherent in the group of directors: “the balancing of perspectives from various actors may define board role expectations and thus also board composition” (Huse, 2005a, p 68). The context within which the firm operates and the actors involved, such as managers, board, shareholders and employees, will influence what constitutes the most appropriate board structure and composition at any one time. The contingencies faced by the firm will to an extent also dictate what the board’s role is (Heracleous, 2001).

Contingency theory differs from institutional theory and the resource dependence theory. Institutional theory as applied to management and control mechanisms has been considered in terms of isomorphism, which involves adopting prevailing practices to gain legitimacy, not necessarily adopting the optimal organisational model as is the case in contingency theory. Similarly, in a resource dependence perspective, the board’s role is one of boundary-spanning, to minimise risk and uncertainty. As contingency theory is concerned with matching the firm’s operational structures to its environment to enhance its longevity, an element of risk reduction is implied; however, whereas resource dependence theory is predominantly focused on risk and uncertainty reduction, contingency theory goes further
and takes account of structural variations in the firm’s environment, in particular firm and market size, technology and environmental demands. In that sense, the contingency perspective suggests that while there is no one optimal board design, not all designs are equally suited to a particular context, but rather the board’s composition will reflect the board’s, and by extension the firm’s, corporate governance needs (Corbetta and Salvato, 2004).

In light of the multiplicity of board theories that exists, there is an argument for adopting a multi-theoretical approach to board management (Zahra and Pearce, 1989). Consistent with this, Daily et al. (2003) argue that “a multi-theoretical approach to corporate governance is essential for recognizing the many mechanisms and structures that might reasonably enhance organizational functioning” (Daily et al., 2003, p 372) and Huse (2005a) concludes that “…board roles and structures must be tailored to balance the contingencies facing each corporation. There is not one best way in corporate governance” (Huse, 2005a, p 75).

Conceptual board literature to date has produced a nuanced, multifaceted view of the role and function of the corporate board of directors. Dominant board theories have offered differing justifications for the board’s role and for CEO behaviour. What is evident from this body of literature is that conceptual board theory has largely developed along the agency, stewardship and resource dependence perspective, with some focusing on board theories that have so far taken a more auxiliary role in board literature: contingency theory and institutional theory. However, institutional theory in particular seems to offer an attractive alternative lens through which boards can usefully be viewed. Institutional theory is a rich and accommodating theory, extending far beyond DiMaggio and Powell (1983)’s theory of isomorphism (Scott, 1995). In particular, institutional theory, as drawn from political science and economics, emphasises enduring national structures (Hall and Soskice, 2001), that shape the firm’s environment, which the firm, and by extension, the board, responds to. Institutional theory, therefore, offers a broad theoretical lens that can help understand how board composition is shaped by institutional context. Institutional theory will be comprehensively reviewed in chapter 3, as it forms the basis for the proposed conceptual framework for the study of the prevalence of women on the board.
This section has reviewed the dominant themes in the conceptual theory of women on the board; the next section looks at the empirical literature that tested some of the implications of these frameworks.

2.1.2 Empirical research on boards

In this section, empirical literature concerning boards of directors is evaluated. This is a large and varied literature encompassing contributions from a wide range of disciplinary backgrounds. Some scholars have focused on exploring links between various facets of board demography and structure and firm financial performance (Baysinger et al., 1991; Dalton et al., 1999; Rhoades et al., 2001). Other researchers have sought to identify relationships between board characteristics and executive remuneration (Bebchuk and Fried, 2006; Mangel and Singh, 1993), and others again the link between board attributes and firm level outcomes such as corporate failure and ‘scapegoating’ (Boeker, 1992) and the use of poison pills (Davis, 1991). Notwithstanding this variety in research pursuits, empirical research on corporate boards is dominated by two major strands of research. The first considers the link between aspects of board design, composition, structure and process and firm financial performance and strategic implications, whilst the second focuses on describing and explaining the prevalence of aspects of board design and structure with an emphasis on variation in these across countries (Dalton et al., 1998; Johnson et al., 1996; Zahra and Pearce, 1989; Ong and Lee, 2001; Denis and McConnell, 2003). Each of these literatures will be discussed in turn.

Boards and financial performance

The literature on the relationship between corporate boards and the financial performance of firms has produced largely inconclusive results with no strong evidence of statistically or economically significant relationships between board design, structure, demography, process and financial performance (Dalton et al., 1998). Informed by the principal-agent paradigm, the most prevalent empirical work considers the links between board composition, defined as the proportion of outside or independent directors, and whether the chairman of the board of directors is also the chief executive, and firm financial performance (Dalton et al., 1998). Johnson et al. (1996) highlight the distinction that prevails in much academic literature between inside and outside directors. Inside directors are officers of the firm, employed by the firm, who work for the firm on a day-to-day basis. Outside directors do not work for the firm, are not employed by the firm on a day-to-day
basis and are hired to contribute their expertise at board level. Because of this, and the fact that board decisions often involve a majority vote, a greater proportion of outside directors is expected to bring more objectivity and a dispassionate view of the decisions before them (Johnson et al., 1996). Similarly, Zahra and Pearce (1989) argue that outside directors must constitute a sufficient critical mass so as to be able to challenge the CEO effectively.

The results of empirical studies into a link between director independence and firm financial performance have been mixed. Vance (1964), Cochrane et al. (1985) and Kesner (1987) found a positive relationship between firm performance indicators and the proportion of inside directors. Contrastingly, Moiz (1988) and Mallett and Fowler (1992) and Hermelin and Weisbach, (1991) did not discover any such significant relationship. Hill and Snell (1988), Schellenger et al. (1989) and Pearce and Zahra (1992) found a positive relationship between performance and the number of outside directors, whilst Combs et al. (2007) concluded performance was dependent on the relative power of the CEO and the board. Perhaps the most robust results available to date are found in Dalton et al.’s (1998) meta-analysis of the relationship between financial performance and board composition. They analysed the results of 54 previous studies of the relationship cumulatively involving 159 samples and over 40,000 observations and concluded that there is “no evidence of a substantive relationship” (Dalton et al., 1998, p 282).

In a similar vein, research has focused on the relative merits of a separation of the CEO from the role as chairman of the board with similarly mixed results (Zahra and Pearce 1989; Dalton et al., 1998). Again, following from the principal-agent view, the separation of the roles of chief executive from board chairman is expected to have a positive influence on board performance as it disaggregates the power of the CEO from that of the Chairman of the Board (ibid.). Berg and Smith (1978) investigated duality of board leadership with four performance measures and found that combining the role of CEO and Chairman only lead to negative performance on one of the four measures, total return to investors. Boyd (1995) found that duality of leadership produced beneficial results in some cases and not in others. He asserted that his findings did not support the corporate governance trend of splitting the CEO and chairman of the board role. Changanti et al. (1985) established that combining the role of board chairman and CEO was not associated with firm bankruptcy, whilst Rechner and Dalton (1989) found that splitting of the role was not linked to improved financial performance. In a subsequent study Rechner and Dalton (1991) did find
evidence that firms with independent boards outperformed those where the CEO also held the role of Chairman of the Board. However, Dalton et al. (1998) established in their meta-analysis that there was no relationship between board leadership and financial performance.

Beyond these major bodies of research, smaller groups of studies have sought to examine whether a number of other attributes of boards influence firm financial performance. Most notably, research has focused on the possible importance of board size, a board’s committee structures, and board processes, with similarly mixed results. Concerning the relationship between board size and financial performance, the emphasis of the literature is on positive or inconclusive (Certo et al., 2006). Halebian and Finkelstein (1993) found larger boards were better able to process information and consequently were better able to apply corrective judgement when discovering omissions or errors. Coles et al. (2008) show that more complex firms, such as highly diversified firms could benefit from bigger boards. Similarly, Carpenter et al. (2001) found a positive relationship between top team size and accounting and market returns, whilst Simons et al. (1999) established a positive relationship between size and changes in profitability. Other studies, however, found no relationship between board size and firm performance (Iaquinto and Fredrickson, 1997; Hambrick et al., 1996).

The growing literature that focuses on the impact of various aspects of heterogeneity (in terms of age, professional and educational background, gender and ethnicity) in corporate boards on financial performance is also characterised by diverse results but with an emphasis on positive relationships. Arguably, heterogeneous boards offer pluralities of views, access to a wider range of external resources, and are less likely to engage in groupthink than more homogeneous boards and, in consequence, are likely to make better decisions (Bantel and Jackson, 1989; Hambrick and Mason, 1984; Williams and O’Reilly, 1993; Pelled et al., 1999). Regarding empirical evidence, Barsade et al. (2000) reported a positive relationship between functional heterogeneity and equity market returns, whilst Hambrick et al. (1996) found a positive relationship between educational and tenure heterogeneity and market share and profit growth. Smith et al. (1994) further showed that educational diversity positively impacted on return on investments and sales growth. In a meta-analysis scrutinising the link between top management team heterogeneity and firm performance Certo et al. (2006) showed that background and experience heterogeneity was
associated with the ability to consider a broader spectrum of alternatives when making strategic decisions.

Related strands of research attempt to look beyond the composition of the board in order to explore the importance of board structure and process for financial performance. Board structure is the board’s “internal organization as judged by the divisions of activities among committees, the flow of information among directors and the type of board leadership” (Zahra and Pearce, 1989, p 320) and is significant because it influences the way in which the board interacts with the CEO, the collective approach taken to decision-making and strategy definition. Board process, in contrast, focuses on the behaviour and interaction between directors and the ways in which boards operate (Pettigrew, 1992). Until recently, empirical research in this area has been limited, in part reflecting the serious methodological difficulties encountered in carrying out such research (Pettigrew, 1992; Zahra and Pearce, 1989).

Early researchers of board process had some success of gaining access, if not to the board room, to the corporate board directors through in-depth interviews (Mace 1971; Lorsch and MacIver, 1989). Continuing to address the corporate board in a similar manner, Demb and Neubauer (1992) interviewed 71 board directors from 11 multinational corporations headquartered in different countries. Demb and Neubauer sought to understand whether corporate boards operating in different national institutional settings faced the same, or different, balancing acts in terms of independence versus familiarity with the business, and how boards balanced the need for a close-knit working group without engaging in groupthink. The authors concluded that boards faced similar challenges across countries and that their priorities were largely consonant irrespective of national institutional context. Boards saw strategic direction, succession planning and budget allocation as their top three priorities (Demb and Neubauer, 1992). Similarly McNulty and Pettigrew (1999) interviewed 108 board directors to understand the role of part-time board members. They found evidence that ran contrary to earlier findings suggesting part-time board members were ineffective; instead McNulty and Pettigrew found that part-time directors played an important role in strategic matters and that they were effective in exercising control over executive management, consonant with an agency view of the firm. Other studies that have successfully accessed corporate boards and addressed the impact and role of board process on performance include Pye (2000) and Roberts et al. (2005). Cumulatively, these studies
started to lift the lid on corporate boards, which had been, and still remain largely “closed
groups, bound by confidentiality, privilege and custom, with significant access difficulties”
(Leblanc and Schwartz, 2007, p 845). Despite these challenges, a small cluster of
researchers has gained access to corporate board rooms and conducted ‘complete member
researcher participant observer studies’ (Parker, 2007; 2008; Huse and Zattoni, 2008),
which have unveiled insights into different directors use of contact networks (Parker, 2007,
2008) and director prestige (Huse and Zattoni, 2008). Huse and Zattoni (2008) showed that
board prestige was important for firms that did not have a strong market reputation and that
board process varied depending on the type and situation of the firm concerned. Huse and
Zattoni’s (2008) findings on board prestige suggest consonance with Certo’s (2003) and
Lynall et al.’s (2003) view of isomorphic pressures at board level to signal kudos to
pertinent stakeholders in the market.

Studies on board structure and firm performance have focused on the board’s committee
structures and how it relates to performance. Dalton et al. (1998) found no relationship
between firm size, board structure and firm financial performance; however, Yermack
(1996) found that smaller boards were facilitative of better communication, improved
decision-making and firm value. Rose (2007) investigated the semi-two-tiered structure of
Danish boards and he suggested that board structure only mattered in situations where the
firm was in financial distress.

**Typologies of governance systems and comparative research on boards**
A related and important body of empirical board research seeks to develop an appreciation
and characterisation of various forms of board practices and structures in the context of
specific groups of countries (O’Sullivan, 2003; Denis and McConnell, 2003; Pedersen and
Thomsen, 1997). Jacoby (2005) outlines the governance debate in terms of two distinct
approaches; a “shareholder approach” (Jacoby, 2005, p 6), also called the Anglo-American
approach for its prevalence in these countries, and a “stakeholder approach” (Jacoby, 2005,
p 6) practised in countries such as Germany, France and Japan. The shareholder approach
is characterised by an active equity market, which also serves as a source of corporate
credit, legal protection for minority shareholders and a dynamic market for corporate
control (Jacoby, 2005; O’Sullivan, 2003; Aguilera, 2005). In contrast, countries inclined to
follow the stakeholder approach typically have large blocks of shares held by credit
institutions or families, historic ties with employee organisations who are given a voice on the board and a less active market for corporate control (Jacoby, 2005; O’Sullivan, 2003).

Traditionally, country-specific governance practices are closely tied up with historical, financial and industrial developments (O’Sullivan, 2003). However, recently countries have begun to adopt alternative governance practices. This has precipitated an academic debate as to whether increased globalisation and international trade will result in converging or diverging standards of corporate governance practices (Denis and McConnell, 2003; Aguilera, 2005; O’Sullivan, 2003; Fligstein and Freeland, 1995; Jacoby, 2005; Pedersen and Thomsen, 1997; Otten et al., 2006). Countries traditionally associated with stakeholder governance practices have adopted aspects of the Anglo-American model, and, vice-versa for example a single tier board structure is increasingly adopted in Japan and Germany whilst block holdings have increased in the US (Jacoby, 2005; O’Sullivan, 2003). There are however also contrary indicators, showing that countries are entrenched in their governance practices and are reluctant to change, as evidenced by Bianchi & Enriques (1999), who reported failed attempts by the Italian government to introduce legislation favouring minority shareholders, in a bid to offer investor protection more akin to that found in the UK. Bebchuk and Roe (1999) explored the different observed patterns of corporate governance across developed economies and concluded that path dependence in part explained why corporate governance continues to vary on a country-by-country basis. They concluded that two types of path dependence caused continued cross-national variation in corporate governance: structural path dependence and rules-driven path dependence. Structural path dependence resulted from sunk costs and rent-seeking behaviour, changing corporate governance patterns would be costly when sunk structural costs were considered, and those parties that partake in corporate control might be personally worse off under a new governance regime, even if that regime proved more effective overall. Rules-based path dependence suggested that traditional patterns of ownership influence which regulations and rules are subsequently adopted. Powerful share owners would seek to maintain their control and status and use their influence to ensure any new rules and regulations governing share ownership reflected their interests. The authors concluded that path dependence “can explain why, not withstanding the powerful forces of globalization and efficiency, some key differences have thus far persisted” (Bebchuk and Roe, 1999, p 170). The literature thus indicates that a single global corporate governance standard may still be some way off. The table below summarises the
major elements of the shareholder and the stakeholder models of Corporate Governance. For a systematic taxonomy of corporate governance systems, see Weimar and Pape (1999).

**Figure 2.1 Characteristics of the stakeholder and shareholder approach**

<table>
<thead>
<tr>
<th></th>
<th>Stakeholder approach</th>
<th>Shareholder approach</th>
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<tbody>
<tr>
<td>Share ownership</td>
<td>Concentrated</td>
<td>Dispersed</td>
</tr>
<tr>
<td>Particular minority holding protection focus</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Financial instrument prevalence</td>
<td>Debt</td>
<td>Equity</td>
</tr>
<tr>
<td>Extensive active market for corporate control</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Employee board representation</td>
<td>Practiced</td>
<td>Not practiced</td>
</tr>
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</table>

Otten et al. (2006) suggest an alternative way to the convergence/divergence debate. Rather than seeing the discussion strictly in terms of whether a country will follow the Anglo-American governance approach or rigidly stick to their own national system, Otten et al. propose that each country will apply “local-repairs” (Otten et al., 2006, p 30) to their own systems of corporate governance “in the light of global ideals” (ibid.). They propose that a country will make adaptive changes to its governance practices depending on what the country’s current dominant ownership structure is. For example, in countries where firms were managed on the Anglo-American model, companies were more likely to see a need for improved internal governance in light of managerial scandals at companies such as WorldCom, Enron and Arthur Andersen. On the other hand, countries where large family holdings were the norm might be more likely to adapt changes to their governance practices that allowed for more transparency and media scrutiny than had traditionally been available.

Fligstein and Freeland (1995) similarly suggest there is insufficient evidence to show that the world is converging on a single best practice corporate governance model, nor that a global market for corporate control is emerging. They argue that individual countries’ governance practices remain national, as they are rooted in the countries’ industrial development history and associated corporate development. This includes the degree of state intervention and influence over the private sector and what they call the “…social organization of elites” (Fligstein and Freeland, 1995, p 33) which refers to whether families, the state or managers exert control over the organisation. “National economies have distinct institutional arrangements that outline the relation between investment,
ownership, control and economic growth. While they are interested in world trade, they are set up to preserve their national system of property rights and governance structures” (Fligstein and Freeland, 1995, p 33). Otten et al. (2006) argue that the scholarly field of comparative governance is faced with the need to ask different questions, and instead “reconceptualize corporate governance reforms in a way that does justice to the equifinality of all the major systems of corporate governance” (Otten et al., 2006, p 31).

The corporate board has been under extensive academic scrutiny which has resulted in a multiplicity of theoretical views of board theories, reflected in conceptions such as agency, stewardship, resource dependence, institutional and contingency theory. These theories have informed a large body of empirical research, which has explored a range of board attributes and their impact on firm level outcomes and precipitated a debate on the nature of different corporate governance systems. However, Finegold et al. (2007) note in their meta-analysis of board research, that despite substantial theoretical and empirical progress, a number of research questions remain unanswered, in particular related to board composition and diversity. The next section reviews the academic literature on women corporate board directors.

2.2 Research concerning women on the board
Having identified and discussed the major themes in the broader literature concerning boards of directors, next the literature specifically concerned with the participation of women on corporate boards is reviewed. Much of this body of research is empirical and many of its contributions resonate strongly with the wider literatures concerning boards of directors. Reflecting the structure adopted above, the conceptual literature is explored first and then the empirical literature.

2.2.1 Conceptual themes
Much of the conceptual literature on female board participation builds upon the wider body of literature pertaining to corporate boards of directors discussed earlier, but the literature on women corporate board directors additionally draws on other theoretical perspectives such as ethical, economic and social-psychological theories. The theoretical literature is concerned with the characteristics, influences and personality traits women bring to the board, and what impact this has on board dynamics, corporate performance and board management. The conceptual theory on female board participation resonates with the
central propositions advanced in the earlier section on board management theory. Each of
the major board management theories will be addressed in turn in light of the theoretical
enquiry on women on the board.

Reflecting a central debate in the principal-agent paradigm, proponents of increasing the
numbers of women in board positions argue that diversity may have a positive impact on
the board’s monitoring and control function (Fondas, 2000; Erhardt et al., 2003; Francoeur
et al., 2007; Valenti, 2008; Brammer et al., 2009). Fondas (2000) cites evidence that
women are less likely to endorse CEO suggestions without substantial debate and that they
exert more influence over managerial decision-making, and as women are frequently non-
executive directors they add further objectivity to the board. Similarly, Valenti (2008)
suggests that female board directors will place further checks on CEO power. Erhardt et al.
(2003) hypothesise that had embattled energy company Enron had a more diverse board, it
may not have “…failed in its oversight function…Enron’s board may typify some of the
problems associated with a lack of diversity; namely, lack of conflict and lack of breadth of
perspectives” (Erhardt et al., 2003, p 108). The literature indicates that women may have
an ethical influence in board proceedings and decision-making, requiring more robust
discussions and thorough analysis before agreeing to corporate proposals (Singh and
Vinnicombe, 2004; Van der Walt and Ingley, 2003). Thomson et al. (2005) argue that
women tend to be socially more responsible, have a better sense of what is fair and right
and be less inclined to rubber stamp the CEO’s decisions, and that the presence of women
“…limit the power of male ‘groupthink’ to nod through ostensibly value-creating
proposals or policies that are ethically questionable” (Thomson et al., 2005, p 18).

Other researchers have suggested that female board directors might be better corporate
stewards because of their capacities in empowerment and collaboration. These two
managerial traits are especially prevalent in women managers (Eagly and Carli, 2003;
Singh et al., 2001). Women directors have also been found to be more intrinsically
motivated than men (Thomsen et al., 2005). Corporate scandals of late may be changing
perceptions of the adequacy of female leaders. “Appointments of women signal an
organization’s departure from past practices and help it capture the symbols of innovation
and progress…the selection of women can increase organizations’ chances of obtaining
leaders who are especially effective under modern conditions” (Eagly and Carli, 2003, p
827-828).
Resource dependence theory looks at women’s ability to link the firm to its broader environment. Singh and Vinnicombe (2004) point out that as women are less likely to be CEOs, a position generally associated with an extensive network of contacts, they are likely to have a smaller network, making them less interesting to board nomination committees. Board interlocks are another resource for the board to draw on, where board directors know one another and other board directors through directorships at mutual organisations (Westphal and Milton, 2000). As women have fewer board directorships, they tend to also have fewer interlocks. Adams and Flynn (2005) point out that women’s contact networks tend to be different from men’s, and perhaps are more likely to consist of people from outside the corporate sector. Hyland and Marcellino, (2002) suggest that such a difference in network contacts can work in favour of the company, extending the reach and type of resources available to the firm. In the context of resource based theory of the firm, Fondas (2000) suggests companies that appoint female directors are able to convey a sense of legitimacy to their shareholders, thus women become a corporate ‘signalling resource’. Hillman et al. (2007) propose three distinct categories within which women can add value to the board in a resource dependence perspective. Women can add overall improvements in advice-giving and counsel, though the authors also recognise that increased diversity can be associated with more conflict. In line with Fondas (2000), Hillman et al. (2007) also acknowledge the legitimacy ‘resource’ women bring to the board; and thirdly, women act as valuable role models in certain contexts and can link the firm to a different set of resources than that of men. This echoes Blum et al. (1994) who posited that where executive skills were required in a professional domain where women were more heavily represented, women were likely to acquire a larger share of the management position, bringing their particular resource to the table. In summary, from a resource dependence perspective, firms can potentially further decrease their environmental uncertainty by drawing on unique contributions from women directors. Companies that appoint female board directors are seen as innovative and progressive. However, stakeholders are rarely able to adequately judge whether women are afforded the same influence and respect granted to their male colleagues once they are on the board.

Institutionally framed board literature concerning women’s role on the board is in its infancy. However, as Hillman et al. (2007) acknowledged, their proposition that women add legitimacy, can not only be framed in a resource dependence perspective, but may also
be considered in light of institutional isomorphism, where women are appointed to the board to acquire external legitimacy in the eyes of corporate stakeholders. Similarly, Beckman and Philips (2005) suggest isomorphic pressures accounted for the rise in executive women in law firms, where there was a perceived need to reflect the demographic make-up of the executive ranks of important clients. Consequently, where focal clients had female executives, the law firm felt compelled to reflect this demographic composition.

The last board theory to be considered is the contingency perspective as applied to women board directors. In tackling external contingencies or challenges, literature suggests women’s experiences, personality traits and points of view differ from those of male directors, so the board is immediately afforded pluralities of perspective (Bernardi et al., 2006). Further examples of external contingencies where women offer particular contributions include identifying untapped consumer product opportunities for the female customer segment (Singh et al., 2001). Boards may also face a supply-side shortfall of male directors with CEO experience, the favoured candidates for board directorships. Burke (1999) argues corporate boards need more female directors as the available male CEO talent-pool of potential directors is insufficient to cope with demand. Current directors lack time to take on more board directorships and there is a pool of well qualified, available female talent from which companies can recruit female directors. Internal contingencies where women are uniquely positioned to contribute include acting as role models to younger, ambitious women thereby helping companies retain and foster future managerial talent (Singh et al., 2001).

A final conceptual perspective, which permeates every board irrespective of management theory allegiance, is the impact on the board’s team dynamics by the appointment of female directors. Bringing women into an all-male environment may change the dynamics of the group (Marshall, 1995). An important tranche of work in this domain is provided by Westphal and colleagues, who in a series of studies explored interpersonal sociological phenomena in the board room, focusing on the role, status, and board dynamics associated with minority directors. Westphal and Milton (2000) posited that increased gender diversity in the board room lowered social cohesion amongst the group, which resulted in a more fragmented working group. In such circumstances, social barriers within the group would prevent minority directors, such as women, from voicing their opinion. Westphal
and Milton (2000) contended that women would be viewed as ‘outsiders’ to the demographic majority, causing ostracism and ineffective working relationships. Westphal and Stern (2006, 2007) suggested that women minority directors faced additional challenges in effectively operating at board level, as they often lacked the elite or Ivy League educational credentials their male counterparts had, and which created a strong bond of kinship amongst male directors. Consequently, the authors suggested women might have to employ more opinion-conformity and other forms of ingratiatory behaviour to achieve the same impact as men. Singh and Vinnicombe (2004) assessed women’s presence in the board room in light of social identity theory. This theoretical framework suggests that in a board environment where white, middle-aged male directors prevail, the men will see themselves as professional peers, colleagues and friends. Women are not perceived as professional equals as they have traditionally entered the men’s sphere as support staff or spouses. The theoretical concept further suggests that male directors will foster support and knowledge amongst themselves to the exclusion of female peers, creating ‘in-groups’ from which women may find themselves barred. Singh and Vinnicombe (2004) further offered that it is often the case that members of an elite group see performance amongst themselves as higher than those not considered part of the clique. This results in female directors having to perform not only as well as, but often better than their male colleagues to be noticed. Adams and Flynn (2005) discussed whether women once on the board, were subjected to informal exclusionary practices manifested in, for example, debates about sporting results where women may have less of an interest and therefore less to contribute. Bilimoria and Piderit (1994) referred to evidence of homosocial reproduction where like promote like and “board members maintain a degree of homogeneity in member values, attitudes and status” (Bilimoria and Piderit, 1994, p 1471) which undermines the explicit efforts of diversifying the board’s views, perspectives and competencies in order to promote enhanced governance. Westphal and Milton (2000) argue that it is essential for women to break into the ‘in-group’ referred to by Singh and Vinnicombe (2004) if they are to execute their role on the board effectively. If the board collectively fails to integrate and operate as a team, communications issues may be experienced and increased team turnover and lower social cohesion may ensue, a reality more frequently observed with diverse groups (Ingley and Van der Walt, 2003).

Theoretical literature to date has emphasised the positive contribution women corporate board directors can make by offering capabilities, skills and insights that add to the board’s
collective talent. Literature reflects the view that women can enhance the board’s monitoring and control function and be better corporate stewards, connect the firm with a broader set of resources through different sets of contact networks, and provide firms with legitimacy. When considering the board’s working relationships, scholars suggest the board’s working relationships and internal dynamics may change in response to more women board directors, and that increased gender demography may pose challenges to inter-personal relationships and group cohesion.

2.2.2 Empirical research on female board directors

Empirical research on female presence on corporate boards has done much to enhance our appreciation of the extent of female board participation and its variation across countries and time. Research to date highlights how many female board directors there are, where they are and what prerequisites they had to fulfil to be considered for board directorships. Some scholars have also tried to establish whether there is a link between female board directors and performance outcomes.

By far the largest body of existing research documents the degree of female board representation. Significant clusters of research have assessed the place of women on corporate boards in the United Kingdom, United States and Canada for some time (Burke, 1999; Conyon and Mallin, 1997; Singh et al., 2001, 2004; Adams and Flynn, 2005; Arfken et al., 2004). Recent studies have addressed women’s prevalence on the board in other national contexts such as Spain (Campbell and Minguez-Vera, 2008), Denmark (Smith et al., 2006) and Switzerland (Ruigrok et al., 2007). These studies have collectively revealed large and often persistent differences in the share of board seats occupied by women compared with men across countries. These studies centre on similar objectives, mapping the number of female board directors, but employ a range of sampling frames and methodologies that make cross-country comparisons difficult to make. In the UK, studies have focused primarily on the London Stock Exchange’s set of largest listed companies, known as the FTSE however, scholars have differed in the number of companies they have included in their analysis. Conyon and Mallin (1997) included the largest 350 companies on the FTSE, known as FTSE 350, whilst Singh et al. (2001, 2004) narrowed their research down to the 100 largest companies, the FTSE 100. These three studies also relied on data from different commercial data providers in finding the number of female board directors. Similar methodological differences become apparent in the North American based studies.
Farrell and Hersch (2005) based their study on the Fortune 500 and the Services 500 list, whilst regional studies conducted by Arfken et al. (2004) and Adams and Flynn (2005) in Tennessee and Massachusetts respectively used the Boston Globe top 100 public companies for Massachusetts and Dun and Bradstreet sources to identify the Tennessee companies, where 102 companies were included in total. Finally, Burke (1999) tracked the progress of Canadian female board directors, and used a dataset of Business Top 1000 Canadian companies in his study.

The studies discussed here do not only differ in sampling terms, but slight differences also become apparent in their choice of methodological approach. Conyon and Mallin (1997) provide absolute numbers of female board directors as well as average and percentage calculations. Singh et al. (2001) offer similar analysis, but they also chart the development of the number of female board directors over time. Farrell and Hersch (2005) presented a similar numeric overview of female board representation as did Adams and Flynn (2005) and Arfken et al. (2004). Additionally, Adams and Flynn (2005) include some industrial breakdown of female board representation as well some comparative numbers for other U.S. states. Although these descriptive studies add to the extant understanding of country-level patterns of female corporate board membership, they have all been drawn from a reasonably narrow range of countries and very little comparative descriptive work has been done to understand whether patterns of female board participation are uniform across countries and industries. To begin to remedy this situation, cross-national variation in the prevalence of women on the board is the subject of chapter 5, where between-country differences will be explored, as well as variance between and within industries and countries.

A small but important body of research has established that industry characteristics influence the degree to which women acquire corporate board directorships. Harrigan (1981) investigated the prevalence of women on the board for a sample of 112 companies and found evidence that women were better represented in industries that catered to the female consumer market, such as the cosmetics and services firms and financial institutions. Elgart (1983) in contrast found that women were better represented in the food, publishing and the paper & packaging sector. His study was based on the Fortune 500 list of firms. In a similar study in the UK, Brammer et al. (2007) used a data set of 543 companies listed on the FTSE to establish if industry was related to the share of board seats
held by women. The authors concluded that women were more broadly represented in retail, utilities, media and high-street banking, leading the authors to suggest that industry’s proximity to the final consumer influenced the associated prevalence of female corporate board directors. Similar findings were uncovered by Fryxell and Lerner (1989) for a set of European wide firms. Hillman et al. (2007) drawing on a sample of over 1,000 large US firms, established that the share of female employees working in a given economic sector was related to the degree to which women held board directorships in the same industry.

To complement the body of research outlining the geographic and industry prevalence of female board directors, some scholars have focused on identifying what formal educational attainment and experiential characteristics women need to ascend the board. Burke (1997), Sheridan (2001) and Singh and Vinnicombe (2004) surveyed female board directors in Canada, Australia and the UK respectively, and higher education attainment in the form of university degrees was prevalent amongst the female directors in all three countries as well as extensive business experience.

Previous CEO experience and previous international assignments have traditionally been seen as key requirements to be assessed for board directorships (Singh and Vinnicombe, 2004; Burgess and Tharenou, 2002; Zelechowski and Bilimoria, 2004). Women are much less likely than men to be CEOs (Zelechowski and Bilimoria, 2004) and they often encounter gender-specific difficulties in acquiring international experience (Linehan and Walsh, 1999). Consequently, the experience women bring to the boardroom is likely to be different from that of their male counterparts (Adams and Flynn, 2005). Zelechowski and Bilimoria (2004) researched female executive directors and found that boards were not willing to give them the same influence as male counterparts and they concluded that: “women are far less likely to be in the running for future CEO positions than men... because of their lower status and utilisation within the highest ranks of corporate insiders” (Zelechowski and Bilimoria, 2004, p 341). Conyon and Mallin (1997) note that women often have different, but equally relevant, experience compared with their male colleagues by the time they are nominated for board directorships.

As noted above, international experience is another oft cited prerequisite for taking on board directorships (Singh & Vinnicombe, 2004; Caligiuri and Tung, 1999), but women often encounter obstacles in acquiring this experience. Linehan and Walsh (1999) found
from their research of female expatriate managers, that women felt their gender was still the biggest barrier to an international posting. Women were often assumed to be uninterested in foreign assignments and where this assumption was prevalent the women who participated in the study thought it unlikely the company would invest the necessary resources to develop female managerial talent for international work, which again would bring the women the “…power and opportunity” (Walsh, 1999, p 528) needed to make the next step towards the boardroom. Bilimoria and Piderit (1994) conclude that even though women possess sufficient educational qualifications and relevant professional experience “…they continue to be blocked in their rise to the top” (Bilimoria and Piderit, 1994, p 1471).

Even if women attain the formal and professional prerequisites for board directorships, they face a number of organisational barriers en route to these, including opaque recruitment processes, insufficient career development opportunities and lower remuneration (Singh and Vinnicombe, 2004). Sheridan (2001) surveyed Australian female board directors’ on their experiences and from the results concluded that as well as relevant and professional experience, the women’s contact network was a crucial lever in securing their board positions. Sheridan and Milgate (2005) specifically set out to determine whether the board recruitment process was different for women and men. However, men and women reported similar perceptions of what was required for board directorships: a good performance record, a good comprehension of business principles and a network of contacts. Men and women differed in their need for profile. “…women needed…their credibility to be reinforced by having a high public profile” (Sheridan and Milgate, 2005, p 853). Gaining this profile and becoming a known entity on the CEO and board director circuit can prove challenging for women. Bilimoria and Piderit (1994) found that women were well qualified to take up the relevant positions on the board, and rather than focus on gaining more experience women should learn to understand the processes better “…by which powerful individuals make staffing choices” (p 1471). The Cadbury Report (1992) and the Higgs Report (2003) both recommended the adoption of nomination committees, which should bring transparency to the board selection process and ensure a fairer treatment of all potential board candidates, but perhaps especially women. Conyon and Mallin (1997) refer to research done at top management level of 24 of UK’s largest companies and only nine had adopted the recommended nomination committee, the remaining 15 were undetermined as to whether nomination committees would be used.
Research has thus mapped the prevalence of female board directors in particular countries and investigated the know-how women must possess in order to be nominated for, and selected to, board positions and the recruitment process women must navigate to access the corporate board. In addition to the necessary academic and professional credentials, women must develop a strong contact network to secure their seat on the corporate board. Once on the board, studies have attempted to determine what women’s roles are and what they contribute. Three notable studies have helped our understanding of women’s place on the board and its associated board committees. Kesner (1988) conducted the first study, and Bilimoria and Piderit (1994) and Peterson and Philpot (2007) conducted the second and the third where both studies revisited Kesner’s original work. Kesner (1988) conducted an analysis of board committees’ composition in terms of gender, tenure and occupational background. The sample used covered 250 of Fortune 500’s companies. Kesner concluded that extensive business experience coupled with long tenure were conducive to board committee membership. Experiential diversity was also deemed an asset to board committees. With regard to gender diversity she claims “observed differences in type, tenure and occupation may actually enhance a board; it is doubtful that the same argument applies to the variable gender” (Kesner, 1988, p 79). Yet, Kesner concluded that “the findings of this study clearly indicated that women are not window dressing but do hold important positions on the boards of large corporations” (Kesner, 1988, p 80).

Bilimoria and Piderit (1994) re-visited Kesner’s work and found different results. They concluded that men were preferred on the compensation, executive and finance committees, whilst women were preferred on the public affairs committee, which according to the authors is concerned with such issues as corporate social performance, playing to the ‘feminine’ and ‘soft’ issues associated with women rather than “…the more hard core work deemed more central to governance” (p 1465). The authors conclude the results” indicate the pervasive presence of sex-based bias in the selection of committee members” (Bilimoria and Piderit, 1994, p 1465). Whilst Kesner (1988) argues that women’s lack of appropriate characteristics explained their absence from core governance functions, Bilimoria and Piderit found that “women are systematically disadvantaged in their odds of executive committee membership…Overall…this study indicates sex-based direct or interactive effects on the membership of all committees examined, after the experienced-based differences between male and female directors are accounted for”
Conyon and Mallin (1997) in their review of female board participation of FTSE 350 companies found that of the eligible women on the board, 50 percent of them were involved in board committee work.

Peterson and Philpot (2007) studied the firms on the Fortune 500 list from 2003. Using a sample of 487 firms, they found that women were represented on the board of 88 percent of the firms in the sample, and further that women were less likely to serve on the executive committee and more likely to be represented on the committees concerned with public affairs. These studies paint a picture where women are increasingly playing a role on the board’s sub-committees, but where the more important committees tasked with regulatory compliance, finance and remuneration appear to remain predominantly masculine in composition.

Scholars have reviewed proposed links between a diverse board and improved corporate performance (Farrell and Hersch, 2005; Smith et al., 2006; Van der Walt et al., 2006; Erhardt et al., 2003). Results of this research have been mixed. Erhardt et al. (2003) investigated the impact of demographic board diversity on a firm’s financial performance. Using correlation and regression analysis the authors reviewed board diversity and firm financial performance for 112 large US companies. Diversity was measured in terms of ethnic minority and gender representation at board level. Results indicated a positive influence on return on assets and return on investment, leading the authors to conclude that the organisation as a whole benefited from pluralities of view at board level. What the study does not say is what impact women and ethnic minorities have when disaggregated. It is therefore not possible to decipher whether women or ethnic minorities contribute more or less positively to performance than the other. Similarly, Smith et al. (2006) investigated the relationship between top management and board level presence of women and financial performance for the 2,500 largest Danish firms. They concluded that university educated female CEOs had a positive influence on performance, whilst non-university educated female CEOs had a less significant positive impact. Female staff-elected board members were found to have a positive influence on performance; however this positive impact was not reflective of other female board members. The authors hypothesised that this was because other female board members may owe their directorship to family ties rather than qualifications. The authors conclude that firms should attract and hire more qualified women into the top management ranks to build a pool of qualified female board talent.
Farrell and Hersch (2005) and Van der Walt et al. (2006) found less positive results from their research into board diversity and performance. Farrell and Hersch (2005) used the Fortune 500 and the Services 500 list for their time series analysis, which spanned a decade from 1990-2000, to investigate women’s appointments to boards and its impact. The authors also employed event study analysis to newspaper announcements of women’s appointment to corporate boards. The authors failed to identify evidence to support the contention that adding women to the board is a value additive strategy. Van der Walt et al. (2006) likewise concluded that diverse boards are not necessarily synonymous with better boards. They investigated whether board level diversity improved financial performance when companies were faced with a strategically challenging environment. Drawing on a sample of New Zealand listed companies, Van der Walt et al. (2006) concluded that whilst representation and equity might be valid arguments for a diverse board, improved handling of strategic complexity was not. That being said, gender was only one of eight factors included in the diversity measure. Contrary to the findings by Van der Walt et al. (2006), Francoeur et al. (2007) found that firms operating in complex environments experienced some financial benefits from having more women on their boards.

Empirical research on female board directors reveals a multifaceted picture where women must show strong formal educational credentials as well as extensive experience, and importantly a substantial and active network of relevant business contacts and a high profile, to be contenders for corporate board positions. Qualifications and experiences aside, women appear to face additional hurdles in breaking into the social sphere of largely male corporate directors, a step deemed essential if women are to become a known entity to those influencing board appointments. Once on the board it appears women do not experience complete equity in their roles, the influence they are able to exert and in their treatment. Furthermore, research suggests diverse boards may not always be beneficial.

What the literature on corporate boards in general, and on female board directors in particular, has largely omitted to explore in a systematic fashion is the wider institutional context within which firms operate, and the macro, meso and micro level drivers that enable or prevent women from acquiring corporate board directorships. The literature has also explored a relatively narrow range of countries and consequently a limited set of
corporate governance contexts. The next section details a succinct research agenda that seeks to address these gaps in the literature.

2.3 Developing a research agenda

This section builds a research agenda from the themes that are either entirely absent from the literature on women board directors, or that could benefit from further enquiry. The literatures reviewed here have done much to cast light on the role, importance, and impacts of boards of directors and of the particular contributions and extent of participation of female directors (Dalton et al., 1998; Zahra and Pearce, 1989; Denis and McConnell, 2003; Singh and Vinnicombe, 2004). However, extant research has concentrated upon a relatively well defined set of research questions, and in the remainder of this section the case is set out for a need to widen and deepen the field of research concerning female board participation in order to shed light on several significant contemporary debates. In particular five avenues of future research are outlined. This research agenda aims to address issues that are believed to have the capacity to significantly enhance extant appreciation of the role and importance of female participation on corporate boards. Each of these broad paths encompasses several research questions that build on earlier studies.

2.3.1 Institutional influences on women on the board

As noted previously in this analysis, the vast majority of empirical studies on female board participation centre on numerically mapping the number of female directors in a few western commercial centres such as the US, UK and Canada (Singh et al., 2001; Farrell and Hersch, 2005; Burke, 1999). These studies provide an important starting point for subsequent research into gender diversity at board level. However, as they differ methodologically, use a variety of sampling frames, and are largely single-year cross-sectional studies, it is very difficult to make cross-country longitudinal comparisons to develop a picture of the demography has changed over time. An international comparative approach to board research is becoming increasingly important as business becomes ever more global in nature and reach. Zahra and Pearce (1989) suggest that future research considers similarities and differences in governance practices in a more international perspective to assess what, if any, practical implications such differences have for the board, its operations and firm performance. To gain a broader international starting point for researching the progress of female board directors, a coherent picture is required outlining the number of women across major trading economies in Europe and American,
as well as Asia, and Africa. Such an approach is capable of shedding more light on the processes through which board diversity changes and can help gauge the impact of a policy or governance initiative, and assess whether implemented programmes have the desired effect in furthering the number of qualified female board directors.

With the exception of Terjesen and Singh (2008), there are virtually no studies into how national characteristics such as culture, legislation, and governance practices etc. influence female board presence. A systematic assessment of how the national institutional environment, reflected in characteristics such as demographics, freedom of expression, educational attainment, economic and political indicators, influence women’s progress to the board can help identify important country level predispositions necessary to foster female board talent successfully. Similarly, the broader institutional nature and character of industries remain an underdeveloped theme in research on women board directors. Understanding sector wide institutional differences reflected in industry structure, working practices, demography and culture can complement and extend research findings from the national level and offer a more holistic view of what enables women to acquire board directorships.

Such an assessment combined with a systematic international review of female board directors has the potential to offer important insights into the underlying phenomenon of women’s absence from the board room. A study of this kind can begin to highlight what country and industry-specific factors may be more conducive to female board participation and shed light on what initiatives may prove most effective in increasing female corporate board representation. Furthermore, it can help indicate the likely future movement of female board directorship in light of current social, educational and professional provisions for women, identify policies, and help determine whether corporate or country-specific factors play the deciding role in determining women’s presence on the board.

Such research would also require a theoretical framing that successfully encompass the broader institutional environment. The recognition by some scholars (Hillman et al., 2007) that elements of institutional theory may be of pertinence in accounting for the prevalence of women on the board, may be indicative of an emerging perception that board level theories can be usefully supplemented by considering other theories not confined only to corporate boards, but which instead recognise the contexts within which firms operate.
Institutional theory as applied to board research to date (ibid) only encompass a particular element of what is a broader and more integrated theory which may be usefully considered as a complementary or alternative theoretical framing to studies of women on the board.

2.3.2 Affirmative action, gender diversity and firm performance

Continuing the theme of promoting interest in viewing female participation in corporate boards as being, in part, related to country-specific factors, the second proposed research path addresses a particular institutional response to perceived discrimination against women: affirmative action. Affirmative action has become an emerging phenomenon in corporate board diversity theory (Thomsen et al., 2005; Burke and Mattis, 2000). Some countries such as Norway have implemented affirmative action to introduce more women onto the corporate board, and other countries are exploring similar measures (Terjesen and Singh, 2008; Thomson, 2005). This trend is interesting and has the potential to markedly increase the prevalence of female corporate board directors. However, the broad time period covered in this thesis does not coincide with a time frame in which active affirmative action legislation was systematically enforced at corporate board level, so it is not reflected in the thesis, but as an emerging trend in corporate board diversity and corporate governance practice, it holds great promise as an important and interesting avenue for research going forward.

Affirmative action is defined as efforts to help a group of people who suffer from discrimination (Soanes and Stevenson, 2006). Affirmative action initiatives are often aimed at benefiting women and ethnic minorities and may be adopted voluntarily by organisations or enforced through legislation (Taylor-Carter et al., 1995). Norway took the radical step of introducing affirmative action legislation to ensure an appropriate level of female board participation. By 2007, 40 percent of all board directorships in Norwegian publicly restricted companies had to be women (Det Kongelige Barne og Familie Departement, 2002). As Norway was one of the first countries to introduce affirmative action to encompass such a specific segment of societal power as the corporate board, very little research exists assessing its implications. The research that is available on affirmative action focuses on management and rank and file employees more generally (Slack, 1987; Holzer and Neumarket, 2000; Taylor-Carter et al., 1995; Heilman et al., 1997; French, 2001). Whilst not specifically targeting the board of directors, some of the research findings seem applicable to the board too. The research results are mixed. At the company
level, Taylor-Carter et al. (1995) identified a risk with exclusive focus on filling required quotas associated with affirmative action initiatives, rather than systematically assessing its hiring, training and development, resulting in no lasting systemic changes to attitudes, corporate culture and perception of women in the workplace. On an individual level, women associated with affirmative action initiatives are often seen as incompetent regardless of their qualifications or competencies (Heilman et al., 1997). Consequently, women are not always enamoured with affirmative action initiatives designed to benefit themselves (Taylor-Carter et al., 1995). They observe that the more male the position in question is seen to be, the more incongruence there appears to be between the gender stereotype and the role: “…strong sex-typing of jobs serves to exacerbate the negative attributes made about females who are brought into the organization as a result of the policies” (Taylor-Carter et al., 1995, p 137). Given the traditional male environment prevalent at board level, it is reasonable to expect resistance and antagonism to women recruited to corporate boards through legislated affirmative action quotas. Affirmative action initiatives to date have largely been the domain of public institutions, such as higher education, government and other civic institutions, though policies have also extended to the private sector (Massey, 2004). Norway’s decision to legislate such a specific aspect of what might be considered a corporate governance issue, meant that the Norwegian government is now directly dictating parts of the rules otherwise considered to be at the discretion of shareholders. As far as it has been able to ascertain there is very little precedence for affirmative action to this extent in the corporate board room, so its impact is untested. A valuable line of enquiry is therefore whether affirmative action works in such a setting, what is the impact on corporate performance in terms of financial results, share price evaluation and strategic progress. A further line of enquiry would be to investigate how affirmative action at board level works on an operational level. Is the pool of qualified female board directors increased, or are current female board directors simply taking on more directorial posts? An important policy-informing contribution this research may make is to establish what the possible or likely unintended consequences are of such an affirmative action initiative. This may help policy advisors and practitioners alike make sense of the likely direction gender diversity will take in this particular setting.
2.3.3 Nomination committees and women corporate board directors
The third proposed topic of research relates to the role played by the nomination committee in increasing the proportion of board seats held by women. The Higgs Review (2003) highlighted the nomination committee as an important corporate governance lever that could usefully be employed in bringing more women onto the board, by looking “beyond the usual suspects” (p 46) of Caucasian males to identify a more diverse set of board candidates, including women. The nomination committee is deemed to bring due process and transparency to the recruitment of non-executive directors. The Higgs Review recommends that the nomination committee should be composed in the majority of non-executive directors to limit the potential for candidate recommendations from the ‘old-boys network’ or the ‘usual suspects’. Shivdasani and Yermack (1999) in their research into the CEO’s involvement in the selection of new board directors found that where the CEO participated in the nomination committee process, the use of independent directors subsequently decreased. This research suggests that nomination committee composition matters for board composition and that the nomination committee does play an influential role in who is or is not appointed to the board. So far, limited research has been done into the role of the nomination committee, particularly the extent to which it is successfully used to place more women directors on the board. Prior research on the nomination committee has focused on the impact of adopting a nomination committee on the composition, independence and quality of the board (Ruigrok et al., 2007; Vafeas, 1999), financial performance (Carter et al., 2001), and the likelihood of women gaining access to the board committees, including the nomination committee (Kesner, 1988; Bilimoria and Piderit, 1994). However, no study has explicitly investigated whether firms that have nomination committees also have more women on their boards and similarly whether the gender composition of the nomination committee itself influences the degree to which women are added to the corporate board.

2.3.4 Female executives’ preferences, motivations and attitudes
The next proposed research avenue stems from the observation that much of the literature concerning women’s participation on corporate boards focuses on why companies appear not to be prepared to appoint more female board directors (Singh and Vinnicombe, 2001; Hillman and Cannella, 2002; Sheridan, 2001; Burke, 1997) and on what can be done to change their view and see the many benefits women may bring to the corporate board (Singh and Vinnicombe, 2004; Bilimoria, 2000; Adam and Flynn, 2005; Burke, 1999;
Conyon and Mallin, 1997; Thomson et al., 2005). In that sense, the extant literature is ‘demand-focused’ and says comparatively little about the possible attitudes, preferences and motivations of women that might potentially be suitable for board directorships.

An important, but small, body of literature focuses on women’s motivations, preconceptions and expectations associated with attaining board directorships (Sheridan, 2002; Sheridan and Millgate, 2005; Singh et al., 2002; Burke, 1997). Sheridan (2002) found that women’s motivations for pursuing board directorships included an interest in the particular company, a sense of personal satisfaction and professional development, findings that echoed Burke’s (1997) results. Singh et al. (2002) researched promotion and career aspirations in light of Impression Management Theory, which studies the processes and manners in which people seek to influence others’ perception of them. They found that women were especially reluctant to put themselves forward and play “the organizational game” (p 77) preferring instead to rely on formal procedures of promotion. There is opportunity for further research into women’s career ambitions and the board recruitment process as it impacts women. Studies have concluded that the progress of women into executive rank, and by inference the board, will continue to be slow if advancement continues at the current rate (Kilian et al., 2005; Fairfax, 2005; and Ogden et al., 2006). The literature appears implicitly to assume that all women in senior management positions covet board directorships. Senior managerial women may see this as a natural next career-progressing step, however it is none the less an assumption that would benefit from empirical scrutiny. This will enable a more accurate forecast of the female board director pipeline. In the extreme case that women in general are not found to covet board positions, the entire problem of female board representation changes from being an issue of equity to one of economic competitiveness. A research opportunity also presents itself at the lower levels of the corporate hierarchy. To senior female managerial talent, executive positions may be an aspiration; however, to ensure a continued supply of professional female potential, women at every level of the organisation must aspire to climbing the career ladder. Unearthing younger women’s career aspirations will enable companies to facilitate their progress better up through the corporate hierarchy, and eventually foster well qualified, motivated female board talent.
2.3.5 Women in the board room
As outlined in this review, the majority of empirical research into female board representation focuses on numerically charting the number of female board directors. To date, no study the author is aware of assesses the actual impact women have in the board room. As discussed, some conceptual literature on female board participation suggests that women make for more effective board directors, take their board roles more seriously and encourage wider and more robust debates. Scholars have long noted that empirical research on board process and firm performance is in short supply (Pettigrew 1992). This is primarily due to difficulties associated with gaining access to the board. Kahl (1957) suggested that people in power are unlikely to invite scholars to observe how they exercised that power over others, whilst Burke suggested the board is shrouded in “…a veil of privacy or secrecy” (Burke, 1994, p 3) which the board is anxious to maintain. Recently, corporate governance reviews and reforms have placed an increased focus on personal liability and an associated potential for litigation. This potential for litigation may be a contributing factor to board’s reluctance to admit outsiders in to observe how they perform their custodial duties (Bostrom, 2003; Daily et al., 2003; Zahra and Pearce, 1989) However, these obstacles to board room access should not be a deterrent of such magnitude as to dismiss attempts at pursuing empirical work in this field. Methodological means notwithstanding, interesting insight into real nature of female contributions on the board may be made from qualitative studies into women’s role on the board, where they contribute, the manner in which they do, the approach they take to the work and what the company and the women themselves stand to gain from their involvement on the highest decision-making corporate body.

2.4 Chapter summary
Extant literature on female corporate board directors has made substantial advances in our understanding of what drives women’s participation at the corporate board level. Conceptual and theoretical scholarship has illustrated the positive contribution women can make to board proceedings and firm performance and highlighted the professional requirements women must fulfil to successfully ascend the corporate board. Most research into women’s prevalence on boards to date has been framed in board level theories. Notwithstanding the advances that have been made in the wake of these theories, opportunities for further conceptual development and empirical research present
themselves in a number of areas, relating to institutional context, particular corporate
governance mechanisms and alternative conceptual perspectives.

This chapter addressed three objectives: It assessed the dominant themes in the broader
empirical and conceptual board literature. Secondly, it provided a review of the literature
on women corporate board directors, and third it articulated a research agenda. The next
chapter develops the conceptual framework for this thesis.
WOMEN ON THE CORPORATE BOARD: AN INSTITUTIONAL PERSPECTIVE
3. Women on the corporate board: An institutional perspective
The previous chapter made two important observations on the literature which has evaluated the prevalence and role of women on the board to date: Firstly, the dominant theoretical perspectives employed thus far have been board level theories; in particular agency, stewardship and resource dependence theory have dominated research. The second observation relates to the analytical levels observed in the literature. The majority of studies to date are single-level in nature and usually focused on firm or industry level. To broaden our understanding of why women are able to acquire corporate board directorships in some contexts, but not in others, it is similarly necessary to widen the theoretical perspective beyond board level theories, to take account of broader contextual influences. To do so, the conceptual framework developed in this chapter is informed by institutional theory and draws particularly on Scott’s (1995) synthesis and articulation of institutional theory. This chapter has three key objectives: firstly, to review the disciplinary foundations of institutional theory and to establish a clear picture of the multi-disciplinary strands of theory that informs it. The second objective is to delineate Scott’s conception of institutional theory as reflected in this three institutional ‘pillars’ and the final objective is to apply the theoretical logic of these three pillars to the study of women’s prevalence on the corporate board of directors and develop a multi-level conceptual framework. Each objective will be addressed in turn.

3.1. Institutional theory
This section provides a succinct view of the analytical heritage of institutional theory. This section does not attempt to provide a definitive review of institutional theory, but focuses instead on some of the core elements that are central to the framework developed by Scott (1995) and more broadly applicable to the study of women’s prevalence on corporate boards. (For more comprehensive literature reviews of institutional analysis see for example Heugens and Lander, 2009; Scott, 1987; Dugger, 1988; Hodgson, 2007; Stern and Barley, 1996).

3.1.1. The disciplinary foundations of institutional theory
Institutional theory covers a “sprawling literature” (Thelen, 1999, p 370) characterised by pluralities and dichotomies of perspective, making definite distinctions and categorisations difficult to make. Institutional theory emerged from these three separate but related
academic disciplines: sociology, economics and political science. Institutional theorists in sociology were particularly concerned with understanding, characterising and describing human behaviour (see for example Cooley, 1897, 1902, 1956; Hughes, 1937; Durkheim, 1949; Weber, 1947, 1968), whilst political scientists researched national governance systems and the role of the state in directing action (Wilson, 1887; Willoughby, 1898, 1901a, 1901b; Catlin, 1927; Dahl, 1961). Institutional economics challenged some of the fundamental assumptions of economic models, such as the pattern of human behaviour implicit in much economic theory, and brought attention to the particular characteristics of the individual transaction, and ultimately how the context within which transactions took place influenced the character, nature and type of the economic system (Veblen, 1909; Commons, 1932; North, 1981; Williamson, 1985; Whitley, 1992).

The following outline of the salient facets of institutional theory from sociology, political science and economics focuses on scholars of particular importance to the framework proposed by Scott (1995). No distinction or discussion is made of categorisation of particular theorists as ‘old’, ‘new’ or ‘neo’. Next, the disciplinary foundations of sociologically grounded institutional theory are explored, then those of political science and lastly economics.

Institutional theorists in sociology have long been concerned with influences on human behaviour, and in particular contextual influences on behaviour and social relations, such as norms, values, culturally supported and taken-for-granted assumptions, and how behavioural patterns become established and endure (Parsons and Barber, 1948; Durkheim, 1981; Weber, 1981; Jepperson, 1991). An institution has been defined in a myriad ways in sociology, each definition reflecting the individual scholar’s particular interest or bias (Durkheim, 2005; Lockwood, 1956; Ward, 1896). However, common elements across the spectrum are the notions of consistent pervasive behaviour, the role played by norms, values and the cultural influence of habitual assumptions on ‘how things are done’ and wider contextual influences. Drawing on the conceptions of institutions found in extant scholarly sociological literature Barley and Tolbert (1997) define an institution as “shared rules and typefications that identify categories of social actors and their appropriate activities and relationships” (Barley and Tolbert, 1997, p 96). The process by which such shared rules and common understandings of behavioural norms develop is referred to as the process of institutionalization (Jepperson, 1991). Sociological literature offers
numerous definitions of this process, with similar themes emerging, such as the rule-like status behaviour takes on in particular circumstances, with clearly defined normative expectations of what constitutes acceptable behaviour, a need for conformity and the development of a common understanding of what is “appropriate and fundamentally meaningful behaviour” (Zucker, 1983, p 5). In Barley and Tolbert’s (1997) definition of an institution, the behavioural pattern that is established as a result of the shared rules and typifications, acquires a status of legitimacy and propriety. “Institutionalization is both a process and a property variable. It is the process by which individual actors transmit what is socially defined as real and, at the same time, at any point in the process the meaning of an act can be defined as more or less taken-for-granted part of this social reality. Institutionalized acts then, must be perceived as both objective and exterior” (Zucker, 1977, p 728).

Early scholars of institutional theory in sociology such as Cooley (1902) and Hughes (1937, 1945) saw the interplay between social structures and how “society makes the man, and how the man makes society” (Cooley, 1897, p 2) as important to understanding human behaviour and identity. Cooley argued that objective institutions such as the church and government were not external to the individual, but were maintained, developed and reinforced through continued human interaction with these institutions; “Individuals are always the cause as well as the effect of institutions” (Cooley, 1956, p 313). Hughes (1937) identified professional positions of power such as that of executive directors, and professional occupations such as doctors and lawyers, as a particularly important force in reinforcing behaviour. Certain positions of authority, he argued, had established roles and rituals associated with them whereby professionals inhabiting these roles become “within the limits of their office, especially responsible for the fate of their fellows, and for the integrity of their communities” (Hughes, 1937, p 405). Such roles and accepted patterns of behaviour as identified by Cooley and Hughes, were the object of study of Durkheim.

Durkheim (1949) originally set out to explore the basis of social order, and in the course of his work came to emphasise the role and importance of normative and symbolic belief systems. Such belief patterns informed individual behaviour by being seen as facts; they were external to the person, but the person concerned felt normatively obliged to conform and thus behaved according to these ‘social facts’. Weber complemented this view with what he termed ‘social actions’ (1924; 1968; 1981). Making the connection between
meaning and action, Weber saw social action occurring wherever “human action is subjectively related in meaning [original italics] to the behaviour of others” (Weber, 1981, p 159). He proposed that individuals acted according to particular norms of expected behaviour in a given social situation partly because coercive pressures would restrain deviant behaviour if it were to take place, and partly because the individual implicitly accepted the social norms and meanings attached to them, when he or she engaged in a given social interaction.

Focusing at the organisational level, Selznick (1957) argued, organisations took on a more intrinsic role, and became “infused with value beyond the technical task at hand” (Selznick, 1957, p 17). Organisations were no longer just an inanimate source of income for its employees; they also derived meaning and value from their engagement with the organisations. Berger and Luckmann (1967) continued in a similar vein. Attaching importance to meaning and behaviour they saw humans as capable of constructing their own reality, stressing the focal role of cognition. Rather than seeing actors as behaving in a passive manner, meekly following institutional pressures and norms, Berger and Luckmann (1967) recognised that individual action was influenced by how actors cognitively interpreted the world around them and how they chose to respond, and from thence created their reality. From Berger and Luckmann’s insights, Meyer and Rowan (1977) suggested that organisational structure reflected an individual’s socially constructed reality, and organisations institutionalised practices that reflected culturally determined values rather than forms of efficiency. Rather than just focusing on the organisation as a technically sophisticated instrument for efficient output, Meyer and Rowan (1977) highlighted the role played by cultural rules in constructing a complementary basis for organisations. They suggested that cultural practices provided another basis for organisational isomorphism, the process by which institutions adopt practices that are pervasive in the environment within which they operate. Previously, isomorphic adaptation had generally been associated with technical efficiency, but Meyer and Rowan (1977) suggested instead that cultural isomorphism allowed organisations to be more directly responsive to their environment. DiMaggio and Powell (1983) looked more closely at this process of isomorphism and identified three different forms of isomorphism, mimetic, coercive and normative. They argued different circumstances would engender different forms of isomorphism, but that irrespective of which isomorphic process was at play, organisations were likely to conform to institutional expectations to gain legitimacy, rather
than necessarily improve performance. “...legitimacy will be determined by the amount of consensus...regarding the appropriateness of the means selected to achieve the desired ends” (Scott, 1991, p 170).

Institutional theorists in sociology outlined the salient characteristics of human behaviour and linked behaviour to the organisational context. In particular scholars connected the “web of values, norms, rules, beliefs and taken-for-granted assumptions” (Barley and Tolbert, 1997, p 94) inherent in organisational practice to the observed patterns of individual actions and detailed the process by which this happened: the process of institutionalisation. Next, institutional theory as reflected in political science is explored.

The role and nature of governance systems and how politics influence action are themes from political science that are important elements of institutional theory. As in sociology, the notion of an institution in political science is multifaceted, and definitions vary slightly depending on the scholar’s particular allegiance (March, 1962; Tashjian, 1973). A definition that seems to capture a number of the most salient elements of political institutions emphasised in literature, such as the role of rules of conduct, repertoires, order, the state and procedures (Dahl, 1959; March and Olsen, 1989; Whitley, 2007; North et al., 2007), is that provided by Hall and Taylor (1996), who defined an institution in the political science realm as “formal or informal procedures, routines, norms and conventions embedded in organizational structure of the polity or political economy. They can range from the rules of a constitutional order....to the conventions governing trade-union behaviour” (p 6).

Early political scientists concerned themselves largely with descriptive comparative studies of different governance systems, the role of law and moral philosophy (Scott, 1995). These scholars attached great importance to understanding the historical origin of different political systems and how varieties of governance systems responded to challenges. Political scientists such as Burgess, Wilson and Willoughby were influential in this work. Willoughby wrote a series on the particulars of French labour laws (1898, 1901a, 1901b) and the governance of American industry (1901c, 1905). Wilson analysed systems of politics, governance and administration (1887), and Burgess (1886) wrote on constitutional law and moral philosophy. These political institutional scholars helped chart political waters and provided rich descriptive work detailing governance systems.
Despite the careful analysis of these national political structures, it became increasingly clear in the 1920s and 1930s that there were political powers and elements at play that the early institutional scholars in political science had failed to account for, such as the collapse of the German democracy and the rise of fascism and the emergence of the USA as a ‘superpower’ (Blyth and Varghese, 1999). In 1945 the American Social Research Council also strongly argued that political science research should be concerned with the study of political behaviour, “with the object of formulating and testing hypotheses, concerning uniformities of behaviour in different institutional settings” (Dahl, 1961, p 764). In response to these changes and inherent shortcomings in the descriptive work that had gone before, political science turned to the individual as a unit of analysis, and in particular an individual’s political behaviour. This ushered in the area of behaviouralism in political science (Kim, 1965; Blyth and Varghese, 1999; Scott, 1995). The lens shifted from institutional structures to what political behaviours individuals adopted, and what distributive effect this engendered (March and Olsen, 1989). The subject of political science was no longer the state but the individual (Catlin, 1927). Dahl (1961) summarised the major achievements of the behaviouralist approach as providing better insight and understanding into: voting behaviour, political participation and “understanding the psychological characteristics of *homo politicus* [original italics]” (Dahl, 1961, p 769). In parallel with the rise of behaviouralism, comparative politics continued in the political science domain, which trumpeted the virtues of the ‘advanced states’ like that of the US and suggested that other less developed nations failed to progress due to lack of appropriate institutional structures (Parsons, 1951). Until the 1960s the behaviouralist and the comparative strand of political science continued to develop. In the 1960s and 1970s when social upheaval and financial stagnation caused a loss of belief in the dominant political theories, an interest in rational choice emerged as an alternative to the behaviouralist approach (Blyth and Varghese, 1999).

Recent work in political science concerned with institutions has, according to Scott (1995), continued along two specific lines of academic enquiry. One is concerned with detailed analytical, and often comparative, work of governance systems, similar to that of early institutional theorists in political science, while scholars such as March and Olsen (1989, 1994, 2000), Hall and Soskice (2001), and Whitley (1992, 1999, 2000) argue political institutions include elements of both a formal and an informal nature that direct behaviour and choice. Specifically, institutions constrain behaviour and delineate what
options are available to the individual (Scott, 1995). Political institutions provide the context for constraining and empowering behaviour, and political actors such as the state are influential in shaping human behaviour. The second line of academic enquiry is that of rational choice theory.

Rational choice theorists view governance and rules systems as institutions and explain the origin of institutions by reference to the original intended purpose of the institution (Weingast, 1979; Shepsle and Weingast, 1994). Rational actors, looking to realise personal ambitions or goals, create institutions with a view to solving specific preference dilemmas and achieve their individual desired outcomes (Moe, 1990; Scott, 1995). This approach to thinking about institutions is not dissimilar to that seen in institutional economics, which will be discussed next, but the particular characteristics of political institutions differ from economics. In political science decisions revolve around the interest of the public and those emphasised in the context of such frameworks as majority rules, whilst in economics, market transactions emphasise the need to satisfy supply and demand. Political science thus articulated some of the wider societal contexts within which institutions such as the state operate, and illuminated the process by which decisions are made and by association, outcomes instigated through rational choice theory.

The rational choice theorists and the historically focused political scientists concur on the importance of institutions in the domain of political science and agree that “institutions provide the strategic context within which political actors make policy choices” (Steinmo and Tolbert, 1992, p 165) but they differ in their view of whether people create institutions or institutions shape individual behaviour and choice.

Early institutional theorists in political science built the foundations of what is today an important and continued heritage in governance, that of comparative politics. This engendered an understanding of the nature and role of national governance as institutional context. Subsequently, behaviouralists illuminated how the individual and the state influenced, and were influenced by, this institutional context, and how this symbiosis influenced behaviour, directed action, and opened up the debate, which is still ongoing, of whether institutions constrained or enabled action. Next, the third discipline from which institutional theory emerged is discussed.
Pioneering institutional economists were also concerned with individual behaviour, especially in the context of commercial transactions. The early origins of institutional economics stemmed from dissatisfaction with the dominant economic model of the time: that of the utility-maximising rational man, who possessed perfect information, traded in a perfectly competitive environment where transactions were costless, supply infinite and national character non-existent (Furubotn and Richter, 2008; Scott, 1995; Mayhew, 1987). Scholars began questioning the assumption of the rational, utility-maximising man in particular. The assumptions inherent in this premise, they argued, were removed from reality and did not reflect the actual decision-making process that took place when people decided to trade. Instead habit and innate routine and taken-for-granted behaviours played a more dominant role in economic decision-making. Consumers for example, did not make decisions on consumption in a rational vacuum (Veblen, 1909). Culture, internalised preferences and wider societal constructs such as the legal framework played a role in the economic process (Veblen, 1908; Commons, 1924, 1932; Parsons, 1941; Duesenberry, 1949; Hodgson, 1998).

Veblen (1908) and Commons (1924, 1932) suggested that the focus should be on the individual economic transactions, the wider institutional environment, and the ‘rules of conduct’ that governed such an exchange. These rules of conduct Commons (1924) argued are social institutions. In Common’s (1932) words institutional economics is the “collective action in control, liberation and expansion of individual action” (p 50). Veblen and Commons both departed from the traditional ideas of economics. In particular, Veblen spoke of the integrated nature of human existence, “in the economic respect, man has never lived an isolated self-sufficient life as an individual, either actually or potentially…the phenomena of human life occurs only in this form…[existence] is a matter of knowledge, usage, habits of life and habits of thought” (Veblen, 1908, p 518). This body of intrinsic knowledge that people carry with them informs and shapes transactions.

The role and importance of the transaction as a unit of analysis in economics became increasingly important in institutional economic theory. Coase and Williamson in particular pursued the transaction as a focal unit of analysis. Coase (1937) questioned why certain transactions took place within the firm, whilst others were carried out in the market place and concluded that the price mechanism in the market place in certain cases offered a more costly option than conducting the business in-house. Following Coase (1937) a hiatus
in the development of institutional economics followed, which led scholars like Boulding (1957) to suggest that it was a theoretical interlude “an interlude, it is true, of considerable interest, and one which made real, if small, contributions to the mainstream of economic thought” (p 1). Rather than being an interlude, institutional economics re-emerged to prominence when Williamson (1985) extended Coase’s work to include wider frameworks of governance and emphasised the notion of bounded rationality. Where previously individuals had been assumed to possess perfect knowledge and make rational decisions based on this perfect insight, bounded rationality accepted human fallibility. Bounded rationality recognised that decisions were not made based on perfect knowledge, but the available knowledge and that a less rational aspect, such as opportunism, may play a part in the economic transaction-making process. From this perspective Williamson (1985) saw institutional economics as concerned with organising “transactions so as to economize on bounded rationality, while simultaneously safeguarding them against the hazards of opportunism” (p 32). An important safeguard in this respect was property rights, which according to North (1991) were fundamental to economic activity as “a capital market entails security of property rights over time, and will simply not evolve where political rulers can arbitrarily seize assets or radically alter their value” (ibid. p 101). North focused on the structure and institutions of economics as they related to performance of economic systems over time (North, 1978, 1981; Furubotn and Richter, 2008). According to North, the institutional environment defined property rights, and if it were not for institutionally grounded property rights, economic exchange would cease (North, 1971; Richter and Furubotn, 2008).

Institutional economics represented a very different view of economic theory from that observed in the classic version of it. Instead of assuming the consumer was rational and focused on maximising utility, institutional economics recognised the role played by the limits of humans’ cognitive ability, the role played by culture, habits and social rules. In the institutional view of economics, transactions were no longer costless and could not easily be disentangled from their context. Rather, where and how transactions took place was in part a result of the prevailing institutional environment, the provision of adequate governance and legal provisions such as property law, and habitualised behaviour.

Hence, institutional theory developed from three distinct but related academic disciplines. This section has highlighted elements of institutional theory that informed Scott’s (1995)
synthesis. The sociological view of institutional theory emphasised the role played by actors in creating and maintaining patterns of values and behaviours that constrained and enabled action. The political science strand of institutional theory emphasised the importance of political systems as context and the role of rational choice, collective action and associated outcomes of action, whilst institutional economics has sought to incorporate more realistic assumptions of human interaction in transactions and governance and to place the transaction in a broader institutional context. Whilst disparate in many regards, institutional theory as reflected in sociology, political science and economics, is concerned with human behaviour, their values, beliefs and norms inform, guide and foster their actions, habits and interactions.

3.2. Scott’s Pillars

Recognising the “sprawling” yet related nature of institutional theory as articulated in economics, political science and sociology, Scott (1995) identified the need for assimilating elements of commonality and complementarity across the facets of institutional theory, to better harness its latent conceptual strength. To that end he synthesised the disparate strands into a coherent framework. Scott (1995) defines institutional theory as consisting of “cultural-cognitive, normative, and regulative structures and activities that provide stability and meaning to social behaviour. Institutions are transported by various carriers – symbolic and relational systems and routines – and they operate at multiple levels of jurisdiction” (p 33). Scott’s (1995) framework has successfully been applied in management research on corporate governance (Judge et al., 2008), logistics management (Koulikoff-Souviron and Harrison, 2008) and international business (Trevino et al., 2008). The regulative, normative and cultural-cognitive structures, or “pillars” as Scott refers to them, included in the above definition form the core elements of his framework. These pillars represent the manifestations of the various academic elements encapsulated in institutional theory as thus described. The regulative pillar reflects elements of institutional thought in economics and political science, in particular an emphasis on the role played by rules of law and governance systems, such as legally sanctioned property rights highlighted by North (1978). The normative and cultural-cognitive pillars draw more heavily on the sociological heritage reflecting the importance of societal norms (Durkheim, 1974; Weber, 1947, 1968), culturally bound contexts (Veblen, 1909) and human cognition (Berger and Luckmann, 1967). Each pillar supports a particular strand of institutional theory, and collectively the three pillars offer a more
complete understanding of institutions. Depending on scholarly focus, authors have placed different emphasis on the three pillars in their research (Scott, 1995).

**Figure 3.1 Scott's framework of institutional theory***

<table>
<thead>
<tr>
<th>Emphasis</th>
<th>Regulative</th>
<th>Normative</th>
<th>Cultural-Cognitive**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basis of compliance</td>
<td>Expedience</td>
<td>Social obligation</td>
<td>Taken for granted</td>
</tr>
<tr>
<td>Mechanisms</td>
<td>Coercive</td>
<td>Normative</td>
<td>Mimetic</td>
</tr>
<tr>
<td>Logic</td>
<td>Instrumentality</td>
<td>Appropriateness</td>
<td>Orthodoxy</td>
</tr>
<tr>
<td>Indicators</td>
<td>Rules, laws and sanctions</td>
<td>Certification, accreditation</td>
<td>Prevalence, isomorphism</td>
</tr>
<tr>
<td>Basis of legitimacy</td>
<td>Legally sanctioned</td>
<td>Morally governed</td>
<td>Culturally supported, conceptually correct</td>
</tr>
</tbody>
</table>


Next, the three institutional pillars will be discussed in turn, starting with the regulative pillar, followed by the normative and finally the cultural-cognitive pillar.

The regulative pillar highlights the value of rules and laws for efficiently enforcing acceptable behaviour and establishing a predictable context for institutions. Scott (1995) argues that the regulative pillar is the most pervasive in the literature and that all scholars concerned with institutional theory are concerned with the way in which it “constrains and regularizes behaviour” (p 35). The regulative pillar is thought to be particularly salient to economists and academics with a particular interest in market forces and competitive interaction (ibid). It draws on the notion or ‘rules of conduct’ and process of decision-making from early institutional theory in economics and political science to understand how the various interests at play in the market place are able to negotiate outcomes that satisfy the many competing parties. Corporate governance mechanisms and statutory bodies concerned with regulating financial markets and industry competitiveness in particular play a pivotal role in attempting to control market forces (Shleifer and Vishny, 1997; LaPorta et al., 1999; Bebchuk and Roe, 1999). From a regulative view, for organisations and corporations to gain legitimacy they have to comply with prevailing applicable laws. The mechanism by which judicial legitimacy is attained is through coercive pressures, such as legal sanctions enforceable by law. Firms and organizations that fail to adhere to relevant laws may be punished. This could result in financial losses,
loss of reputation, esteem and even closure. Corporations therefore have a dual imperative to comply: to legitimate the business from a regulative perspective, and to enhance the prospects for the continuity of the firm as a going concern (Scott, 1995; Suchman, 1995).

Whereas the regulative pillar highlights the role played by laws, rules and governance efficiency, the normative pillar draws on values and norms. Building on the work of institutional theorists in sociology such as Durkheim (1949), Parsons (1937, 1951) and Selznick (1948, 1957) the normative pillar is concerned with normative rules and how behaviour is informed and shaped by prescriptive and obligatory societal influences. Scott (1995) draws a distinction between norms and values, seeing norms as specifying “how things should be done” (p 37) and values as “conceptions of the preferred or desirable together with the standards to which existing structures or behaviour can be compared and assessed” (p 37); in other words, values delineate the goals, norms specify how to achieve them. The normative pillar is anchored in appropriateness, what society perceives as due behaviour for any given situation. Under the normative pillar, Scott (1995) identifies a particular set of norms and values that are only of relevance to a subset of the actors under analysis; these values and norms constitute roles. Roles are clearly defined expectations of behaviour and action by individuals who either inhabit particular positions of authority or who sit in particular positions of power and influence. Previous examples of such roles include those accorded radiologists and radiological technologists in major teaching hospitals (Barley, 1986). These roles provide a clear blueprint for what is expected from an individual and compliance is often a requisite for success. Scott (1995) suggests these roles are “prescriptions - normative expectations - of what the actors are supposed to do” (ibid. p 38) in a given context. Drawing on moral as its basis for legitimacy, where the regulative pillar was legally sanctioned, normative institutions are value-laden and concerned with what is ‘the right thing to do’ in any given situation (Suchman, 1995; Scott, 1995; Greenwood et al., 2002). Organisations acquire normative legitimacy by adhering to industry standards and acquiring recognition, membership, certification and accreditation by influential industry bodies. Normative legitimacy signals that organisations are doing ‘the right thing’ (Ruef and Scott, 1998).

Influenced by Berger and Luckmann’s (1968) work on social order and Zucker’s (1987) research into hierarchy, behaviour and power, the focus of the cognitive pillar is on actors’ interpretation and negotiation of, and actions within, their environment, the “rules that
constitute the nature of reality and frames through which meaning is made” (Scott, 1995, 40). The cognitive pillar stresses the importance of symbols, signs, language and culture for the construction of meaning. Berger and Kellner (1965) argued such social institutions were central to the creation of social stability, “they are the culturally produced forms by which human activity is given coherence and continuity” (p 112). It is in the context of this framework of continuity and stability that individuals create meaning and negotiate their reality. An important cognitive element in this process of coherence and continuity is the notion of constitutive rules. Constitutive rules were articulated by Searle (1969), where he suggested individuals created categories and constructed typifications in their mind and allocated subjective experiences to these categories and typifications. Constitutive rules can be relevant not only to experiences, but also physical objects and sensations (Searle, 1969; D’Andrade, 1984; Scott, 1995) D’Andrade (1984) illustrated the concept of constitutive rules by arguing “without the system of constitutive rules called football, the behaviours of scoring, blocking, passing and so on would not exist” (p 94), and by creating these cognitive rules, people create reality (D’Andrade, 1984). Constitutive rules offer a cognitive mechanism for social interaction as they provide a guide for what an individual sees as appropriate action in any given situation (Wicks, 2002).

As the normative and cultural cognitive pillars are largely informed by the same body of mainly sociological literature, there are elements of overlap between them. However, there are also important elements that separate them. The normative pillar takes a more rigid view stressing the centrality of defined roles, whilst the cognitive pillar emphasises the individual subjective interpretation of what constitutes the right course of action in any given situation. Despite the emphasis on the subjective interpretation and negotiation of a given situation under the cultural-cognitive pillar, certain patterns of behaviour and collective structures are consistently found across countries. The cognitive pillar suggests the widespread adoption of such structures is due to mimetic isomorphism, whereby others, be they collectives or individuals, adopt structures that are perceived to be effective or that enable conformity and legitimacy (DiMaggio and Powell, 1983). Such consistency is grounded in the ‘taken-for-granted’ nature of prevailing practices which if adopted, encourage an appreciation of how the actor or organisation fits into society (Aldrich and Fiol, 1994). The cultural-cognitive pillar accounts for the cultural, innate, subjective views of institutions and emphasises “the socially mediated construction of a common framework of meaning” (Scott, 1995, p 45).
Institutional carriers
So far this chapter has reviewed the disciplinary foundations of institutional theory and articulated the analytical framework Scott (1995) built based on these related facets of institutional theory. The second part of Scott’s framework, as highlighted in his definition of institutional theory, relates to carriers of institutions, and to complete the explication of Scott’s framework, carriers are briefly described here.

Institutional carriers represent the mechanisms through which institutions are transported between actors and collectives across boundaries, jurisdictions and societal levels (Scott, 1995; Kostova and Roth, 2002; Thornton, 2002). Unlike the term ‘institutional theory’ there is no oft cited, succinct and final definition of what constitutes a carrier. Jepperson (1991) first employed the term carrier in talking about “informally organized institutionalization” (p 150), suggesting carriers enable institutionalisation. He refers to three types of carriers: regimes, cultures and organizations. By regimes, Jepperson talks of institutionalisation through formal regimes such as legislative bodies enforced by monitoring and sanctions, whilst culture is “customary and conventional in character” and they are not subjected to formal monitoring by laws (ibid, p 150). Organizations are formal embodiments and transmitters of institutions. Regimes and culture on the other hand, are not dependent on formal organisational structures; instead they rely on individuals as repositories and conveyers of institutions. Scott (1995, 2003) modifies Jepperson’s view and talks of symbolic systems, relational systems and routines. Looking beyond the semantics, both scholars draw attention to the social structures that actors take their behavioural cues from, actors being the embodiment of the prevailing institutional landscape within which they operate; “while multiple modes of transmission exists, among the most influential are the human actors” (Scott, 2008, p 227).

The multi-level nature of institutions
So far, the topic of the domains over which institutional influences apply has been overlooked; this will be dealt with next. It is imperative to recognise that institutional logics apply across levels of analysis, be they of a regulative, normative or cultural-cognitive origin, and irrespective of which institutional carriers are engaged. Scott (1995) refers to these levels as jurisdictions, and highlights that the focal level of analysis depends on the nature of the phenomenon being analysed, whether of a macro, meso or micro nature. The
notion of jurisdictions explicates that interconnected nature between “the zones of contracting and exchange between legally defined organizations, between organizations and communities and within organizations” (Blau, 1996, p 174). Extant research employing institutional analysis has successfully investigated phenomena at the multi-country (see for example Bruce et al., 2005; Mazza and Pedersen, 2004), societal (see for example Aguilera and Jackson, 2003), firm (see for example Tan and Jun, 2007) and firm sub-unit level (Westphal et al., 2001, Westphal and Milton, 2002).

The application of the institutional pillars to multiple levels of analysis highlights the nested nature of institutions. Organizational sub-units, entire organizations, communities or nation states are influenced by one another. Lawrence and Suddaby (1997) argue that if researchers are to understand the characteristics of an object of study, irrespective of the institutional level at which it occurs, they must appreciate the nested nature of institutions, and thus the jurisdictional levels that influence, and are influenced by, the level at which the study is focused. A particular strength of Scott’s (1995) three pillars is the encapsulation of a range of conceptualisations of institutions. The many varieties of institutional theory contained within the three pillars means the theoretical framework is applicable across a wider range of analytical levels, time frames, sample sizes and spaces.

**Summary**

In conclusion, institutions are multifaceted and originate in, and apply to, a variety of settings and through a variety of processes. Institutions constrain and enable action, define a firm’s context with its wider environment and enable the creation and maintenance of firms and markets. There are three dominant types of institutions: regulative, normative and culturally framed institutions that address different aspects of institutional theory. The regulative pillar defines the legislative and rules-based aspects of a firm’s environment, covering those institutions that are coercively enforced. The normative pillar relies on values and morally governed behaviour that emanate from a sense of social obligation. Under the normative pillar the notion of roles emerges, where clearly defined patterns of behaviour associated with particular jobs or societal positions are adhered to. The cultural-cognitive pillar on the other hand relies on taken-for-granted assumptions of how things are done, and emphasises the role played by cognition both in individuals’ definition of what constitutes reality and also in how they decide to respond to this reality behaviourally. Institutions operate at a number of societal levels, and they apply at the
national, industry and firm level. Specifically, the multiplicity of jurisdictions over which institutions play a role makes institutional theory a promising framework for understanding the various influences on the prevalence of women on the corporate board of directors in an international perspective.

3.3. Institutions & women on the board

Having outlined the key elements of an institutional theory approach, the time has come to apply Scott’s (1995) institutional perspective to explaining variation in the prevalence of women on corporate boards, drawing together a coherent multi-level research framework.

As highlighted in the literature review, extant literature on female board directors has researched questions surrounding women’s place on the board at either the individual (Sheridan and Milgate, 2003, 2005), board, firm, industry (Ruigrok et al., 2007; Hillman et al., 2007; Brammer et al., 2007; Bilimoria and Piderit, 1994; Peterson and Philpot, 2006) or national level (Terjesen and Singh, 2008; Grosvold et al., 2008) and conceptually research has largely been grounded in board level or individual level theories, such as agency and resource dependence theory (Francouer et al., 2008; Hillman et al., 2007; Peterson and Philpot, 2006; Ruigrok et al., 2007). The multiplicity of potential influences on the prevalence of women on corporate boards suggests that a research framework is required which moves away from the single-level perspective that has so far been pursued, to encompass Scott’s (1995) three pillars which operate at multiple, interrelated levels of analysis. Consonant with Scott’s conceptualisation of institutional theory, here it is argued that the prevalence of women on the corporate board of directors should be considered in the context of institutional processes at the national, industry and firm level. To further academic understanding of this phenomenon, a proposed nested research framework, informed by institutional theory is outlined below, where a proposition is made for each pillar at each level of analysis.

3.3.1. National level institutions and women corporate board directors

At heart, the argument put forth herein is that scholars who have researched the gender composition of corporate boards have largely failed to ‘contextualise’ their research (Terjesen and Singh, 2008), and in particular the importance of national level institutional factors in accounting for some of the differences observed in the prevailing gender demography of corporate boards has been overlooked. In this section it is argued that the
role national level institutions may play is significant in shaping the gender constitution of corporate boards.

Elements of the regulative pillar have been found to impact a range of corporate governance facets, including corporate legitimacy (Judge et al., 2009), corporate board structure (Li and Harrison, 2008), executive pay (Bruce et al., 2005) and national transition and change (Jonnergard et al., 2004; Peng, 2004). Despite successful research into the effects of country-specific institutional arrangements in the corporate governance domain, the potential impact of national level institutions on prevalence of female corporate board directors is largely unexplored. Here, the role played by the regulative pillar is discussed with reference to two particular salient facets of the regulative environment: the enforcement of gender equality legislation and the proportion elected parliamentary positions occupied by women.

Scholarly research that directly assesses the role of regulative institutions and the proportion of female board directors is limited. Evidence of the role played by the regulative pillar in promoting women on the board was found by Terjesen and Singh (2008) who explored the role of societal factors, including women’s dominance in political positions, the enforcement of gender equitable pay structures and the role of political liberation for the prevalence of women on the board. Their findings suggested women in recently democratized countries such as those of the former Eastern European bloc had a better chance of gaining board directorships than women in more established western democracies, suggesting where gender equality had been actively pursued in established democracies, women decided to focus on political rather than commercial careers. Agrawal and Knoeber (2001) explored whether female board directors served on the boards of corporations that were under particular public pressure to have a more gender diverse board. The authors found an increasing trend in the predominance of female board directors over time, but nothing to suggest that firms or industries subjected to political pressure for more diverse boards had more women directors. However, no other studies the author is aware of explicitly investigate regulative determinants of women’s prevalence on the board of directors.

The recent rise in the involvement of the state in the governance of business, and in particular the rise of legislation and corporate governance frameworks specifically
encompassing the role of the corporate board of directors, suggests facets of the regulatory pillar are increasingly shaping board demography (Cahan and Wilkinson, 1999; Valenti, 2008). In particular, the gender profile of the corporate board has been scrutinised. Influential corporate governance reviews, such as the Higgs Review (2003), assessed the characteristics of UK board rooms and concluded there was a serious lack of women, which undermined firms’ expressed desire to improve their corporate governance practices. Legislation, corporate governance best practice and industry coercion have all influenced women’s rate of board room participation and are examples of symbolic system carriers under the regulative pillar (Scott, 2003; Valenti, 2008). Legislation has influenced the gender composition of corporate boards directly and indirectly. Legislation specifically aimed at the demography of the corporate board of directors has been passed in Norway and Spain (Det Kongelige Barne og Familie Departement, 2002; Reier, 2008). Indirectly, the enforcement of strong and efficient gender equality laws, such as the application of civil-rights legislation to university admission in the US which resulted in women pursuing business careers and MBAs to a greater degree (Schneer and Reitman, 1994), has played a contributing role in changing the gender profile of the corporate board of directors.

However, the efficacy of the regulative pillar rests in part on its legitimacy. The successful enforcement of affirmative action, gender equality laws and corporate governance frameworks rests on the country’s ability to put these measures into effect. As such, the regulative pillar makes explicit the role of the state in institutional theory, “Because ultimately a third party must always involve the state as a source of coercion, a theory of institutions also inevitably involves an analysis of the political structure of society and the degree to which that political structure provides a framework of effective enforcement” (North, 1990, p 64). As this study is concerned with largely developed, or rapidly developing countries, where gender equitable legislation is common, the manifestation of the regulative pillar places emphasis on how effectively such legislation is enforced.

Another manifestation of the regulative pillar is the degree to which women are afforded the same opportunities as men in parliament. By appointing women into ministerial positions, women are able to influence the very legislative process that governs national gender equality. Women continue to fall behind men in acquiring political influence and civic positions of power, partly as a result of the prevailing national institutional environment which may associate men with power and partly due to cultural path
dependence (Shaul, 1982; Considine and Deutchman, 1994). Studies of Russia and Ukraine (Andreenkova, 2002), Arab societies (Ashraf, 2003), and Hungary and Romania (Chiva, 2005) all draw similar conclusions about the importance of national institutional factors such as welfare and social policy for enabling women to acquire seats of influence. Where women are afforded positions of political power they may be able to exert pressure on legislators to make gender equitable policies and welfare provisions that benefit women a priority. In the political domain as in the corporate domain, rates of female parliamentary participation differ substantially (Terjesen and Singh, 2008). Countries that promote women into senior positions of national power are thought to be more likely to promote women as equal peers to men and work to accord them similar positions in the private sector. Research by Kenworthy and Malami (1999) which looked at women’s rate of parliamentary representation across 20 countries found that countries where a larger proportion of women were employed in professional jobs also had a higher number of elected female members of parliament. Conversely the authors found that countries where women are kept out of the national seats of power also had fewer female professionals.

Drawing on the above discussion of the effective enforcement of gender equality legislation and the election and promotion of women parliamentarians as representative institutions of the regulative pillar, it follows that

Proposition 1: Countries that enforce gender equality legislation ensuring improved access for women into education, work and positions of political power have more women on their boards.

The normative pillar reflects the values and norms that permeate a society, which again will be indicative of how women are viewed as professionals and the degree to which they are deemed capable of taking on board level responsibility. The institution of religion is a powerful source of values in many countries. As well as delineating what is right and what is wrong, religion also articulates how women should be viewed and treated within society and whether their sphere of influence should be confined to home and family, or whether they are perceived to have a role to play in the wider society, through for instance, commercial work (Mazrui, 1997). All the dominant world religions define the role of women in society and delineate the parameters work and economic activity. Christianity, in particular protestant segment of Christianity, is perhaps most well known for its emphasis on industrious activities and the virtue of work (Weber, 1905; Foegen, 1979). Christianity
also has a well defined role for women in the workplace, resolutely insisting women have the same rights, wages and opportunities as men (MacLean, 1946). The Qur’an reflects the importance of economic enterprise, hard work and commercial activity and encourages Muslims to pursue work wherever they can (Abbas and Al-Owaihan, 2008). This call to labour is not just aimed at men, but women too. Whilst women in Islam are tasked with the overarching responsibility for the home and children, women are allowed and encouraged to make a difference in society (Omar and Davidson, 2001, 47). The dominant Eastern religions, Buddhism, Hinduism and Chinese Folk Religion, the latter encompassing many elements of the two former, place emphasis on intrinsic well being, cooperation, compassion and perseverance (Alexandrin, 1993; Chow, 2007). Women’s role in Hinduism is largely framed in terms of being good wives and mothers and being subservient to their male family members (Tomalin, 2006). Investigating the role played by national religious adherence may therefore contribute to a fuller understanding as to why there are more women on the corporate board of directors in some countries compared with others.

Another outlet for national values is the education system (Morris and Cogan, 2001; Osler and Starkey, 2001). Ingrained in national curriculum and teaching practices are values and norms, reflective of country-specific views on what constitute important normative considerations (Pike, 2000). The educational system has also been deemed to be an institution in its own right (Meyer, 1977). Higher education degrees create an elite of more qualified individuals who are socialised into aspiring to higher roles and more influence in society, compared with those who are less educated (ibid). As extant research in chapter 2 showed, women board directors often have university and postgraduate qualifications, making them part of the educated elite. Assessing the degree to which women enter higher education in a given country will provide an indicator of the degree to which a country believes women should have access to, and be encouraged to participate in, further education with a view to pursue meaningful professional careers outside the domestic realm.

**Proposition 2:** Countries that encourage female educational attainment and that practise religions where men and women are afforded similar status will have a larger proportion of female board directors.
National culture is a multifaceted institution, which has proved to be a strong influence on board structure (Li and Harrison, 2008) and corporate governance (Licht, 2001), as well as women’s views on work, career and self (Jacobsen and Aaltio-Marjosola, 2001). Given the multiplicity of culture, capturing the essence of what constitutes a particular cultural environment is important. Research has shown that there are common traits of what defines a culture cross-nationally (Aguilera et al., 2007; Barkema et al., 1996; Hofstede, 1983). Aspects of cultural influences, including concepts of masculinity, the degree to which job aspects such as “earnings, recognition, advancement and challenge…and the relative unimportance of…co-operation, desirable (living) area and employment security” (Hofstede, 1983, p 55) have been found to matter, the former being values associated with men and the latter with women. Other elements that shape national culture include perceptions of power, self, the importance of the wider community versus immediate family and how uncertainty and change are viewed (Hofstede, 1980; 1983; Javidan et al., 2006).

A diverse range of studies investigating various aspects of women and corporate board membership, cite the prevalence of a masculine boards or company culture as major barriers to why women make up a small proportion of board directors in most countries (Bilimoria and Piderit, 1994; Carter et al., 2003; Singh and Vinnicombe, 2004; Nelson and Burke, 2000; Van der Walt and Ingley, 2003). In fact, one of the major advantages of recruiting more female board directors is that they may help to change this masculine culture to become more accommodating of diversity (Burke, 1997; Carter et al., 2003; Erhardt et al., 2003; Van der Walt and Ingley, 2003). Given the historic dominance and continued prevalence of male board directors, boards as institutions are infused with masculine values (Burgess and Tharenou, 2002; Bilimoria, 2000; Carter et al., 2003). Consequently, an understanding of how cultural values, such as masculine perceptions of work, influence women’s chances of board directorships may shed further light on what contribute the particular gender patterns of corporate board of directors.

Masculinity is not the only aspect of national culture that warrants investigation; notions of power, hierarchy, uncertainty and self-promotion are other facets of also likely to play a pivotal role in explaining aspects of corporate governance (Licht et al., 2005; Buck and Sharhim, 2005). Considering that national culture has been found to be a factor that influences the gender demography of corporate boards, and that other board compositional
factors such as proportion of inside, -or outside directors, scholarship lends credence to the
suggestion that culture is an important factor in explaining why women do, or do not, serve
as board directors in particular contexts. In order to successfully push the boundaries of
research into which national level institutions help or hinder women wishing to acquire
board directorships, research is needed into what role is played by national cultural
institutions. Understanding how national societies’ cultural values of power, uncertainty,
hierarchy and social perception of women can help explain why some countries appoint
more women to their corporate boards than others.

Proposition 3: Countries that place greater emphasis on cultural values associated with
power, hierarchies, masculine values and individual achievements will have fewer female
corporate board directors.

3.3.2. Industry level institutions and women corporate board directors
The role played by industry characteristics in influencing the prevalence of women on the
corporate board of directors is a largely under-explored area. Institutional theory with
respect to industry is often applied to what are called institutional fields. Institutional fields
are broader than industries, including “those organizations that, in aggregate, constitute a
recognized area of institutional life; key suppliers, resource and product consumers,
regulatory agencies and other organizations that produce similar services and products”
(DiMaggio and Powell, 1983, p 143). However, as this research is concerned with
delineating the prevalence of women on the board of major corporations, and not tangential
organizations not in the public commercial domain, and to maintain consistency in the
sampling universe across national boundaries, industry will be relied upon herein to
represent institutional fields. Such an approach has been taken by other scholars in the field
(Fombrun and Shanley, 1990; Rothenberg, 2007).

Industry characteristics have been found to influence a range of facets of corporate
governance, such as board composition (Pfeffer, 1972; Luoma and Goodstein, 1999),
executive compensation (Rajagopalan and Finkelstein, 1992), and industry performance
(Wang et al., 2007). Scholars have only recently begun to investigate the role of industry
characteristics on the incidence of women on the board, despite research establishing that
industry mattered for female board participation some time ago (Elgart, 1983; Harrigan,
1981). Extant research on the influence of industry on gender diversity at board level is
geographically narrowly focused, predominantly centring on the UK and the US. Hillman et al. (2007) researched the effect of firm and industry characteristics on the dominance of female corporate board directors in the US and found that as the proportion of female employees in an industry increased by one percent so too did the chance of there being at least one female on the corporate board of directors. Brammer et al. (2007) reviewed the UK and found that the proportion of women who made up an industry’s workforce was less of a predictor of board diversity than the firm’s proximity to the consumer market, with sectors such as retailing showing a much larger proportion of female corporate board directors than engineering and resource-based firms. The research that has focused on the role played by industry in accounting for women’s prevalence on the corporate board to date has made important strides in ascertaining that firm behaviour at the industry level is a facet of the institutional landscape worth exploring in piecing together the jigsaw on why women prevail in positions of power in some firms and not in others.

At the industry level, the regulative pillar is reflected in legislation and governance initiatives that inform firm behaviour covering such areas of operations as environmental management (Child and Tsai, 2005; Hoffman, 1999; Delmas and Toffel, 2004) and stakeholder management (Griffin and Koerber, 2006). The similar response often found by firms in reaction to such governance directives reflects coercive isomorphism (DiMaggio and Powell, 1983; Scott, 1995), which cumulatively engenders a change in industry-wide behaviour. Industries subject to heavy regulation by the state such as utilities and banking are likely to be particularly susceptible to coercive isomorphism (Norman et al., 2007; Mizruchi and Fein, 1999; Schneiberg and Bartley, 2001). Whilst there is no industry-specific regulation the author is aware of that particularly targets board composition in certain industries, research suggests that where the state is a shareholder in listed companies, boards tend to better reflect the wider stakeholder constituency, including that of women (Knudsen and Pettersen, 2006; Grosvold et al., 2007; Randøy et al., 2006; Luoma and Goodstein, 1999). As the implementer and monitor of national laws, one of the state’s roles as shareholder is to ensure that the wider stakeholder constituency they represent, i.e. the electorate, is adequately reflected at the board level. This serves two needs: to legitimate the government’s stand on gender equality and act as role models for board diversity, thereby setting an example for the rest of the industry. Thus, the presence of the state on the shareholder register becomes a driver of coercive isomorphism within the firms in a given industry that are partly state-owned. The role of the state as a
shareholder is thus an important actor in assessing what industry-specific characteristics are likely to build a more gender-balanced board for a given industry.

**Proposition 4: Industries where the state is a shareholder will have a larger proportion of female corporate board directors.**

The normative pillar centres on morally governed social obligations that reflect what actions and behaviours are perceived to be appropriate for a given situation (Scott, 1995). Scott (1995) identifies normative isomorphism as the mechanism by which the normative pillar is transposed. Normative isomorphism “arises from standards created by professionals in an industry…within the same industry, participants would tend to conform to the same standards due to experiential similarities” (Thorsell and Cornelius, 2007, p 5). Trade unions help delineate the industry wide normative values that make up a positive working environment, and negotiate between employees and employers in situations of maltreatment or conflict (Freeman and Medoff, 1984). However, an alternative literature takes a very different view of the role of unions for women employees. From a normative gendered perspective, labour unions are masculine in character, reflecting male values and interests. In particular, trade unions have been influential in restricting women’s access to particular industries with some scholars suggesting labour unions have been instrumental in suppressing the rise of women in certain areas of employment (Caraway, 2006), suggesting trade unions espouse normative values that are unfriendly to women.

Blum et al. (1994) found evidence that the normative context of particular industries influenced the proportion of women in management. Firms in the non-manufacturing sector had more female managers than those firms engaged in production of physical goods. Brammer et al. (2009, 2007) found evidence of a similar pattern in their review of the UK, where women showed above average presence in retail, utilities, media and banking, which are also industries with a large female employee base. In the absence of direct evidence of the effect of normative pressures on the prevalence of women on the board at the industry level, extant research on corporate governance and the role of women in management suggest that boards are subjected to normative pressures (Peng, 2004; Ocasio, 1999), that industry characteristics influence women’s prevalence and reward levels at senior levels (Blum et al., 1994; Shenhav and Haberfeld, 1992) and that industry practices are subjected to normative isomorphism, cumulatively indicating that
understanding how the normative pillar at the industry level impacts on the prevalence of women on the board would narrow a substantial gap in the current knowledge of gender, boards and industry.

*Proposition 5: Industries that are less unionised and have more female employees will have a larger proportion of female corporate board directors.*

The existence of industry-specific cultures is well established in the literature (Christensen and Gordon, 1999; Chatman and Jehn, 1994; Phillips; 1994). Extant research has not explored the role of cultural-cognitive elements at the industry level as an influence on the gender composition of corporate boards. However, the established link between corporate boards, culture and cognition (Laurila and Ropponen, 2003; Ocasio, 1999) and the impact culture has on women’s position in a given industry (Gale, 1994; Miller, 2004; French and Strachen, 2007) suggests research at the juncture between board demography, gender and industry culture may potentially offer beneficial insights into understanding industry wide patterns of female corporate board representation.

An industry culture in an institutional perspective can be considered as the organisational expression of institutional attitudes, beliefs and values (Christensen and Gordon, 1999). Research has shown that firms within a given industry tend to emulate each other, adopting practices and cultural values and strategies from peer companies, which results in what has been described as a ‘shared mindset’ within an industry (Phillips, 1994; Christensen and Gordon, 1999). Evidence suggests the mechanism that engenders the industry-wide adoption of cultural structures across firms is isomorphism (DiMaggio and Powell, 1983; Carpano et al., 2003). Budros (1997) found evidence of industry culture directly impacting the adoption of down-sizing programmes across the industry. Westphal et al. (2001) investigated the degree to which corporate board ties facilitated the adoption of board process across corporate boards and found evidence of mimetic industry isomorphism, whereby board network ties facilitated the adoption of similar board processes within an industry. Similarly Ocasio and Kim (1999) established that industry isomorphism accounted for the CEO succession pattern observed in certain industries. At the industry level, the prevailing industry culture and views on women by firms within a given sector have been found to impact on whether women acquire positions of power (Gale, 1994; Miller, 2004; French and Strachen, 2007). Academic literature has thus established that
industry culture and industry isomorphism play a role in the adoption of industry-wide practices and in the composition of the top management team, suggesting:

_P6: The cultural characteristics of a given industry will influence the degree to which women are found on the corporate board of directors._

### 3.3.3. Firm-level institutions and women corporate board directors

Scott’s (1995) synthesis of institutional theory as adopted here stresses the emphasis on rules, regulations, power and coercion in the regulative pillar. In the context of firm behaviour, regulatory frameworks do not encompass only one individual firm. Whether the corporate governance and regulatory frameworks are ‘soft-law’ initiatives such as corporate governance codes mandated by, for example, stock exchanges, or statutes of law such as the Sarbanes-Oxley 2002 framework, these regulatory structures do not encompass only a single firm. All firms operating in the sphere under the influence of the particular regulatory structure will be affected. It therefore becomes difficult to discuss the regulative pillar at the firm level, as no law or rules-based corporate governance framework applies only at the firm level; rather it would apply at industry or national level, both of which have been discussed above. Scott (1995) does suggest that the regulative pillar is the most widely applicable of the three pillars as it outlines how “Institutions constrain and regularize behaviour…regulative processes involve the capacity to establish rules, inspect or review others’ conformity to them, and as necessary, manipulate sanctions” (p 35), and states that such regulative processes may be of a formal or informal nature. This does open up the theoretical possibility that a firm can stipulate board-specific behaviour which can be monitored internally by the individual firm. It also makes it possible that the court could order an individual firm to recruit more female corporate board directors; however, given the prevalence of national and industry-wide governance frameworks, legislation and guidelines, it is suggested such initiatives particular to the firm are not widespread, and what is more they would be very difficult to study.

Although rules and regulations encompassing board structure, behaviour, composition and remit are sanctioned at the national or industry level (Luoma and Goodstein, 1999; Baysinger and Hoskinsson, 1990; Allen, 1974; Hermelin and Weisbach, 1988), the compliance with and associated impact of particular corporate governance mechanisms which are voluntary in nature can be observed at the firm level. To complete the nested
research agenda put forth in this conceptual development, an assessment of the cultural-cognitive and normative pillar in the context of board appointments should be evaluated. To that end, the next section discusses the firm-level normative research agenda item for the prevalence of women on the board, before the cultural-cognitive pillar is covered.

The normative pillar at the board level is reflected in routines, a sense of conformity to ascribed roles and a performance of duty. To establish role conformity, routines and duty takes time. The importance of time for the structure, composition and performance of the corporate board of directors has been established in academic literature. The notion of time may take on a number of guises in the literature, be it conceptualised as director tenure and timing of board appointments (Salancik and Pfeffer, 1980; Hermalin and Weisbach, 1988; Johnson et al., 1993; Westphal and Zajec, 1995), contemporaneous or lagged effect on performance arising from board restructuring (Baysinger and Butler, 1985), temporal association between negative firm events and changes to the corporate board composition (Arthaud-day et al., 2006), or the age of corporate directors (Hambrick and Mason, 1984; Westphal and Zajac, 1995). From a normative perspective, of particular importance to the study of women’s prevalence on the corporate board is the role time plays in enabling or preventing women from acquiring corporate board directorships.

Executives’ age has been found to influence a number of important firm level outcomes. Hitt and Barr (1989) found that younger managers were more generous in their remuneration of employees, whilst Rhodes (1983) showed that older managers were more risk averse, a finding that echoed earlier work by Vroom and Pahl (1971) and which was reinforced in an executive context through research carried out by Hitt and Tyler (1991). Westphal and Zajec (1995) investigated the role of board directors’ age in the context of demographic similarity on corporate boards and found that board directors recently recruited to the board were of a very similar age to the incumbent CEO. Wagner et al. (1984) posited that directors of a similar age share common professional and non-professional bonds, and through these bonds developed a shared set of values.

Increased demographic diversity at the board level has been associated with a number of advantages such as improved decision-making, a lid on executive pay and improved financial performance (Erhardt et al., 2003; Westphal and Zajac, 1995). These performance improvements have been linked with diverse boards engaging in a more robust line of
questioning, more thorough discussion and analysis of results and a lessened risk of groupthink (Burke, 1997; Ray, 2005; Brammer et al., 2009). However all of these advantages depend on directors’ ability to draw on their diverse experiences, speak up and make their viewpoint heard during board meetings. Difference in age has been found to be a salient demographic characteristic sufficient to engender self-categorization with individuals of a similar age, and out-group biases towards those in a different age bracket (Westphal and Zajac, 1995; Hitt and Tyler, 1991). Out-group bias has a negative impact on working groups where the person assigned to the out-group category is subjected to stereotypical attitudes and may find their views and opinions dismissed.

The normative pillar is concerned with the notion of roles. Roles specify particular patterns of appropriate behaviour for an individual in a given situation. Extant institutional theory on corporate boards, anchored in sociology, finds evidence of such roles at work within the corporate board of directors. Westphal and Khanna (2003) identified clearly defined normative patterns of behaviour which board directors were expected to adhere to in dealing with sensitive situations at board level. Directors who were found not to comply with their perceived pre-defined role were subjected to social distancing by other board directors and might find their future directorial ambitions thwarted. Similarly, Westphal and Stern (2007) researched whether any particular form of boardroom behaviour was more conducive to assisting incumbent directors acquiring further board directorships and found evidence that directors who adopted a role aimed at monitoring and control were less likely to acquire new directorships as quickly as those who offered advice and counsel. Furthermore, directors who “flattered” peer directors accelerated their chances of subsequent board appointments. The effect was less pronounced for women and ethnic minority directors than white males. The authors concluded that directorial labour markets “reward high levels of social influence behaviour to a greater extent than they reward behaviour that is believed to contribute to effective corporate governance” (p 284). Similar results were uncovered by Westphal and Stern (2006) cumulatively giving credence to the belief that corporate board directors face particular blue-prints for behaviour in their role as corporate board directors, and that while both men and women in principal inhabit the same role as directors, there are subtle differences in what is required from the role depending on whether the actor is male or female. This led Mavin (2008) to argue women’s price for board participation is quiet obedience and adherence to masculine behavioural patterns and habits, and in their obedience to such norms, women forego the
opportunity to offer their contribution to the running of the firm and upholding shareholder interests. Furthermore, as women directors tend to be younger than male directors (Sheridan and Milgate, 2005; Singh and Vinnicombe, 2003), there is a danger that if they are appointed to the board, their age as well as their gender counts against them, and the widespread role pattern observed at board level, where decisions are deferred to the CEO or nodded through by the board may persists.

Research to date suggests that older corporate board directors often develop similar norms, values, working practices and views (Westphal and Zajac, 1995; Johnson et al., 1993). In part, these come from the clearly defined, though arguably not explicitly articulated, roles and in part are a result of conformity and homogeneity in behaviour developed over time. This conformity to roles and homogeneity in outlook does not favour women corporate board directors.

Proposition 7: Boards with higher average age have a smaller proportion of female corporate board directors.

At the firm level, the cultural-cognitive pillar is associated with firm- and boardlevel culture, which has been found to be a contributory factor to board decision-making (Grady, 1999; Van den Berghe and Levrau, 2004; Cutting and Kouzmin, 2002). At the corporate board level culture is captured, reflected and manifested in board routine, taken-for-granted behavioural patterns and the adherence to established routines and scripts by sitting, predominantly male, directors (Westphal and Stern, 2007; Galaskiewicz and Wasserman, 1989; Ocasio, 1999; Westphal and Milton, 2000).

The cultural-cognitive pillar reflects the individual’s perception of what is a culturally supported and correct response in a given situation. To that end, scholars researching women’s role on the board and conceptions of the cultural-cognitive pillar have uncovered that women adjust their board room behaviour in line with their own perception of their status on the board and what they believe is expected of them (Wicks and Bradshaw, 2000). Research further suggests that women may feel that their different experiences and frames of reference make them unable to join in “the gossip” (Selby, 2000, p 242) with male board colleagues and can in extreme cases experience a sense of alienation (Watts, 2007). Reflecting the idea that board directors are male and the innate ‘taken-for-granted’
The nomination committee is a standing committee of the corporate board of directors, comprising a subset of the boards’ directors and tasked with combating director selection that leads to demographically similar boards and instead ensures board selection is based on merit and made with a view to identifying individuals who embody the skills and competencies the board requires. Whilst nomination committees have been used by some corporate boards for some time (Harrison, 1987; Stiles and Taylor, 1993), the instrumentality of the nomination committee in appointing a diverse board has only come to the fore in recent years, when business scandals have raised serious questions around excessively homogeneous boards and the manner in which board appointments are made (Higgs, 2003). Whilst not generally legally mandated, the use of nomination committees is increasingly considered best practice and key to ensuring boards appoint beyond the “white males nearing retirement age with previous PLC director experience” (Higgs, 2003, p 42). The Higgs Review in its recommendations of corporate governance best practice, did not suggest the nomination committee would solve the prevailing gender inequality at board level, but the increased use of the nomination committee was expected to address some of the problems inherent in advancing women’s role on the corporate board.

Institutional research has already established links between the instigation of committees for achieving employee diversity goals within organisations and an improved situation for minorities (Kalev et al., 2006). Extant literature on corporate board appointments has further established that a process exists whereby ‘like appoint like’ a process known as homosocial reproduction. Homosocial reproduction was a term popularised by Kanter (1977) who found evidence of men appointing other men demographically similar to themselves into positions of influence and power, a process which is likely to hinder, or make it difficult for women to attain senior managerial positions (Elliot and Smith, 2004). In particular Westphal and Stern (2006) found evidence of homosocial reproduction amongst their sample of corporate board directors. Directors who lacked elite educational credentials which was a source of homosocial reproduction had to make up for it with ingratiatory behaviour towards incumbent directors. As homosocial reproduction has been
found to play a role in board appointments, combining the role played by it in enabling or restraining women from acquiring board directorships with the perceived benefits of a nomination committee should offer a view of whether this corporate governance mechanism successfully addresses the problem of excessively homogeneous boards, or whether institutionalised views at the individual level prove a stronger influence on board appointment decisions.

The nomination committee as a vehicle for engendering more gender-diverse corporate boards of directors remains under-explored in the extant research on women on the corporate board of directors. Institutional pressures for compliance and legitimacy in a corporate environment plagued by scandals and facing some of the toughest market conditions seen in generations should indicate that firms cannot afford to ignore available directorial talent, nor can they afford to be seen as not adhering to what the industry perceives as the legitimate course of action thus proposing:

**Proposition 8:** The prevalence of women on the corporate board of directors will be influenced by whether the board relies on the nomination committee structure for identifying potential board candidates or whether it uses the incumbent board directors’ contact network.

In aggregate, these propositions constitute a coherent conceptual framework that articulates a multi-level view of the institutional influences on women board directors. Diagram 3.3 is informed by Scott (1995) but reflects a summary of the framing developed in this chapter

**Figure 3.2 Summary of theoretical framework informed by Scott (1995)**

<table>
<thead>
<tr>
<th>Pillar</th>
<th>Regulative</th>
<th>Normative</th>
<th>Cultural</th>
</tr>
</thead>
<tbody>
<tr>
<td>National level</td>
<td>Governance, political attitudes and political power</td>
<td>Religion &amp; education</td>
<td>National culture</td>
</tr>
<tr>
<td>Industry level</td>
<td>State shareholding</td>
<td>Labour union &amp; female employee base</td>
<td>Industry dynamism</td>
</tr>
<tr>
<td>Firm level</td>
<td></td>
<td>Age</td>
<td>Homosocial-reproduction</td>
</tr>
</tbody>
</table>
3.4. Chapter summary

This chapter has reviewed the disciplinary foundations of institutional theory, outlined Scott’s (1995) institutional framework and applied the framework’s logic to the topic of the prevalence of women on the board. The resulting research framework effectively addresses the multi-level influence on the prevalence of women on the corporate board of directors, covering national, industry, firm unit and individual level factors affecting the gender balance of the board. Systematically pursuing such a research programme will generate a nuanced view of what the major levers are for increasing board level diversity in a multi-country setting. The inherent flexibility offered by Scott’s (1995) synthesis of institutional theory offers two distinct advantages to the study of female board directorships: firstly, it engenders research that can explore influences on women’s board participation across a range of levels of institutional influences, whether they occur at the national, industry, firm, firm sub-unit or individual level. Secondly, given the rich heritage on which Scott’s (1995) pillars of institutional theory is built, it is applicable to a wide range of research questions and can help illuminate a given research question from multiple angles.
METHODOLOGY AND RESEARCH STRATEGY
4. Methodology and research strategy
This chapter will describe and justify the research approach and method adopted in addressing the research opportunities that were identified in chapter 2 and further elaborated on and conceptualised in chapter 3. This chapter will not cover the details of the methods employed and samples used in the individual empirical studies conducted in the course of this thesis; such information will be provided alongside the study in each empirical chapter. Here, the intention is to provide a broad overview of how the research was carried out and why. This chapter has three objectives: first, to explain the cross-national and multi-level research strategy adopted in this thesis; secondly, to discuss the characteristics of cross-national, multi-level research; and thirdly, to outline the data collection strategy. Before turning to the research strategy some terms of reference are defined as they related to the research presented in this thesis.

Notes on terms of reference
In referring to women or female board directors no distinction is made between whether they are executive directors and consequently employed by the firm on a day-to-day basis or whether they are non-executive directors, appointed to the board for their expertise. Furthermore, where employees are represented at the corporate board through board members selected by the employees from the firm’s rank and file workers, these employee board representatives are treated as equal to other executive directors, on the basis that they are expected participate fully in the board’s work.

The terms ‘non-executive director’ and ‘outside director’ will be used interchangeably to denote a director who is voted in to sit on the corporate board for a defined period of time, and who is not a day-to-day employee of the company.

Similarly, the two terms ‘executive director’ and ‘inside director’ will be used interchangeably. Both terms refer to a director who is employed by the company on a day-to-day basis and who is usually on the board as a result of holding a position within the company that confers board membership such as Chief Executive Officer (CEO) or Chief Financial Officer (CFO). Where countries made extensive use of employee representatives, these were considered to be executive directors, as they were employed by the company on a day-to-day basis.
In reviewing extant literature on women board directors, no distinction is made between sex and gender. In common with most of the literature on female board representation, where the term “gender” is used, it is taken to denote the observable male and female sex characteristics at board level rather than the unobservable personality characteristics attributed to each sex (Singh and Vinnicombe, 2004; Erhardt et al., 2003).

4.1 The research strategy

The research strategy adopted for this thesis is justified on the basis of the empirical research objectives articulated in chapter 1. These reflected two important empirical concerns, which centred firstly on establishing a clear and broad view of the pattern of international variation in the prevalence of women on the board, and secondly, on empirically testing the relevance of national, industry and firm-level institutional influences on the prevalence of women on corporate boards. To fulfil both these objectives, the research strategy had to be cross-nationally focused and suited to multi-level research to take account of the broader context in which firms operate. In the context of the existing literature on female board directors as extensively explored in chapter 2, adopting a comparative, multi-level research approach is important to shed further light on why women ascend to the upper echelons of corporate power in some settings and not in others. To validate further the research strategy adopted, and to place the strategy in its wider empirical context, it is helpful to understand what the methodologically dominant perspectives have been in the literature to date. This helps clarify what the research strategy used in this research adds from a methodological perspective.

As discussed in chapter 2, a large stream of research of a substantively descriptive nature has provided, and continues to provide, an influential body of work in the domain of women on the corporate board. These studies tend to report descriptive details such as the percentage and mean number of female corporate board directors (for example, Conyon and Mallin, 1997; Singh et al., 2001; Singh and Vinnicombe, 2004; Arfken et al., 2004), and offer vivid illustrations of national trends in female corporate board participation.

A second body of research has empirically explored elements impacting on, and impacted by women board directors. Table 4.1 summarises some of the common methodological choices made in this literature. Popular research approaches include logistic regression
analysis (Hillman et al., 2007; Westphal and Stern, 2007; Terjesen and Singh, 2008; Bilimoria and Piderit, 1993; Peterson and Philpot, 2007), chi-square (Hillman and Cannella 2002; Kesner, 1988; Zelechowski and Bilimoria, 2004), time series analysis (Francouer et al., 2008; Farrell and Hersch, 2005), survey research (Burke, 1997; Sheridan and Milgate, 2003, 2005; Sheridan, 2001) as well as other less pervasive methods (Adams and Flynn, 2005; Brammer et al., 2007). These studies do not represent the sum total of empirical studies on female corporate board directors, but they do represent some of the central works in the field, and, as such, serve as a valid illustration of the methodological avenues pursued to date in research on female corporate board directors.

Table 4.1 highlights three important methodological characteristics of research on women board directors to date. Firstly, the samples used are drawn from a comparatively small cluster of countries; and some of these countries have been subjected to extensive empirical scrutiny, with 65% of the studies listed focusing on North America and the UK. This means much of our understanding of women’s place on the corporate board comes from an Anglo-American context. Given the persistent differences in the rate of female board participation discussed in chapter 2, and as literature suggests, and subsequent empirical chapters will show; findings from one institutional context are not always transferable to another institutionally distinct environment. Broadening the sample frame to include more countries is therefore vital (Peng et al., 1991; Adler, 1983). The second important methodological observation is the finding that research on women corporate board directors is largely based on relatively small samples. Over thirds of the studies listed in table 4.1 relies on fewer than 500 observations, including one third that relies on samples of less fewer 100. In general, empirical analysis that relies on larger samples is considered to offer more statistical power (Robson, 2002; Maxwell, 2000). Lastly, it is evident from table 4.1 that regression analysis is a favoured methodological approach in research on female board directors. Chapters 6 and 7 of this thesis employ regression analysis, and the popularity of this approach in extant research means the studies presented herein not only follow in a well established tradition, but also means that the result of the research conducted herein can easily be placed in a meaningful comparative research context. Conversely, it is also clear from table 4.1 that no study to date has adopted a matched pairs analysis approach to any element of research of women on the board. The use of a matched pairs design in chapter 8 therefore represents a distinct methodological contribution to research on the prevalence of women on the board.
<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Journal</th>
<th>Research objective</th>
<th>Method</th>
<th>Sample country</th>
<th>Time frame</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams, S.M. and Flynn, P.M.</td>
<td>2005</td>
<td>Corporate Governance International Review</td>
<td>Consider status of women on the board for firms in Massachusetts</td>
<td>ANOVA</td>
<td>Regional, US</td>
<td>Cross-sectional</td>
<td>815</td>
</tr>
<tr>
<td>Hillman, A.J. and Cannella, A.A.</td>
<td>2002</td>
<td>Journal of Management</td>
<td>Investigation of how the characteristics of women and racial minority board directors differ from that of their white male colleagues</td>
<td>Chi-square</td>
<td>US</td>
<td>Longitudinal</td>
<td>275</td>
</tr>
<tr>
<td>Kesner</td>
<td>1988</td>
<td>Academy of Management Journal</td>
<td>Study of the occupation, type, tenure and gender characteristics of corporate board committee members</td>
<td>Chi-square</td>
<td>US</td>
<td>Cross-sectional</td>
<td>250</td>
</tr>
<tr>
<td>Ruigrok, W., Peck, S. and Tacheva, S.</td>
<td>2007</td>
<td>Corporate Governance: An International Review</td>
<td>Analysis of the interaction effect between board members' gender and nationality with board independence and size of Swiss boards</td>
<td>Chi-square</td>
<td>Switzerland</td>
<td>Cross-sectional</td>
<td>210</td>
</tr>
<tr>
<td>Brammer, S., Millington, A. and Pavlin, S.</td>
<td>2007</td>
<td>Corporate Governance International Review</td>
<td>Investigate ethnic and gender diversity of corporate boards, placing emphasis on links to board size and industry characteristics</td>
<td>Correlation analysis</td>
<td>UK</td>
<td>Cross-sectional</td>
<td>4,272</td>
</tr>
<tr>
<td>Bilimoria, D. and Piderit, S.K.</td>
<td>1994</td>
<td>Academy of Management Journal</td>
<td>Assess whether women lack the required experience for board committee membership or whether they are discriminated against</td>
<td>Regression analysis</td>
<td>US</td>
<td>Cross-sectional</td>
<td>250</td>
</tr>
<tr>
<td>Campbell, K and Minguez-Vera, A</td>
<td>2007</td>
<td>Journal of Business Ethics</td>
<td>Investigate link between gender diversity on the corporate board of directors and firm performance</td>
<td>Regression analysis</td>
<td>Spain</td>
<td>Cross-sectional</td>
<td>68</td>
</tr>
<tr>
<td>Harrigan, K.R.</td>
<td>1981</td>
<td>Academy of Management Journal</td>
<td>Relevance of board structure and industry for prevalence of women on the board</td>
<td>Regression analysis</td>
<td>US</td>
<td>Cross-sectional</td>
<td>112</td>
</tr>
<tr>
<td>Author</td>
<td>Year</td>
<td>Journal</td>
<td>Research objective</td>
<td>Method</td>
<td>Sample country</td>
<td>Time frame</td>
<td>N</td>
</tr>
<tr>
<td>---------------------------------------------</td>
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</tr>
<tr>
<td>Peterson, C. and Philpot, J.</td>
<td>2007</td>
<td>Journal of Business Ethics</td>
<td>Study the presence of women on the board and assess board committee roles for female corporate board directors</td>
<td>Regression analysis</td>
<td>US</td>
<td>Cross-sectional</td>
<td>487</td>
</tr>
<tr>
<td>Westphal, J.D. and Stern, I</td>
<td>2007</td>
<td>Academy of Management Journal</td>
<td>Assess likelihood of currently serving board directors attaining subsequent directorships based on interpersonal behavioural patterns</td>
<td>Regression Analysis</td>
<td>US</td>
<td>Cross-sectional</td>
<td>760</td>
</tr>
<tr>
<td>Terjesen, S. and Singh, V.</td>
<td>2008</td>
<td>Journal of Business Ethics</td>
<td>Assess role played by national context in promoting women to the corporate board of directors</td>
<td>Regression analysis</td>
<td>Various</td>
<td>Unclear</td>
<td>43</td>
</tr>
<tr>
<td>Burke, R.J.</td>
<td>1997</td>
<td>Corporate Governance: An International Review</td>
<td>A study of women's views on selection and benefits of serving as corporate board directors</td>
<td>Survey</td>
<td>Canada</td>
<td>Cross-sectional</td>
<td>280</td>
</tr>
<tr>
<td>Sheridan, A.</td>
<td>2001</td>
<td>Corporate Governance</td>
<td>A survey of women's experience of accessing board directorships and serving on the board of directors</td>
<td>Survey</td>
<td>Australia</td>
<td>Cross-sectional</td>
<td>46</td>
</tr>
<tr>
<td>Sheridan, A. and Milgate, G.</td>
<td>2005</td>
<td>Corporate Governance: An International Review</td>
<td>Reports on what male and female corporate board directors deem to be important factors in attaining corporate board directorships</td>
<td>Survey</td>
<td>Australia</td>
<td>Cross-sectional</td>
<td>97</td>
</tr>
</tbody>
</table>
The geographic concentration reflected in the literature review and reinforced in the summary of sampling frames presented in table 4.1, underlines the need to broaden the scope of countries included in studies of the gender composition of corporate boards to gain a better sense of why there is such large variation in women’s share of corporate board directorships. Collectively, the literature review in chapter 2, the conceptual framework developed in the previous chapter, and the illustration of the type of statistical studies that dominate the field outlined in table 4.1 point to the need for a nested, cross-national research agenda that is multi-level in scope and method. The next section will address the second objective of this chapter and discuss the characteristics and methodological issues that may arise in such research.

4.2 Research characteristics

Cross-national research

As the research in this thesis is concerned with cross-national comparison, it is important to note that while particular aspects of board composition and structure may vary across countries, for example countries like Germany and Norway frequently have staff representatives on their board of directors whilst the US and the UK do not (Weimar and Van Pape, 1999), many of the major functions of boards are shared across countries. Specifically, boards are generally responsible for setting strategic objectives, leading and managing the organisation so that those objectives are met, and reporting to shareholders and other stakeholders concerning the performance of the business. Consistent with this view, Epstein and Roy (2004) point out that “most agree that the board has a fiduciary duty to represent the corporation’s interest in protecting and creating shareholder value and must determine whether the company is managed well to achieve long term success” (Epstein and Roy, 2004, 3). The commonality in many of the board’s responsibilities, processes and roles and the observation by Demb and Neubauer (1992) that “boards in different countries are more similar than they are different “ (p 9) validate the study of boards in different geographical contexts (Epstein and Roy, 2004; Forbes and Milliken 1999; Demb and Neubauer, 1992). The term “corporate board” will be used throughout the thesis to refer to a firm’s highest decision-making body, following Louden (1982), Abdullah (2006) and McKoy (2006).
Adopting a research strategy that includes a larger range of countries and assesses macro, meso and micro influences on the prevalence of women on the corporate board of directors offers two distinct advantages. Firstly, cross-national research helps explain the relative role played by national institutional factors in furthering women’s place on the board. It can give an indication of the degree to which country-specific institutional constellations work in women’s favour or not when compared with other countries. Comparative research may also provide some broad generalised findings relevant beyond the immediate parameters of the study (Brislin, 1976).

Cross-national, also called comparative research can cover anything from two to a hundred or more countries (Kohn, 1987). Cross-national research originated in the US in the 1950s and has steadily grown in importance and popularity since then (Negandhi, 1975; Hantrais, 1999). Comparative studies are generally concerned with describing or explaining a social phenomenon with reference to the national environment in which the phenomenon occurs, and offer particular benefits to research concerned with explaining between-country disparities. Comparative research has risen in popularity since its inception in the 1950s, and is now a recognised and widely employed research approach, particularly in the social sciences (Hantrais, 1999; Elder, 1976). Political science and sociology, in particular, have used comparative research of this kind to great effect, and the last two decades have seen a similar rise in the use of cross-national research in management studies (Schollhammer, 1969; Cheng, 1982; Peng et al., 1991; Baxter and Kane, 1995, Pedersen and Thomsen, 1997; Cullen et al., 2004; Parboteeah et al., 2008). Cross-national research has also been used in corporate governance research to understand such matters as variations in CEO remuneration (Otten and Heugens, 2008; Tosi and Greckhamer, 2004), hostile takeovers and shareholder protection (Schneper and Guilén, 2004) and ownership concentration and firm performance (Gedajlovic and Shapiro, 1998). However, very little cross national research has been conducted into women’s presence on the corporate board of directors.

In its widest sense, cross-national research includes any study that transcends country borders (Kohn, 1987). However, the more specific view of cross-national studies, which reflects a broader and more operationalised view of the research approach, is characterised by Hantrais (1999) as the desire to “observe social phenomena across nations, to develop robust explanations of similarities or differences, and to attempt to assess their
consequences, whether it be for the purpose of testing theory, drawing lessons about best practice, or more straightforwardly, gaining a better understanding of how social processes operate” (p 93). Kohn (1983) identifies four distinct types of cross-national research: those studies that see the country as the object of study, those studies that use country as context for study, those that use countries as units of analysis, and lastly those studies that are transnational in character. Kohn (1983) concedes that some of these distinctions are less clear; however, the difference between the various types of cross-national studies centres on whether the country is studied with a view to understand something about the particular country (country as unit of analysis and country as object of study) compared to its neighbour, or whether the emphasis is on understanding of national context impacts on a given phenomenon (country as context), or whether it is to evaluate the role of a given country as a part of a larger international system. This thesis takes the view of country as context for the empirical research presented in chapter 6 and 7. This is appropriate given that the objective of the research is to understand the relative influence of institutional context on the prevalence of women on the board in a global perspective, rather than how, for example, Germany compares with France. The descriptive study presented in chapter 5, however, adopts an approach more akin to country as object of study, as the emphasis in this chapter is to highlight salient patterns of the prevalence of women on the board across countries.

Comparative research of the kind conducted in this thesis is perhaps of particular importance to scholarship that has largely focused on the Anglo-American sampling universe of female corporate board directors. Adler (1983) highlighted the dominance of US-centred research in the management literature, pointing out that the most prevalent types of studies were conducted in the US by Americans, a finding largely echoed by Peng et al. (1991). Peng et al. (1991) noted the continued preponderance of US-based empirical studies in their review of cross-national research, and concluded that scholars had failed in their duty to provide research of a cross-national nature that appealed to the international stakeholder community to which business related. The authors pointed out that “a primary emphasis in all management theory testing must be on its meaningfulness in a global perspective” (Peng et al., 1991, p 104). Sampling and testing the same universe of directors will only provide limited explanation of the observed patterns of gender composition at the board level. Only by extending research to incorporate more countries, can extant research
Cross-national research is an opportunity to explain variability in outcomes across countries given that “variation in the factors of greatest interest is greater across countries than within any single country” (Sochalski and Aiken, 1999, 258).

A further advantage offered by cross-national research is the opportunity to generalise (Brislin, 1976). Such generalizations highlight principles of generic management practice. To that end, cross-national studies in the scholarly management literature have offered generalised views on national culture and impact on CEOs’ management styles (Peterson, 1972), of national cultural identity (Hofstede, 1983), the impact of culture and social institutions on condoning unethical managerial behaviour (Cullen et al., 2004), and institutional influences on managerial gender perceptions (Parboteeah et al., 2008). Quantitative research often seeks to establish results that can be generalized beyond the confines of a given study, and in this regard cross-national research has a particularly important role to play. As Kohn (1987) pointed out, only by undertaking a study across national contexts can research establish whether empirical findings from one national setting truly represent a more universal phenomenon, rather than the results of national, historical or situational particularities. Two particular kinds of cross-national research have dominated the literature to date: on the one hand a case study approach comparing a given phenomenon in a small number of countries, on the other hand large-scale statistical analysis comparing a larger number of countries (Lieberman, 2005). The case study approach often relies on individual level, detailed data as its analytical foundation. These studies are often also culturally anchored, suggesting national culture is uniquely influencing the phenomena and consequently findings cannot be generalised (Hantrais, 1999). Large sample studies relying on aggregated national level variables on the other hand, mean that a “much broader range of comparisons can be made: comparisons of political and economic systems, of cultures and social structures. Any comparisons we make within a single country are necessarily limited to the one set of political, economic, cultural and historical contexts represented by that particular country” (Kohn, 1987, p 725).

Despite the many benefits of cross-national research, researchers have identified a number of challenges inherent in carrying it out. Comparative research seeking to generate
generalised results has been accused of being simplistic and offering insufficient depth of analysis. Jackman (1985) counters this criticism, arguing “our goal is not to generate “comprehensive” descriptions, but rather to develop probabilistic generalizations” (p 166). To explore national level phenomena such as wealth, quality of life or education it is necessary to aggregate data from the individual level to the national level. Failure to aggregate would lead to statistical modelling problems, and even if modelling was possible, interpreting the results would prove onerous. However, in aggregating data, finer more granular distinctions are lost (Jackman, 1985). Hofstede’s (1983) cultural framework is an example of where individual level responses were collated and aggregated to national level variables. His framework suggests that, a person from Spain is likely to view the role of men and women in society as more different than a person from Sweden. However, a discussion with a person from either country might reveal an attitude contrary to that suggested by Hofstede’s framework. It is therefore important to recognise that aggregated measures are not exact replications of lower level variables (Hofstede, 1980; 1983; Brislin, 1983). An inherent trade-off in conducting cross-national analysis is losing empirical nuance in exchange for probabilistic generalizations (Brislin, 1983). However, there is a danger that excessive aggregation leads to less meaningful analysis, leading Blalock (1964) to observe that the issue was not whether, but just “how much to oversimplify reality” (p 8). Such issues of data aggregation may become more acute where the aggregated measure relies on individual survey responses or interviews and where researchers aim to turn qualitative response into quantitative measures (Adler, 1983; Hofstede 1980, 1983) that quantify constructs such as national level social institutions. Whilst some of the empirical studies in this thesis use Hofstede’s cultural values which rely on qualitative data that has been aggregated, the majority of the variables are macro, meso or micro indicators derived from numeric measures and statistical sources that are generally not drawn from individuals’ views or opinions. Consequently, a review of the challenges associated with qualitative research will not be discussed; rather the remainder of this discussion will focus on issues associated with quantitative measures only.

Cross-national studies are a useful tool in management research; however, whilst quantitative comparative studies can account for some auxiliary factors by the inclusion of error terms or dummy variables, there will always be real life events and factors that are not included. Statistical modelling can seldom, if ever, replicate the real world with
complete accuracy, but can make useful inferences from it. Causality cannot be empirically established (Jackman, 1985), which is why quantitative research relies on making causal inferences rather than empirical absolutes. “What we may observe are regularities or correlations, and, on the basis of prior theory and research, we may then try to place causal interpretations [original italics] on those observations” (Jackman, 1985, p 172). Jackman further suggests three reasons why causality cannot be definitely proved: firstly, as mentioned above, statistical methods can only model so much of real life, research can never be completely certain all factors have been considered. Secondly, research very rarely tests a full theory, “instead we focus empirically on some of the implications [original italics] of a theory” (Jackman, 1985, p 172). And finally, Jackman suggests that an articulated theory will always be richer than the quantitative method employed to test it can capture. If research is well considered and thoughtfully carried out, theory and research can come close to paralleling one another, however there will always be nuances, auxiliary elements and assumptions that can never be adequately reflected in the research. The cumulative impact of these issues of causality on the research contained herein is that whilst the studies have been carefully planned and conducted, they can only, as Jackman (1985) suggested, make theoretically informed inferences of the institutional influences on the prevalence of women on the corporate board of directors.

Cross-national research has developed from its inception in sociology and political science to become a potent research method for management research. Comparative research methods have been successfully applied to a range of management phenomena which has furthered extant understanding of managerial practices globally. Two major advantages afforded researchers using cross-national research are the ability to better explain the phenomenon under study and to generalise findings. However, generalisations and explanations of this nature are not panaceas, but can help make substantial inroads in empirical understanding that it would not be possible to achieve from a single-country study.

This section has highlighted the definition and origin of cross-national research and identified some of the challenges and opportunities afforded researchers who engage in comparative enquiry. The next section discusses multi-level studies.
Multi-level studies
Multi-level studies emerged in response to the realisation that the extant studies in management research had either been conducted at the micro, or the macro level and more complete insights and better research could come from considering multiple levels concurrently (Roberts et al., 1978). Despite an increased popularity of multi-level methods, as reflected in the decision of premier journals like the Academy of Management Journal to dedicate a special issue to the topic (Hitt et al., 2007), an exact definition of the research approach is hard to pin down. Diez-Roux (2000) described it as an “analytical approach that allows the simultaneous examination of the effects of group-level and individual-level variables on individual level outcomes” (p 171). Although this does capture much of what multi-level analysis is about, it seems to suggest that multi-level studies are only really suitable for research concerned with individual level outcomes and not individuals in groups. Some further common themes of what multi-level analysis is can be found in the literature. Specifically, three elements are persistently highlighted: firstly, multi-level research recognises the nested nature of social research phenomena; secondly, multi-level research offers better, more robust and nuanced explanations for the object under consideration; finally, multi-level study can successfully contribute to bridging the divide between macro and micro based research (Klein et al., 1999; Klein and Kozlowski, 2000; Hitt et al., 2007). The nested element of multi-level research refers to the observation that in humanities research, the object of study is frequently nested in a hierarchy of contextual influences. A corporate board director is nested within a company, which is nested within an industry. This recognition is important and relates to the other two facets of multi-level analysis. Firstly, by making the interrelated nature of social groups explicit, research can no longer ignore the wider contextual environment within which boards operate. By taking account of this wider environment research can begin to consider contextual variables and using appropriate multi-level analysis to better understand the role played by variables at different levels in the hierarchy. Such results should then provide better explanations and more robust accounts of what influences and drives the object of the study. Secondly, by including macro and micro level variables in a single model, the persistent gap between macro and micro scholarship begins to narrow. This thesis is therefore multi-level in two regards. It approaches the study on women on the board in a nested perspective, and through a series of linked studies shows how different levels of societal analysis impact on the prevalence of women on the board. This thesis is also explicitly multi-level in that
chapter 7 conducts a fixed effect multiple regression analysis into the relative explanatory value of national, industry and firm-level institutional characteristics.

Examples of studies that have used multi-level methods to great effect include Doidge et al. (2007) evaluation of the role played by country institutions for corporate governance practices, Martin et al.’s, (2007) assessment of the influence of national culture and institutional drivers in explaining cross-national variation in the propensity to bribe, and Meyer and Goes (1988) contextual analysis of whether environment and organisational factors influence the assimilation of innovations into organisations. The emergence of multi-level studies in management research has offered the chance to evaluate management practices in a broader and more complex context. In particular, bringing different levels of variables into the same model and extending theoretical conceptualisations to encompass micro and macro elements has enabled research to identify better explanations for a number of management practices (Klein et al., 1999).

The advantages associated with adopting multi-level analytical methods centre on the same common themes discussed in the context of defining multi-level studies; multi-level studies straddle the historically persistent macro-micro divide, they contribute to a deeper and richer understanding of contextual influences on a given organisational or social phenomenon and can help illuminate the process by which different level variables influence a given object of study (Klein et al., 1999; Hitt et al., 2007). In accounting for such a potentially large range of hierarchical levels and types of data, multi-level models are complex and part of the strength inherent in multi-level models is the complexity such models can capture (Pettigrew, 2006; Klein et al., 1994).

Klein et al. (1999) highlight the multifaceted disciplinary heritage of multi-level studies as a potential challenge to pursuing them. Drawing on economics, sociology and political science to name a few, researchers wishing to analyse a problem in a multi-level setting are faced with having to read through an extensive body of relevant literature. This may cause problems in delineating the parameters of the study and what constitutes relevant literature, leading the would-be researcher to consider “When is he or she to stop reading and start writing?” (Klein et al., 1999, 244). The second challenge centres on paradigmatic allegiance. Researchers trained and used to micro level data may have no interest or
understanding of the impact and potential importance of macro level variables and vice versa. The flip side of this challenge lies in publishing. Journal reviewers may be picked to review a paper submission on the basis of interest alignment in terms of the general topic, but not method. A micro scholar may find a nested multi-level study which accounts for macro level influences irrelevant and uninteresting. Furthermore, given the multiplicity of academic disciplines multi-level studies often draw on and the wide range of levels included for study, finding an appropriate scholarly outlet for the work may be a challenge. “Interdisciplinary and multi-level work may paradoxically be at home everywhere and nowhere: of some interest and appeal to some journals but of central interest and appeal to none” (Klein et al., 1999, 244). On balance, given the surge in interest, use and publication of studies that embrace multi-level approaches to studies, its benefits appear comfortably to outweigh its challenges (Hitt et al. 2007).

This section has addressed the second objective of this chapter and discussed the characteristics of cross-national and multi-level research. The next section discusses the last objective, the data collection.

4.3 Data
This section focuses on the data collection process in light of the research objectives and research design of the thesis. As discussed in the introduction to this chapter, the data particulars as they related to each study will be discussed within the relevant chapter.

**Dependent variable: Sampling and Data Collection**

The guiding principle of the sampling strategy adopted for this research was the aim to represent the largest number of firms, industries and countries for which reliable data were available, following established practice in cross-national research (see for example Ram and Zhang, 2002; Ram, 2006; Fernandes et al., 2009). Empirically, very few studies of a cross-national nature have investigated women’s prevalence on corporate boards of directors. Terjesen and Singh (2008) investigated national institutional determinants of women’s ascent to the corporate board of directors using a sample of 43 countries; however, it is unclear whether the study is longitudinal or cross-sectional in nature and no sample size is given for the study. Furthermore, their study is not theoretically conceptualised and therefore has limited explanatory power beyond their statistical
findings. As scholarship has largely omitted to systematically study the influences on women’s share of the corporate board directorships in a global perspective, widening the geographical scope of the sample population as far as possible whilst maintaining data reliability was considered important.

Whilst the explicit aim of the sampling strategy adopted was to maximise the number of firms, industries and countries that were included in the empirical studies, the nature of the object of study, the corporate board, placed some practical limitations on the sampling universe. Following Louden (1982), Abdullah (2006) and McKoy (2006), the board was considered to be the group of executives who represented the firm’s highest decision-making body, and to assess cross-national variation in the prevalence of women on the corporate board of directors, it was necessary that the country adopted the corporate form, and had a governance structure that relied on such a group of executives. Annual accounts, or equivalent documents, detailing the members of the firm’s highest decision-making body also had to be publicly available and published on an annual basis. Despite these restrictions, country-level data were collected for 50 countries, including Europe, the European Economic Area, the former Eastern Europe, North America, Australia, New Zealand, four countries from Latin America, two African nations, as well as a number of Asian countries including India, China, Hong Kong, Singapore, Japan and Malaysia. However, the Middle-East, most of Africa and parts of Asia were not included. The table below lists the countries for which data were obtained detailing the percentage number of women on the corporate board or equivalent highest decision-making body.
Table 4-2 Overview of sample countries included

<table>
<thead>
<tr>
<th>Countries</th>
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<tbody>
<tr>
<td>Argentina</td>
<td>Japan</td>
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<tr>
<td>Australia</td>
<td>Latvia</td>
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<tr>
<td>Austria</td>
<td>Lichtenstein</td>
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<tr>
<td>Belgium</td>
<td>Luxembourg</td>
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<tr>
<td>Brazil</td>
<td>Malaysia</td>
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<td>Bulgaria</td>
<td>Malta</td>
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<tr>
<td>Canada</td>
<td>Mexico</td>
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<tr>
<td>Chile</td>
<td>Netherlands</td>
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<tr>
<td>China</td>
<td>New Zealand</td>
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<tr>
<td>Cyprus</td>
<td>Norway</td>
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<tr>
<td>Czech Republic</td>
<td>Poland</td>
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<tr>
<td>Denmark</td>
<td>Portugal</td>
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<tr>
<td>Egypt</td>
<td>Romania</td>
</tr>
<tr>
<td>Estonia</td>
<td>Russia</td>
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<tr>
<td>Finland</td>
<td>Singapore</td>
</tr>
<tr>
<td>France</td>
<td>Slovakia</td>
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<tr>
<td>Germany</td>
<td>Slovenia</td>
</tr>
<tr>
<td>Greece</td>
<td>South Africa</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Spain</td>
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<tr>
<td>Hungary</td>
<td>Sweden</td>
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<tr>
<td>Iceland</td>
<td>Switzerland</td>
</tr>
<tr>
<td>India</td>
<td>Turkey</td>
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<tr>
<td>Ireland</td>
<td>Ukraine</td>
</tr>
<tr>
<td>Israel</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Italy</td>
<td>USA</td>
</tr>
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</table>

The starting point for identifying data on the prevalence of female corporate board directors was BoardEx. BoardEx is a commercially available database, provided by Management Diagnostics Limited which has been successfully used in academic research (Singh, 2007; Kuang 2008; Fracassi and Tate, 2008) and which is rapidly establishing itself as the premier source of board-related data (Fernandes, 2009). BoardEx provides data concerning board and director characteristics for many of the companies listed on stock exchanges around the world. In total, BoardEx data cover in excess of 7,000 companies from 2001. To increase country coverage beyond what was available in
BoardEx, further data were collected from corporate annual reports for companies in a number of countries. At the time of writing a number of major economies, were not represented in BoardEx, including Latin America and India. To remedy this, using Latin Trade’s list of Top 500 companies in Latin America by Net Sales, companies for Argentina, Brazil, Chile and Mexico, the largest Latin American trading economies were identified. For India all companies listed on the SENSEX index which represents the largest 30 firms by market capitalisation listed on the Bombay stock exchange were identified. Annual reports or Securities and Exchange Commission (SEC) filings were consulted to identify directors for each company’s board and for every year available. Gender was identified by way of pictures, use of titles (Miss, Ms, Mrs, or native language equivalents) and names.

To ensure data reliability, data triangulation was deemed important. At the country level data estimates from BoardEx were validated through exploration of estimates available in a range of secondary sources. For example, the European Commission tracks the gender composition of boards in Europe using a methodology that examines the character of the boards of the 50 largest listed companies in each member state. Where fewer than 50 listed companies exist, all available listed companies are incorporated in their analysis. Other specialist research exists for particular countries and regions such as Spencer Stuart Board Indices, Catalyst, European Commission reports, the Australian Equal Opportunities for Women in the Workplace Agency (EOWA), Business Women’s Association South Africa and Globe Women.

BoardEx was used to identify percentage number of women both at the country and at the industry level. At the industry level firms were classified based on Standard Industrial Classification (SIC) codes to enable industry evaluation of the prevalence on women board directors.

**Independent variables: sampling and data collection**

This section highlights some of the key independent variables used in the studies contained herein. The particular details and decisions as pertaining to the particular empirical chapters presented in this thesis are described in more detail in each empirical chapter. However, a number of the key variables collected for the research are presented here, as
some of them are used in more than one study. It was therefore deemed useful to outline those key variables here, and also provide an illustration of how the various independent variables relate to the different levels that make up the multi-level setting of this research.

Table 4-3 Core independent variables

<table>
<thead>
<tr>
<th>Level</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>• Mean left-right political inclination&lt;br&gt;• % Women in Parliament&lt;br&gt;• Good Governance&lt;br&gt;• Religion&lt;br&gt;• Female tertiary education enrolment&lt;br&gt;• Hofstede’s Cultural Values</td>
</tr>
<tr>
<td>Industry</td>
<td>• Labour union density&lt;br&gt;• State share ownership&lt;br&gt;• % Women employees&lt;br&gt;• R&amp;D intensity</td>
</tr>
<tr>
<td>Firm</td>
<td>• Nomination Committee prevalence&lt;br&gt;• Average board director age</td>
</tr>
</tbody>
</table>

The independent variables associated with each level will be discussed in turn, starting with the national level, before moving onto the industry and firm-level

National level independent variables
At the national level the following key variables were identified: mean left-right political positioning, percentage number of elected females to parliamentary assemblies, quality of national governance, religious prevalence, female education enrolment and Hofstede’s cultural values.

The measure for national political sway was collected from the World Value Survey (WVS) website (http://www.worldvaluessurvey.org/). Data from the WVS have been extensively used in research and are an established source, informing cross-national studies in a range of disciplines including management research (Parboteeah and Cullen, 2003; Hui and Fock, 2004; Franke and Nadler, 2008). The WVS in collaboration with the European Value Study draws on a network of social scientists around the world who administer and analyse surveys for 97 countries. Between 1981 and 2007 five tranches of surveys have been administered and 257,000 responses have been collected in total.
(Ingelhart, 2008). To ascertain political alignment, the WVS asks respondents to self-categorise their political allegiance on a left-right scale from 1-10, with 1 being left and 10 being right. National scores are then aggregated to country level to give an indication of the relative conservative-liberal inclination of a given nation.

The percentage number of parliamentary seats held by women was identified using the United Nations, Women's Indicators and Statistics database. The database covers over 200 countries and surveys were conducted in 1980, 1987, 1991, 1993 and 1999, though data availability is not uniform across countries. National statistical information collected by the United Nations has been extensively used in scholarly research, in particular data from the Women's Indicators and Statistics database have informed the identification of trends in female employment patterns in the face of growing industrialisation (Mehra and Gammag, 1999), progress and future challenges in women’s equality (Buvinic, 1999) and patterns of gender and work in developing economies (Mammen and Paxson, 2000). United Nations data have also informed corporate governance research such as Estrin and Wright’s (1999) review of corporate governance in the former Soviet Union and Khanna et al.’s, (2006) review of globalization trends in corporate governance.

To measure the quality of national governance standard, the World Bank’s Worldwide Governance Indicators were used. These indicators comprise six measures; Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption, and cover in excess of 200 countries. The World Bank consults in excess of 30 sources to compile their measures, including local national research firms, major developmental agencies, NGOs and commercial risk-rating agencies (World Bank, 2008). The World Bank indicators have been successfully used in scholarly research in areas such as public management (Ear, 2007), development economics (Faust, 2008) and corporate governance (Doidge et al., 2007).

The Association of Religion Data Archives (ARDA) was consulted to identify percentage believers by religion by country. The ARDA covers 195 countries and collects information from the US State Department’s International Religious Freedom Reports and the World Christian Database. Corporate governance scholars have relied on data from ARDA
To assess the level of female educational attainment, the measure percentage female tertiary school enrolment was extracted from the United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics. UNESCO defines tertiary education as an education qualification that is obtained from an institution that requires secondary school qualifications to be considered for admission and where students must pass formal exams in order to graduate. Khanna and Palepu (2000) relied on the same source and measure in their institutional analysis of conducting business with Chilean business groups, as did Barosso (2005) in his analysis of institutional higher education preferences and economic development. The UNESCO data are based on questionnaire responses administered through UNESCO National Commissions and local partners in more than 200 countries. The questionnaires were completed by local educational experts and once returned to UNESCO cross checked for consistency and accuracy before aggregate measures were made available (UNESCO, 2009).

Hofstede’s cultural values are based on extensive and repeated questionnaire survey data administered by Geert Hofstede in the late 1970s and early 1980s to IBM employees globally. Hofstede administered a survey to a substantial number of staff at IBM located in more than 70 different countries, and based on their answer developed a measure of national cultural idiosyncrasies along four dimensions: power-distance, uncertainty avoidance, individualism and masculinity. Each country was allocated a score from 1-100 for each dimension. Hofstede’s measure has a number of advantages that has made it a popular tool in cross-cultural management research (see for example Henwood and Seaman, 2007; Arnold et al., 2006; Littrell and Valentin, 2005; Mukherji and Hurtado, 2001; Page and Wiseman, 1993; Williamson, 2002). The values are pre-defined, they are available for a large number of countries, they do not change and are simple to understand and apply. Whilst some scholars have viewed these as advantages of Hofstede’s framework, others have considered them distinct disadvantages and argued the framework is insufficiently nuanced, dynamic and too restrictive (McSweeney, 2002). For the purpose of this study Hofstede’s cultural framework was considered a suitable framework as it had...
previously been applied to the domain of research on women in senior managerial roles (Caligiuri et al., 1999; Bernardi, 2006; Mueller, 2004).

**Industry level variables**

At the industry level, measures of union density, R&D intensity, state shareholdings, and percentage female employees were used.

Union density data were collected from the OECD statistical database. As far as possible OECD make every attempt to base this measure on survey responses from individual trade union members in individual countries. Where such data are not available, data are obtained from major national union organisations, with numbers adjusted for non-active and self-employed individuals (Visser et al., 2008). OECD data have been successfully applied in corporate governance research (see for example Thomsen and Pedersen, 1997; Jackson, 2005) and by institutional theorists (Western, 1998; Cartilla, 2004).

Data showing national governments’ stake in a given industry was obtained from the OECD. The OECD distributes a questionnaire to member states asking for information on the particular characteristics of states share holding interests in a given industry. The data are binary, taking a value of 1 if a given country held shares in a particular industry, and 0 otherwise (Conway et al., 2005).

Percentage number of female employees by industry was obtained from LABORSTA, the international statistics database compiled by the International Labour Organization (ILO). ILO was established in 1919 and its statistics arm LABORSTA sits within the UN research network as the central provider of labour-related statistics (ILO, 2009). The economically active population is defined as an individual between the age of 15-74 years “who furnish the supply of labour for the production of goods and services during a specified time-reference period” (LABORSTA, 2009). Industry was defined according to International Standard Industry Codes (ISIC). ILO’s research has been used in corporate governance statistics, institutional analysis and the role of women in senior positions (Deakin and Ahlering, 2005; Van der Boon, 2003; Henrekson and Stenkula, 2009).
The last industry level variable is Research and Development intensity based on data from Thomson Datastream (Datastream). Datastream reports firm-level financial data for 75,000 firms across 64 developed and emerging economies. Datastream either receives data direct from the stock exchange where the firm is listed or from local and international data providers’ published reports. As with the other databases, Datastream has been used in research relating to a multitude of managerial research fields, including corporate governance, institutional theory and women’s place on the board (Brammer et al., 2009, 2007; Grosvold et al., 2007; Chizema and Buck, 2006; Cormier et al., 2005).

Firm-level variables
The prevalence of the use of nomination committees at the firm-level was obtained from BoardEx, as was the average age of the board’s.

<table>
<thead>
<tr>
<th>Level</th>
<th>Variable</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>Mean left-rightness</td>
<td>World Values Survey</td>
</tr>
<tr>
<td></td>
<td>% Women in Parliament</td>
<td>United Nations, Women's Indicators and Statistics database</td>
</tr>
<tr>
<td></td>
<td>Good Governance</td>
<td>World Bank’s Worldwide Governance Indicators</td>
</tr>
<tr>
<td></td>
<td>Religion</td>
<td>The Association of Religion Data Archives</td>
</tr>
<tr>
<td></td>
<td>Female education enrolment</td>
<td>United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics</td>
</tr>
<tr>
<td></td>
<td>Hofstede’s Cultural Values</td>
<td><a href="http://www.geert-hofstede.com/">http://www.geert-hofstede.com/</a></td>
</tr>
<tr>
<td>Industry</td>
<td>Union density</td>
<td>OECD statistical database</td>
</tr>
<tr>
<td></td>
<td>State ownership</td>
<td>OECD statistical database</td>
</tr>
<tr>
<td></td>
<td>% women employees</td>
<td>LABORSTA</td>
</tr>
<tr>
<td></td>
<td>R&amp;D intensity</td>
<td>DataStream</td>
</tr>
<tr>
<td>Firm</td>
<td>Nomination Committee</td>
<td>BoardEx</td>
</tr>
<tr>
<td></td>
<td>Average Age of the Board</td>
<td>BoardEx</td>
</tr>
</tbody>
</table>

Methodological limitations
The research decision to maximise the number of countries included in the sample selected for this study was based on the desire to reflect the greatest variety in the percentage number of women observed at board level across the countries. As explained earlier in this section, the fact that this research is concerned with investigating a particular corporate
elite, meant that the sample was restricted to countries that had corporate boards or board equivalents, and crucially, who made information of this highest decision-making body publicly available. In reality, this means all the countries included are largely developed or rapidly developing countries and in effect that means the research presented in this thesis is concerned with the percentage number of women board directors in the largest firms for a given country or industry. Consequently, this research does not reflect the ‘average’ firm in a particular country, given that the vast majority of the world’s companies are not listed and differ in their corporate governance structure compared to that of publicly traded firms (Claessens and Tzioumis, 2006; Dehaene et al., 2001). In particular, it is likely that the sample included suppresses the real cross-country variation in the prevalence of women on the board as female directors tend to serve on the board of large, profitable companies. Whilst this is clearly a limitation of this study, the problems of obtaining reliable data for private firms are well documented (Burke and Mattis, 2000). Some countries included in this study may have more data available on the nature of firm leadership covering private firms, but the time, effort and cost associated with collating the data is well beyond the means of this research project.

4.4 Chapter summary
This chapter had three objectives: to justify the cross-national and multi-level research strategy adopted in this thesis, secondly to discuss the characteristics of cross-national, multi-level research and thirdly to outline the data collection strategy. In the context of the research objectives articulated for this thesis and the extant methodological choices reflected in the literature to date, there is a distinct need to carry out further research on women on the board, by conducting comparative analysis that covers a larger number of countries than those traditionally studied, and that accounts for the wider context within which women do or don’t acquire corporate board directorships. Multi-level, cross-national research offers exciting avenues for fruitful enquiry and the next four chapters begin to explore these avenues, starting with an extensive overview of the antecedence of the evolving pattern of women corporate board directors in an international perspective.
WOMEN ON THE BOARD: A VIEW ACROSS COUNTRIES, INDUSTRIES AND FIRMS
5. Women on the board: A view across countries, industries and firms
This chapter provides the backdrop to the next three empirical chapters by analysing the patterns of women on corporate boards around the world. The aim is to provide a detailed descriptive insight into the prevalence of female corporate board directors across a range of countries and industries. This analysis explores the pattern of women on the corporate board of directors in countries that have traditionally not been subject to previous study as well as countries that have been more extensively analysed. In doing so, this chapter highlights the nuanced and varied pattern of female board participation across countries and industries and show that the dominant conclusions in academic research about the context and circumstances in which women acquire board seats may not necessarily apply in all institutional contexts. In drawing attention to different patterns and different drivers of gender diverse boards across countries, this chapter illustrates Mintzberg’s (1979) observation that descriptive studies can sometimes challenge the veracity of empirical findings and offer a complementary perspective to extant literature.

Reflecting the theoretical discussion provided in chapter 3, this analysis drills down from the national to the firm level in its review of women’s share of corporate board directorships. To that end, this chapter has four objectives: firstly, to highlight the cross-national variation in the prevalence of women on the board; secondly to show that the gender composition of the corporate board of directors also varies across industries; thirdly, to take a more detailed look at the pattern of female board directors across countries for a given industry to show that substantial variation also exists within countries; and finally to analyse the relationship between certain salient firm level characteristics and the proportion of female corporate board directors. The next section outlines the method employed before the subsequent sections report national level and industry level findings. A final section concludes.

5.1 Method
The research strategy pursued in this chapter focuses on broadening the scope of countries and industries included for analysis. At all points in the study, the emphasis is on maximising the observed variation across units of analysis to provide as wide an analytical perspective as possible. At each stage of the analysis the most comprehensive, consistent
and up-to-date data are used. However, as the over-riding concern is to expose variation across countries and industries, it means that the basis for sampling varies across stages of the analysis but breadth and comprehensiveness of the analysis is maximised. This sampling decision is further discussed in section 5.4.

The cross-country analysis mainly used data from BoardEx and the European Commission. BoardEx is an online subscription-based service which has compiled a novel dataset covering over 7,000 companies. Firm level observations were aggregated to the country level, to provide the average percentage number of women on the board for a given year/country. The European Commission collects data for the 50 largest public firms in each of its member states, and where the stock exchange does not have 50 firms, the entire universe of listed companies is included. Data were available for some countries from both BoardEx and the European Commission. Where this was the case, the source which relied on the largest and most consistent sample over time was used, based on the premise that a larger sample provides more reliable results. In addition to using BoardEx data, further data collection was carried out for Mexico, Argentina, Chile and Brazil and India, as data covering these countries was at the time of writing not available on BoardEx. In order to compute these figures for particular countries/years the recognised method in the research was used. This approach relies on the examination of the annual corporate reports for the relevant companies, from which the total number of directors on each firm’s board and the number of these who are female can be extracted. Based on Latin Trade’s list of Top 500 companies in Latin America by Net Sales, companies for Argentina, Brazil, Chile and Mexico, the largest Latin American trading economies were identified and a similar approach was used for India, where all the firms on the Bombay Stock Exchange SENSEX index were included. The SENSEX represents the largest 30 firms by market capitalisation. Annual reports or Securities and Exchange Commission (SEC) filings were used to identify the board of directors for each company. Gender was identified by way of pictures, use of titles Miss, Ms, Mrs or native language equivalents and names. The companies were picked with a view to having a minimum of ten observations for each country for every year available. As some countries (for example Mexico) have more companies with extensive annual report archives, this meant inclusion of the top 65 Mexican companies on the Latin Trade list, whilst for countries with a smaller population of listed companies (for example Argentina), all available companies are included.
The industry and firm level analysis in the variation in the prevalence of women on the board used data obtained from Datastream, a data source extensively used in board literature (Brammer et al., 2009; Conyon and Peck, 1998; Crossland and Hambrick, 2007; Filatotchev and Bishop, 2002; Dahya and McConnell, 2005) and BoardEx. Datastream provides Standard Industrial Classification (SIC) codes for each firm roughly equivalent to the three-digit SIC, which allowed for aggregate industry level, and within-industry level, analysis to be conducted. This analysis is presented in table 5.4 and within industry analysis is shown in table 5.5. Datastream covers firm level information on more than 20 countries, focusing on the largest listed firms in each country. Datastream was also used for the analysis of firms’ market capitalisation and the prevalence of women on the board. BoardEx was used to identify the percentage number of women on a firm level and then aggregated to industry level based on the SIC-classifications from Datastream.

5.2 Findings
This section reveals the findings of the analysis, starting with the country level.

5.2.1 Cross-country variation in the prevalence of women corporate board directors
As discussed in chapter 2, previous investigations of board gender diversity have typically explored corporate board diversity in single-country contexts and have tended to employ cross-sectional research designs. Such studies have collectively highlighted the variation across countries in board diversity, and mapped its evolving pattern (Burke 1999; Singh et al., 2001; Singh and Vinnicombe, 2004; Sheridan 2001; Farrell and Hersch, 2005). This chapter builds on this foundation and to that end, Table 5.1 provides a starting point for this cross-national analysis. The table shows the average percentage board seats occupied by women for 48 countries in 2006, the most recent year for which data was available for such a large sample of countries. Table 5.1 clearly shows that there is a very substantial degree of variation in the prevalence of women board directors across countries. In Norway 32% of board seats were held by women, which is the largest share observed in any of the sample countries. Norway’s decision to pass affirmative action for this particular aspect of corporate governance greatly influenced the share of board seats held by women, as will be discussed later. Following Norway’s ‘lead’ were Bulgaria (21%), Latvia (21%) and Slovenia (21%), followed by Finland, where 19% of directors were women. At the
opposite end of the table, Argentina and Japan had no female board directors, whilst Luxembourg had 1%, India 3.86%, Russia 3.13% and Ireland just over 4% female board directors. On average, women held 9.5% of corporate board directorships across the sample. However, the mean percentage women on the board observed in the top half of the sample was nearly three times that of the bottom half. The average percentage women board directors for the highest ranked countries was 14.43%; by comparison the bottom ranked countries had 4.58%. Consistent with the theoretical discussion in chapter 3, this suggests that country level factors may play an important role in shaping board demography.

**Table 5-1 Average percentage board seats held by women**

<table>
<thead>
<tr>
<th></th>
<th>% Women Board Directors 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>0.00</td>
</tr>
<tr>
<td>Australia</td>
<td>10.90</td>
</tr>
<tr>
<td>Austria</td>
<td>6.00</td>
</tr>
<tr>
<td>Belgium</td>
<td>5.78</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>21.00</td>
</tr>
<tr>
<td>Canada</td>
<td>8.70</td>
</tr>
<tr>
<td>China</td>
<td>12.50</td>
</tr>
<tr>
<td>Cyprus</td>
<td>7.00</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>8.00</td>
</tr>
<tr>
<td>Denmark</td>
<td>12.71</td>
</tr>
<tr>
<td>Egypt</td>
<td>10.00</td>
</tr>
<tr>
<td>Estonia</td>
<td>15.00</td>
</tr>
<tr>
<td>Finland</td>
<td>19.00</td>
</tr>
<tr>
<td>France</td>
<td>6.98</td>
</tr>
<tr>
<td>Germany</td>
<td>6.46</td>
</tr>
<tr>
<td>Greece</td>
<td>6.31</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>5.88</td>
</tr>
<tr>
<td>Hungary</td>
<td>14.00</td>
</tr>
<tr>
<td>Iceland</td>
<td>6.00</td>
</tr>
<tr>
<td>India</td>
<td>3.86</td>
</tr>
<tr>
<td>Ireland</td>
<td>4.04</td>
</tr>
<tr>
<td>Israel</td>
<td>13.36</td>
</tr>
<tr>
<td>Italy</td>
<td>2.63</td>
</tr>
<tr>
<td>Japan</td>
<td>0.00</td>
</tr>
<tr>
<td>Latvia</td>
<td>21.00</td>
</tr>
<tr>
<td>Liechtenstein</td>
<td>8.33</td>
</tr>
<tr>
<td>Lithuania</td>
<td>17.00</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>1.00</td>
</tr>
<tr>
<td>Malaysia</td>
<td>4.00</td>
</tr>
<tr>
<td>Malta</td>
<td>4.00</td>
</tr>
<tr>
<td>Netherlands</td>
<td>4.88</td>
</tr>
<tr>
<td>New Zealand</td>
<td>7.13</td>
</tr>
<tr>
<td>Norway</td>
<td>32.00</td>
</tr>
<tr>
<td>Poland</td>
<td>10.00</td>
</tr>
<tr>
<td>Portugal</td>
<td>7.00</td>
</tr>
<tr>
<td>Romania</td>
<td>13.00</td>
</tr>
<tr>
<td>Russia</td>
<td>3.13</td>
</tr>
<tr>
<td>Singapore</td>
<td>0.00</td>
</tr>
<tr>
<td>Slovakia</td>
<td>10.00</td>
</tr>
<tr>
<td>Slovenia</td>
<td>21.00</td>
</tr>
<tr>
<td>South Africa</td>
<td>11.50</td>
</tr>
<tr>
<td>Spain</td>
<td>4.38</td>
</tr>
<tr>
<td>Sweden</td>
<td>17.37</td>
</tr>
<tr>
<td>Switzerland</td>
<td>6.37</td>
</tr>
<tr>
<td>Turkey</td>
<td>7.00</td>
</tr>
<tr>
<td>UK</td>
<td>8.10</td>
</tr>
<tr>
<td>Ukraine</td>
<td>16.67</td>
</tr>
<tr>
<td>US</td>
<td>15.12</td>
</tr>
</tbody>
</table>

Sources: BoardEx provided data for Australia, Canada, China, Egypt, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Lichtenstein, Luxembourg, Malaysia, Netherlands, New Zealand, Norway, Russia, Singapore, Spain, South Africa, Sweden, Switzerland and the UK. Data from the European Commission were used for Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, Greece, Hungary, Iceland, Latvia, Lithuania, Malta, Portugal, Poland, Romania, Slovakia, Slovenia, Turkey, and Ukraine. Data for India were compiled by the author based on annual reports for the largest 50 firms on the Bombay Stock Exchange and data for the US were collected from Catalyst. Data on Argentina were similarly collected by the author based on the Latin Trade’s top 500 companies.

It has been suggested that there has been a significant degree of harmonization of corporate governance practices across countries in recent years. This tending to ‘convergence’ in
Corporate governance has been widely discussed in the literature (Denis and McConnell, 2003; Aguilera, 2005; O’Sullivan, 2003; Fligstein and Freeland, 1995; Jacoby, 2005; Pedersen and Thomsen, 1997; Otten et al., 2006). Table 5.2 provides an insight into the extent to which convergence in corporate governance has been reflected in the pattern of women on the board. Table 5.2 shows the evolving pattern of female board representation across a wide range of countries in Europe, North America, Asia and Africa, for a period of five years. In every country men make up over 68% of corporate boards in 2006, but some countries have more female representation than others.

Table 5.2 Percentage cross-national variation in the prevalence of women on the board

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>7.32</td>
<td>6.00</td>
<td>5.00</td>
<td>6.00</td>
<td>6.00</td>
</tr>
<tr>
<td>Belgium</td>
<td>4.93</td>
<td>5.26</td>
<td>6.07</td>
<td>5.85</td>
<td>5.78</td>
</tr>
<tr>
<td>Canada</td>
<td>11.40</td>
<td>12.00</td>
<td>12.60</td>
<td>12.30</td>
<td>8.70</td>
</tr>
<tr>
<td>China</td>
<td>0.00</td>
<td>12.00</td>
<td>14.29</td>
<td>14.29</td>
<td>12.50</td>
</tr>
<tr>
<td>Denmark</td>
<td>9.55</td>
<td>10.00</td>
<td>12.00</td>
<td>13.17</td>
<td>12.71</td>
</tr>
<tr>
<td>Finland</td>
<td>7.42</td>
<td>11.00</td>
<td>15.00</td>
<td>19.00</td>
<td>19.00</td>
</tr>
<tr>
<td>France</td>
<td>6.26</td>
<td>7.07</td>
<td>6.79</td>
<td>6.62</td>
<td>6.98</td>
</tr>
<tr>
<td>Germany</td>
<td>5.86</td>
<td>6.60</td>
<td>6.52</td>
<td>6.91</td>
<td>6.46</td>
</tr>
<tr>
<td>Greece</td>
<td>5.03</td>
<td>5.96</td>
<td>6.33</td>
<td>6.25</td>
<td>6.31</td>
</tr>
<tr>
<td>India</td>
<td>4.12</td>
<td>4.01</td>
<td>4.73</td>
<td>3.91</td>
<td>3.86</td>
</tr>
<tr>
<td>Ireland</td>
<td>2.90</td>
<td>3.00</td>
<td>3.95</td>
<td>4.16</td>
<td>4.04</td>
</tr>
<tr>
<td>Israel</td>
<td>13.97</td>
<td>10.88</td>
<td>10.50</td>
<td>7.69</td>
<td>13.36</td>
</tr>
<tr>
<td>Italy</td>
<td>2.22</td>
<td>2.42</td>
<td>2.75</td>
<td>2.67</td>
<td>2.63</td>
</tr>
<tr>
<td>Netherlands</td>
<td>4.55</td>
<td>4.04</td>
<td>3.57</td>
<td>3.87</td>
<td>4.88</td>
</tr>
<tr>
<td>Norway</td>
<td>10.30</td>
<td>13.70</td>
<td>15.70</td>
<td>21.36</td>
<td>32.00</td>
</tr>
<tr>
<td>Poland</td>
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<td>6.67</td>
<td>8.00</td>
<td>11.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.96</td>
<td>4.00</td>
<td>5.00</td>
<td>7.00</td>
<td>7.00</td>
</tr>
<tr>
<td>Russia</td>
<td>4.17</td>
<td>2.86</td>
<td>3.13</td>
<td>4.35</td>
<td>3.13</td>
</tr>
<tr>
<td>South Africa</td>
<td>9.00</td>
<td>10.20</td>
<td>10.50</td>
<td>10.70</td>
<td>11.50</td>
</tr>
<tr>
<td>Spain</td>
<td>3.09</td>
<td>3.19</td>
<td>3.27</td>
<td>3.02</td>
<td>4.38</td>
</tr>
<tr>
<td>Sweden</td>
<td>9.88</td>
<td>14.01</td>
<td>16.32</td>
<td>17.85</td>
<td>17.37</td>
</tr>
<tr>
<td>Switzerland</td>
<td>4.51</td>
<td>4.43</td>
<td>4.83</td>
<td>5.57</td>
<td>6.37</td>
</tr>
<tr>
<td>UK</td>
<td>5.13</td>
<td>5.89</td>
<td>6.31</td>
<td>7.39</td>
<td>8.10</td>
</tr>
<tr>
<td>USA</td>
<td>12.40</td>
<td>13.60</td>
<td>13.80</td>
<td>14.70</td>
<td>15.12</td>
</tr>
</tbody>
</table>

Sources: BoardEx provided data for Canada, China, France, Germany, Ireland, Israel, Italy, Netherlands, Norway, Russia, Spain, South Africa, Sweden, Switzerland and the UK. Data from the European Commission were used for Austria, Belgium, Denmark, Finland, Greece, Portugal and Poland. Data for the US were collected from Catalyst. Data for India were compiled by the author based on annual reports for the largest 30 firms on the Bombay Stock Exchange.

Table 5.2 shows the development in the national average number of board seats occupied by women from 2002-2006. There are three intriguing observations that can be gleaned from the table. Firstly, there is large within-year variation in the prevalence of women...
board directors, which is consistent with the pattern seen in table 5.1. Secondly, there is large variation in the prevalence of women board directors over time and there are distinct country-clusters showing remarkably similar patterns in prevalence of women on the board. Finally, there is no convergence observed between countries in the share of board seats held by women. Each of these trends warrants further analysis and will be discussed in turn.

Table 5.2 clearly illustrates persistence in cross-national variation in the prevalence of women on the corporate board of directors. When considering 2006, the most recent year for which data were available, the largest proportion of female corporate board directors is found in Norway, where women hold 32% of the board seats, which is perhaps not surprising in light of the Norwegian government’s decision to pass affirmative action covering this particular aspect of board demography. In this sample Finland has the second highest concentration of female directors at 19%, and Sweden the third highest proportion of female board directors with 17.37%. At the bottom end of the table, Italy shows the lowest share of women directors. Women occupied only 2.63% of Italian board seats. Similarly, India, Ireland, Russia and Spain have fewer than five percent of the available board seats occupied by women.

By comparison, a review of the board composition in 2002 reveals some interesting insights, in particular the observation that neither Norway, Sweden nor Finland, the ‘trail blazers’ of 2006, featured in the top three countries having the highest proportion of female board directors. Instead, Israel, Poland and the United States show the largest concentration of women in the boardroom. Israel had 13.97% women, whilst Poland had 12.5% and the United States, 12.4%. At the bottom end of the scale the observed pattern was more consistent with the findings from 2006. Italy and Ireland still featured in the bottom three countries that did have women some female board directors, with 2.22% and 2.90% respectively. Additionally, Portugal only had 0.96% women board directors, whilst China had none. The Scandinavian cluster of countries, Norway, Sweden and Denmark, all had approximately 10% women board directors in 2002, compared with Finland which had 7.42%.
The next sections addresses the second and third points of interest to emerge from these data; the variation in the prevalence of women board directors over time, and the emergence of distinct country clusters exhibiting similar patterns in female board participation.

The countries with the largest proportion of female corporate board directors in 2006 are Norway, Sweden and Finland. Across all years, Norway and Sweden consistently feature in the top quartile of countries showing the largest proportion of female board directors, and by 2006 all the Nordic countries are represented in the top quartile. Norway had 10.3% female corporate board directors in 2002, a proportion that rose to 32% by 2006, a trebling in the share of board seats held by women. Finland’s share of female board directors rose from 7.42% in 2002 to 19% in 2006, a rise of not dissimilar magnitude to that observed in Norway. Sweden’s rise in female board directors from just under 10% in 2002 to 17.37% in 2006 fits the Nordic trend of dramatic rises in the prevalence of corporate board directors over the period under review. Denmark had 9.55% women board directors in 2002, and showed a more modest rise in directorships held by women; however by 2006 Denmark had a sufficiently large share of women board directors to it a place in the upper quartile of the 24 countries included in this analysis.

At the other end of the spectrum, Ireland, Spain, Russia, India, Italy and Netherlands show a very low proportion of female board members in their directorial ranks. Ireland had fewer than 3% female corporate board directors in 2002 and just over 4% in 2006, a pattern similar to that of Spain, which saw a rise from 3.09% to 4.38% over the same period. Italy had the lowest proportion of female corporate board directors over the period, at just over 2%. Spain and Italy’s low proportion of women in the board room meant they were in the lowest quartile of countries across all the years included in the analysis. Russia and India both decreased the proportion of female corporate board directors over the period. In 2002 Russia’s boards boasted 4.17% female corporate board directors, but by 2006 this proportion had fallen to 3.13%. A similar picture emerges in India where women held 4.12% of board seats in 2002 and 3.86% in 2006. In between these polar extremes are a number of countries for which the proportion of corporate board directors has remained relatively stable such as France and Germany, or seen modest growth such as the US and the UK. The female proportion of corporate board directors in the UK rose from 5.13% to
8.10% over the period, whilst in the US the rise was from 12.4% in 2002 to 15.12% in 2006.

What this analysis of cross-national variation in the prevalence of women on the board reveals is that the picture painted by extant academic literature suggesting the proportion of female board directors is growing (Kesner, 1988; Daily et al., 1999; Bilimoria and Wheeler, 2000; Izrael, 2000), is insufficiently nuanced and reflects the narrow range of countries that have typically been addressed. This analysis shows not only that in a given year there are large differences in the share of directorships held by women between countries, but also that the rate of change over time differs markedly across country contexts. The picture painted here is less linear than the literature suggests, and hints that there may be a country, or country-cluster, effect that accounts for these large, persistent and idiosyncratic differences.

The findings of this cross-national analysis question the degree to which there is convergence in corporate governance practices with respect to the prevalence of women board directors. If anything, this analysis shows that there is divergence, rather than convergence in the share of board seats women hold across countries. In 2002 the upper quartile of countries that had the highest proportion of women on the board had on average 11.74% women, whilst the bottom quartile had on average 2.22% women, a difference of 9.52% between the upper and the lower quartile. By 2006, the upper quartile had 18.26% women directors and the lower quartile had 3.82% a difference of 14.44% women. In other words, over the five-year period, the difference between the prevalence of women in the highest versus the lowest scoring countries increased by 4.91%, suggesting women’s ascent to the corporate boardroom is far from uniform across the countries surveyed.
Table 5-3 Divergence in women corporate board directors

<table>
<thead>
<tr>
<th></th>
<th>Average percentage number of women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2002</td>
</tr>
<tr>
<td>Upper Q average</td>
<td>11.74</td>
</tr>
<tr>
<td>Lower Q average</td>
<td>2.22</td>
</tr>
<tr>
<td>Difference</td>
<td>9.52</td>
</tr>
</tbody>
</table>

This section described the national level findings to emerge from this analysis and the next section turns the attention to cross-industry differences.

5.2.2 Cross-industry variation in the prevalence of women on the corporate board of directors

The previous section highlighted the cross-national variation in the prevalence of women on the board. This section addresses the second objective of this chapter and evaluates the industry level variation in the prevalence of women on the board.

As highlighted in the literature review, most academic research has focused on establishing patterns of gender diversity of the corporate board at the national level, with a focus on single country studies. Recent research has, however, recognised that industry characteristics may also shape the gender demography of corporate boards (Hillman et al., 2007; Brammer et al., 2007). Consequently, it is increasingly important to analyse the evolving pattern of women board directors with reference to industry. Table 5.4 shows the average percentage number of female corporate board directors in a given industry in a given country in 2005. Differences in sector composition across countries meant not all countries have firms in each industry.

Applying the same approach to analysis as that adopted in the national comparison, the industries in the analysis were divided into quartiles. The industries represented were ranked according to the weighted average share of board directors for a given industry starting with the industry that had the largest percentage women board directors. Looking within the upper quartile, Educational services had the highest proportion of female board directors with 28.57% women on the board. However, this is an artefact of the cross-
national variation, as only Australia had firms in this sector. The two following sectors had a broader sample representation. Hobby & Leisure Manufacturing had a weighted average of 26.46% women board directors, whilst printing and publishing had 23.87% women on the board and banks and savings institutions had 22.71%; in fashion and accessories, women held 22.69% of the available board directorships. The emerging cross-national pattern in industry variation in the prevalence in women board directors is interesting when considered in the context of extant literature on which industries have the largest share of women board directors. Contrary to the observation in section 5.2.1 that the cross-national pattern of female corporate board directors does not conform with the dominant literature in the field, the observed industry variation does seem to conform to extant literature. Brammer et al. (2007) investigated gender diversity on the boards of UK companies and concluded that there was substantial sector variation in the prevalence of female board directors. They found that media, retail, banking and utilities had the largest proportion of female board directors. Grosvold et al. (2007) in their study of board diversity in Norway showed that consumer manufacturing and chemicals had large shares of women corporate board directors, whilst Smith et al. (2006) found that in Denmark women were predominantly represented on the boards of firms in the retail, hotel and restaurant sector. Harrigan (1981) investigated the prevalence of women on the board in the US and concluded that women directors were concentrated in labour-intensive service industries or industries producing and selling targeted at the female consumer market. A similar pattern was found in Australia by Burgess and Tharenou (2000) and Conroy (2000). The observed industry pattern seems to largely accord with existing research. Retail, chemicals, and technology-related firms, fashion & accessories, textiles, and banks and savings institutions had high proportions of women in their executive ranks, broadly echoing literature reflecting the industry prevalence of women corporate board directors (Brammer et al., 2008; Grosvold et el. 2007; Smith et al., 2006; Harrigan, 1981).
## Table 5-4 Percentage women board directors by industry 2005

<table>
<thead>
<tr>
<th>Industry</th>
<th>Australia</th>
<th>Belgium</th>
<th>Canada</th>
<th>France</th>
<th>Germany</th>
<th>Italy</th>
<th>Netherlands</th>
<th>Norway</th>
<th>Sweden</th>
<th>UK</th>
<th>Weighted average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Services</td>
<td>28.57</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28.57</td>
</tr>
<tr>
<td>Hobby &amp; Leisure manufacturing</td>
<td>28.57</td>
<td>22.22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>26.46</td>
</tr>
<tr>
<td>Printing and Publishing</td>
<td>3.85</td>
<td>12.50</td>
<td>20.00</td>
<td>18.18</td>
<td>7.69</td>
<td>10.00</td>
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<td>25.00</td>
<td>20.20</td>
<td>8.54</td>
<td>23.87</td>
</tr>
<tr>
<td>Banks and savings institutions</td>
<td>15.14</td>
<td>11.84</td>
<td>21.35</td>
<td>7.74</td>
<td>9.94</td>
<td>2.64</td>
<td>10.43</td>
<td>35.20</td>
<td>11.33</td>
<td></td>
<td>22.71</td>
</tr>
<tr>
<td>Fashion and accessory</td>
<td>12.50</td>
<td></td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22.69</td>
</tr>
<tr>
<td>Food retail</td>
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<td></td>
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<td></td>
<td>22.27</td>
</tr>
<tr>
<td>Chemicals, ink and detergents</td>
<td>12.70</td>
<td>3.85</td>
<td>15.85</td>
<td>12.63</td>
<td>5.70</td>
<td>8.88</td>
<td>9.82</td>
<td>0.00</td>
<td>9.77</td>
<td></td>
<td>18.91</td>
</tr>
<tr>
<td>Professional services</td>
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<td>0.00</td>
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<td>0.00</td>
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<td>11.30</td>
<td>17.29</td>
<td>5.06</td>
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</tr>
<tr>
<td>Motion pictures</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>17.36</td>
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<td>0.00</td>
<td>4.48</td>
<td>10.73</td>
<td>0.00</td>
<td>11.11</td>
<td>18.63</td>
<td>3.78</td>
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<td>16.99</td>
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<td>1.52</td>
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</table>
The pattern in the bottom quartile is also broadly consistent with literature. The lowest share of female board directors was found in the sand, stone & clay sector, followed by credit and mortgage institutions and vehicle rental and repair. These bottom three sectors all had less than 2% women on the board. The sand, stone and clay sector had 1.52% women board directors, whilst the mortgage and credit sector had 1.61% and the vehicle rental and repair had 1.67% of their board seats taken up by women. The composition of the lowest performing sectors in terms of share of board directorships held by women also broadly reflect findings in the literature. Brammer et al. (2008) noted the difference in proportion of female board directors between the consumer-facing high street banks and the investment segment of banking. Whilst the high street banking sector, which had a large proportion of female employees and was deemed to be closer to the customer, had a large proportion female board directors, the investment side had very few. Similarly, Harrigan (1981) found a low prevalence of women on the board in the extraction industries, and Grosvold et al. (2007) found a similar pattern in construction and certain utilities.

Looking across the quartiles that make up the industry analysis in table 5.4, the variance in the share of board directorships held by women was roughly 10% between the high end of the second quartile and the low end of the third quartile. Food and beverage was the highest ranked industry in the second quartile with 14.97% women board directors. By comparison, food, drink and misc. was the lowest ranked industry in the third quartile, and this sector had 5.89% women board directors. The weighted average across all industries was 10.7% female board directors.

Focusing within industries across countries, it is worth noting that although some industries appear in the upper quartile of firms, suggesting a larger proportion of women on the board, there is substantial variation across countries. Looking within the top quartile firms, the textiles industry has 40% female board directors in Belgium, and none in France. Similarly, firms in the apparel industry in Netherlands have no women board directors; however, by comparison, women are well represented on the boards of apparel companies in Australia, Germany and Sweden. Perhaps even more interesting is the observation that three of the industries in the bottom quartile have relative large proportions of female directors in a certain country. The technology and equipment industry has 18.75% women
board directors in Norway and none in Australia and Belgium. Similarly, the glass, cement and concrete sector has 20% women on the board in Belgium and none in Germany. The most extreme cross national variation for a given industry in the lowest quartile is the infrastructure construction industry, where Sweden leads the way with 26.67% women, whilst Australia, Italy and Netherlands have no female corporate board directors. The industry with the most consistent high proportion of female board directors is the publishing and print industry, where four of the ten countries have more than 15% women, the lower bound of the upper quartile, whereas the most consistent ‘under-performer’ with regards to female directors was the metal products industry, where six out of seven countries had fewer than 5% women directors.

In conclusion, just as the cross-national analysis revealed substantial variation in the prevalence of women on the board across the sampled countries, there are similarly large cross-industry variations in the prevalence of women on the board. However, whereas cross-national differences revealed a more nuanced and less linear relationship than extant literature would suggest, at the industry level findings largely echo that of the literature. Women board directors tended to be concentrated in consumer-facing industries such as retail, high street banking and female oriented sectors such as fashion, where women also tend to make up a substantial portion of the workforce (Brammer et al., 2009). By comparison, the share of female directors is low in the extraction industries, the investment arm of banking and in the automotive-related sectors, industries where women tend to be scarce not only in the board room but also amongst the employee base (Burgess and Tharenou, 2000; Conroy, 2000). However, whilst the weighted average highlighted particular industries as generally having a large or a small proportion of women board directors, the picture became less clear when within industry differences across countries were analysed. Some industries showed persistently high rates of female board participation, whilst other industries had a similarly low rate. There were however some industries that had substantial cross-national variation across an industry as observed in the textiles industry, where Belgian textile firms had 40% female directors, and France by comparison had none. This within-industry variation is the subject of the next section.
5.2.3 Within-industry variation in the prevalence of women corporate board directors

Section 5.2.1 and 5.2.2 detailed the national and industry level differences in the prevalence of women on the corporate board of directors. This section addresses the third objective of this chapter and provides a detailed within-industry analysis to show that substantial variation exists within industries as well as across sectors and countries. In particular, the percentage of women board directors in the professional services sector in 2005 will be analysed across ten countries. This sector showed the broadest data coverage and exhibited interesting patterns of variation in board composition, which illustrate some of the important elements of difference observed within as well as between countries. The results are shown in table 5.5

The weighted average percentage number of female board directors for the professional services segment was 7.75% in 2005, the median was 0% and the range was 0%-50%. When ranked in descending order of which company has the highest to the lowest share of female directors, the lower bound of the upper quartile was 12.5%. For the purpose of this analysis, all firms which exhibited more than 12.5% women board directors were deemed to have a higher prevalence of female corporate board directors. The firms with the highest shares of female board directors were Groupe Crit of France and Proffice AB and Poolia AB of Sweden all reported 50% female corporate board directors. However, both France and Sweden, similarly had firms within the industry that showed no female corporate board directors. Of the 17 Swedish firms in the sample, eleven companies had more than 12.5% women directors, whilst of the 26 French firms, only four companies, Groupe Crit, Altran Technologies, ESI Group and Ilog SA had 12.5% or more female board directors. Both Norway and the UK had firms in their industry sample with a large proportion of female board directors; however the Norwegian sample is considerably smaller than that of the UK. The UK sample represents 19 firms whilst the Norwegian industry represented comprises seven firms. Of the Norwegian firms, three had 20% female board directors or more, with Prosafe ASA and Superoffice ASA reporting 25% female board directors and Norse Energy 20%. In the UK, Reuters Group showed 18.18% female board directors, whilst Hays Group and Sthree had 14.29% and 16.67% respectively, and WPP Group reported 18.75%. Of further interest is the observation that three of the seven Norwegian firms included did not have any female corporate board directors in 2005, despite the threat
of legally mandated affirmative action initiatives. By comparison, nearly two-thirds of the firms included in the UK industry list had no female corporate board directors.

The United States showed a more consistent pattern of female representation at board level. Of the firms included, ten firms had a high proportion of women directors; in particular Compuware Corporation had just over 27% female board directors, followed by IBM with 23.08% and Autodesk Inc. with 22.22%. Nine of the firms in the industry had no women in their directorial ranks. Affiliated Computer Services Inc, Citrix Systems Inc, Computer Sciences Corp, Comverse Technology Inc, Monster Worldwide Inc, Nvidia Corp, Parametric Technology Corp, Robert Half International Inc and Yahoo Inc had no female corporate board directors in 2005. Canada had no women listed as corporate directors for the firms classified as belonging to the professional services industry, nor had Australia. However, as Australia is only represented by one firm in this instance, no firm inferences can be drawn from the failure of Coates Hire Limited to have any women board directors in 2005.

Belgium and Holland show similar patterns of gender composition at board level in the professional and personal services industry. Of the six companies included in the Belgian sample, one company had women represented, with 14.29% female directors. By comparison, the Dutch sample included ten firms and one company, USG People NV had a high proportion of female board directors, with 12.5% women.

Considered in the context of the national and industry variation in the prevalence of women on the board as detailed in the previous sections, this firm level descriptive analysis highlights the variance in the gender homogeneity of corporate boards within an industry. Not only does the degree to which women are represented at board level differ on a country-by-country context, but pervasive differences also exist across and within industries. In light of the pattern of gender demography revealed by this analysis, it is clear that the observed difference across units of analysis needs careful attention in a broader, more contextualised manner, suggesting research into drivers at multiple levels will be an insightful addition to our understanding of why women succeed in acquiring corporate power on some boards, but fail to do so on others.
Table 5-5 Firm level percentage women corporate board directors for the professional services industry 2005

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<th>Australia</th>
<th>%</th>
<th>Belgium</th>
<th>%</th>
<th>Canada</th>
<th>%</th>
<th>France</th>
<th>%</th>
<th>Germany</th>
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<td>Ubisoft Entertainment</td>
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Table 5 - Firm level percentage women corporate board directors for the professional services industry 2005 cont.

<table>
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<tr>
<th>Netherlands</th>
<th>%</th>
<th>Norway</th>
<th>%</th>
<th>Sweden</th>
<th>%</th>
<th>US</th>
<th>%</th>
<th>UK</th>
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<td>Brunel International NV</td>
<td>0.00</td>
<td>Apptix ASA</td>
<td>0.00</td>
<td>Context Vision</td>
<td>0.00</td>
<td>Adobe Systems Inc</td>
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<td>Aegis Group</td>
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<td>Getronics NV</td>
<td>0.00</td>
<td>Fast Search and Transfer ASA</td>
<td>0.00</td>
<td>IFS AB</td>
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<td>Affiliated Computer Services Inc</td>
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<td>Aggreko</td>
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<td>ICT Automatisering NV</td>
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<td>Kvaerner ASA</td>
<td>9.09</td>
<td>LBU International AB</td>
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<td>Autodesk INC</td>
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<td>Autonomy Corporation</td>
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<td>Prosafe ASA</td>
<td>25.00</td>
<td>Partnertech AB</td>
<td>9.09</td>
<td>BMC Software Inc</td>
<td>9.09</td>
<td>Computa Centre</td>
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<td>Ranstad Holdings NV</td>
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<td>Stepstone ASA</td>
<td>0.00</td>
<td>Poolia AB</td>
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<td>CA Inc</td>
<td>9.09</td>
<td>Group 4 Securior</td>
<td>0.00</td>
</tr>
<tr>
<td>TIE Holding NV</td>
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<td>Superoffice ASA</td>
<td>25.00</td>
<td>Pricer AB</td>
<td>20.00</td>
<td>Citrix Systems Inc</td>
<td>0.00</td>
<td>Hays</td>
<td>14.29</td>
</tr>
<tr>
<td>Unit 4 Aggressive NV</td>
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<td>USG People NV</td>
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</table>
5.2.4 Firm characteristics and the prevalence of women on the corporate board of directors

The fourth and final objective of this chapter is to detail the relationship between certain salient firm level characteristics and the proportion of female corporate board directors. In particular, firm size, defined as market capitalisation, and board independence, defined as the proportion of executive to non-executive directors is analysed to see whether there are more women on the board of larger firms with more independent board as suggested by the literature (Burgess and Tharenou, 2000; Burke, 2000; Erhardt et al., 2003; Harrigan, 1981; Farrell and Hersch, 2005; Carter et al., 2003).

Extant literature on female corporate board directors suggests that women are found on the boards of larger and more profitable companies, and that boards with a higher proportion of non-executive or outside directors tend to have more women on their boards (Carter et al., 2001; Erhardt et al., 2003). However, as pointed out in chapter 2, the majority of empirical research carried out on female corporate board directors has been conducted in the US, Canada and Australia, all countries that commonly fall within the Anglo-American corporate governance family, which may typically conceal the role played by institutional variation across countries (Weimar and Pape, 1999). The narrow tranche of literature that has analysed the percentage board directorships women hold outside the Anglo-American corporate governance context has highlighted the role played by the distinct nature of alternative institutional environments, such as family ties for women directors in Swiss firms (Ruigrok et al., 2007), the impact of affirmative action on the gender composition of boards in Norway and Israel (Grosvold et al., 2007; Izraeli, 2000), and the role of gender politics and a female head of state in New Zealand (McGregor, 2000). These different contexts and findings, coupled with the analysis reported here suggest the prevalence of women corporate board directors is more multifaceted than literature has suggested to date.

Strands of the comparative corporate governance literature have established that certain cross-national similarities in institutional characteristics mean that more or less distinct clusters of countries can be identified around specific corporate governance features such as ownership concentration and type, legal heritage and board system (Weimar and Pape, 1999; La Porta et al., 1999; Hall and Soskice, 2001). Reflecting the notion of clusters of countries, the 12 countries included for comparison here were selected in part with a view
to capturing particular constellations of countries that have been shown to exhibit distinct institutional characteristics with regard to elements of their corporate governance context. France, Belgium, Italy and Spain are all civil law countries (De Andres and Vallelado, 2008; La Porta, 1996; Renneboog, 2000), and literature suggests these countries have similar board leadership structures, with the CEO serving as the Chairman of the Board (Arcay and Vázquez, 2005; Renneboog, 2000), and the state owns strategic stakes in businesses in France, Spain and Italy (Pedersen and Thomsen, 1997), and share ownership is more concentrated and family ownership more prominent than in the UK and the US (Berglöf, 1997; De Miguel et al., 2004; Becht, 1999). Countries such as Australia, UK, US and Canada by comparison have dispersed share ownership (Pedersen and Thomsen, 1997; LaPorta et al., 1999; Gedajlovic and Shapiro, 1998), more institutional investors (Gedajlovic and Shapiro, 1998), a common-law legislative heritage and, until the recent financial crisis, a strong emphasis on free rather than state directed market regulation (Weimar and Pape, 1999). Continuing the theme of understanding different evolving patterns of female corporate board participation in different national contexts, this section analyses the pattern of the prevalence of women on the board for a sample of 12 countries in relation to market capitalisation and board independence.

Turning first to the relationship between board gender demography and company size as measured by market capitalisation, this analysis was arrived at by ranking each country’s firms in descending order according to market capitalisation and based on this ranking associated average percentage female board directors were calculated for each quartile.
Table 5-6 Percentage women board directors by market capitalisation 2005

<table>
<thead>
<tr>
<th>Country</th>
<th>Upper Quartile</th>
<th>Second Quartile</th>
<th>Third Quartile</th>
<th>Lower Quartile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>11.96</td>
<td>12.68</td>
<td>6.61</td>
<td>5.23</td>
</tr>
<tr>
<td>Belgium</td>
<td>5.04</td>
<td>8.31</td>
<td>8.38</td>
<td>0.78</td>
</tr>
<tr>
<td>Canada</td>
<td>13.63</td>
<td>9.97</td>
<td>7.21</td>
<td>3.72</td>
</tr>
<tr>
<td>France</td>
<td>6.76</td>
<td>5.34</td>
<td>7.50</td>
<td>8.66</td>
</tr>
<tr>
<td>Germany</td>
<td>7.16</td>
<td>5.87</td>
<td>8.81</td>
<td>4.95</td>
</tr>
<tr>
<td>Holland</td>
<td>6.77</td>
<td>3.28</td>
<td>3.25</td>
<td>0.48</td>
</tr>
<tr>
<td>Italy</td>
<td>3.36</td>
<td>1.01</td>
<td>2.64</td>
<td>5.06</td>
</tr>
<tr>
<td>Norway</td>
<td>14.88</td>
<td>14.58</td>
<td>6.55</td>
<td>6.93</td>
</tr>
<tr>
<td>Spain</td>
<td>3.94</td>
<td>3.32</td>
<td>0.83</td>
<td>7.42</td>
</tr>
<tr>
<td>Sweden</td>
<td>19.18</td>
<td>15.40</td>
<td>15.51</td>
<td>15.54</td>
</tr>
<tr>
<td>United States</td>
<td>14.85</td>
<td>14.90</td>
<td>13.71</td>
<td>13.51</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>10.57</td>
<td>7.09</td>
<td>5.11</td>
<td>5.13</td>
</tr>
<tr>
<td>Average percentage</td>
<td>9.84</td>
<td>8.48</td>
<td>7.18</td>
<td>6.45</td>
</tr>
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</table>

Far from being a simple linear relationship between market capitalisation and proportion of female corporate board directors, the above table reveals a more complex picture. Belgium, France, Italy and Spain all have the highest proportion of female corporate board directors in the smaller firms by market capitalisation. Belgian firms show the highest prevalence of female corporate board directors in the second and third quartile, with over 8% women; whilst Belgium’s largest firms had merely 5.04% female board directors. Women were virtually absent from the board of smaller firms, with less than one percent of board positions held by women. Whilst the largest French firms have 6.76% women on their boards on average, this declines to 5.34% for the second quartile firms, and increases to 8.66% for the smallest firms. Italy and Spain exhibit a similar trend, but with a lower proportion of directorships held by women compared with France. Women have 3.36% board directorships in Italy’s largest firms, but the proportion rises sharply to 5.06% in the smallest firms. Similarly, the largest companies in Spain had just fewer than 4% of women serving as corporate board directors, whilst in the smallest had 7.42% women board directors.

Below is a graphic illustration of the relationship between firms’ market capitalisation and the degree to which they have female corporate board directors for Belgium, France, Italy
and Spain. When viewing these four countries in isolation the linear trend shows an increase in the proportion of women on the board for the smaller firms in the sample.

**Figure 5.1 Percentage female board directors in Spain, Belgium, France and Italy**

By contrast, Australia, UK, US, Canada, Norway, Germany, Holland and Sweden show a more linear relationship in the expected direction. In general there is a larger concentration of female corporate board directors in the larger firms. The largest firms in Norway and Australia had nearly twice the proportion of female board directors compared with the smallest. Australia had 11.96% and 12.68% female corporate board directors in their largest firms, compared with 6.61% in the third and 5.23% in the lowest quartile. Norway showed a similar trend, larger companies had more women, with 14.88% and 14.58% for the upper and second quartile respectively, whilst the third quartile has 6.55% female directors and the lowest quartile 6.93%. Canada, Holland and the UK all had a progressively lower prevalence of women on their boards. Canada had the largest absolute difference in prevalence between the largest and smallest firms, with 13.63% of board seats taken by women in its largest firms, and only 3.72% of board seats in its smallest firms were occupied by women. By comparison the smallest companies in Holland had less than one percent female board directors, whilst the largest had 6.77% female directors.
The UK’s largest firms had on average 10.57% female board directors, whilst the smaller firms had just over 5% female board directors. Sweden and the US had the highest and most consistent pattern of female board directors. Sweden’s biggest firms boasted 19.18% female board directors, whilst the largest corporations in the US had 14.85%. The below graph illustrates the downward-pointing trend line, confirming that previous research conducted into the firm size and profitability and the prevalence of women on the board does hold true in certain national institutional settings.

Figure 5.2 Percentage female board directors in Sweden, USA, Norway, Australia, UK, Germany and Holland

The second part of this analysis into firm level characteristics and the prevalence of women on the board concerns board independence. Research suggests that more independent boards have more female directors (Zahra et al., 1993; Johnson and Greening, 1999; Agrawal and Knoeber, 2001) and that the women who serve as corporate board directors overwhelmingly do so as non-executive directors (Daily et al., 1999). As with the research that established this truism for the relationship between firm size and profitability and the proportion of women serving on a given board, scholarly enquiry has largely been confined to North America, Australia and Canada (Zahra et al., 1993; Agrawal and Knoeber, 2001;
Hillman et al., 2007; Sheridan 2001). Thus, continuing from the review of the relationship between market capitalisation and the prevalence of women on the board, below is an analysis of the relationship between the dominance of non-executive board directors and the proportion of board seats held by women. As with the above analysis, this analysis divided the firms for a given country into quartiles depending on the share of outside directors the firm had and calculated the mean percentage number of women on the board for each quartile on a country-by-country basis.

<table>
<thead>
<tr>
<th>Country</th>
<th>Upper Quartile</th>
<th>Second Quartile</th>
<th>Third Quartile</th>
<th>Lower Quartile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>11.74</td>
<td>11.29</td>
<td>7.83</td>
<td>5.62</td>
</tr>
<tr>
<td>Belgium</td>
<td>5.13</td>
<td>4.37</td>
<td>5.10</td>
<td>8.50</td>
</tr>
<tr>
<td>Canada</td>
<td>15.42</td>
<td>8.27</td>
<td>7.51</td>
<td>3.79</td>
</tr>
<tr>
<td>France</td>
<td>6.26</td>
<td>7.42</td>
<td>6.76</td>
<td>7.90</td>
</tr>
<tr>
<td>Germany</td>
<td>8.22</td>
<td>6.08</td>
<td>8.83</td>
<td>3.42</td>
</tr>
<tr>
<td>Holland</td>
<td>3.48</td>
<td>4.81</td>
<td>2.86</td>
<td>2.48</td>
</tr>
<tr>
<td>Italy</td>
<td>3.18</td>
<td>2.00</td>
<td>3.45</td>
<td>3.43</td>
</tr>
<tr>
<td>Norway</td>
<td>11.93</td>
<td>10.71</td>
<td>9.58</td>
<td>10.71</td>
</tr>
<tr>
<td>Spain</td>
<td>1.33</td>
<td>4.45</td>
<td>3.69</td>
<td>5.89</td>
</tr>
<tr>
<td>Sweden</td>
<td>19.68</td>
<td>15.45</td>
<td>17.26</td>
<td>13.23</td>
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<td>United States</td>
<td>15.05</td>
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<td>13.15</td>
<td>13.61</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>7.92</td>
<td>8.13</td>
<td>7.50</td>
<td>4.33</td>
</tr>
<tr>
<td>Average percentage</td>
<td>9.11</td>
<td>8.18</td>
<td>7.79</td>
<td>6.91</td>
</tr>
</tbody>
</table>

*Board independence is defined as the proportion of non-executive to executive directors. Calculations for average board independence were aggregated to the national level, and countries were sorted in descending order from the highest ratio of non-executive directors to executive directors, to the lowest.

The share of board seats held by women when analysed in relation to board independence shows a varied pattern that is similar to that observed for company size. In other words, the academically established pattern suggesting boards with a larger share of non-executive directors have more women shows variation across countries. Belgium, France, Italy and Spain again showed an inverse of the expected relationship between women on the board and board independence. All four countries had higher percentage women board directors where there were fewer non-executive directors. The relationship is particularly prominent for Spain, where the most independent boards only had just over 1% female corporate board directors, whilst the firms with the lowest number of non-executive directors had
nearly 6% women on their boards. In Belgium, firms with the highest number of outside board directors had 5.13% women, in France the proportion was 6.26% and in Italy 3.18%. Belgium and France both had a quite stable proportion of women on the boards of firms in the second and third quartile, whilst Italy had approximately 1.5% more women in the third quartile compared with the second. France, Belgium and Spain had the highest proportion of women on the board in the lowest quartile, Belgium with 8.5%, France with 7.90% and Spain, as stated above, 5.89%.

The remaining countries continued to show patterns of board composition broadly in line with extant scholarly research. Australia and Canada had more women on the board in firms that had a higher proportion of non-executive directors, and gradually fewer women until the least independent boards were associated with the least gender heterogeneity. Germany, Holland, Norway, Sweden, the United States and United Kingdom broadly showed a decline in the number of women on the board in line with diminishing board independence. Sweden and the US continued to show the highest and most consistent pattern of female corporate board directorships, Sweden exceeding 19% women on the board of firms in the upper quartile, whilst the US had just over 15%. The lowest quartile shows a similar level of female corporate directors, 13.23% in Sweden and 13.61% in the US. The UK and Holland both show the second largest proportion of women on the boards where boards are most independent; UK had 7.92% women and Holland had 3.48% on the firms in upper quartile. Similarly both countries had the largest proportion of female directors on the boards of firms belonging to the second quartile, followed by a steady decline for firms categorised as belonging to the third and bottom quartile. The most independent boards in Norway had 11.93% female corporate board directors, a proportion that fell to 10.71% for the boards with the lowest number of female board directors. The graph below highlights the complex nature of the relationship between board independence and female corporate board directors.
Figure 5.3 Percentage female board directors by board independence
Regarding the evolving trends in proportion of corporate board directorships held by women, it is clear from this analysis that the development in gender demography has not been linear. Large, consistent and in some instances, growing differences were found at the national, industry and within-industry level. The next section discusses these findings with reference to the literature and a final section concludes.

5.3 Discussion and conclusion

This analysis has highlighted substantial country and industry variation in the prevalence of women on the board, and illustrated the importance of broadening the sample of countries and industries included in any analysis of board’s gender demography and the value in looking beyond country averages for understanding the pattern of female corporate board directors.

Some salient national level observations emerged that warrant discussion. The relatively consistent high level of female board participation across the Nordic region is noteworthy. The Nordic countries have a long history of promoting a gender equitable society (Baxter and Kane, 1995), and they all score relatively highly on feminine values in Hofstede’s framework of cultural country characteristics (Hofstede, 1983). However, Norway’s decision to introduce affirmative action may be a particularly pertinent factor in accounting for the high proportion of female corporate board directors, not only in Norway but across the Nordic region. Norway’s decision to legislate the gender proportion of the corporate board came in 2003, when the Norwegian Parliament passed a law requiring all Publicly Restricted Companies (Similar to PLC) boards to have at least 40% male and 40% female corporate board directors by 2007 (Det Kongelige Barne og Familie Departement Ot.prp nr. 97 2002-2003). Following this move, Sweden decided to address their gender imbalance at the board level and announced their intention to legislate in a similar fashion to Norway, but rather than set the proportion at 40% like Norway had done, Sweden aimed to increase the proportion of female corporate board directors to 25% by the end of 2004. Swedish firms responded by increasing their proportion of female board directors substantially before the law was passed, prompting the government to scrap their plans for legislation but to continue to monitor the gender diversity of Swedish boards (Thomson et al., 2005). At the time Denmark decided not to legislate for higher proportion of female corporate board directors, but the Danish state urged firms to appoint more women to their corporate boards (Thomson et al., 2005; Smith et al., 2006). Similarly, Finland has not
introduced legislation to cover the relative gender composition of corporate board of directors, except where the state has representatives on a corporate board, in which case the state’s representatives should reflect gender parity (Kuusipalo, 2000). Norway’s early decision to make use of legislation to address the gender disparity in the boardroom may have influenced the gender composition of the corporate boards in other Nordic countries.

A further interesting finding to emerge from the national level analysis was the comparatively slow evolution in the share of board seats held by women across the US and the UK when compared with Norway and the broader Nordic region. The modest growth observed across these two countries is particularly interesting. The period reflected in the analysis coincides with influential developments in the corporate governance framework of both countries. Following high profile, and high impact, corporate scandals such as WorldCom and Enron, both the UK and the US paid renewed attention to the way in which corporate governance, including board structure and composition, influenced firm behaviour (Valenti, 2008). In particular, the Higgs Report commissioned by the UK government in 2003 to review the salient characteristics of the corporate boards of public limited liability companies, made clear recommendations for increasing the proportion of female corporate board directors, and the British government further emphasised the desire for more gender heterogeneity in the boardroom by also commissioning the Tyson Report (2003), which explicitly highlighted the benefits associated with diverse boards, but stopped short of recommending quotas like those introduced in Norway (Aldrick, 2003). The United States similarly made far-reaching changes to their corporate governance practices and the Senate passed the Sarbanes-Oxley Act (SOX) in 2002. Whilst SOX did not explicitly mention women, the Act clearly articulated the need for greater director independence and accountability, as corporate failings had made obvious the inherent problems of poor decision-making and groupthink where boards become demographically too homogeneous (Ramirez, 2003). Faced with prominent state-backed corporate governance initiatives like the Higgs Review and SOX, and intense media and scholarly scrutiny around the issue of board homogeneity (Brickey, 2008; Bartunek, 2002), the modest increase in the proportion of female corporate directors is interesting, and is perhaps indicative of the challenges faced by women wishing to acquire board directorships, when there is no legally mandated requirement for increased corporate board diversity.
In addition to the emerging pattern of women board directors across the Nordic region and the US and the UK, a less distinct, but none-the-less note worthy Southern European cluster also seems to emerge. Portugal, Italy, France, Greece and Spain consistently ranked amongst the countries with the lowest share of female corporate board directors in table 5.2. Whereas the Nordic trend in female board room participation may be in part attributable to Norway’s decision to introduce affirmative action, the Nordic countries are also similar in cultural characteristics. Hofstede (1983) found a similar clustering of Southern European countries, where masculine values were more prominent than the feminine and power distances were higher, which may contribute to the explanation for why these countries showed such persistently low rates of female board participation. The next chapter begins to address some of these national characteristics in accounting for the share of corporate board directorships women hold across countries. Understanding the broader national institutional context within which firms operate can contribute to further our understanding of what engenders an increase in the percentage share of board seats held by women.

Idiosyncrasies in the male to female director ratio were also observed at industry level with some industries having consistently larger shares of female board directors. Within industry differences were further observed, suggesting that the influences on the prevalence of women on the board are multi-faceted and multi-level in nature. The firm level analysis presented in table 5-5 revealed that firms in the same industry differed markedly in the extent to which they had female board directors. Some firms such as Groupe Crit of France had 50% women board directors, whilst other firms in the same industry had none.

This analysis suffered from a notable limitation: The lack of consistent data. Despite extensive efforts to obtain as large and consistent sample as possible covering the broadest range of countries and industries, at the time of writing it was not possible to indentify a single data source that simultaneously offered national, industry and firm level data coupled with the prevalence of female corporate board directors. Substantial time and effort went into building the national level database in particular, which required extensive and thorough examination of a large number of annual reports, web sites and databases to complement the data obtained from BoardEx. With regards to firm and industry level observations, time and financial restrictions meant this research had to substantially use
BoardEx, which is an established and trusted academic resource as discussed in chapter 4. However, gaps in the data persisted and this impacted on the analysis presented here. The slight variation in the sample across the different levels of analysis means consistent reporting across levels is not possible and that better analysis is available for some parts of the analysis than others. Afforded the time and the financial resources, subsequent research should seek to build a bespoke dataset that is consistent over time tracking the evolving role of female board directors and match such data with firm level financials to provide the clarity and coherence of data that is needed. Despite this limitation, this research throws light on a number of important issues in research on women board directors and highlights the need to explore wider avenues of research in establishing precisely why there is variation across countries and industries.

5.4 Chapter summary
Notwithstanding the data limitations, this chapter achieved the objectives it set out to fulfil, namely to highlight the cross-national variation in the prevalence of women on the board, secondly to show that the gender composition of the corporate board of directors varies across industries, thirdly to provide a detailed within-industry analysis to show that substantial variation exists within industries as well as across sectors and countries, and finally to detail the relationship between certain salient firm level characteristics and the proportion of female corporate board directors. To begin to understand this cross-national variation, the next chapter will assess national, level influences on the prevalence of women on the corporate board of directors for a cross-national sample drawn from a database of 50 countries.
WOMEN CORPORATE BOARD DIRECTORS AND NATIONAL INSTITUTIONAL CONTEXT
6. Women corporate board directors and national institutional context

The previous chapter systematically mapped the percentage number of women board directors across a set of countries, industries and companies and highlighted salient facts regarding the share of board directorships women held in particular country clusters and industries. This chapter seeks to explore whether the varying pattern of female board participation can be explained with reference to country institutional factors. This chapter has three particular objectives: firstly, to draw on the conceptual framework developed in chapter 3 to develop testable hypotheses informed by Scott’s (1995) three pillars about the role played by national institutions in shaping the prevalence of women on the board; secondly, to test empirically these hypotheses using a novel cross-national dataset; and thirdly, to draw conclusions from the findings as they relate to theory and practice.

Through this analysis, two significant contributions are made. First, this research extends and complements earlier analyses of the factors associated with greater prevalence of women on corporate boards of directors to encompass macro-level influences and processes. Given significant debate concerning the mix of policies and practices necessary to promote women’s participation on corporate boards, this analysis is able to highlight the relevance of country level institutional levers to this debate. Also, this helps companies to understand better the constraints and influences upon their capacity to recruit women and raises awareness of how national institutions shape board demography. Secondly, this research extends the analysis of the influences of country institutional environments to encompass the domain of board demography. In so doing, this research responds to calls for research that explores the relationship between boards of directors and the wider institutional contexts within which firms operate (Boyd, 1990; Pearce and Zahra, 1992), and contributes to the development of the emerging literature that addresses a comparative analysis of country institutions. Through this, further evidence is added to the ongoing evaluation of the range of phenomena to which a comparative institutional analysis can usefully contribute.

The next section addresses the literature review and hypothesis development. Then, the empirical methods are described, and then the findings are reported. The importance of these results for both the literatures on board demography and for managerial practice is then discussed. A final section concludes.
6.1 Literature review and hypotheses development

As discussed in chapter 3, institutional theory emphasises the significance of long-lasting, embedded and persistent aspects of a social environment for the behaviour of actors and agents within that environment (Scott, 1987, 1995; DiMaggio and Powell, 1983; Selznick, 1957). Central to many discussions of institutional pressures is the tendency for businesses to select relatively homogeneous, or isomorphic, responses to them in the form of similar organisational structures, processes and behaviours (DiMaggio and Powell, 1983). Therefore, while companies are, in principle, able to select a number of possible responses to institutional pressures (Oliver, 1997), firms tend, in many contexts, to conform to institutional forces. In light of this tendency to isomorphic conformity to institutional pressures, a growing body of research has analysed the distinctive institutional attributes of countries and demonstrated the significance of these for a range of economic, political, and business phenomena (Hall and Soskice, 2001; Murtha and Lenway, 1994; Whitley, 1999; Crossland and Hambrick, 2007).

Research on national institutions focuses on the identification and classification of aspects of country institutional environments and the study of their importance for a wide range of phenomena (Whitley, 1999; La Porta et al., 1998; Hall and Soskice, 2001; Hofstede, 1980, 1983, 1985). For example, empirical research concerning national institutions has focused on explaining cross-country variation in innovation (Patel and Pavitt, 1994; Lundvall et al., 2002), human resource management activities (Ferner and Quintanilla, 1998), entrepreneurial behaviour (Busenitz et al., 2000), and corporate governance practices (Denis and McConnell, 2003). In this chapter, it is argued that cross-national variation in institutional factors plays an important role in shaping corporate boards, particularly with respect to the board’s gender composition, and in light of the conceptual framework proposed in chapter 3, this research analyses the role played by regulative, normative and cultural-cognitive pillars in explaining cross-national variation in the share of board seats held by women.

The regulative pillar is concerned with legitimacy, anchored in judicially sanctioned, enforceable laws and complied with on the basis of expediency, whilst the normative pillar centres on morally governed expectations concerned with appropriate behaviour and has its basis of compliance in social obligation (Scott, 1995). In the normative view of institutions, social obligations and morally governed behaviour are central components.
The third and final pillar identified by Scott (1995) is the cultural-cognitive pillar which focuses on the shared yet often implicit understanding of common beliefs and logics, which at its core has the “shared conceptions that define the nature of social reality” (Scott, 1994, p 408). The board of directors is one such group of people who establish a common understanding of the etiquette and taken for granted behavioural patterns that reflect the culture and wider institutional context within which the board, and by extension the firm, operates and make decisions (Westphal and Khanna, 2003).

*Regulatory influences on the prevalence of women on the board*

Regulatory institutions encompass such factors as rule of law, consent, judicial expediency, the structure of the state and the political climate (Scott, 1995; Whitley, 1999). A country’s political and governance-related institutions constitute an important facet of the firm’s environmental context, as Hitt et al. (1997) argue: “managerial practices are as much a function of environmental forces as they are of cultural attributes…executives’ strategic orientation will be affected by their…national policies and institutions” (p 160). Governance provides the societal parameters within which institutions exist and develop: “Institutions constrain and regularize behaviour” (Scott, 1995, p 51). Firms, the central actors of institutional theory (Hall and Soskice, 2001), exist alongside and are dependent on these institutions and consequently the form, extent and nature of the institutions will shape board-level decision-making and processes. Political environments are frequently characterised in terms of left (Liberal) or right (Conservative)-wing inclinations. The right-wing or Conservative political views emphasise stability, preservation of tradition, and order, whilst vindicating continued societal inequality (Thorisdottir et al., 2007; Evans et al., 1996). With the right-wing governments’ traditional stress on stability and resistance to major change in the corporate realm, one would expect there to be fewer women on the board where there are Conservative political regimes, as the overriding desire for order and stability is paramount (Thorisdottir et al., 2007), and introducing women on the corporate board in the face of a largely Caucasian, all-male group would represent a departure from the established norm: conversely, the expectation is that there would be more women on the board in countries on the left-hand side of the political spectrum; because left-wing or socialist inclined political parties have historically been associated with gender equality, extensive welfare provisions especially for women, state intervention and inclusiveness (Arian and Shamir; 1983; Mandel & Semyonov 2006; Lin 2005).
From a regulative perspective, where women are afforded the opportunity to more directly be involved with the national legislative process this can have beneficial outcomes for female board directors. Women who acquire positions of national political power are able to more directly engage with the legislative process of a given country and more effectively work to ensure gender parity is reflected in national laws and regulations (Reynolds, 1999). Research suggests where more women hold political office, there are more women-friendly policies such as child-care and welfare provisions, which in turn help women, pursue professional careers outside the home (Lijphart, 1991). The power conferred by positions of regulative influence may engender a related benefit for the women who hold political office. Shilton et al. (1996) found that women in positions of influence and senior political power were coveted for board positions, and Hillman (2005) suggests that legislation and government regulations exert important pressures on business, which business in turn seek to address by recruiting board directors who have political clout. Women who inhabit roles of regulatory influence may themselves therefore be offered corporate board directorships.

Discrimination has been identified as a possible reason for the low representation of women on the board (Bilimoria and Piderit, 1994). Effective, impartial and fair national governance is essential to the safeguarding of equal rights for men and women. Most western economies have legislation protecting against discrimination on the basis of gender. Women and men, in principle, have the same rights to work and educational opportunities in the developed world (Masselot, 2007). Whilst legislation and societal support may underpin this in principle, gender equality only becomes a reality with the help of an effective and impartial judiciary, and law enforcement agencies that can ensure that workplaces, educational establishments and other organisations follow the laws and can deal effectively with cases of gender discrimination as and when they arise. Countries with strong institutional governance practices are thus more likely to benefit from fair access to education and gender equitable career opportunities essential for demographically diverse corporate boards. These arguments suggest:

Hypothesis 1: There is a positive relationship between the proportion of female board directors and the degree to which a country is on the left-hand side of the political continuum.
Hypothesis 2: There is a positive relationship between the proportion of female board directors and the proportion of seats held by women in the national parliament.

Hypothesis 3: There is a positive relationship between the proportion of female board directors and the quality of national governance.

Normative influences on the prevalence of women on the board

The normative pillar of Scott’s framework centres on shared norms, beliefs and values. These are reinforced and developed through continued interactions between individuals, groups of people, and organisations. Normative determinants are manifested through appropriateness - what constitutes accepted social interaction in a given setting. Whilst rules, laws and sanctions were the overt manifestations of the regulatory pillar, Scott (2005) lists certification and accreditation as indicative of normative constructs, in addition to the value-based norms he argues develop over time. Hoffman (1999) and Mark (2007) argue that education and religion are indicators of aspects of a country’s normative institutions.

The educational opportunities afforded women in a given country is indicative of the perceived societal beliefs of women’s role in society. Countries that encourage women to invest in their human capital implicitly encourage them to pursue professional careers outside the home, allowing women to build up the requisite work experience needed for board directorships. Research evaluating female board directors’ credentials found that women directors hold a larger proportion of academic qualifications and have equal if not better skills and competencies than their male counterparts (Burgess and Tharenou, 1996; Sheridan, 2001; Hillman and Cannella, 2002). An increase in the number of women pursuing higher education and professional qualifications has coincided with a substantial increase in the number of women in the workforce, and in particular in senior roles (Levin and Mattis, 2006). This suggests that access to adequate education is essential to women who wish to pursue board directorships. Secondly, a country’s educational system is an important normative carrier. The curriculum taught by an educational system reflects the values and beliefs inherent in that system, and these normative values are passed on to consecutive cohorts of students (Trevino et al., 2008; Turner, 1997). Educated women will therefore embody the beliefs and values of the educational system they studied in.
Religious beliefs are still a pervasive force in shaping perceptions of gender and often
define what is perceived to be right, wrong and acceptable behaviour for a given society
(Parboteeah et al., 2008). The manifestation of national religious faith has many facets and
implications for social life. In this research the concern is with the degree to which religion
may influence women’s commercial and professional role in society as seen from a
spiritual perspective. In light of the normative pillar, the impact of Christianity, Islam, and
Chinese Folk Religion as encompassing Buddhism, Hinduism and Taoism are explored for
the proportion of women on the board. Chinese Folk Religion is mixture of beliefs
originating in Asian philosophy and related religious belief systems such as that of
Buddhism, and is based on the belief that a direct bond exists between “the terrestrial and
spiritual world, and between and among human beings, gods, and spirits” (Gaw, 1993, p
247). Noticeable overlaps exist between Buddhism, Hinduism and Taoism as well as
elements of Hinduism (Bouma and Singleton, 2004). The notion of religion and religious
beliefs has been subjected to numerous definitions (Graafland et al., 2007; Iannaccone,
1998; Chusmir and Koberg, 1988). Common for them all is the focus on the individual’s
belief in a supernatural power, usually focused on one God, but some religions have more
than one God such as Chinese Folk Religion (Harrell, 1977). The belief system embedded
in the particular religion an individual worshipper follows forms an integral part of the
normative and ethical behavioural make-up of that individual (Chusmir and Koberg, 1988).

Personal religious beliefs have been associated with a number of business-related
outcomes such as attitudes to corporate social responsibility (Graafland et al., 2006,
Brammer et al., 2007; van Burren III, 2007; Agle and van Burren III, 1999), attitude to
work (Chusmir and Koberg, 1988; Sadler-Smith et al., 2003), stakeholder management
(Schwartz, 2006) and business ethics (Pava, 1998, Clarke et al., 1996).

Despite the inherent differences in values, beliefs and methods of worship found across
religions, there are commonalities in the way Islam, Christianity and Chinese Folk
Religion encourage commercial ventures, economic activity, self-sufficiency and charity
through the sharing of any earnings and profit (Gordon, 1994; Calkins, 2000; Sadler-Smith
et al., 2003; Alexandrin, 1993). All the religions considered in this analysis allow and
encourage worshippers to improve their material standing and pursue prosperity. However,
the intrinsic motivation for pursuing financial and material gains and how the wealth is
created and shared differ. Christianity and Islam focus on the importance of hard work,
dedication and the need to part with some of one’s wealth and share it with those less well
off and less fortunate, whilst Buddhism and Hinduism, both elements of Chinese Folk Religion, place greater emphasis on intrinsic well-being, cooperation, compassion and humility (Alexandrin, 1993; Chow, 2007). Where the religions do differ is in relation to the role of women in business. Christianity emphasises the rights of women to equal wages, respect and treatment in commercial life to those of men (MacLean, 1946), and Islam’s view of women is that they have an equally important role to play in society to that of men, albeit a different one. Women’s societal role is predominantly played out in the familial, social and welfare-related sphere, and where professional women pursue careers they are often expected to stop working once they marry or have children. Moreover, their continued participation in professional roles is somewhat dependent on their husband’s approval (Metcalfé, 2007). Women’s role in Hinduism is largely framed in terms of being good wives and mothers and being subservient to their male family members (Tomalin, 2006). Some notable exceptions to the subservient Hindu woman exists, such as Ms Nooyi of Pepsi Co who successfully ascended the highest echelons of business; however, she benefitted from extensive university education, including business studies in the US, which is not common for all women in India, suggesting these are opportunities afforded the few rather than the many. Despite the philosophical nature of Buddhism and the opportunity for more individual interpretations of the basic edicts associated with the faith, it appears to offer less by way of opportunities for women. Women can be seen to be of lower re-birth, higher re-birth being important for furthering one’s own life, career and well-being. Certain Buddhist countries such as Thailand marginalise women from the public arena (Peach, 2002), and Norsworthy (2004) suggests Buddhist beliefs as interpreted by certain men legitimise violence and degrading treatment of women. Buddhism says little about the scope for having women in positions of leadership. As Buddhism and Hinduism figure prominently within the Chinese Folk Religion (Bouma and Singleton, 2004), the Eastern Religious principles of Folk Religion, Hinduism and Buddhism will be treated as one Eastern Religion. Reflecting the discussion of the normative pillar it is therefore hypothesised:

Hypothesis 4: There is a positive relationship between the proportion of female board directors and the percentage of women who enter higher education.

Hypothesis 5: There is a positive relationship between the proportion of female board directors and the degree to which Christian beliefs prevail.
Hypothesis 6: There is a negative relationship between the proportion of female board directors and the degree to which Islamic beliefs prevail.

Hypothesis 7: There is a negative relationship between the proportion of female board directors and the degree to which Chinese Folk Religious beliefs prevail.

Cultural-Cognitive influences on the prevalence of women on the board

National culture is a multifaceted and frequently defined phenomenon (Arnold et al., 2007; Craig and Douglas, 2006; Orchard, 2002). Culture is often characterised in terms of behavioural patterns and actions within a common frame of reference (Huczynski and Buchanan, 1991; Scott, 1995), the adhesive that bind communities together through shared values, norms, rites and other implied and explicit patterns of behaviour (Tsui et al., 2007). In operationalising Scott’s (1995) cultural-cognitive pillar, this chapter uses Hofstede’s cultural framework. Hofstede defines culture as “the collective mental programming of the people in an environment…the collective mental programming that these people have in common…the programming that is different from other groups” (1980, p 43). Hofstede’s framework is well established and extensively used in management research (See for example Johns et al., 2007; Arnold et al., 2006; Littrell and Valentin, 2005; Mukherji and Hurtado, 2001). His research identified four key aspects which, together, provide a summary of the character of a nation’s culture: Power Distance, Uncertainty Avoidance, Individuality and Masculinity.

The concept of Power Distance captures the degree to which a society accepts and recognises that power is unequally distributed in society. Countries that exhibit high levels of power distance see powerful people as being entitled to privileges, see ‘subordinates’ and authority possessors as different kinds of people and subordinates see their superiors as essentially inaccessible. Where low power distance prevails, subordinates and superiors treat and see one another as equals, everybody has equal rights and superiors are readily contactable and accessible to their subordinates (Hofstede, 1983). Countries that exhibit large power distance include India (Kedia and Bhagat, 1988), whilst Scandinavian countries display low power distance (Sundqvist et al., 2005). Uncertainty Avoidance refers to the degree to which a nation is comfortable with uncertain and ambiguous situations and how adequately the country copes with change and unpredictability.
Hofstede (1980) found that countries with high uncertainty avoidance often displayed more aggressive behaviour and anxiety. Portugal and Brazil are examples of countries with high uncertainty avoidance whilst Ireland and the UK display low uncertainty avoidance. Individualism-Collectivism captures a people’s propensity primarily to look out for themselves and their immediate family (individualistic) rather than their wider family, the community or clan (collectivist). Collectivist countries are characterised by tight social networks and a high degree of loyalty to the community in return for care and protection. Collectivist countries include Thailand and Chile whilst individualist countries include the USA and Australia. Lastly, the masculine-feminine continuum measures the degree to which a society is driven by masculine as opposed to feminine values. Feminine values are deemed to be quality of life and care for others, whilst masculine values are said to focus on wealth and material accumulation and status. Furthermore, feminine societies were found to exhibit greater flexibility in sex-roles and displayed a greater degree of gender equity (Huczynski and Buchanen, 1991).

Given this, countries with high power distance are less likely to challenge the status quo on gender diversity at board level as these countries innately see authority figures as different from those not in powerful positions, and therefore deserving of special privileges. Regarding uncertainty avoidance, Bilimoria and Piderit (1994) found that companies were occasionally reluctant to take on women directors as there was some perceived risk attached to hiring them, hence countries that score high on uncertainty avoidance are expected to have fewer female board directors. With respect to individualism versus collectivism, Singh and Vinnicombe (2004) highlight that to gain board directorships women must assimilate male career-planning, networking and politicking tactics, essentially aimed at promoting the self, rather than the collective company. Bolino and Turnley (2003) found that men were much more aggressive than women in employing self-promoting, career-enhancing tactics, whilst women do not easily engage with more covert political organisational manoeuvres; “women are no good at the politics side of things” (Simpson, 1997, p 127). In sum, this suggests there is a likelihood of more women directors on boards in more individualist cultures because women within these cultures are accustomed to and more familiar with the attributes more commonly associated with board membership. Concerning masculinity/femininity, masculine countries are known to exhibit a focus on the accumulation of material possessions and prestige, and a large degree of male-female role differentiation (Huczyski and Buchanen, 1991). More traditional patterns
of gender roles are characterised by men in the breadwinner role and women as homemakers (Corrigall and Konrad, 2006). According to Hofstede higher degrees of masculinity were also associated with a perception that men should be the dominant force in society, which suggests that more masculine countries would have fewer female board directors. Reflecting these arguments:

Hypothesis 8: Countries that display high levels of power distance will have a lower percentage of female board directors than countries that display low power distance.

Hypothesis 9: Countries that display high levels of uncertainty avoidance will have a lower percentage of female board directors than countries that display low uncertainty avoidance.

Hypothesis 10: Countries classified as individualist will have a higher percentage of female board directors than countries classified as collectivist.

Hypothesis 11: Countries classified as feminine will have a higher percentage of female board directors than countries classified as masculine.

6.2 Methods

Sample

This analysis focuses on evaluating the degree to which Scott’s (1995) three pillars of institutional theory explain the prevalence of women on the corporate board of directors in a cross-national perspective. As outlined in chapter 4, this placed certain restrictions on the countries that could usefully be included in the analysis to those countries which a) have corporations, i.e. companies that adopt the corporate form, b) employ corporate boards or a comparable highest decision-making body, c) have a requirement, or convention, that information about these boards is made public, and d) had a sufficient number of listed companies for the national aggregate numbers to be viewed as being reasonably representative of the general pattern of board demography found among large companies in a given country. Notwithstanding these limitations, the gathered data have global reach encompassing all the major continents including Europe (Western Europe, many countries of the former Eastern Bloc, Southern Europe including Greece and Turkey), Australasia, Africa (including both South Africa and Egypt), Asia (including key economies such as Japan, China, Hong Kong, Singapore, India and Malaysia), Latin America (including Brazil, Mexico, Argentina and Chile), in addition to the US and Canada. Drawing upon a
wide range of sources discussed in more detail below, it was possible to identify robust estimates of the prevalence of women on corporate boards for 50 countries, and typically for several years per country. However, the constraints outlined did limit the number of countries included from Africa, the Middle East, and parts of Asia.

Dependent variable

The dependent variable is defined as the percentage of board seats in a country occupied by female directors in a given year. For the vast majority of countries, BoardEx was used to obtain data concerning the composition of corporate boards. BoardEx is a commercially available database, which is establishing itself as the premier data source for board related data, as discussed in chapter 4. BoardEx data were then aggregated to country level annual averages for the purpose of this research. In addition to using BoardEx data, further data collection for Latin American countries and India was carried out as these countries were at the time of writing not available on BoardEx. In order to compute these figures for particular country/years the recognised method in the research was used. This approach relies on the examination of the annual corporate reports for the relevant companies, from which the total number of directors on each firm’s board and the number of these that are female can be extracted. Based on Latin Trade’s list of Top 500 companies in Latin America by Net Sales, companies for Argentina, Brazil, Chile and Mexico, the largest Latin American trading economies, were identified, and a similar approach was used for India, where all the firms on the Bombay Stock Exchange SENSEX index were included. The SENSEX represents the largest 30 firms by market capitalisation. Annual reports or Securities and Exchange Commission (SEC) filings were used to identify the board of directors for each company. Female gender was identified by way of pictures, use of titles Miss, Ms, Mrs or native language equivalents and names. The companies were picked with a view to having a minimum of ten observations for each country for every year available. As some countries (for example Mexico) have more companies with extensive annual report archives, this meant inclusion of the top 65 Mexican companies on the Latin Trade list, whilst for countries with a smaller population of listed companies (for example Argentina), all available companies are included.

Having collated data from company reports and BoardEx, it was deemed important both to validate the self-generated estimates of the prevalence of women on corporate boards and to broaden the coverage of the database through a thorough exploration of estimates
available in a range of secondary sources. For example, the European Commission tracks
the gender composition of boards in Europe using a methodology that examines the
prevalence of women on boards of the 50 largest listed companies in each member state.
Where fewer than 50 listed companies exist, all available listed companies are incorporated
in their analysis. Other specialist research exists for particular countries and regions. For
example, data were collected from the following bodies: Spencer Stuart Board Indices,
Catalyst, European Commission reports, the Australian Equal Opportunities for Women in
the Workplace Agency (EOWA), Business Women’s Association South Africa, and Globe
Women. Where this process generated multiple estimates of the prevalence of women on
boards within a particular country, the approach was to use the estimate that was generated
using the largest sample of firm observations since this was considered as providing the
most robust and reliable estimate.

Independent variables
The independent variables were collated from publicly available data sources and,
reflecting the conceptual development, relate to the regulatory, normative and cultural
institutions in the sample countries.

Regulatory variables
Data relating to the regulatory pillar were captured through country political and regulatory
institutions using the World Bank’s indicators of national governance. The World Bank
produces data concerning the following six aspects of national regulatory institutions:
Voice & Accountability, Political Stability, Government Effectiveness, Regulatory
Quality, Rule of Law and Corruption Control. Together, these provide a useful insight into
the character of a country’s regulatory institutions. An exploratory analysis of these facets
of country political environments showed that they were very highly correlated with each
other. So as to reduce the chances of statistical issues commonly associated with high
degrees of multicollinearity an exploratory factor analysis was carried out to find out
whether the six indicators could be reduced to a smaller number of common factors. Factor
analysis was conducted using principal component analysis with the varimax rotation (Hair
et al., 1998). This process identified a single factor with an eigenvalue greater than one
which explained over 85% of the variance within the six original variables. This factor was
labelled “GoodGov” and retained for use in the regression analysis. The second indicator
of country political institutions included was the percentage number of parliamentary seats
(or national equivalent) occupied by women. These data were extracted from the United Nations, Women’s Indicators and Statistics Database. Finally, following Brady (2007), to reflect the orientation of political institutions in a country, the World Values Survey measure of mean left-rightness was used to capture the extent to which a country was politically more socialist or conservatively inclined.

The normative pillar

The national normative environment was reflected by the inclusion of tertiary education enrolment of women obtained from UNESCO. Tertiary education is associated with successful completion of secondary education before stepping up to this more advanced level of learning. Higher level of tertiary education enrolment for women was seen as a desire by society to have an actively working female population and reflecting the normative beliefs of the country through the inclusion of women in education. Educational establishments were also seen as a mechanism for instilling national beliefs and values in the next generation. The second variable used to measure the normative pillar was religion. By using on the Association of Religion Data Archives (ARDA), it was possible to obtain a breakdown of the dominant national religions as a percentage of the total population. The National Religion Archives international database of religious beliefs relies in the main on the 2003 US State Department’s International Religious Freedom Reports, but is also augmented by further data from such institutions as the United Nations to create a more complete and reliable dataset. ARDA provides detailed breakdown of nearly 20 religions. The number of worshippers for some of these religious traditions constituted less than 1 percent of total number of followers world wide. Data were extracted for the five largest religions, measured as having the largest number of followers. These were Christianity, Islam, Chinese Folk Religion, Hinduism and Buddhism. As Chinese Folk Religion has overlap and spiritual similarities with both Buddhism and Hinduism, followers of these three religions were aggregated to one variable entitled Eastern Religion (Zhao, 1989; Stark, 2001; Paper, 1995; Manchao, 1995; Gates and Well, 1987).

The cultural-cognitive pillar

The measures relating to national cultures are attributable to Geert Hofstede. Estimates of Hofstede’s cultural variables, Power Distance, Masculinity, Uncertainty Avoidance and Individualism were extracted for each available country from www.geert-hofstede.com. Reflecting Scott’s (1995) view of cultural-cognitive institutions as enduring over time, it
was assumed that Hofstede’s variables were constant over the period of study (2000-2006/7).

**Control variables**

In order to capture the possibility that the composition of boards of directors has changed over time, independent of the nature of the national business environment, a set of dummy variables was created, one for each year encompassed by the dataset, which take a value of one if a given observation is attributable to that year, and zero otherwise. The analysis also controlled for the level of national wealth and included GDP per capita, obtained from the World Bank Development database for each country and each year.

### 6.3 Findings

This section reveals the findings of the regression analysis. Table 6.1 presents descriptive statistics and correlation coefficients. The sizes of correlation coefficients and Variance Inflation Factors (VIF) conform broadly to permitted norms in the literature and therefore no serious problems with multicollinearity were expected to emerge from the results (Hair et al., 1998). VIFs are not reported. This suggests that the exploratory diagnosis and subsequent factor analyses discussed above are likely to have successfully solved issues associated with high degrees of bivariate correlation observed in some of the independent variables.
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Variable definitions: Year 1-7 is a constant dummy variable to account for the passing of time. GDP is measured per capita and indicates degree of wealth. Mean L-R is a scale measuring degree of left or right wing ideological inclination. Women in Parliament measures the percentage of parliamentary seats in a single or lower chamber occupied by women. GoodGov is a factor of six World Bank indicators including Voice & accountability, Political stability, Government effectiveness, Regulatory quality, Rule of Law and Corruption control. Tertiary education enrolment is percentage number of women entered for higher education. Christianity, Islam and Eastern Religion is the percentage followers of each of these religions. Power Distance, Individuality, Masculinity and Uncertainty Avoidance are all constructs of Hofstede's framework.
Table 6.2 begins to explore the relationship between institutional factors and the prevalence of women on corporate boards. In the initial step of the analysis the sample includes all countries/years for which the country estimate of the prevalence of women on corporate boards is based upon 10 or more companies. The variation in the sample size across models in table 6.2 arises because of the lack of availability of all independent variables. These sampling decisions are discussed later in the analysis. The base model, model 1, explores the degree to which there has been change over time in the proportion of directorships filled by women within the sample, and the effect that national level economic wealth as measured by GDP per capita has on the prevalence of women on the board. The coefficients on the annual dummy variables are all positive and become larger and statistically significant in more recent years, particularly between 2003 and 2007, suggesting that there has been substantial growth in the proportion of directorships occupied by female directors in recent years. Quantitatively, the analysis suggests that across the sample this trend accounts for growth of between 3% and 6% over the period of study. There is also a positive but statistically insignificant relationship between level of economic wealth and the number of female corporate board directors. Together, the evolution of board diversity over time and level of wealth account for about 13% of the variance in the cross-national variation in the prevalence of women on corporate boards.

Models 2-5 build upon the base model to explore the contribution that national institutional factors make in shaping board gender diversity relative to the time trend explored in model 1. Model 2 explores the regulatory pillar of Scott’s (1995) framework as reflected in the quality of national governance, the dominance of women in parliament and national political inclinations. Hypotheses 1-3 suggested that what Scott (1995) referred to as the regulatory pillar influences the proportion of women on the board by providing the governance mechanisms necessary to minimise discriminatory behaviour, and opening up positions of political and regulatory influence to women, and a political climate conducive to promoting women into roles of power and responsibility. The coefficient for the proposition that countries on the left-hand side of the political spectrum will have a higher proportion of women on the board displays the expected results, but the finding is statistically insignificant. The coefficient for whether women in parliament influence the degree to which women acquire corporate directorships is positive and statistically significant to the 5% level. Surprisingly, there is evidence of a negative, but statistically insignificant coefficient for the proposed relationship between good national governance practices and the proportion of female board directors. Cumulatively the regulatory pillars
add 8% to the explanatory power of this analysis compared with the base model. Model 3 examines the importance of the normative pillar of Scott’s framework. This pillar is concerned with the values and beliefs held by societies and how these may influence the gender composition of corporate boards of directors. As measured by education and religion, model 3 shows a statistically significant positive relationship between the percentage of women in tertiary education and female board representation, suggesting that access to higher education is an important factor in determining whether women are able to break into the upper echelons of corporate power. The coefficient for Christianity was negative and statistically significant at the 10% level, suggesting devout Christian countries have fewer women board directors. The remaining religious coefficients are all negative, but statistically insignificant. Model 3 therefore suggests religion is not an important influence upon whether women attain board directorships. Overall, model 3 adds 24% to the explanatory power of the base model. Model 4 tests the importance of the cultural-cognitive pillar in shaping the prevalence of women on corporate boards. Consistent with the view that culture is important, the analysis shows that three of Hofstede’s cultural constructs in particular influence the percentage of women on the board. Specifically, countries with a higher degree of uncertainty avoidance, emphasis on individuality and more masculine cultural traits have lower proportions of women on their boards. Collectively, cultural institutions account for an additional 15% of the variance across countries in the presence of women on corporate boards. Finally, model 5 examines the influence of three pillars concurrently. Looking within model 5, the result shows that the influence of time remains consistently important at the 1% level with more women being added to the board of directors at an accelerated rate in recent years, adding ca 3%-5% to the model. Next, the measures of the regulatory pillar shows national political sway to be important for whether women are appointed to the corporate board, with more liberal political climates adding more women. The surprising finding of a negative relationship between good national governance and the proportion of women on the boards remains and is statistically significant at the 1% level. Within the normative pillar there remains a strong relationship between women’s education and role of women on the board; however, any statistically significant effect of religious beliefs on women’s prevalence on the board is absent.
Table 6-2 Regression results. Standard Error reported in ()

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Notes: Significance levels: * p<0.10, ** p<0.05, *** p<0.01. Variable definitions: Year 1-7 is a constant dummy variable to account for the passing of time. Masculinity, Power Distance, Uncertainty Avoidance and Individualism are dimensions of Hofstede's cultural framework. GDP is measured per capita and indicates degree of wealth and tertiary education enrolment for women. GoodGov is a factor of six World Bank indicators including Voice & accountability, Political stability, Government effectiveness, Regulatory quality, Rule of law and Corruption control. Mean L-R is a scale measuring degree of left or right wing ideological inclination. Women in Parliament measures the percentage of parliamentary seats in a single or lower chamber occupied by women. % Christian, Muslim and Eastern Religions are indicators of percentage individuals in each country adhering to each religion.

The cultural-cognitive pillar remains important. In model 5 there is a positive and statistically significant result between power distance and women on the board, whilst countries with a more masculine culture and preponderance for uncertainty avoidance have fewer women on their board. Model 5 shows an R² of 49% suggesting Scott’s institutional
pillars and the control variables included account for nearly 50% of the cross-national variance found in the percentage women on the board at national level.

Table 6-3 presents the first of two consistency checks. Because of the unavailability of variables for all observations, the number of observations included varies across models 1-5 of table 6-2. This raises the possibility that the variation in the pattern of statistical significance and explanatory power across models is simply a result of the variation in subsampling. To explore this possibility the regression analysis was repeated using a fixed sample comprising the 205 observations for which all models could be estimated. The pattern of statistical significance on individual variables and the character of the additional explanatory power offered by models 6-10 show a very similar pattern to that observed in models 1-5, suggesting that the observations made with respect to models 1-5 are not attributable to variation in the sample being analysed.

Table 6-4 presents a final consistency check. As discussed, the sample analysed in models 1-5 was restricted to those country/years for which 10 firms are available upon which to base the estimate of a country’s proportion of women directors. Since this is a somewhat arbitrary cut-off, some ancillary regressions were carried out to check for robustness. Models 11-15 explore the full model while employing various threshold levels of numbers of companies as a rule for inclusion. Model 11 includes all country/years for which data are available independent of the number of companies upon which the data are based. Gradually, going from left to right, higher thresholds are applied, beginning with 5 and moving ultimately to 20 or greater companies. In broad terms, the findings discussed above are robust to adapting the cut-off at which observations are included. For example, the importance of culture as reflected in uncertainty avoidance, power distance and masculinity, left-right political inclination and education are all confirmed across all models. Other findings show slightly less robustness however to the sampling rule adopted. For example, the general quality of government and regulation is only found to be important in model 13-15, but not 11 and 12. In general, the direction of the relationship observed across the models was consistent. An exception was the relationship between Good Gov and the proportion of female board directors. In Model 11 the relationship was slightly positive but not statistically significant; however, this changed in subsequent models to become negative, and statistically significant in models 13, 14 and 15.
### Table 6-3 Regression results robustness test. Standard error reported in ()

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<tr>
<th>Independent variables</th>
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<th>Model (8)</th>
<th>Model (9)</th>
<th>Model (10)</th>
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Notes: Significance levels: * p<0.10, ** p<0.05, *** p<0.01. Variable definitions: Year 167 is a constant dummy variable to account for the passing of time. Masculinity, Power Distance, Uncertainty Avoidance and Individualism are dimensions of Hofstede's cultural framework. GDP is measured per capita and indicates degree of wealth and tertiary education enrolment for women. GoodGov is a factor of six World Bank indicators including Voice & accountability, Political stability, Government effectiveness, Regulatory quality, Rule of law and Corruption control. Mean L-R is a scale measuring degree of left or right wing ideological inclination. Women in Parliament measures the percentage of parliamentary seats in a single or lower chamber occupied by women. % Christian, Muslim and Eastern Religions are indicators of percentage individuals in each country adhering to each religion.
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<tr>
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<tr>
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<td>1.2018</td>
<td>1.2112</td>
<td>1.1390</td>
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<td>(0.5341)**</td>
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<td>(0.5918)**</td>
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<tr>
<td></td>
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<td>(0.6137)***</td>
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<tr>
<td>% Women enrolled tertiary education</td>
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<tr>
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<td>(0.0190)***</td>
<td>(0.0377)***</td>
<td>(0.0202)***</td>
<td>(0.0229)**</td>
</tr>
<tr>
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<td>0.6197</td>
<td>0.5600</td>
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<td>(4.0247)**</td>
<td>(4.5481)</td>
<td>(4.2872)</td>
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<tr>
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<td>(5.2149)</td>
<td>(5.9488)</td>
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<tr>
<td>% Eastern Religion</td>
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<td>(0.0252)**</td>
<td>(0.0263)*</td>
<td>(0.0286)</td>
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<td>Individuality</td>
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<tr>
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<td>(0.0186)***</td>
<td>(0.0181)***</td>
<td>(0.0192)**</td>
<td>(0.0213)**</td>
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<td>(0.0196)***</td>
<td>(0.0204)***</td>
<td>(0.0225)***</td>
<td>(0.0225)***</td>
</tr>
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</table>

Notes: Significance levels: * p<0.10, ** p<0.05, *** p<0.01. Variable definitions: Year 167 is a constant dummy variable to account for the passing of time. Masculinity, Power Distance, Uncertainty Avoidance and Individualism are dimensions of Hofstede's cultural framework. GDP is measured per capita and indicates degree of wealth and tertiary education enrolment for women. GoodGov is a factor of six World Bank indicators including Voice & accountability, Political stability, Government effectiveness, Regulatory quality, Rule of law and Corruption control. Mean L-R is a scale measuring degree of left or right wing ideological inclination. Women in Parliament measures the percentage of parliamentary seats in a single or lower chamber occupied by women. % Christian, Muslim and Eastern Religions are indicators of percentage individuals in each country adhering to each religion.
Having carried out these consistency checks, the time has come to evaluate the hypotheses by reference to these findings. The mean left-right inclination of the national government showed consistent statistically significant results in explaining the prevalence of women on the board across all models, confirming the acceptance of hypothesis 1. The broad absence of statistically significant results for a contemporaneous relationship between female parliamentarians and the dominance of women on the board, suggest hypothesis 2 should be rejected. The inverse relationship between the proportion of directorial board seats held by women and the role of good governance persisted across all tests. Hypothesis 3 is thus rejected, as the coefficients are statistically significant in the opposite direction to what was expected. The educational variable of the normative pillar shows consistent support for hypothesis 4; suggesting countries where women have access to education have more women on the board. Religion does not show any statistically significant influence on the dominance of women on the board, indicating that hypotheses 5, 6 and 7, which are associated with religion, should be rejected.

The original model and subsequent consistency checks show continued support for the importance of the cultural-cognitive pillar in determining the prevalence of women on the board; in particular less masculine countries, countries with lower power distance and countries less influenced by uncertainty, which had lower power distance also had more women on the board, supporting hypotheses 8, 9 and 11. Hypothesis 10 is rejected.

6.4 Discussion and conclusion

This chapter analysed the role played by Scott’s (1995) three pillars of national institutions in influencing the number of women on the board in an international context. The results support the argument that Scott’s (1995) pillars of national institutions influence the percentage number of board seats occupied by women. Indeed, collectively they explain nearly 50% of the cross-national variance for female board representation in the sample. Some institutional pillars were found to be more important than others. In particular, extant analysis suggests the most influential pillar is the cultural-cognitive pillar. Countries that exhibited more feminine traits, lower power distance and less sign of uncertainty avoidance had a larger proportion of female board directors. Elements of the regulatory pillar proved influential, and countries that were politically liberal had more women on their boards than did countries that had more conservative governments. Thus, the results show that women tend to acquire board directorships in countries that have a more
feminine culture, where uncertainty avoidance is low, and the national political climate is liberal. Certain facets of the regulatory analysis resulted in unexpected findings. A statistically significant, negative relationship was identified between percentage board seats held by women and the national governance environment. This was a surprising finding. However, in reviewing the data it became clear that a number of the countries with the highest proportion of female board directors are emerging economies where regulatory institutions continue to develop and embed, and alternative mechanisms for board control and recruitment may play a role. Explanations for such a mechanism may perhaps be found in factors such as family connections. Nepotism might play a significant role in women’s acquisition of board directorships in certain economies. This mirrors findings by Sheridan and Milgate (2005) and Branson (2007) who found that family connections were deemed important for women’s access to the board, but less so for men. Research suggests where firms are predominantly family-owned, nepotism is more legitimised, and therefore these findings may indicate that where family-run firms are the prevalent company norm, women are represented in greater numbers (Johannison and Huse, 2000). In analysing the normative pillar the importance of further educational attainment for women wishing to pursue corporate board directorships became clear; however, there was no evidence that national religious beliefs was a determining factor in the process.

In applying institutional theory to the pervasiveness of women board directors, this chapter has pushed the boundaries of research and added to the extant body of literature assessing women’s place on the board, and extended and complemented earlier analysis. It applies institutional analysis as defined by Scott (1995) to board demography and adds to the range of phenomena where institutional theory can offer relevant insights. Previous studies on the occurrence of female board directors have focused on the firm (Hillman et al., 2007; Bilimoria and Piderit, 1994; Carter et al., 2003, Erhardt et al., 2003) and individual level (Sheridan 2002, 2001; Burgess and Tharenou, 2002), but no research has systematically evaluated the national institutional context over time in an institutional theory perspective. However, earlier studies have shown that institutional determinants matter for other facets of corporate executive outcomes, including national macro-environment on the role of the CEO (Hambrick and Crossland, 2007), how national institutional patterns influence strategy (Murtha and Lenway, 1994) and how country-specific patterns of culture and national policies influence decision-making behaviour (Hitt et al., 1997), supporting the
contention that the study of the broader national institution is important to further scholarly research.

In contrast to existing research on board demography, this chapter set out to explore the potential for country institutional environments to play a significant role in shaping the demographic composition of corporate boards. That cross-country differences in the prevalence of women on corporate boards are substantial, enduring, and to a great extent explicable by reference to the attributes of national institutions suggests that the failure to address macro-level influences and processes in board demography research is a serious omission. Taken together with existing research, the evidence suggests that there is a need to explore further the role of institutional pressures in shaping boards and, in particular, to recognize that the processes shaping boards inherently arise at a variety of levels in society. These multi-level processes, and the relationships between them, are particularly important future lines of enquiry that will be addressed in chapter 7.

Managerial implications
This analysis suggests that the prevalence of women on corporate boards has increased substantially over time. This may be the result of a ‘snowballing’ effect, where increased attention and focus paid to the issue of women on the board in the international business press, academic literature, women networks and increased awareness and appreciation of the benefits brought by diversity has begun an organic evolution of more gender equitable boards. Major global corporate investors are also becoming more attuned to diversity and have implemented diversity screens as part of their investment criteria (Schepers and Sethi, 2003). Such pressures may give countries that rely on investment from these businesses further impetus to assess and develop the composition of their corporate boards. If the current trend seen in this research continues the number of women on the board of directors will increase and women will grow as a force in corporate governance. As such, they will act as role models and mentors for younger women, contributing to a sustained pipeline of female executive talent.

Scott’s institutional pillars matter for the recruitment of women to the board, and consequently for board composition, the decisions the board takes and the strategy it endorses. The corporate board of directors is the dominant strategic decision making body, designed to safeguard shareholder interests. Its composition is a lever connecting the firm
with its wider environment and reduces uncertainty. Board directors bring with them different skills, competencies, insights and expertise designed to assist the firm in performing better and securing a higher return for shareholders. Women can play a powerful and unique strategic role on the board. Women board directors are associated with a number of positive results for the firm, including improved financial performance, better product and market positioning and acting as role models for aspiring female corporate board directors (Thomson et al., 2005). This research has highlighted the role played by national institutions, as defined by Scott (1995), in shaping the gender composition of corporate boards in a multinational setting over time.

These results suggest that companies wishing to utilise the broadened talent pool made available by including women in the total market for directorial talent and consequently reaping the many benefits they offer, should consider the national institutional environment within which they operate when composing their board. In particular, companies operating in countries found to have an institutional environment less conducive to female board participation should be mindful of the additional hurdles encountered by women harbouring board ambitions in these countries. Where the national institutional environment works against women, companies can engage search and selection firms with a particular diversity focus in searching for qualified female board candidates, employ internal training programmes within their own companies to foster and grow internal senior female executive talent, and offer educational opportunities to senior female employees showing aptitude and ambition for directorships. Organisations are both constrained and enabled by their environment. This analysis has shown that national level institutional determinants might be more of an indirect constraint on corporate strategy than an enabling factor in certain country contexts. However, whilst this symbiosis between firm and institutional environment undoubtedly exists, “Organizations…are also capable of responding to these influence attempts creatively and strategically….Organizations are creatures of their institutional environment, but most modern organizations are constituted as active players, not passive pawns” (Scott, 1995, p 132).

**Theoretical contributions**

This research extends the boundaries of research relating to the role that national institutional environments play for a wide variety of business phenomena. By developing this stream of research to encompass the influences upon the presence of women on the
corporate board in a cross-national context, this chapter demonstrates that future research that continues this broad theme is likely to be fruitful. That the classifications of national institutions analysed here were not designed to inform issues associated with board demography underlines the power of a relatively general set of institutional factors for this phenomenon. More broadly, this further suggests there is value in extending the theoretical perspective applied to studies on women corporate board directors beyond the board level theories commonly adopted in research women executives to date.

**Limitations**

This research has a number of limitations that could provide the basis for future research. First, the scope and sampling of the analysis is inherently limited to those countries and years for which reasonable samples of publicly listed corporations as they would be understood in the western world, exist. This necessarily restricts the sampling to a particular, and not necessarily fully representative, set of countries. Furthermore, as shown, at least some of the findings are sensitive to the sample analysed. Therefore, there is a need for future work to explore the composition of elites within samples drawn from other countries where other organisational forms are more common. This would both add robustness to the analysis and provide a view of the diversity of managerial elites in these alternative organisational forms that is itself of great interest. Second, the absence of consistently reported data for some variables limited the ability to provide as nuanced and detailed an examination of the importance of some country factors as was desirable. In particular, the absence of data on numerous aspects of country welfare systems and on the pattern of corporate ownership limits this work. Finally, this study only evaluated the role played by national institutions. Whilst research has shown that characteristics associated with particular industries also influence the share of board seats women occupy (Hillman et al., 2007; Brammer et al., 2007; Fryxell and Lerner, 1989).

**Future directions**

The limitations of this study offer some interesting future research avenues. Firstly, the disparity in the number of females on the board is not limited to cross-country variation; women are not uniformly present on boards within a country, thus industry level analysis of the prevalence of women board directors may explain further variance in female corporate board presence within a country. Further research could seek to refine the particular set of institutional antecedent that are most applicable to the context of board
demography as well as examining the relationship between the multiple levels of influence on board phenomena. Secondly, future work, possibly of a more qualitative character, could help to shed more light on the importance of national welfare provisions, as data were limited on such welfare provisions as the availability of state-funded child care.

**Conclusion**

Research concerned with board demography in general, and the prevalence of women on corporate boards in particular, has proliferated in recent years. In spite of the recognition that there are large and persistent cross-country differences in the prevalence of women on company boards, these have not as yet been subject to systematic study. This chapter examined the influences on proportion of women on a country’s corporate boards through the lens of Scott’s (1995) conceptualisation of institutional theory and tested the extent to which his three pillars - regulatory, normative and cultural-cognitive institutions - explain cross-country variation in the gender composition of corporate elites. Using a unique database drawn from 50 countries, this empirical analysis show that collectively such institutions explain approximately 50% of the variance between countries in the percentage of women on their corporate boards, and that institutions play a particularly important role in shaping the gender balance of boards in comparison to the regulatory and normative pillar.

**6.5 Chapter Summary**

This chapter had three objectives and set out to make two research contributions. The three objectives were: firstly, to draw on the conceptual framework developed in chapter 3 to develop testable hypotheses informed by Scott’s (1995) three pillars about the role played by national institutions in shaping the prevalence of women on the board; secondly, to test empirically these hypotheses using a novel cross-national dataset; and thirdly, to draw conclusions from the findings as they related to theory and practice. These objectives were met, and from this empirical research emerged the two unique contributions this chapter set out to make. First, this research added to existing analysis of factors associated with increased prevalence of women on the board by identifying national institutional context as an important consideration. Concerning the debate on the mix of policies and practices necessary to promote women’s participation on corporate boards, this analysis was able to show the relevance of country-level institutional levers for this ongoing debate. Also, this chapter can help companies to understand better the constraints and influences upon their
capacity to recruit women and raises awareness of how national institutions shape board
demography. Secondly, this chapter responded to calls for research that explores the
relationship between boards of directors and the wider institutional contexts within which
firms operate (Boyd, 1990; Pearce and Zahra, 1992), and added to scholarship on
comparative institutional analysis. The next chapter builds on the limitations of this
research and the suggested future directions to consider a multi-level model of national,
industry and firm level institutional influences on women’s place on the board.
MULTI-LEVEL INSTITUTIONAL INFLUENCES ON THE PREVALENCE OF WOMEN CORPORATE BOARD DIRECTORS
7. Multi-level institutional influences on the prevalence of women corporate board directors

The previous chapter established that the country institutional environment is an important influence on whether women are able to acquire corporate board directorships in a given country. In doing so, the chapter made a notable contribution to the literature on women on the board, which has until now largely failed to evaluate systematically the importance of national firm context for the gender composition of the corporate board. However, as chapter 5 illustrated, women’s share of corporate board seats does not only vary on a country-by-country basis, but also on an industry-by-industry basis. Substantial differences in female board participation are also observable within both countries and industries, so the national level institutional environment, whilst important, is not the only factor to shape the gender demography of corporate boards. This chapter extends the analysis presented in the previous chapters and analyses the prevalence of women on the board through a multi-level approach with reference to national, industry and firm level institutional characteristics.

The chapter centres on four core objectives: First, to shed further light on the complex nature of gender and board composition, this chapter briefly reviews the growing literature relating to multi-level studies (Parboteeah et al., 2008, 2009; Martin et al., 2008) - to the importance of country (Scott, 1995, 2001; Whitley, 1999; Hall and Soskice, 2001; La Porta et al., 1999), industry (Hillman et al., 2007; Hambrick et al., 2004; Blum et al., 1994) and firm level (Dickson and Weaver, 2008.; Lubatkin et al., 2007; Tan and Xia, 2007) institutional environments for a variety of business behaviours and outcomes. In particular, as the national level literature was covered in chapters 2 and 6, here the focus is more specifically on the industry and firm level literature. Second, drawing on the conceptual framework presented in chapter 3, and continuing the application of the theoretical lens from chapter 6, this chapter develops a set of hypotheses informed by Scott’s (1995) pillars. Thirdly, the chapter tests the proposed hypotheses using a fixed factor multiple regressions approach which makes use of a unique database relating to the incidence of women on corporate boards in 21 countries. Finally, the chapter concludes and draws out theoretical and managerial implications of the analysis.
This study makes two substantial contributions to the scholarly literature. Firstly, this is the first systematic multi-level study to assess the relative importance of firm, industry and country level institutional factors for explaining the prevalence of women on the board. Secondly, this is the first multi-national study of women on the board to test Scott’s (1995) three pillars of institutional theory in a multi-level setting. This continues the evaluative process of the concepts and themes to which Scott’s (1995) framework may be applied.

The next section briefly reviews the relevant literature and develops the hypotheses that will be tested. The subsequent section sets out the method used, before the results are revealed and a discussion of the results is provided. A final section concludes.

7.1. Literature review and hypotheses development

The logic of multi-level research stems from the observation that social phenomena are influenced by factors that originate at different levels of analysis (Roberts et al., 1978). As discussed in chapter 4, there is a growing body of literature that emanates from this insight and reflects the “importance of taking into account…different levels of analysis” (Aguilera et al., 2007, p 855).

Empirically motivated multi-level studies on women in leadership positions on the board are in their infancy. Terjesen and Singh (2008) conducted a study into national institutional characteristics and the prevalence of women on the board for 43 countries and concluded that gender pay gap and a shorter history of female parliamentarian representation played a role in whether women were found in the country’s board rooms or not. Although not explicitly multi-level in nature, the study was one of the first to consider national level institutional influences on the prevalence of women on the board. Adopting Scott’s pillars, Parboteeah et al. (2008) established that national culture influenced managerial perceptions of women, and that more egalitarian cultures perceived women managers in a more positive light than did more traditional cultures. Other empirical multi-level studies that have adopted institutional theory as their conceptual model have uncovered evidence suggesting that national social institutions influence firms’ propensity to bribe (Martin et al., 2008) and national attitudes to work (Parboteeah et al., 2009). Thus, in viewing institutional context across analytical levels, multi-level research has established that country-specific institutional constellations matter for corporate governance, and there has been a call for incorporating national institutions into comparative research in the field of
corporate governance, “in order to understand how corporate governance models are changing around the world, and what practices get translated into different settings, we need to take into account path-dependence legacies and national institutional settings” (Aguilera, 2005, p. 41). Literature heeding Aguilera’s (2005) encouragement to delve further into the role played by national level institutions in corporate governance matters has uncovered that country-specific institutional arrangements are associated with a number of corporate governance-related phenomena. For example, national institutions have been found to play a role in executive remuneration (Bruce et al., 2005; Bender, 2003, 2004), corporate board composition (Li and Harrison, 2008) and the strategic decision making of multinational companies (Pauly and Reich, 1997).

Scholars have only comparatively recently begun to investigate the role of industry characteristics on the incidence of women on the board, despite research establishing that industry mattered for female board participation some time ago (Elgart, 1983, Harrigan, 1981). Enquiry suggests where women constitute a larger share of the employee base for a given industry, there are also more female corporate board directors (Hillman et al., 2007), and where the industry produces goods for the female consumer market, or operate in sectors that are closer to the final consumer there tends to be more women on the board (Fryxell and Lerner, 1989, Brammer et al., 2007). In particular Fryxell and Lerner (1989) suggested that the higher share of female board directors found in industries serving the female consumer market was a reflection of an increased concern with reflecting key customer stakeholders on the board. Hillman et al. (2007) evaluated organisational predictors of women board participation using a sample of 1,000 publicly traded American companies and found that as the share of female employees rose in a given industry, so too did the share of female board directors. Hence, the research that has focused on the role played by industry in accounting for women’s prevalence on the corporate board to date has made important strides in ascertaining that industry level characteristics are facets of the institutional landscape worth exploring in piecing together the jigsaw on why women prevail in positions of power in some circumstances and not in others.

A growing body of literature has illustrated the impact of entrenched institutionalised sociological processes for the prevalence of women on the board. Westphal and Stern (2007) uncovered evidence of the pervasive use of ingratiation tactics by board directors towards colleagues who were in a position to generate further board directorships for board
colleagues. Ingratiation tactics, or ‘flattery’ as it was termed by the authors, rely on establishing positive affect with other board members, through for example supporting comments and adulation. The authors further found that the effects of ingratiation behaviour were not as positive for women as they were for men, suggesting men responded more positively to other men who sought to establish mutual affect. Westphal and Stern (2007) further tested whether directors who engaged in monitoring and control behaviour rather than providing counsel to fellow board directors were more or less likely to gain further directorships. They found that women who engaged in monitoring and control behaviour were less likely to gain further directorships. Other sociological processes such as homosocial reproduction, where men appoint other board directors similar to themselves was also shown to play a defining role in shaping the face of board demography (Kanter, 1977; Westphal and Stern, 2006). Associated with these interpersonal relationships and well established board practices are clearly defined, though ill articulated, normative roles board directors are expected to conform to. Westphal and Khanna (2003) found that where board directors did not conform to expected, albeit unwritten, norms of behaviour in the board room, such as voting against initiatives that were likely to diminish the incumbent CEO’s power base, the directors were subject to punishment through social distancing. This led the authors to conclude that “directors exercise social control over other directors not because it serves their own personal interests, but because those directors violated normative expectations of behaviour for members of the corporate elite” (p 395).

Literature concerned with understanding the context, nature and circumstances surrounding women’s successful ascent to the corporate board have sought explanations with reference to a variety of analytical levels, covering national context (Terjesen and Singh, 2008; Grosvold et al., 2007), sector level (Hillman et al., 2007; Brammer et al., 2007; Fryxell and Lerner, 1989) and the firm level (Westphal and Zajac, 1995; Westphal and Milton, 2000; Westphal and Stern, 2006, 2007). However, these facets of the board’s broader institutional environment have so far not been collectively explored in an integrated manner.

Building on the descriptive findings presented in chapter 5, this study looks across ‘jurisdictions’ as defined by Scott (1995) and extends the analysis of the regulative, normative and cultural-cognitive pillars to take account of institutional influences that occur at different analytical levels. In particular, the study reflects national, industry and
firm level institutional influences. As chapters 3 and 6 outlined a detailed review of Scott’s (1995) institutional pillars, only a brief synopsis is included here as an aide-mémoire.

The regulative pillar is concerned with the impact of laws, rules and governance systems and engenders a view of institutions that is based on compliance and expediency; “this view of rationality emphasizes that individuals are instrumentally motivated to make their choices according to a utilitarian, cost-benefit logic” (ibid, p 37). The normative pillar is derived from the sociological heritage of institutional theory and is concerned with norms, values and roles. From a normative perspective, values constitute the impression of the ideal state and delineate a standard against which prevailing behavioural patterns and standards can be measured. Norms, on the other hand, outline how the ideal state should be achieved. The idea of normative roles is in recognition that certain actions and behaviours only apply to a limited pool of individuals, often in a given situation. Scott (1995) emphasises that these are not merely expectations of how a given individual should respond in a defined situation, rather, roles are prescriptions of expected behaviour. The cultural-cognitive pillar is the last pillar and is concerned with the elements of society that are taken for granted and culturally supported and accepted. Emphasising the cognitive dimension of human behaviour and culturally determined meaning, this pillar reflects “the rules that constitute the nature of reality and the frames through which meaning is made” (Scott, 1995, p 40). The normative pillar stresses the importance of roles and scripted behaviour, whilst the cultural-cognitive pillar emphasises the individual’s perceived understanding and interpretation of events and associated response to these events. Scott’s synthesis of institutional theory is applicable across societal levels, and the following hypotheses set out to test the relevance of Scott’s framework across these levels for the prevalence of women on boards. Hypotheses pertaining to the national level will be outlined first, followed by those pertaining to industry and firm-level influences respectively.

National level institutions – Regulative Pillar
National regulatory considerations have been shown to affect corporate board structure, the role of the board and managerial perceptions of gender (Judge et al., 1992; Li and Harrison, 2007; Parboteeah et al., 2008) suggesting that national regulatory structures may influence the degree to which women acquire board seats in a given country. A potentially influential factor is whether a country’s population hold more liberal, rather than
conservative, political views. Right-wing or Conservative political attitudes are generally associated with emphasis on preserving values and traditions (Thorisdottir et al., 2007; Evans et al., 1996), whilst liberal or left-wing political attitudes are generally considered more accepting of change and concerned with the emancipation of women and gender equality (Arian and Shamir; 1983; Mandel & Semyonov 2006; Lin 2005), which suggests countries where more liberal political views prevail are likely to have more female corporate board directors.

A second influential regulatory aspect to the national institutional environment is the degree to which women are appointed to, and serve in, the national parliament. Permitting women access into the upper most echelons of national power ensures women are afforded the opportunity to influence the legislative process designed to safeguard their own professional interests, and provides women at large with powerful leadership role models (Wolbrecht and Campbell, 2007; Lijphart, 1991). Parliamentary positions offer further benefits in the form of the potential to forge powerful relationships and networks with serving board directors or other influential corporate executives. Such networks may further offer women a route into the corporate board room, where political credentials are often observed amongst female board directorships (Shilton et al., 1996).

Most developed, or rapidly developing, economies have gender egalitarianism reflected in their national laws, in principle offering the same access for men and women to education and employment and an equal wage for equal work (Jamoutte, 2003). However, the effectiveness of such legislation is dependent on the efficient enforcement of the law, and adequate political stability and individual freedom to pursue executive careers. Educational credentials and extensive relevant professional experience have been found to serve as prerequisites for attaining board directorships, suggesting only if gender equitable legislation is enforced can women be expected to accumulate sufficient education and professional experience to ascend the ladder to the corporate board room (Burke, 1997; Sheridan, 2002; Singh and Vinnicombe, 2004). Taken together these arguments suggest:

Hypothesis 1: There is a positive relationship between the proportion of female board directors and the degree to which a country is on the left-hand side of the political continuum.
Hypothesis 2: There is a positive relationship between the proportion of female board directors and the proportion of seats held by women in the national parliament.

Hypothesis 3: There is a positive relationship between the proportion of female board directors and the quality of national governance.

National level institutions – Normative Pillar

The normative pillar relates to societal values, norms and notions of roles for its basis. Considering country level institutions that reflect these normative constructs of values and norms leads to two morally centred tenets of a country’s institutional make-up: religion and education (Weber, 1983; Collins, 1980); “Work and religion remain the very foundation of society” (Parboteeah et al., 2009, p 121). Education as an indicator of the normative pillar is reflected in the argument that national educational curriculum reflect the values and beliefs inherent in the country’s educational system (Trevino et al., 2008; Turner, 1997), and successive cohorts of students come to embody these values. Secondly, women’s access to higher education is indicative of a country’s normative view of women’s roles beyond the home. Where women are afforded the opportunity to pursue further education they are implicitly encouraged to embark on professional careers which may lead to board directorships where academic qualifications are an important prerequisite for directorships (Burgess and Tharenou, 1996; Sheridan, 2001; Hillman and Cannella, 2002).

The role of religion and spirituality is becoming increasingly important in management research, as evidenced by the decision of some journals to dedicate special issues to the topic and influential scholarly organizations to recognise the study of management and religion as a distinct emergent field (See for example The Leadership Quarterly special issue: Toward a paradigm of spiritual leadership, 2005; Journal of Organizational Change Management, special issue: The leading edge in research on spirituality and organizations, 2003; Academy of Management’s Management, Spirituality and Religion Interest Group). In the context of this study, the interest lies in the degree to which religion influences women’s role in business. Religion details how individuals should relate to one another and provides the values which inform this behaviour (Parboteeah et al., 2009, 2007; Innaccone, 1997). Normative and value-laden stipulations permeate all the dominant world religions and define appropriate actions in a wide range of settings, including that of work,
economic enterprise and gender relations (Brammer et al., 2007; Parboteeah et al., 2009; Moaddel, 2002), suggesting national religion may be an important influence on whether women acquire board directorships in a given country. All the major world religions define the role of women in society and delineate the parameters of work and economic activity (Parboteeah et al., 2009). Despite the provision within the major world religions for women to take up paid employment outside the realm of the home, research suggests that countries where a larger proportion of the population classifies themselves as religious have a lower proportion of women in their workforce and in leadership positions (Lehrer, 1995), as the norms associated with women’s role in the home are more established (Chadwick & Garrett, 1995; Clark et al., 1991, Youssef, 1972). Reflecting these arguments:

Hypothesis 4: There is a positive relationship between the proportion of female board directors and the percentage of women who enter higher education.

Hypothesis 5: There is a negative relationship between the proportion of female board directors and the degree to which a country’s population is classified as religious.

National level institutions – Cultural-Cognitive Pillar

National culture has been shown to play a major role in managerial perceptions of gender (Parboteeah et al., 2008), executive remuneration (Tosi and Greckhamer, 2004), national corporate governance systems (Buck et al., 2005; Buck, 2003) and board structure (Li and Harrison, 2008). It is therefore suggested that national culture may be an important factor influencing the degree to which women prevail on the corporate board of directors in a given culture. In continuing the analysis from chapter 6, Hofstede’s cultural framework is adopted, as reflected in the four variables: masculinity-femininity, uncertainty avoidance, power distance and individualist-collectivist. Hofstede’s framework is based on extensive survey data carried out on IBM employees in a cross-national setting (Hofstede, 1983). His cultural work has been a mainstay of cultural research in management literature for some time, and despite some criticisms it remains a much used empirical tool (See for example Henwood and Seaman, 2007; Arnold et al., 2006; Littrell and Valentin, 2005; Mukherji and Hurtado, 2001). Furthermore, the substantial body of literature that has successfully applied Hofstede’s framework provides a basis for comparative research, enabling scholars to compare research done across topics but using the same conceptual framework.
Power distance is a reflection of societal hierarchy and the degree to which individuals are seen as equal (Hofstede, 1983). Societies with a high power distance see people in positions of authority as deserving of special privileges and more power, whilst countries that have a lower power distance are more egalitarian and tend to de-emphasise differences between individuals, instead focusing on points of commonality and mutual interest. Women typically have more prominent positions of influence in countries where power distances are lower (Cagliuri and Tung, 1999).

Uncertainty avoidance defines national attitude to change, imbalance and ambiguity, with some countries more at ease with uncertainty. Societies more open to uncertainty are likely to be more *laissez-faire* in their attitude, and more open to differing points of view and diversity. Conversely, societies ill at ease with ambiguity are likely to be more aggressive, more risk-averse (Hofstede, 1983). Countries exhibiting low levels of uncertainty avoidance have been found to have more women in leadership positions, indicating that such nations are more willing to consider women in jobs conferring influence and power (Caligiuri and Tung, 1999).

The third element of Hofstede’s framework is the individuality-collective continuum, which assesses the concern with the self versus the larger society. Countries that are said to be individualistic offer greater freedom to the individual, and the people are encouraged to pursue entrepreneurial avenues and be responsible for their own self-interest. Collectivist countries on the other hand look out for one another and welfare depends on mutual concern for one another (Hofstede, 1983). Women often experience more affinity with collectivist values, whilst men associate more with individualist perspectives. The role played by the self in individualist countries encourages the pursuit of individual goal attainment and self-promotion, values which research shows have been linked to power, prestige and positions of authority (Claes, 1999).

The masculine-feminine construct of Hofstede’s framework is indicative of the degree to which a society appreciates more masculine virtues over feminine ones. Masculine virtues are associated with overt signs of wealth, an emphasis on high achievement and “‘big is beautiful’ “ (Hofstede, 1983, p 85) whilst traits of a more feminine character are typically associated with concern for welfare and interpersonal relations before money, an
emphasise on quality of life and harmony. Societies that have more masculine values will see positions of power and dominance as rightfully belonging to men rather than women.

This leads to the following hypotheses:

Hypothesis 6: Countries that display high levels of power distance will have a lower percentage of female board directors than countries that display low power distance.

Hypothesis 7: Countries that display high levels of uncertainty avoidance will have a lower percentage of female board directors than countries that display low uncertainty avoidance.

Hypothesis 8: Countries classified as individualist will have a higher percentage of female board directors than countries classified as collectivist.

Hypothesis 9: Countries classified as feminine will have a higher percentage of female board directors than countries classified as masculine.

Industry characteristics and contexts are increasingly recognised as drivers of female board participation (Hillman et al., 2007; Brammer et al., 2007; Fryxell and Lerner, 1989). In light of this observation, and continuing the application of Scott’s synthesis of institutional theory at the industry level, this study investigates regulative, normative and cultural-cognitive elements of the industry to ascertain its relevance in explaining cross-national variation in the prevalence of women on the board.

Industry level institutions – Regulative Pillar

National governments may hold shares in particular industries and where the state is a shareholder, firms can find themselves under increased pressure to conform to industry codes of conduct, corporate governance frameworks and broader regulatory frameworks that encompass a given industry (Thynne, 1998; Scott, 1995; Luoma and Goodstein, 1999). Industry regulations heighten concerns of legitimacy and accountability and from an institutional perspective Pfeffer and Salancik (1978) suggest that “Regulation as a social process, should require organizations to be more concerned about their relationship with the external environment” (p 168). This concern with regulative compliance is likely to be further reinforced where the national government is a shareholder. National governments are said to face duality of objectives in taking stakes in listed companies. On the one hand,
national governments look for a financial return on their investment but they may also be motivated by having more direct influence on the firms’ corporate governance practices (Knudsen and Pettersen, 2006; Byrkjeland and Langeland, 2000; Halvorsen, 2005; Wright et al., 2003). Given that national governments frequently are involved with the development and implementation of corporate governance codes and industry regulations, and that many corporate governance codes and frameworks now stipulate board diversity as a desired state (Higgs, 2003; Tyson, 2003; Dalborg, 2008; Ramirez, 2003), governments’ involvement with firms as corporate shareholders maybe motivated by a desire to ensure such regulations and governance frameworks are enforced. In line with national governments’ involvement in drawing attention to the gender homogeneous nature of most corporate boards, and the role of the state in informing national corporate governance codes, on balance where the state holds influential stakes in firms they are likely to emphasise the adherence to best practice governance guidelines over short term financial gains.

Hypothesis 10: Industries where the state is a shareholder will have a larger proportion of female board directors

Industry level institutions – Normative Pillar

Research suggests that at the industry level, normative considerations related to trade unions may influence corporate governance practice (Aguilera and Jackson, 2003; Bridges and Villemez, 1991) through such measures as employee representation rights on corporate boards. Labour unions are traditionally held to have the best interest of their members at heart and work to provide good working conditions, fair wage, equal opportunities for professional and skills development and generally support its members in negotiations with employers. Trade unions help define the normative parameters of what constitute good working conditions and practices for its members, and act as an arbiter between employees and employers in situations of maltreatment or conflict (Freeman and Medoff, 1984). The growing participation of women in the work force has created additional challenges for unions, which are now increasingly responding to the need for protection of workers who are part-time, the vast majority of whom are women. This renewed emphasis on particular aspects women’s working conditions, would suggest that trade unions are a positive force in women’s career development and enable female professional emancipation (Kirton, 1999; Somavia, 2007). An alternative literature takes a very different view of the role of
unions for women employees. From a normative gendered perspective, labour unions are masculine in character, reflecting male values and interests. In particular, trade unions have been influential in restricting women’s access to particular industries with some scholars suggesting labour unions have been instrumental in suppressing the rise of women in certain areas of employment (Caraway, 2006; Booth, 1986). Despite a general trend in the rise of female employees, labour unions are not meeting the growing demand for union membership amongst women, in part because of prevailing sexist attitudes and partly because unions target male dominated environments when they recruit (Yates, 2006). Consequently, women are unable to join unions as readily as men, and may suffer the consequences in the form of lower wages, fewer professional development opportunities and lower job security. The perceived masculine nature of labour unions has also meant women are reluctant to join, failing to see that the union is a relevant institution for their interest (Kirton, 2005). Literature has established the requirement for extensive professional experience and career development opportunities for acquiring corporate board directors, so if women are denied the safeguards of fair working conditions, development opportunities, wages and job security that come with union membership, they may not be able to gain the requisite skills and experiences for board directorships.

 Whereas some suggest strongly unionised industries are associated with a masculine workforce and fewer opportunities for women, industries that rely more heavily on female labour have been found to have more female corporate board directors (Brammer et al., 2007; Hillman et al., 2007). Increased industry diversity has also been associated with normative changes at the industry level (Kondra and Hinings, 1998). An increased pool of female employees in a given industry offers the potential for a wider choice of women who have attained the requisite skills and experiences to join the corporate board ranks in a given industry (Thomson et al., 2005). And secondly, more female dominated industries offer women a chance to forge relationships and establish networks with other women of influence and power, helping them ascend the corporate ladder more easily than in industries that are male dominated (Holton, 1995; Burris, 2005).

Hypothesis 11: There is a smaller proportion of women board directors in firms in heavily unionised industries
Hypothesis 12: There is a larger proportion of women board directors on the boards of firms that have a larger share of female employees

**Industry level institutions – Cultural-Cognitive Pillar**

Over time industries develop distinct cultural and cognitive characteristics which may influence a number of firm behaviours; for example particular forms of strategic behaviours may be encouraged, or managerial responses to particular industry uncertainties become isomorphic (Zahra et al., 2007; Christensen and Gordon, 1999; Philips, 1994). Literature suggests that over time, firms that inhabit the same industrial space develop a common culture. A number of sustained institutional influences help shape this culture, such as type of industry, innovation, gender distribution and industry history (Hofstede et al., 1990; Chatman and Jehn, 1994; Christensen and Gordon, 1999). In their study of culture, firm behaviour and industry, Chatman and Jehn (1994) investigated the degree to which there is a link between firm level culture and industry characteristics. Analysing 15 firms across four service sector industries, the authors found that industry characteristics were a stronger influence on culture than firm characteristics. Chatman and Jehn attributed these industry differences to growth rate and technology. Christensen and Gordon (1999) however suggested wider institutional characteristics may also influence industry culture. Gordon (1985) analysed differences in industry culture between firms in dynamic industries such as technology industries and firms in more stable sectors such as utilities. A culture of innovation, risk taking and action characterised the firms in the R&D intensive technology industry, whilst firms in the utility sector exhibited a culture that was hierarchical, less flexible and more concerned with preserving existing company values. In light of Bilimoria and Piderit (1994) finding that firms perceived a risk associated with hiring female board directors, it is suggested that:

Hypothesis 13: There is a larger proportion of female board directors in more dynamic industries

Firm characteristics have been proved in previous studies to impact on the share of board seats occupied by women. A line of enquiry has suggested women prevail on the board of larger firms, with more independent boards that are more profitable (Burgess and Tharenou, 2000; Burke, 2000; Erhardt et al., 2003; Harrigan, 1981; Farrell and Hersch, 2005; Carter et al., 2003), however chapter 5 established that such a relationship between
firm characteristics and women board directors may be more complex. Comparatively little empirical consideration has been given to the role of institutional theory in the prevalence of women on the board. An exception is Hillman et al. (2007) who argue that elements of institutional theory may explain why certain firms have more women on their boards, as firms that seek legitimacy may appoint women to their boards, as a signal of connection with a larger constituency of stakeholders. There is scope at the firm level to build on the empirical findings in the literature which show that elements of the firm’s structure account for its share of women board directors, and marry firm characteristics with elements of Scott’s (1995) institutional pillars.

At the firm level a conceptual obstacle of a very particular logical nature emerges. The regulative pillar as considered in terms of national and industry institutions suggests that regulative frameworks whether they are legislated for, or are of a ‘soft-law’ nature apply either to all firms operating in a given country, or to all firms within a particular industry. No law or corporate governance requirement seems to apply only to one firm. Although shareholder democracy (Brammer and Grosvold, under review) is on the rise in the US where shareholder resolutions encompassing board and gender demography have been raised, there is no evidence that these resolutions make a difference. Additionally, shareholder resolutions remain a more dominant form of regulative control in the US than the rest of the world and information on shareholder resolutions are hard to obtain. To that end, the regulative pillar will not be evaluated in the context of firm level influences on the prevalence of women on the board; instead the emphasis will be on the normative and cultural-cognitive elements.

**Firm level institutions – Normative & Cultural-Cognitive Pillar**

Despite Scott’s (1995) efforts at clearly defining the three institutional pillars as distinct, Scott in recent writings acknowledged more broadly that he recognise that elements of his pillars may coincide in certain circumstance as mentioned in chapter 3. One such instance is professionals operating in small groups (Scott, 2008). In such a setting, Scott (2008) suggests that a group of professionals “create and warrant knowledge” (p 224), and exert “collegiate control” (p 225) that are informed by group culture. This creates a distinct working culture amongst group members based on a common understanding within the group of what their normative role is and how it should be executed. Scott (2008) recognises that professional groups are subjected to normative standards and principles
outlining what constitute the appropriate behaviour and best-practice in a given situation. Individuals who make up professional working groups are therefore subjected to normative and cultural-cognitive pressures concurrently, which suggest that any observed behavioural outcome is a result of both normative and cultural-cognitive influences. Reflecting this observation, Scott et al. (2000) and Scott (2004, 2005) considered elements of the normative and the cultural cognitive pillar as coinciding. This approach will similarly be adopted here; one hypothesis reflecting the normative and the cultural-cognitive element of Scott’s pillars will therefore be developed.

The notion of time as an important consideration for corporate board behaviour and outcomes is well established in the literature. Scholars have discussed and analysed the role of time through a number of analytical lenses. Time has been considered in terms of director tenure and the particular timing of board appointments (Salancik and Pfeffer, 1980; Hermalin and Weisbach, 1988; Johnson et al., 1993; Westphal and Zajec, 1995), contemporaneous or lagged effect on performance arising from board restructuring (Baysinger and Butler, 1985), or temporal association between negative firm events and changes to the corporate board composition (Arthaud-day et al., 2006). Here, the focus will be on the board’s average age, and the role the age of the board’s directors play in enabling or preventing women from acquiring corporate board directorships. Corporate boards with high average directorial age have been associated with homosocial reproduction, where men recruit other men similar to them rather than search for talent amongst alternative qualified groups of potential candidates, such as women (Murphy and McIntyre, 2007; Kanter, 1977), which reinforces the gender homogeneous nature of the board. Age may confer membership in networks of corporate board directors, be it through ‘old-boys’ connections, interlocking directorships or shared organisational experiences such as attending the same university (Westphal and Zajac, 1995; Wagner et al., 1984), which binds the, predominantly male, directors together around a common set of shared values and norms, which they transpose to their individual boards (Koenig and Gogel, 1981). These board norms are often rooted in long-standing practices, and Salancik (1977) found long tenure to be associated with increased conformity to organizational values. Thus,

Hypothesis 14: There is a larger proportion of female board directors on boards where directors are younger.
In addition to establishing the degree to which macro, meso and micro institutional factors influence the prevalence of women on the board, this chapter will go one step further in attempting to explain some of the idiosyncrasies observed in the pattern of female board participation. Within the literature on women on the board, a body of research has established that women board directors are more numerous in large firms with more independent boards (Burgess and Tharenou, 2000; Burke, 2000; Erhardt et al., 2003; Harrigan, 1981; Farrell and Hersch, 2005; Carter et al., 2003). Whilst chapter 5 presented an overview that suggested this was not necessarily a truism in all national or industry contexts there is nevertheless a question as to whether particular institutional characteristics at the firm level may influence the degree to which women are found on the board or not and whether particular types of firms are more influenced by institutional context than others.

Within international management research, some scholars argue that multinational companies (MNCs) constitute a particular class of firm that exhibit a sufficiently distinct set of characteristics to warrant particular attention (Kostova et al., 2008). MNCs are distinct in that they establish a physical presence in at least one other country (Carter et al., 2001), and often across more than one country. As MNCs operate in a plurality of national contexts, Kostova and Roth (2002) argued that these companies face a dichotomous pressure. On the one hand, MNCs must conform to local institutions to fit in and gain corporate legitimacy in the eyes of the host nation. On the other hand, Kostova and Roth (2002) argue a vital source of competitive advantage to the MNCs is the roll-out of home-country practices across their operations. Such an approach would therefore enforce country-of-origin specific practices on the host nations. Cross-national institutional differences make MNC operations more difficult, highlighting the tension between the need for legitimacy in the host nation on the one hand, and operational efficiency on the other. Previous literature on the role of institutional practices has been divided. One body of research has emphasised the MNCs’ need and willingness to adapt, or conform, to local institutional settings and practices to fit in and gain legitimacy (Ferner et al., 2001; Philips and Tracey, 2009; Ferner et al., 2005). Another body of research has suggested that MNCs’ practices are path dependent, and whilst minor host country modifications may be enacted, the firms’ operations in host countries will largely adopt the practices of their country-of-origin (Ferner et al., 2001; Geppert et al., 2003), as, MNCs belong to their own class of firms, which are exempt from local isomorphic pressures to fit in (Kostova et al., 2008).
Recent debates on the relevance of institutional context for MNCs have taken a very interesting turn, suggesting that MNCs make up a meta-institutional field (Kostova et al., 2008) which transgresses industry and country borders. Instead, MNCs “are becoming, it is argued, increasingly disconnected from national institutional systems” (Kostova et al., 2008, p 998). If this assertion is correct, it would suggest that MNCs’ corporate governance practices were substantially unaffected by their country-of-origin’s national institutional environment. In other words, the national institutional context of the MNCs’ country-of-origin would be a less significant factor in shaping the gender-profile of MNCs’ corporate boards. Conversely, those firms that are not multinational and do not own foreign assets in a different culture would be more inclined to adapt their corporate governance practices in line with their home country institutional environment, thus:

Hypothesis 15: National institutional environments have less influence on the prevalence of women on the boards of multinational companies than for non-multinational companies.

7.2. Methods

Data

The data on female corporate board directors used in this study came from BoardEx as discussed in chapters 4 and 6. As one of the main objectives of this research was to sample as broadly as possible beyond the list of companies usually subjected to empirical investigation, it was important that data were available for as large a range of countries as possible. Therefore, following Fernandes et al. (2008), all firms included in BoardEx for which data were available for 2005, the most recent years’ observations, were included. This yielded 1,673 firm level observations for 21 countries. A number of other scholarly studies seeking to conduct large-scale international comparisons or emphasise cross-national variation have adopted the same sampling approach, where all countries in a given database are include in the analysis (see for example Aggarwal et al., 2006; Ferreira and Matos, 2008; Fernandes and Ferreira, 2007; Schneper and Guillen, 2004).

Measures

This section details the operationalisation of the measures used

Female board representation. The dependent variable in this study was the percentage women on the corporate board for a given firm as extracted from BoardEx. To date only a
relatively small number of studies has used the proportion of board seats held by women as
the dependent variable (Campbell and Minguez-Vera, 2008; Terjesen and Singh, 2008;
Francoeur et al., 2007; Smith et al., 2006), thus this study adds to this small, but growing
body of research. Prior studies that have relied on the prevalence of women board directors
as the dependent variable have either used absolute numbers (Fryxell and Lerner, 1989) or
a binary 0/1 notation to indicate whether a woman was present on the board or not
(Brammer et al., 2009; Hillman et al., 2007).

The independent variables were collated from BoardEx, Datastream and publicly available
data sources and, reflecting the conceptual development, relate to the regulatory, normative
and cultural environment of the sample.

Regulative Variables
Data relating to the regulatory pillar at the national level were captured through country
political and governmental institutions using the World Bank’s indicators of national
governance. The World Bank produces data concerning the following six aspects of
national political institutions: Voice & Accountability, Political Stability, Government
Effectiveness, Regulatory Quality, Rule of Law and Corruption Control. Together, these
provide a useful insight into the character of a country’s political institutions. As in chapter
6, an exploratory analysis of these facets of country political environments showed that
they were very highly correlated with each other. Following the same procedure adopted in
chapter 6, exploratory factor analysis using principal component analysis with the varimax
rotation was carried out (Hair et al., 1998). This process identified a single factor with an
eigenvalue greater than one which explained over 85% of the variance within the six
original variables. This factor was labelled “GoodGov” and retained for use in the
regression analysis. The second indicator of country political institutions included was the
percentage number of parliamentary seats (or national equivalent) occupied by women.
These data were extracted from the United Nations, Women’s Indicators and Statistics
Database. Finally, following Brady (2007), to reflect the orientation of political institutions
in a country, the World Values Survey measure of mean left-rightness was adopted to
capture the extent to which a country was politically more socialist or conservatively
inclined.
Industry SIC codes were extracted from *Datastream* and matched with *BoardEx* firm level data, this allowed for the classification of firms into distinct industries. Data showing national governments’ stake in a given industry was obtained from the OECD. The data was binary, taking a value of one if a given country held shares in a particular industry and zero otherwise.

**Normative Variables.**

The national normative environment was reflected by the inclusion of tertiary education enrolment of women obtained from the UNESCO database. Tertiary education is associated with successful completion of secondary education before stepping up to this more advanced level of learning. Higher levels of tertiary education enrolment for women were seen as a desire by society to have an actively working female population and reflecting the normative beliefs of the country through the inclusion of women in education. Educational establishments were also seen as a mechanism for instilling national beliefs and values in the next generation. The second variable used to measure the normative pillar was religion. By relying on the Association of Religion Data Archives (ARDA), it was possible to obtain the percentage number of the population who characterised themselves as religious in a given country. The ARDA database of religious beliefs draws on the main on the 2003 US State Department’s International Religious Freedom Reports, but is also augmented by further data from such institutions as the United Nations to create a more complete and reliable dataset.

At the industry level, the normative pillar was reflected in the degree to which an industry was unionised and the share of female workers employed by the industry. Data on union density were obtained from the OECD (Conway et al., 2005), which reports the percentage proportion of employed individuals who are affiliated with a trade union for a given industry. The OECD distributes questionnaires to trade unions in member states and augments the data with central administrative data from member states and the Centre for Advanced Labour Studies at the University of Amsterdam. The share of female workers for a given sector was extracted from the International Labour Organisation’s database LABORSTA, which tracks the share of men and women employed by industry internationally.
Cultural-Cognitive Variables

The cultural-cognitive pillar at the country level used Hofstede’s cultural values, where each country is given a numeric score for each of the four cultural constructs that make up his framework. These scores were collected from www.geert-hofstede.com. Industry dynamism was reflected in R&D intensity. R&D spend and annual revenue was collected from Datastream and R&D intensity was calculated as the total spent on R&D divided by annual revenue. Based on SIC codes used to divide firms up to industries, figures for R&D intensity were aggregated to the industry level. The firm level normative/cultural-cognitive variable; average age of board directors, was obtained from BoardEx and was reported as the average age of the board overall.

Control variables.

Following Hillman et al. (2007), Parboteeah et al. (2008) and Carter et al. (2001) a number of control variables were used to account for salient firm characteristics. In particular, board size (number of directors) was included to provide a scale of the share of board seats held by women. In light of the finding that larger companies with more independent boards have more women board directors (Carter et al., 2001), control variables were include for firm size (measured as market capitalisation) and board composition (measured as the ratio of outside directors to board size). Organisational age was included to account for the potential that inertia helped explain the absence of female board directors. Some market and accounting based control measures were also included, to control for risk and firm performance. The following performance measures were included: Beta was included as a measure of systematic risk, Tobin's Q measured as total market value of the firm divided by total asset, Return on Shareholder Equity (the fiscal year return to $1 invested in a firm’s stock on the first day of the fiscal year, expressed %), and Return on Assets (net income/total assets expressed in percentage terms).

The model adopted in this study follows a study by Doidge et al. (2007), which effectively assessed multiple levels of factors in accounting for the role corporate governance played for a given firm through a series of fixed effect multiple regression models. In aggregate the models account for firm, industry and country level factors in explaining the prevalence of women on the board. Formally the approach is to estimate seven empirical models as follows:
Model (1) = $\gamma_i = \alpha + \nu_i + \epsilon_i$

Model (2) = $\gamma_i = \alpha + CountryDummies + \epsilon_i$

Model (3) = $\gamma_i = \alpha + c_i + \epsilon_i$

Model (4) = $\gamma_i = \alpha + IndustryDummies + \epsilon_i$

Model (5) = $\gamma_i = \alpha + \chi_i + \epsilon_i$

Model (6) = $\gamma_i = \alpha + \chi_i + c_i + \nu_i + \epsilon_i$

Model (7) = $\gamma_i = \alpha + \chi_i + IndustryDummies + CountryDummies + \epsilon_i$

where $\gamma_i$ is the percentage board seats held by women, $\nu_i$ is a set of country level variables for country $i$, $c_i$ is a set of industry level variables for industry $i$, and $\chi_i$ is a set of firm level variables for firm $i$. Industry and country dummy variables were binary, taking the value of 1 for a given industry or country and 0 otherwise.

The fixed factor multiple regression analysis starts with an estimate of the regression for percentage number of women on the board and national level institutional characteristics. In doing so, the analysis provides an analytical continuation of chapter 6, where the final model reflected the totality of the national institutional environment thus operationalised. Model 2 establishes a statistical upper bound for the importance of country characteristics, and this is achieved by including country dummy variables. Model 3 estimates the regression coefficients for the percentage number of women on the board and industry institutions. The fourth model applies a similar approach to the country-dummy analysis in model 2, a set of binary industry dummy variables were included to create the same statistical upper bound for the role of industry characteristics. The fifth regression evaluates firm level characteristics for the prevalence of women on the board. Once the effects of these separate regressions are known, the coefficients for the cumulative institutional model are estimated in model 6, and a final model, model 7, estimates regression coefficients for firm characteristics, industry dummies and country dummies to evaluate the upper statistical limit of the explanatory power of national, industry and firm level factors for the prevalence of women on the board.
This analytical approach offers three distinct advantages. First, by establishing the upper limit for the role of country, industry and firm institutions this analysis affords a view of how well the variables included fit the proposed model, and how much remains unexplained. Second, by adopting a similar statistical approach to that presented in the previous chapter, this analysis can more easily be compared with the results from chapter 6. Third, given the number of country and industry dummy variables (21 and 66 respectively), this approach is statistically more manageable than the obvious alternative, Hierarchical Linear Modelling (HLM). Nevertheless, versions of models 1, 3, 5 and 6 were estimated using an HLM approach to confirm the substantial similarity of the results. No significant differences emerged in this process; therefore, the approach described above was retained.

7.3. Findings
In this section, the findings of the empirical analysis are discussed. Before reporting the regression results, descriptive statistics and correlation coefficients for the data are presented in table 7.1. Multicollinearity diagnostics revealed higher than generally accepted Variance Inflation Factors (VIF) between Power Distance and Uncertainty Avoidance at 13.4 and 16.4 respectively, suggesting multicollinearity may be impacting these results. This will be discussed further later on in this section. This multicollinearity was unexpected and unusual, as Hofstede’s constructs, albeit both related to culture, should measure distinct cultural traits rather than overlapping elements. All other VIF measures were comfortably within the generally accepted limit of 10 (Hair et al., 1998).
<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>PERCENTWOMEN</td>
<td>9.2201</td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>8.8133</td>
<td>2.0802</td>
</tr>
<tr>
<td>Board composition</td>
<td>75.6257</td>
<td>14.9522</td>
</tr>
<tr>
<td>Board size</td>
<td>10.9743</td>
<td>4.2688</td>
</tr>
<tr>
<td>Average director age</td>
<td>57.1046</td>
<td>6.6117</td>
</tr>
<tr>
<td>Return on shareholder's equity</td>
<td>26.6769</td>
<td>18.9568</td>
</tr>
<tr>
<td>Tobin's Q</td>
<td>2.9125</td>
<td>3.0055</td>
</tr>
<tr>
<td>Return on assets</td>
<td>0.0811</td>
<td>0.0988</td>
</tr>
<tr>
<td>Beta</td>
<td>1.0713</td>
<td>0.6335</td>
</tr>
<tr>
<td>Company age</td>
<td>34.0178</td>
<td>40.3559</td>
</tr>
<tr>
<td>Union density</td>
<td>0.2623</td>
<td>0.1759</td>
</tr>
<tr>
<td>Women in industry %</td>
<td>33.0841</td>
<td>14.3364</td>
</tr>
<tr>
<td>State shareholding</td>
<td>0.3951</td>
<td>0.4899</td>
</tr>
<tr>
<td>R&amp;D Intensity</td>
<td>4.0103</td>
<td>53.3501</td>
</tr>
<tr>
<td>Mean L-R</td>
<td>5.4204</td>
<td>0.3053</td>
</tr>
<tr>
<td>Good Gov</td>
<td>0.5247</td>
<td>0.3164</td>
</tr>
<tr>
<td>Women in Parliament %</td>
<td>22.2187</td>
<td>9.3283</td>
</tr>
<tr>
<td>Power Distance</td>
<td>41.1394</td>
<td>11.3887</td>
</tr>
<tr>
<td>Individuality</td>
<td>80.6924</td>
<td>11.7029</td>
</tr>
<tr>
<td>Masculinity</td>
<td>54.0226</td>
<td>18.3550</td>
</tr>
<tr>
<td>Uncertainty Avoidance</td>
<td>52.7341</td>
<td>18.9568</td>
</tr>
<tr>
<td>Women in tertiary education %</td>
<td>79.0841</td>
<td>15.9092</td>
</tr>
<tr>
<td>Religious</td>
<td>0.8016</td>
<td>0.2248</td>
</tr>
</tbody>
</table>

Variable definitions: Firm size market capitalisation (share price x no. outstanding shares), board composition is a percentage measure of the total number of non-executive directors divided by the total number of directors by the board, board size is the total number of non-executive and executive directors that make up the corporate board. Average director age is the total age of the board divided by the number of directors. Return on shareholders equity is calculated as net income divided by shareholder's equity. Tobin's Q is measured as the total market value of the firm divided by total assets, whilst return on assets takes net income and divide by total assets. Beta is a measure of systematic risk and is arrived at using regression modelling based on past performance. The company's age is calculated based on its date of incorporation. Union density is a measure of percentage number of employees in a given industry that belong to a labour union, whilst percentage number of women employed by industry reflects the proportion of female workers observed in a given industry. State shareholding is bivariate measure which is set at 1 if the state is a shareholder in the industry or 0 otherwise. R&D intensity is the total amount a firm spends on R&D divided by total revenue for a given year. GoodGov is a factor of six World Bank indicators including Voice & accountability, Political stability, Government Effectiveness, Regulatory quality, Rule of Law and Corruption control. Mean L-R is a scale measuring degree of left or right wing ideological inclination. Women in Parliament measures the percentage of parliamentary seats occupied by women. % women in tertiary education is the percentage number of women in higher education. Masculinity, Power Distance, Uncertainty Avoidance and Individualism are dimensions of Hofstede's cultural framework. Religious is a measure from the ARDA indicating the degree to which a
The analysis starts with regressing country characteristics on percentage women board directors as shown in Model 1. This model predicts that national institutional characteristics reflected in Scott’s regulative, normative and cultural-cognitive pillars will explain some of the observed variance in the prevalence of women on the board. Of the nine national level characteristics predicted to influence the prevalence of women on the board, seven are statistically significant. The regulative pillar is statistically significant for all the included measures; however, not all are significant in the expected direction. Political liberalism is positively related to share of board seats held by women and is significant at the 10% level, as suggested by H1. In comparison, the coefficients for good governance are positive and significant at the 1% level as predicted by H3. Contrary to the predicted relationship in H2, which proposed that countries that had a larger share of parliamentary seats held by women would have more women on their corporate boards, the results suggest a statistically significant result in the opposite direction. Countries that have more women in parliament have fewer women on the board. The finding is significant at the 10% level. The normative pillar is strongly supported. Both the normative variables are significant at the 1% level in the expected direction. School enrolment is positively related to the prevalence of women on the board conforming to the proposed relationship in hypothesis H4. Conversely, religious dedication shows negative coefficients similarly predicted in H5. The cultural-cognitive pillar is supported in the variables Power Distance and Uncertainty Avoidance at the 1% and 5% level respectively, suggesting confirmation of the proposed relationships in H6 and H7, but no support for H8 and H9. Overall, the adjusted R² from model 1 is 16.8% suggesting that the country institutional environment plays an important role in accounting for the prevalence of women on the corporate board of directors. Model 2 complements model 1 by evaluating the importance of country effects through the inclusion of a set of national dummy variables and shows an adjusted R² = 17.75%, approximately 1% higher than model 1, suggesting the variables included in model 1 substantially capture the country characteristics that can potentially influence the prevalence of women on the board in a given country.
Table 7-2 Regression results. Standard Error reported in ()

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
<th>Model 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTANT</td>
<td>-16.5689(6.9406)</td>
<td>14.1514(0.4017)</td>
<td>6.6908(0.7052)</td>
<td>11.7640(0.9095)</td>
<td>2.2138(3.0562)</td>
<td>-15.1878(7.8832)</td>
<td>22.2133(4.0805)</td>
</tr>
<tr>
<td>Firm size</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board composition</td>
<td>1.0853(0.1385)***</td>
<td>0.1689(0.0175)***</td>
<td>0.1644(0.0623)***</td>
<td>-2.2133(0.0591)***</td>
<td>4.8944(2.7279)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board size</td>
<td>-0.3015(0.0659)***</td>
<td>0.1079(0.0862)</td>
<td>0.1795(0.0848)</td>
<td>-0.3129(0.0652)***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average director age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on shareholders equity</td>
<td>0.0007(0.0012)</td>
<td>0.0007(0.0011)</td>
<td>0.0010(0.0012)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tobin's Q</td>
<td>0.0741(0.0939)</td>
<td>0.0334(0.1009)</td>
<td>-0.0231(0.0901)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on assets</td>
<td>4.2840(2.8664)</td>
<td>4.1418(2.6918)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beta</td>
<td>-1.2894(0.3741)***</td>
<td>0.9893(0.4019)***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Company age</td>
<td>-0.0131(0.0059)**</td>
<td>0.0073(0.0063)</td>
<td>0.0024(0.0058)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Union density</td>
<td>0.1230(1.3433)</td>
<td>-1.8656(2.3909)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women in industry %</td>
<td>0.0760(0.0169)***</td>
<td>0.0483(0.0173)***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State shareholder</td>
<td>0.3428(0.4969)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R&amp;D intensity</td>
<td>-0.0071(0.0044)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean L-R</td>
<td>2.2531(1.3253)*</td>
<td>2.5782(1.4666)*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GoodGov</td>
<td>4.6845(1.4876)***</td>
<td>4.2228(1.6193)***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women in Parliament %</td>
<td>-0.0805(0.0475)*</td>
<td>-0.0029(0.0623)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Distance</td>
<td>0.2263(0.0658)***</td>
<td>0.2213(0.0732)***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individuality</td>
<td>-0.0204(0.0359)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Masculinity</td>
<td>0.0230(0.0258)</td>
<td>0.0348(0.0281)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncertainty Avoidance</td>
<td>-0.1155(0.0485)***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women in tertiary education %</td>
<td>0.2498(0.0287)***</td>
<td>0.2263(0.0347)***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religiosity</td>
<td>-12.2442(3.6435)***</td>
<td>-12.1786(3.8874)***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-digits SIC control variables included</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Country control variable included</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>R-Squared</td>
<td>17.30%</td>
<td>18.76%</td>
<td>1.55%</td>
<td>10.19%</td>
<td>13.46%</td>
<td>27.32%</td>
<td>34.38%</td>
</tr>
<tr>
<td>R-Squared Adjusted</td>
<td>16.80%</td>
<td>17.75%</td>
<td>1.30%</td>
<td>6.53%</td>
<td>5.09%</td>
<td>25.98%</td>
<td>29.61%</td>
</tr>
<tr>
<td>△ in R-Squared relative to model (1)</td>
<td>1.46%</td>
<td>-15.75%</td>
<td>-7.11%</td>
<td>-3.84%</td>
<td>10.02%</td>
<td>17.08%</td>
<td></td>
</tr>
<tr>
<td>No. of Observations</td>
<td>1516</td>
<td>1634</td>
<td>1587</td>
<td>1634</td>
<td>1342</td>
<td>1217</td>
<td>1342</td>
</tr>
</tbody>
</table>

Notes: Significance levels: * p<0.10, ** p<0.05, *** p<0.01. Standard Error (). Variable definitions: Firm size is based on market capitalisation, board composition measures the total number of non-executive directors divided by the total number of directors, and board size is the total number of non-executive & executive directors on the board. Return on shareholder’s equity is calculated as net income divided by shareholder's equity. Tobin's Q is measured as the total market value of the firm divided by total assets. Return on assets takes net income and divide by total assets. Beta measures systematic risk and is arrived at using regression modelling based on past performance. Company age is calculated from date of incorporation. Union density measures percentage employees in a given industry who belong to a trade union, whilst % number of women employed by industry is the share of female workers in a given industry. State shareholder is bivariate measure which is set at 1 if the state is a shareholder in the industry or 0 otherwise. R&D intensity is the total firm spend on R&D divided by total revenue. GoodGov is a factor of 6 World Bank indicators including Voice & accountability, Political stability, Government Effectiveness, Regulatory quality, Rule of Law and Corruption control. Mean L-R is a scale measuring degree of left or right wing political view. Women in Parliament measures % is the share of parliamentary seats held by women. Masculinity, Power Distance, Uncertainty Avoidance and Individuality are dimensions of Hofstede's framework. Religiosity measures percentage worshippers for a given country. Women in tertiary education % is the share of women enrolled in higher education.
In model 3, the role of industry characteristics is explored. Results show industry characteristics as measured here account for a very moderate proportion of the observed variance, with an adjusted $R^2$ of 1.3%. The only statistically significant finding in this model is the share of employees in a given industry who are female, which is positively related to the prevalence of women on the board at the 1% level. This finding is in line with Hillman et al. (2007) which found that as the share of female employees in an industry increased, so did the incidences of women board directors. This provides partial support for the normative pillar at the industry level; the regulative and cultural-cognitive pillars by comparison find no support. By comparison, model 4, which includes dummy variables for the industry characteristics, has an $R^2$ of 6.53%, and whilst low compared with model 2, it is five times higher than the adjusted $R^2$ for the industry level variables in model 3. This indicates that the variables used in the industry model only capture some of the industry characteristics that can potentially explain the prevalence of women on the board. However, the result of model 4 suggests that industry characteristics are less important in explaining the share of women on the board in a given industry than country characteristics are.

Model 5 regresses firm level characteristics on the prevalence of women on the board. The results of the hypothesised normative/cultural-cognitive relationship between share of women on the board and the average age of the directors proposed in H14 conforms to the expected relationship. The higher the average age of the board, the fewer women hold directorships on a given firm’s board. The finding is statistically significant at the 1% level. Looking within the results of model 5, a number of the control variables are also statistically significant, specifically board size and board independence are both positive and statistically significant, in line with previous research (Carter et al., 2001). Similarly, market volatility as operationalised through Beta is negative and significant, suggesting firms operating in more volatile market conditions have fewer women on the board. Return on assets was positive and statistically significant at the 10% level, suggesting more operationally efficient companies have more women on their boards. Company age was similarly negative and significant at the 5% level. Older more established firms have fewer female corporate board directors. The firm level adjusted $R^2$ is 5.09%, just under a third of the $R^2$ found in model 1 which accounted for national institutions.
In model 6, regressions are estimated for country, industry and firm level characteristics combined. The overall explanatory power of the model shows adjusted R² is 25.98%, 9.18% higher than the country level model. The combined model shows continued support for all three pillars at the national level. Only one of the pillars shows slightly diminished explanatory power at the national level in the combined model. Within the regulative pillar the negative relationship between share of parliamentary seats held by women and the prevalence of women corporate board directors is still observed, but it is not statistically significant. The normative and cultural-cognitive pillars were both supported. More education result in more women on the board, whilst religious fervour is associated with fewer women board directors. Cultures where power distance and uncertainty avoidance is high similarly have fewer female board directors. The finding that the share of employees in a given industry who are women influences the prevalence of women on the board shows continued support in the final model, as does the firm level normative/cultural-cognitive hypothesis suggesting older boards have fewer women.

Lastly, model 7 adds country and industry dummy variables to the firm level model. Model 7 has the highest adjusted R², the model accounts for just less than 30% at 29.61% of the observed variance. As the firm level model accounted for 5.09%, a further 24.54% is accounted for by industry and country dummies. The improvement in the explanatory power of model 6 compared with model 7 is comparatively small, 3.63%, suggesting model 6 successfully captures important elements of the institutional context that defines the antecedence of female corporate board directors.

To test that the uneven sample available for the various models in table 7.2 did not materially influence the results, a similar robustness check to that carried out in chapter 6 was conducted. The sample used to arrive at model 6 was identified and the seven regressions displayed in table 7.2 were re-run using only the sample observations from model 6. The resulting coefficients were neither different in direction nor statistical reliability, consequently they are not reported here but were undertaken for the sake of completeness.

With the completion of this robustness check, the time has come to evaluate the hypotheses by reference to these findings. At the national level, the consistent finding that good governance practices and political liberalism are associated with a higher share of board
seats occupied by women, means there is evidence of support for H1 and H3. However, in the final model no support is found for H2, positing a positive relationship between the proportion of parliamentary seats held by women in a given country and the prevalence of women on the board. There is strong support for H4 and H5 suggesting that increased female tertiary education enrolment and less national religious fervour enable more women to acquire board seats. There is further partial support for the cultural-cognitive pillar, reflected in the Power Distance and Uncertainty Avoidance constructs. H6 and H7 are therefore supported, though in light of the high VIFs, some caution should be applied in interpreting these results. Multicollinearity may suggest the independent variables in this model are unstable (Curwin and Slater, 1996); however, the findings in chapter 6 which showed similarly statistically significant results for these same two cultural variables, and no problems with multicollinearity lends some comfort to the idea that the results in this model are not excessively unstable. No support was found for H8 and H9. Partial support is found for the normative pillar at the industry level, and the share of female employees in a given industry is positively related to the prevalence of women on the board at the 1% level; H12 is therefore supported. H10, H11 and H13 were unsupported. At the firm level, H14 which posited a relationship between board director age and share of women board seats occupied by women is supported. A higher average age of board directors is associated with a lower share of female directors.

**Multinational analysis**

The result of the analysis evaluating the role of national institutions in shaping the gender composition of corporate boards on multinational companies is reported in table 7-3. Two regressions are estimated for the firms classified as being most multinational (Model 8 and 9) and two for those classified as least multinational (Model 10 and 11). The starting premise is a base model which incorporates firm level determinants of women on the board and industry dummies (Model 8 and Model 10). Next, country institutional factors are added to the base models (Model 9 and Model 11). This allows for a view of what country institutional characteristics add to the base model’s explanatory power.

The regression results are rather surprising. Contrary to the hypothesised (H15) relationship which suggested multinational companies were less influenced by their home country institutional environment, the findings show that multinational companies are affected to a significantly greater extent by their home country institutional setting than are firms that are less multinational in character. A further observation is the finding that the
models presented in table 7-3 have a substantially higher explanatory power than the models presented in table 7-2 which included the entire sample. The models presented in table 7-3 fit better across both sub-samples compared with the overall sample presented in table 7-2. This suggests the distinction made in this analysis between firms that are multinational in character, and firms that are not, is an important one. Whilst non-multinationals might be expected to be heavily driven by the national institutional environment in which they operate, given that they are confined to a single national context, the extent to which multinational companies were influence by their country-of-origin national institutional context was surprising.

Turning to table 7-3 and starting with model 8 and moving across, the adjusted $R^2$ for model 8 shows that the influence of firm level characteristics and industry dummy variables is 25.96%. It shows that larger firms, with higher return on assets, with more independent and younger boards have more women board directors, but that firms operating in volatile markets have fewer women board directors. These findings are all statistically significant. Return on assets is also positively related to women corporate board directors at the 10% level. The findings in model 8 that larger firms with younger boards have more female board directors were also found to be true in model 10. In model 10 the coefficient for a relationship between board independence and prevalence of female directors were similarly positive as in model 8, however, the finding was not statistically significant. Similarly, the negative relationship observed in model 8 between women on the board and market volatility was evident in model 10, but not statistically significant.

Models 9 and 11 add country institutional variables to the base model. Model 9 shows the results for MNCs, and adding national institutional influences to the base model increases $R^2$ by over 13% compared to model 8. The adjusted $R^2$ is 38.53% for model 9. There are more women on the boards for MNCs whose home country is politically liberal, has lower power distance and higher rates of female higher education attainment. In other words, elements of all three institutional pillars are supported. In contrast, model 11 shows the degree to which country institutional factors matter for the prevalence of women on the board of firms that are not multinational in character, and the increase in $R^2$ from model 10 to model 11 is 8.29%, suggesting national institutions matter less for the gender characteristics of boards on these firms. The adjusted $R^2$ for model 11 is 21.7%. The only national institutional pillar to be of statistical significant for the least multinational firms was the cultural-cognitive. In particular, lower power distance and less uncertainty avoidance were associated with increase share of board seats occupied by women.
Table 7-3 Regression results MNCs. Standard Error reported in ()

<table>
<thead>
<tr>
<th></th>
<th>MNC</th>
<th>NON-MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model (8)</td>
<td>Model (9)</td>
</tr>
<tr>
<td>CONSTANT</td>
<td>6.2606</td>
<td>-64.8490</td>
</tr>
<tr>
<td></td>
<td>(7.5078)</td>
<td>(19.9711)</td>
</tr>
<tr>
<td>Firm size</td>
<td>0.8128</td>
<td>0.9362</td>
</tr>
<tr>
<td></td>
<td>(0.3251)**</td>
<td>(0.3350)***</td>
</tr>
<tr>
<td>Board composition</td>
<td>0.1873</td>
<td>0.0674</td>
</tr>
<tr>
<td></td>
<td>(0.0365)***</td>
<td>(0.0443)</td>
</tr>
<tr>
<td>Board size</td>
<td>-0.0204</td>
<td>0.2754</td>
</tr>
<tr>
<td></td>
<td>(0.1248)</td>
<td>(0.1812)</td>
</tr>
<tr>
<td>Average director age</td>
<td>-0.2761**</td>
<td>-0.2927**</td>
</tr>
<tr>
<td></td>
<td>(0.1306)**</td>
<td>(0.1483)**</td>
</tr>
<tr>
<td>Return on Shareholders Equity</td>
<td>0.0010</td>
<td>0.0015</td>
</tr>
<tr>
<td></td>
<td>(0.0017)</td>
<td>(0.0016)</td>
</tr>
<tr>
<td>Tobin's Q</td>
<td>0.1891</td>
<td>0.3012**</td>
</tr>
<tr>
<td></td>
<td>(0.1864)</td>
<td>(0.2465)</td>
</tr>
<tr>
<td>Return on Assets</td>
<td>11.1616*</td>
<td>6.5841</td>
</tr>
<tr>
<td></td>
<td>(5.9024)*</td>
<td>(5.9967)</td>
</tr>
<tr>
<td>Beta</td>
<td>-1.7404</td>
<td>-1.8502</td>
</tr>
<tr>
<td></td>
<td>(1.1108)**</td>
<td>(0.80841)**</td>
</tr>
<tr>
<td>Company age</td>
<td>-0.0061</td>
<td>0.0058</td>
</tr>
<tr>
<td></td>
<td>(0.0105)</td>
<td>(0.0120)</td>
</tr>
<tr>
<td>Mean L-R</td>
<td>8.3950</td>
<td>4.8825</td>
</tr>
<tr>
<td></td>
<td>(4.0699)**</td>
<td>(3.3962)</td>
</tr>
<tr>
<td>GoodGov</td>
<td>0.3719**</td>
<td>0.3719**</td>
</tr>
<tr>
<td></td>
<td>(0.1419)**</td>
<td>(0.1419)**</td>
</tr>
<tr>
<td>Women Parliament %</td>
<td>0.1546</td>
<td>-0.0047</td>
</tr>
<tr>
<td></td>
<td>(0.1012)</td>
<td>(0.0545)</td>
</tr>
<tr>
<td>PowerDistance</td>
<td>-0.0818</td>
<td>0.1726</td>
</tr>
<tr>
<td></td>
<td>(0.0870)</td>
<td>(0.0738)**</td>
</tr>
<tr>
<td>Individuality</td>
<td>0.1546</td>
<td>-0.0047</td>
</tr>
<tr>
<td></td>
<td>(0.1012)</td>
<td>(0.0545)</td>
</tr>
<tr>
<td>Masculinity</td>
<td>0.1726</td>
<td>0.1584</td>
</tr>
<tr>
<td></td>
<td>(0.0738)**</td>
<td>(0.1007)</td>
</tr>
<tr>
<td>Uncertainty Avoidance</td>
<td>-8.1536</td>
<td>0.1726</td>
</tr>
<tr>
<td></td>
<td>(8.0229)</td>
<td>(0.0738)**</td>
</tr>
<tr>
<td>Women in tertiary education %</td>
<td>41.56%</td>
<td>54.70%</td>
</tr>
<tr>
<td></td>
<td>(7.5078)</td>
<td>(19.9711)</td>
</tr>
<tr>
<td>R-Squared</td>
<td>25.96%</td>
<td>38.53%</td>
</tr>
<tr>
<td>R-Squared Adjusted</td>
<td>13.13%</td>
<td>8.29%</td>
</tr>
<tr>
<td>No. of Observations</td>
<td>280</td>
<td>251</td>
</tr>
</tbody>
</table>

Notes: Significance levels: * p<0.10, ** p<0.05, *** p<0.01. Standard Error (). Variable definitions: Firm size is based on market capitalisation, board composition measures the total number of non-executive directors divided by the total number of directors, and board size is the total number of non-executive & executive directors on the board. Return on shareholder's equity is calculated as net income divided by shareholder's equity. Tobin's Q is measured as the total market value of the firm divided by total assets. Return on assets takes net income and divide by total assets. Beta measures systematic risk and is arrived at using regression modelling based on past performance. Company age is calculated from date of incorporation. GoodGov is a factor of 6 World Bank indicators including Voice & accountability, Political stability, Government Effectiveness, Regulatory quality, Rule of Law and Corruption control. Mean L-R is a scale measuring degree of left or right wing political view. Women in Parliament measures % is the share of parliamentary seats held by women. Masculinity, Power Distance, Uncertainty Avoidance and Individuality are dimensions of Hofstede's framework. Women in tertiary education % is the share of women enrolled in higher education. Religiosity measures percentage worshippers for a given country.
7.4. Discussion and conclusion

This chapter tested the relevance of Scott’s (1995) institutional pillars in accounting for the observed differences in the prevalence of women on the board with reference to national, industry and firm level institutional characteristics. Across the levels, the regulative, normative and cultural-cognitive pillars were found to account for 27.32% (Adjusted R² 25.98) of the observed variance. At the country level, persistent support for elements of the regulative pillar was found; in particular the regression analysis highlighted the importance of good national governance practices, and a liberal political climate. Similarly, there was support for the normative pillar, which was operationalised through national educational attainment by women and religion. Religion was considered in aggregate in this study, as the countries included in this chapter showed a lesser variety of religious beliefs, than did the sample in chapter 6, the focus was therefore on degree on religiosity, rather than the particulars of faith. Countries with a more highly educated female population had more women on the board, whilst countries that were considered more religious consistently had fewer female corporate board directors. There was further support for the cultural-cognitive pillar, with Hofstede’s power distance and uncertainty avoidance constructs being significant influences on women’s rate of board participation. At the industry level, there was partial support for the normative pillar, but no support for the regulative or cultural-cognitive pillar. Industries where women constituted a larger share of the total workforce had more female board directors. Lastly, the hypothesised combined normative/cultural-cognitive relationship suggesting boards comprising older board directors were less likely to have female members was confirmed.

To further complement the findings of this study, some auxiliary analysis was carried out on multinational firms. Current scholarly debates (Kostova et al., 2008, 2009 and Philips and Tracey, 2009) suggest multinational corporations may not be subject to national institutional pressures; instead they adhere to supranational standards rather than those standards of any particular country. To test whether this was indeed true for the gender composition of corporate boards, regression analysis was conducted on two sets of sample firms. One set was multinational in character and the other set was non-multinational in character. Results showed that the multinational corporations were more, not less, influenced by their national institutional environment, whilst the non multinational firms were less influenced by country institutional characteristics.
In extending the application of institutional theory beyond the national level as was reported in chapter 6 also to incorporate the industry and firm level, the boundaries of institutional research have been pushed yet further, as Scott’s pillars have now also been tested in a multi-level setting. This study extended the research of chapter 6 and applied the concept of Scott’s (1995) pillars across analytical levels and assessed the influence of national, industry and firm institutional characteristics.

Continuing the scholarly thread from chapter 6, this study revealed some interesting and unexpected findings. Although the study in the previous chapter relied on a larger number, and more diverse range, of countries for its sample, it is interesting to note that the role played by political liberalism, lower power distance and less uncertainty avoidance found in chapter 6 is mirrored in the findings presented here.

Despite the points of similarity found across the two studies, some notable discrepancies were evident. Some of the results found in this analysis were surprising. In particular, the negative relationship between female political participation and the prevalence of women on the corporate board ran contrary to the hypothesised direction, and contrary to the findings in chapter 6, where the relationship between women corporate board directors and women in parliament was positive, though statistically insignificant. Terjesen and Singh (2008) investigated the antecedence of female political power as a potential explanatory variable in understanding why some countries showed a larger share of female corporate board directors. Their findings also ran contrary to the expected relationship, prompting the authors to suggest that countries that had a large share of female parliamentarians had become complacent about promoting gender equality in the private sphere as women were well represented in the national political arena. Alternatively, as women have enjoyed a larger share of parliamentarian seats for longer than they have in the corporate board room, ambitious career women may prefer a political career over a business career. Research suggests the continued masculine culture that pervades most boards is a ‘turn off’ for women (Marshall, 1995; Selby, 2000), who may instead choose to enter politics where the gender imbalance is less stark, enabling women in politics to build more powerful networks that enable them to climb the political ladder, rather than the commercial ladder. The negative relationships may thus be a result of women deciding to apply their talent to politics rather than business. An alternative explanation may be that some of the findings
are sensitive to sampling decisions and future research should focus on testing the relationship for a broader sample of countries and companies.

Considering the importance of good governance for increasing the share of board directorships held by women, the results presented here differ markedly with those in chapter 6. In the previous chapter, a persistent, statistically significant negative relationship between the prevalence of women on the board and good governance was evident. This relationship was reversed in this chapter, where there was a statistically significant positive relationship between the proportion of board directorships held by women, and the quality of national governance provision. The inclusion of a large number of more recently democratised countries in the sample used in chapter 6, led to the suggestion that the negative relationship was an artefact of the particular relationship between family ownership and board demography that exists in some of these countries, which has been found to engender nepotism in board ranks (Milgate, 2001; Branson, Branson, 2007; Johannison and Huse, 2000). The sample countries included in this chapter, though fewer in absolute numbers, broadly represent well established democracies and major trading economies, with similarly well established regulative governance framework, which suggests that as with the discrepancy in findings relating to women and political influence, these results are somewhat dependent on the particulars of the final sample, suggesting as previously discussed, the importance of broadening the sample in subsequent research. Overall, however, both chapters attest to the importance of national institutions more broadly.

The other unexpected finding revealed by this study was the degree to which national institutions influenced the gender composition of corporate boards on multinational companies. Contrary to the expected relationship, the normative and the cultural cognitive pillar proved particularly salient influences on the prevalence of women on the board of multinational corporations relative to those firms that were less multinational in nature. These statistically significant findings attest to the importance of the institutional character of the home nation, and suggest that rather than be ‘boundary-less’ organisations as some scholars suggest (Kostova et al., 2008) multinational corporations may in fact play a significant role as national ‘ambassadors’. Multinational corporations whilst international in character retain strong links with their home country (Hu, 1992). It is therefore possible that MNCs become international symbols of a country’s commercial success, and
consequently feel it appropriate to reflect the home country’s institutional character in their corporate structure. Jaworski and Fosher (2003) suggested that multinational firms can gain competitive advantage through a “nation brand effect” (ibid. p 99) whereby the national institutional character is reflected in the product sold, such as the quality associated with Swiss watches or the workmanship of German cars. Taking this argument one step further it is not unfeasible that the same logic applies to corporate structures, and that the national institutional environment is not only reflected in the multinational’s product offering, but also in its corporate board.

**Contributions to managerial practice**

These results augment the findings of chapter 6 and extant literature on women on the board as reviewed in chapter 2, and provide a more finely grained view of what the institutional antecedence is for whether women acquired board directorships in a given firm, industry or country. From this emerge some important managerial implications for firms wishing to increase their share of female corporate board directors. Focusing at the firm level, which is the analytical level over which management has the most direct influence, a starting point would be to review actively the age of the corporate board. The findings revealed here suggest younger boards have more women, therefore firms wishing to build more gender diverse boards may also want to consider the average age of their directors in parallel with their gender composition. Over time, the result of this analysis suggests younger boards will also bring forth more gender diverse boards.

The finding that market volatility was associated with fewer female board directors conforms to the broader literature. Van der Walt et al. (2006) found that firms which operated in uncertain and complex market conditions and had heterogeneous boards showed signs of lower firm performance. Van der Walt et al. (2006)’s results lend support to the argument that increased cognitive conflict which arises from increased diversity can have a negative impact on board proceedings and consequently firm performance (Mace, 1971; Forbes and Milliken, 1999). Cognitive conflict arises from the pluralities of judgements and perspective people of different gender, ethnicity and background bring to a group and may impede decision-making. On the other hand, increased cognitive conflict has also been shown to combat groupthink and result in a more robust evaluation of strategic options (Eisenhardt et al., 1997; Milliken and Vollrath, 1991). The management teams of firms that operate in turbulent or volatile markets but are committed to making
their corporate boards more gender diverse must evaluate the added benefits of enhanced diversity versus the need to successfully negotiate complex market and trading condition.

At the industry level, the finding that firms in industries that employ more women have more female board directors suggests that the issue around board gender diversity at the industry level needs a more systematic approach. Rather than view the board’s composition in isolation, industry interest organisations may want to consider the wider implications of sector-wide hiring practices, and specifically target the recruitment of more female employees, which over time would help build a sustained pipeline of female managerial talent that can take on corporate board directorships.

The importance of the national institutional environment has been reinforced in this chapter. As discussed in the previous chapter, and emphasised by the results of this analysis, firms operating in national institutional contexts less conducive to female corporate board directors have a particular responsibility to be vigilant of board hiring practices to ensure a fair and representative sample of qualified candidates of both genders are considered for board candidature.

Lastly, the surprising finding that the national institutional environment is a statistically significant influence on the gender composition of the boards of MNCs, reinforces the importance of institutional awareness. As MNCs are not exempt from national institutional cultural and normative influences, MNC management teams must equally be aware of the influence their home country’s institutional constellation has on the gender composition of their corporate boards.

**Theoretical contributions**
This chapter has extended the contribution made to academic conceptual literature in the previous chapter, and continued to press the boundaries of institutional theory and the areas of enquiry to which Scott’s (1995) pillars can be usefully applied. Scott’s (1995) framework has made a successful contribution to extant understanding of what institutional factors account for women’s prevalence on the board, across a national, industry and firm level context. In particular, this chapter has shown that the institutional pillars are applicable across multiple levels of analysis as well as across countries. At this juncture, after testing the efficacy of Scott’s (1995) institutional pillars in two distinct empirical
studies, a suggested avenue for conceptual development is offered. In light of the finding that Scott’s (1995) theoretical framework, drawn from a wide range of disciplines grounded in institutional theory, helps explain the prevalence of women on the board, it is evident that alternative frameworks to the established board level theories that have framed studies on women corporate board directors to date have a useful role to play in extending conceptualisations of women corporate board directors. In particular, in light of Zahra and Pearce (1989) call for multi-theoretical approaches to research on corporate boards, institutional theory may usefully be considered in conjunction with established frameworks. Scott’s (1995) institutional pillars are concerned with context, whether regulative, normative or cultural-cognitive in nature. Resource dependence theory by comparison, is concerned with linking the firm to its broader environment through the composition, character and demographic nature of the firm’s board of directors (Pfeffer, 1972). Considering both theories’ emphasis on context and its implications for the firm and the corporate board, there may be merit in exploring a multi-theoretical framework that encompasses Scott’s (1995) three pillars and align these with the inherent skills, capabilities and experiences of the collective board, to consider whether rather than co-opt particular environmental resources for the sake of risk reduction, as the resource based theory suggests (Pfeffer, 1972), the board in fact also co-opts its broader institutional environment. As Hillman et al. (2007) pointed out, why women prevail on corporate boards may be explained by reference to their particular resources and skills as suggested by resource dependence theory, or on the basis of legitimacy as reflected in institutional theory, as having female corporate board directors is normatively considered important. Whether the firm’s board demography represents an active risk reduction strategy or an effort at increasing legitimacy may be difficult to ascertain, however, the finding that national institutional context influence the gender composition of corporate boards of MNCs opens up a particularly interesting theoretical avenue. Given the multiplicity of national contexts MNCs typically operate in, co-opting their country-of-origin’s institutional environment as reflected in their board demography is unlikely to be motivated by risk reduction, as the ensuing board demography may be less socially acceptable in other national contexts where the firm operates. Similarly, it is equally unlikely to be motivated by a desire to increase legitimacy, for the very same reason. MNCs’ legitimacy as reflected in the gender composition of their boards is similarly subject to different national perceptions of what constitutes legitimacy. Instead, this may suggest that institutional context is co-opted not because of considerations of legitimacy or
risk-reduction but in response to mimetic or normative isomorphism, where institutions are reflected on the basis of what is morally right and culturally supported (Scott, 1995) rather than with the explicit intention to reduce risk or gain legitimacy. The combination of Scott’s (1995) three institutional pillars and resource dependence theory may offer interesting future conceptualisations of the prevalence of women on the corporate board of directors.

Limitations
This study suffers from some limitations which will be dealt with next. Undertaking such a large and ambitious study as that contained herein does pose some sampling issues. The data used for this study was substantially obtained from BoardEx and from Datastream. Whilst both of these data providers are the premier sources of board related and firm financial data respectively (Fernandes et al., 2008), there were some data shortcomings, which resulted in an uneven sample being available for models 1-7 in table 7-2. However, subsequent robustness testing suggested this had not impacted on the validity of the reported results. The final set of countries included in the overall model (Model 6 table 7.2) comprised of representative countries from Europe, North America and Australia. Whilst institutionally distinct, these countries are likely to show less institutional dissimilarities than if the data had covered Latin America, Asia and Africa. Whilst the author collected country-level data for a number of these countries, time, financial and language constraints meant it was not possible to collect the necessary firm level data for these countries.

Concerning the findings related to culture, higher than generally accepted levels of multicollinearity were evident for the Power Distance variable and the Uncertainty Avoidance variable. Issues related to multicollinearity in Hofstede’s framework is much debated in literature (Hofstede, 1980; Franke et al., 1991; Smith, 2006), and research adopting Hofstede’s cultural framework as independent variables have reported issues with variance inflation factors in excess of the generally accepted limit of 10 (Yeh and Lawrence, 1995; Erramilli, 1996; Magnini, 2009; Waarts and Van Everdingen, 2005) between the elements of Hofstede’s framework. In particular, Erramilli (1996) reported similarly high correlations between uncertainty avoidance and power distance, as did Magnini, (2009), suggesting that the multicollinearity observed in the results in this analysis was not unique from a research perspective. Lewis-Beck (1980) suggests three
ways in which researchers can address issues of multicollinearity: increase the sample size, investigate whether, if conceptually defensible, variables can be usefully combined through factor analysis; or exclude the variable(s) that cause multicollinearity problems. None of these possibilities provided real options in terms of this study. The sample had already been maximised, and excluding either of the cultural variables would result in an incomplete measure of culture. In light of the institutional theory adopted, there was also no obvious conceptual justification for conducting a factor analysis to reduce the two variables to one. In evaluating the relevance of national cultural institutions in accounting for the share of board directorships held by women in chapter 6, similar problems of multicollinearity were not found, suggesting there maybe problems related to specific sample included in this study, and future research should attempt to broaden the breadth and depth of the sample used or investigate alternative methods for operationalising culture.

A further data limitation stems from the character of the firms included in this study. BoardEx and Datastream provide firm level information for publicly listed companies only. As these countries by the nature of being listed represent, in general, the most resourceful and largest companies in a given country, they are likely to be more similar in nature than their smaller non-listed counterparts. This means that the variation in prevalence of women on the board is probably suppressed by the sample firms included herein, suggesting that the variation in the prevalence of women on the board is larger and possibly subjected to a wider range of institutional influences than those captured here.

The sample used for this analysis is cross-sectional in nature, as the study was predominantly concerned with explaining the hierarchical relationships between firm, industry and country, and because one distinct feature of institutions is that they are generally held to be subject to little change over time, at least at the national level (Hall and Soskice, 2001). However, the institutional character of the firm and industry environment is liable to be more flexible over time, so a larger longitudinal dataset may offer an interesting extension of this study.

**Future directions**

These limitations offer the potential for fruitful future research avenues. Future research into the prevalence of women on the board would benefit from a wider dataset that
included countries in Asia, Africa and Latin America. As discussed in chapter 2, the vast majority of scholarly focus to date has been on the developed trading economies, in particular the UK, the US and Canada, with limited enquiry into smaller nations. Understanding the role played by Scott’s (1995) institutional pillars in accounting for the prevalence of women on the board in these other countries would help complete the geographical picture of women’s ascent to positions of corporate power. Further increasing the data may also help solve the observed multicollinearity issue, and help shed further light on the role of culture in accounting for the prevalence of women on the board.

The emphasis on large listed firms in scholarly literature that addresses the role and place of women on the board might be contributing to suppressing the real extent of cross-national differences in the prevalence of women on the board. The literature would benefit from an understanding of how the institutional context differs, if at all, for small firms. As the vast majority of the world’s firms are not listed, understanding the dynamics surrounding the boards’ composition of these firms may arguably bring more benefits to women who wish to acquire board directorships, as the size of the corporate universe of unlisted firms offers many more board seats for which women can vie.

Zahra and Pearce, (1989) posited that to understand corporate boards, their dynamics, structure, impact and processes, a multi-theoretical perspective is necessary. Although this study and the study presented in chapter 6 have empirically established support for Scott’s (1995) institutional pillars, unexplained variance in the prevalence of women remains. Combining institutional theory with insights from other board theories or theories borrowed from sociology and social psychology may help complete the conceptual picture.

Lastly, although the analysis presented here included firm level institutional characteristics for explaining the prevalence of women on the board, the nomination committee, which is the corporate governance mechanism specifically designed to facilitate a fairer and more transparent board recruitment process, has not been subjected to extensive study. The role played by the nomination committee in accelerating women’s progress onto the board is the subject of the next chapter.
7.5. Chapter summary
In reviewing the stated objectives of this chapter, the research presented here has met those objectives, not withstanding the limitations discussed above. This chapter reviewed the emerging multi-level literature on gender and management research and briefly revisited scholarship attesting to the importance of national institutions, but more broadly discussed the strands of work at the industry and firm level that have explored links between sector and company characteristics and the corporate board. From this a set of hypotheses informed by institutional theory were developed and subsequently tested and the findings were discussed with reference to broader managerial issues. Coupled with chapter 6, this chapter has provided a valuable insight into the multifaceted institutional context faced by women wishing to acquire board directorships. The next chapter analyses a related but contrasting element of the board’s context, and analyses the role played by the board’s structural and compositional characteristics as reflected in the nomination committee in accounting for board demography.
NOMINATION COMMITTEES AND BOARD DIVERSITY:
A MATCHED PAIRS ANALYSIS
8. Nomination committees and board diversity: A matched pairs analysis

This chapter completes the nested research agenda pursued in this thesis. Chapter 6 and 7 evaluated the role played by the national, industry and firm level institutional environments in accounting for the share of women on corporate boards. Both chapters concluded that elements of the national institutional environment were influential determinants of the gender characteristics of the board and chapter 7 revealed that firm and some industry characteristics similarly influenced the prevalence of women corporate board directors. This chapter addresses a related but rather different aspect of the institutional landscape that women with directorial ambitions face, and evaluates the proposition put forth in chapter 3, that the nomination committee facilitates the rise of women board directors. Continuing the themes of institutional theory as reflected in Scott’s (1995) framework, the analysis presented here evaluates the particular role played by the nomination committee in widening the director talent pool to include women through the lens of homosocial reproduction as articulated by Kanter (1977). This conceptualisation addresses the cultural-cognitive and normative element of Scott’s (1995) pillars. To that end, this chapter has three objectives. First, to evaluate the antecedence and literature on nomination committees and to develop a set of testable hypotheses informed by this particular view of institutional theory; secondly to test these hypotheses using a matched pairs analysis approach; and thirdly to draw conclusions from the results and evaluate them with reference to theoretical and managerial practice. In fulfilling these objectives this chapter makes three contributions to extant literature. The analysis contributes to the development of research on impacts of committee structure and internal governance processes in general and the nomination committee in particular. The nomination committee has not been subjected to much systematic research, with the exception of one notable study by Ruigrok et al. (2006). Secondly, this analysis further add to scholarly understanding of extant influences on the prevalence of women on the board by evaluating the specific governance mechanism designed to alter the process and composition of corporate boards, and evaluates the degree to which it has succeeded. Thirdly, this chapter draws upon and further contributes to the conceptualisation of processes of admissions to boards by evaluating the normative/cultural-cognitive pillar of Scott’s framework as reflected in homosocial reproduction. Anchored in sociology, homosocial reproduction is a particular theoretical lens popularised by Kanter (1997) which suggests demographically similar individuals in a working group perpetuate the homogeneous nature of the group by recruiting individuals similar to themselves. In adopting this theoretical perspective this
chapter extends existing literature of board behaviour which has found homosocial reproduction to be pervasive amongst the board at large (Ramirez, 2003). This chapter is largely structured according to the outlined objectives; the next section reviews the antecedence and literature on nomination committees, next the hypotheses are developed, before a method section describes the analytical approach taken herein. A results section follows and a final section concludes.

8.1 Literature review and hypotheses development
As noted in chapter 1, corporate scandals and an increased awareness of the importance of effective corporate governance practices have resulted in a pervasive concern with more streamlined and frequently more explicit governance regulations and rules (Yoshikawa et al., 2007; Aguilera, 2005; Denis and McConnell, 2003). This is reflected in the sequence of initiatives pursued in the UK which have sought to examine, and make recommendations in respect of, a number of areas of corporate governance leading to the production of the Cadbury Report (1992), the Greenbury Report (1995), the Higgs Report (2003) and the Combined Code on Corporate Governance (2003). In the United States, similar trends culminated in the Sarbanes-Oxley legislation.

One important manifestation of this focus on corporate governance is the rise in the number and types of sub-committees of boards of directors tasked with overseeing particular areas of responsibility (Kesner, 1988). Kesner (1988) highlights that until the early 1980s firms typically maintained only one or two standing committees, and that since the 1980s both the average number and variety of committees has risen, with most companies now relying on between three and five. The latest Spencer Stuart Board Index suggests that S&P 500 companies now have between four and five standing committees on average (Spencer Stuart, 2008). In light of this trend, some research has examined the impacts of innovations in board committee structures on firm-level outcomes, with very mixed results. For example, while Conyon and Peck (1998) found that the presence of remuneration committees affects the level and structure of top management pay, Daily et al. (1998) found no evidence that compensation committees affected CEO pay. In the context of audit committees, while some evidence exists to show that firms with more independent audit committees are less likely to restate their earnings (Abbott et al., 2004) and suffer from weaknesses in internal financial control (Zhang et al., 2007), other research, particularly in the post-Enron era, has been highly critical of their impacts on
audit quality (Lee, 2001). In contrast to other standing committees, relatively little research has examined the impacts of nomination committees; it has only been possible to identify two studies that explicitly and exclusively assess the impact of a nomination committee on the board’s composition. Ruigrok et al. (2006) evaluated the role and antecedence of the nomination committee in a Swiss context, and found that whilst nomination committees were related to the appointment of more non-executive directors and foreign nationals, there was no discernible difference in the share of women directors appointed as a result of instituting a nomination committee. Vafeas (1999) by contrast found no relationship between the adoption of a nomination committee and the number of non-executive directors appointed to the board, suggesting the share of non-executive directors was “exogenously determined” (Vafeas, 1999, p 220). However, he did find that the nomination committee did influence the degree of board independence, i.e. directors who were appointed where a nomination committee was involved tended to be more independent from incumbent managers than where the appointments were made outside the committee. Despite the positive impact the nomination committee was found to have on board independence, Vafeas (1999) did not recommend uniform adoption, but suggested the suitability of this governance mechanism depended on individual firms’ circumstances.

The argument in academic literature for relying on a nomination committee rests on the premise that it will bring transparency, independence and due process to director selection, and improve the gender diversity of the board (McKnight et al., 2009; Ruigrok et al., 2006; Vafeas, 1999). As established in chapter 5, the corporate board largely remains the domain of white, middle-aged men, despite the increased supply of qualified senior women executives eligible for board directorships. The nomination committee consists of a sub-set of the main board’s directors, and is designed to ensure competent and experienced candidates suitable for nomination are recommended to the main board in a judicious and fair manner (Petra, 2005; Harrison, 1987). A nomination committee has the potential to remove the influence of executive directors from the board selection process, theoretically ensuring appointment of directors with fewer or no ties to the company or the incumbent CEO, preventing nepotism and enhancing the overall independence of the board (Knight et al., 2009). The formalised and structured nature of the nomination process when utilising a committee is also deemed to enhance the gender diversity of the board by encouraging a
wider perusal of the market for directorial talent extending beyond the board’s immediate
circle of largely male contacts to include qualified women in the search for board talent.

Central to the arguments developed here regarding the likely impacts of nomination
committees on subsequent patterns of board demography is the observation that current
board members are often heavily involved in, and have a significant capacity to influence,
the processes of selection and recruitment of new directors (Westphal and Zajac, 1995;
Finkelstein and Hambrick, 1996; Mizruchi, 1996). In particular, studies have shown that
the CEO frequently has the final say in board appointments, even where boards use
nomination committees (Lorsch and McIver, 1989; Tosi et al., 2003; Seidel and Westphal,
2004). Studies have also shown that incumbent board directors appoint new directors
demographically similar to themselves when the board at large was appointed before the
CEO, and conversely where the CEO was appointed before the majority of the board’s
directors, new appointees frequently mirror the CEO (Westphal and Zajac, 1995).

Given that incumbent boards have the capacity to influence board appointments, the
question arises as to how they tend to use this ability in practice. It has long been noted that
groups, including boards of directors, have a strong tendency for self-replication in
demographic and other respects. Kanter (1977) observed that “men who manage reproduce
themselves in kind” (Kanter, 1977, p 48) and coined the term homosocial reproduction to
describe processes whereby actors favour other actors with whom they share particular
traits and characteristics such as gender, organisational background and professional ties.
Homosocial reproduction has been identified as an important phenomenon in research on a
diverse range of topics including academic competition (D’Aveni, 1996; Dressel et al.,
1994), executive turnover and diversity (Boone et al., 2004), race, gender and authority in
the workplace (Smith, 2002; Baldi and McBrier, 1997), and in particular women in
management and leadership (Kanter, 1977; Corsun and Coston, 2001; Newman, 1994;
Burgess and Tharenou, 2002; Arfken, Bellar and Helms, 2004) and corporate board
appointments (Dugger, 1981). It is also more pervasive when there is greater perceived
role incongruence. Role incongruence occurs when a specific role resonates strongly with a
particular type of person. When an individual who does not fit the stereotype is considered
for such a role they are often deemed less suitable (Taylor-Carter et al., 1995). As board
roles are generally perceived to be male in nature, role incongruence may cause women to
be considered less able for the role.
Continuing the conceptual thread that runs through this thesis, Scott’s (1995) normative and cultural-cognitive pillars encompass some of the underlying sociological mechanisms associated with homosocial reproduction. The normative pillar stresses the importance of roles, values and norms that infuse social groups and develop into accepted standards of behaviour. The cultural-cognitive pillar emphasises the inherent, taken for granted patterns of behaviour that are manifested in the dominant cultural paradigm of a group. These behavioural constructs are diffused by the normative and cultural-cognitive institutional carriers discussed in chapter 3. These carriers take different forms, but of particular relevance to the institutional phenomenon discussed here is the routine as a carrier of the normative and cultural-cognitive pillars, where role conformity, duty and scripted behaviour are central themes, which also form central tenets of homosocial reproduction.

Homosocial reproduction acts as a sort of umbrella term that describes the apparent relationships between current and future group composition that arise out of a wide range of social-psychological processes such as self-categorization theory (Westphal and Zajac, 1995; Westphal and Milton, 2000; Polzer et al., 2000), positive affect (Westphal, 1998; Barsade et al., 2000;), norms of reciprocity (Wade et al., 1990; Westphal and Stern, 2006), and social cohesion (Kanter, 1968, 1977; Forrester and Tashchian, 2006; Michel and Hambrick, 1992; Harrison et al., 1998).

Self-categorization theory begins from the premise that individuals have a tendency to categorize themselves and others (into in-group and out-group components) in social situations if they perceive that there is a benefit from doing so (Westphal and Milton, 2000; Zajac and Westphal., 1996). Demographic attributes of individuals are commonly used as a means of categorization in organisational life. For example, Westphal and Zajac (1995) argue that the innate desire to work with similar people and the self-esteem derived from feeling part of a working group, is part of the explanation for the demographic uniformity observed on corporate boards. A consequence of self-categorization may be that anyone not classified within one’s group is classified as an out-group members (Westphal and Milton, 2000), an assignation that carries negative connotations associated with stereotypes and a disregard for out-group members’ point of view. Westphal and Milton (2000) assessed the impact of minority status on corporate boards in the light of, amongst other concepts, self-categorization theory. They found that board directors who were a
demographic minority on one board were likely to self-categorize with other minority members on the focal board, using this as a basis for an in-group bias. Individuals who self-categorize have been found to engender positive working relations, which at board level result in serving male board directors recruiting individuals with whom they experience a link of professional and sociological kinship, whilst directorial candidates self-select boards where they experience affinity with serving directors. The consequence is a board comprising of men with similar backgrounds and competencies, who conform to the behavioural norms implied by the in-group status conferred by self-categorization.

Related to self-categorization is positive affect. Positive affect generates positive feelings within work-groups (Haynes and Love, 2004) and is related to increased enjoyment of work and satisfaction with demographically similar peers (Chatman and O’Reilly 2004, Collins; 1981). As Pfeffer (1982) notes, “the importance of similarity may be in its link to inter-personal attractiveness and feelings of inclusion and acceptance and the resultant assurance of interlocked and maintained cycles of interaction” (Pfeffer, 1982, p 223). The impacts of positive affect have been shown to be multifaceted, from improved decision-making and more efficient categorisation, to increased search for variety in choices and increased motivation, improved effort and persistence (Isen and Means, 1983; Isen and Daubman, 1984; Erez and Isen, 2002). In addition to the positive affect generated by working with people who share a common sense of group-bias and social bonds, appointing directors with whom there is already an established professional rapport offers the added benefit of working with an individual whose credentials, working practices and professional conduct are established. However, positive affect has also been shown to engender ineffective governance by for example, excessive levels of trust amongst board directors, failure adequately to question the CEO’s decisions, and social distancing and ostracism of directors who contravene the implicit boundaries of positive affect and defy the group’s premises for affect by for instance lending support to initiatives that diminish the power of the CEO (Westphal and Bednar, 2005; Westphal and Milton, 2000; Westphal and Stern, 2006; 2007).

Positive affect in turn fosters social cohesion which has been associated with a number of group level outcomes pertinent to the effective discharge of corporate board duties such as improved performance and productivity (Adams, 1954; Robbins 1952). Social cohesion is the “tendency of a group to stick together and remain united in the pursuit of instrumental
objectives and the satisfaction of members’ affective needs” (Forrester and Tashchian, 2006, p 458). Results of most empirical studies show a strong relationship between homogeneity and increased social cohesion (Kanter, 1968, 1977; Forrester and Tashchian, 2006; Michel and Hambrick, 1992; Harrison et al., 1998; Emerson, 1954). In terms of gender diversity of boards, Singh and Vinnicombe (2004) proposed social cohesion as an explanatory variable in accounting for the low number of female board directors in the UK. They posited that social cohesion conferred an expectation of reciprocity amongst directors in the social network, engendering further directorships and favours rendered and returned. They further suggested that women’s smaller network of relevant contacts made them less attractive for board duties as they had less to offer by way of reciprocating directorships. The sense of reciprocity and the experience of positive affect and social cohesion emanating from groups that strongly self-categorize create invisible but highly effective normative and cultural-cognitive barriers to potential female board candidates.

The notion of reciprocity is a further fundamental and enduring characteristic of human relations and “…is the vital principle of society” (Thurnwald, 1932, p 106). Reciprocity can be thought of as the rendering of an unprompted service, kindness or favour to another party, leaving the recipient of the act indebted to the giver (Westermarck, 1908; Thurwald, 1932, Gouldner, 1960, Akerlof, 1982, Westphal and Zajac, 1997; O’Reilly III and Mein, 2007). Furthermore, such social norms confer a duty on the debtor to help and assist the creditor in the intervening period between receipt of the kindness and the reciprocation of the favour. As such, reciprocity confers duties and responsibilities on all parties to the norm and creates a predictable pattern of system stability, which “…depends in part on the mutually contingent exchange of gratifications, that is, on reciprocity as exchange” (Gouldner, 1960, p 168). In the context of corporate boards, norms of reciprocity have been found to be an important factor in the board dynamic which governs the board appointment process of minorities (Westphal and Stern, 2006), CEO compensation (Westphal and Zajac, 1995; O’Reilly III and Main, 2007) and board independence (Westphal and Zajac, 1997, Westphal and Khanna, 2003).

The preceding discussion suggests that, without a targeted intervention aimed specifically at the board’s recruitment process, a wide range of related social-psychological processes are likely to maintain the homogeneous, male board. It is into this process that nomination committees intervene. Nomination committees are tasked with identifying potential board
talent which embodies the necessary skills, experiences and competencies recognised by the board as required for successful service as directors (Petra, 2005; Harrison, 1987). The requirement for independence of the nomination committee (Higgs, 2003) is rooted in the desire for board nominations to be made based on the merit, skills and experiences required by the board, rather than homosocial reproduction. Based on these discussions, it is hypothesised that:

Hypothesis 1: The presence of nomination committees is associated with greater subsequent increases in the proportion of directors who are female.

Research into corporate governance has suggested that not only do corporate committee structures matter for decision-making, so too can their composition importantly influence their function. Evidence suggests board committee structure is related to firm performance, Klein (2002) found evidence of a link between negative firm financial performance and less independent audit committees, whilst Davidson III et al. (1998) established that where insiders dominated the compensation committee, negative returns were more frequently observed, leading the authors to conclude that “the board’s committee composition can influence the board’s ability to maintain its responsibility” (Davidson III et al., 1998, p 18). In the context of nomination committees, one key decision relates to whether a woman or women are members of these bodies. The relative proportion of men to women in the context of board committee structures can play a decisive role in whether women are able to assert themselves and influence the committee proceedings. Kanter (1977) highlighted the impact different male-to-female ratios had on working relationships within a group. She identified the uniform group, which was entirely gender homogeneous, the skewed group where one gender greatly outnumbered the minority who often represented a token voice, the tilted group where women were still a definitive minority with insufficient clout to build alliances but a tilted group represented a step away from tokenism, and lastly the balanced group, where women and men had a more even share of the position. Kanter argued that the social relations and cultural character of the group changed as the gender distribution became balanced. Groups that are more balanced in their composition negate the formation of strong in-groups and out-groups, where reciprocity, positive affect and social cohesion are reinforced within the sub-groups and instead encourage a group-wide sense of loyalty and affect (Kanter, 1968, 1977; Kramer et al., 2008).
Whilst self-categorization and acts of reciprocity will always take place, the effects can be mitigated by increasing the level of minority members. Kanter (1977) argued against the notion of token women, where one woman was placed on the board as a show of goodwill towards women, allowing the company outwardly to comply with demands of gender diversity whilst in reality the woman had little or no impact as she was designated an outsider. However, research has shown that as the proportion of women increases so does their level of influence even if their numbers do not reach that of men. As numeric clout increases it becomes harder to maintain an insider/outsider bias, as men themselves become outsiders to the women, who themselves self-categorize with one another (Westphal and Milton, 2000; Kanter, 1977; Pfeffer, 1985; South et al., 1982). Constructive efforts aimed at increasing the share of female board directors beyond a token presence, such as the use of nomination committees, should therefore be advantageous to women and help break down the cycle of “like attract like” instead engendering an equitable recruitment process and broader perusal of the market for corporate directors. In light of this discussion, it is hypothesised that:

Hypothesis 2: The subsequent increases in the proportion of women on corporate boards will be higher where firms have females represented on their nomination committees than where they do not.

### 8.2 Method

#### Sample

This study relies on matched pairs analysis to examine the impact of using nomination committees on the gender composition of the board. To explore this proposed relationship, a sample of matched pairs of firms was developed, in which each pair would consist of two firms having similar characteristics but where one firm had a nomination committee and the other firm did not. Subsequently, a second set of matched pairs was created for firms that had nomination committees, where firms with women on their nomination committees were paired with those without women. The starting point for this analysis is a database of companies comprising Standard and Poor’s index of the 500 biggest companies in the U.S. for the years 2002-2005. The S&P500 has been used often in earlier research, both because it “increases the likelihood that public data are accessible” (Hillman et al., 2007, p 74), and because it comprises firms from across the sectoral distribution and is a commonly used proxy for the listed firms sector in the United States. Data concerning their boards of
directors, and the presence and composition of standing committees, were obtained from BoardEx, as used in chapters 5, 6 and 7.

In order to control for the wide variety of factors that may be associated with evolving patterns of women on corporate boards, a matched pairs method was used for the analysis. Matched pairs analyses originated in medical and biological research but are now commonly used in management, finance and economics research (Claessens and Tzioumis, 2006; Premuroso and Bhattacharya, 2007; D’Aveni and Kesner, 1993). Most medical research designs involve a distinction between a treatment group (i.e. those subjects receiving a particular therapy, intervention or drug) and a control group of subjects who do not receive the same treatment. The relative merit of the medical experiment is then judged by evaluating differences in outcomes between these two samples; this difference is generally referred to as the “treatment” effect (Rubin, 1973).

A central requirement in matching studies is that in order to observe properly the treatment effect, the companies that comprise the treatment and control samples should have similar characteristics. The emphasis is therefore on constructing a control sample of companies with as similar characteristics as possible to those with nomination committees but which do not, in fact, have nomination committees. In the literature there are a number of generally accepted methods used to achieve this objective. In order to ensure the robustness of findings to subtle variations in approach, two of the most commonly used were employed in this study. Drawing on evidence regarding the importance of firm size and industry sector for board demography, the first method, termed “simple matching”, and which mirrors approaches adopted by Litvak (2007) and Farber (2005) among others, involves matching each firm with a nomination committee with a control firm within the same three-digit SIC (Standard Industrial Classification) industry sector and with market capitalisation within 25 percent of the firm that has a nomination committee. If a match within the same three-digit SIC industry is unavailable, then a firm is matched with a firm from the same two-digit SIC code. In summary, for every firm with a nomination committee this approach provided a control company that satisfied three criteria: (1) operated in the same primary three-digit (or, at worst two-digit) SIC industry code, (2) had the closest market capitalization, with at worst 25% difference between the companies, and (3) did not have a nomination committee. Each firm’s SIC code and market capitalisation was obtained from DataStream.
The second method of identifying a control sample for the companies that have nomination committees follows what is known as a “nearest neighbour” approach. Adopting a nearest neighbour approach involves estimating a model that predicts the probability that a firm will have a nomination committee. The predicted probability (or “propensity score” (Rosenbaum and Rubin, 1983, 1985)) from this model can then be used to identify, for each firm with a nomination committee, the company with the closest probability of having a nomination committee but which did, in fact, not have one. Ruigrok et al. (2006) shows that firms with bigger boards and without CEOs who are also the board chairperson are more likely to have nomination committees. Similarly, the propensity for firms to establish nomination committees is likely to be sensitive to current board composition, a firm’s industry, financial performance and indebtedness. Finally, as the members of the nomination committee are selected from the main board, the gender composition of the main board greatly influences the gender distribution of the nomination committee (Conyon and Peck, 1998). Reflecting the characteristics thus described, the following logit model was specified.

\[
P(\text{NominationCommittee})0/1 = \alpha_0 + \beta_1 \text{FirmSize} + \beta_2 \text{BoardSize} + \beta_3 \text{Board Composition} + \beta_4 \text{Profitability} + \beta_5 \text{Percentage Women} + \beta_6 \text{Leverage}
\]

Where:

- Firm Size = the natural logarithm of market capitalisation;
- Board Size = the total number of directorships comprising a firm’s board;
- Board Composition = the ratio of outside directors to board size;
- Profitability = the ratio of pre-tax profits before interests to total assets;
- Percentage Women = the percentage of a firm’s directors that are female;
- Leverage = the ratio of long term debt to total assets;

In addition, a family of (N-1) industry and (M-1) year dummy variables were included. Data on firm size, profitability, and leverage were obtained from DataStream. Data concerning the composition of corporate boards were obtained using BoardEx. Both of these databases were described in chapter 4. Using these methods of matching, identified two sets of matched pairs, one obtained by following the simple matching procedure, and
one obtained by following the nearest neighbour approach. The simple matching procedure resulted in 64 pairs in 2003, 68 pairs in 2004, 63 pairs in 2005 or 195 pairs in total, and the nearest neighbour approach returned 96 pairs in 2003, 93 pairs in 2004, and 96 pairs in 2005 or 285 pairs in all. Table 8.1 provides some descriptive statistics for the treatment and control samples as obtained by each method. An important point is that there are no statistically significant differences in firm size (measured either by market capitalisation or number of employees) between firms with and without nomination committees according to either matching method. Some small differences exist in the size and composition of boards however, with firms having nomination committees having slightly smaller and less independent boards. Overall, though, the similarity between the treatment and control groups in respect of size, industry and other characteristics should provide clear results of the treatment effect.

Table 8-1 Characteristics of the matched pairs

<table>
<thead>
<tr>
<th></th>
<th>Simple Matching</th>
<th>Nearest Neighbour Matching</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nomination Committee</td>
<td>No Nomination Committee</td>
</tr>
<tr>
<td><strong>Board Size</strong></td>
<td>10.88</td>
<td>11.60</td>
</tr>
<tr>
<td>(No. Directors)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Board Composition</strong></td>
<td>84.99</td>
<td>86.79</td>
</tr>
<tr>
<td>(% Independent Directors)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Market Capitalisation</strong></td>
<td>23,575</td>
<td>22,273</td>
</tr>
<tr>
<td>(SM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>No. of Employees</strong></td>
<td>40,054</td>
<td>38,928</td>
</tr>
</tbody>
</table>

*Board diversity*

Having identified treatment and control samples of companies through matching processes, the analysis could be carried out. The focus was on one indicator of female presence on boards: the percentage of board seats occupied by female directors in a given company/year. In order to compute this figure for particular countries/years a similar method to that which was used in previous chapters was adopted. Data on the gender characteristics of the board directors was extracted from *BoardEx*, and supplemented with reviews of annual reports where data was missing.
8.3 Findings

This section discusses the findings of the matched pairs analysis. Table 8-2 describes the average year-on-year change in the proportion of women on the boards of companies with and without nomination committees for the two methods of matching. For both methods of matching, firms with nomination committees had higher subsequent rises in the proportion of women on their boards than firms without, although this difference was only statistically significant for the nearest neighbour method (p=0.058). Over the period 2003-5 the cumulative difference between these groups was around 1% for the simple matching method and more than 2% for the nearest neighbour method. Although these changes may seem small, when compared to the mean proportion of board directors in the sample that was female in 2002 (the first year of our analysis), which was just over 12%, the effect of the nomination committee can be seen to be more substantial as it amounts to 8%-16% of the original proportion of women board directors.

Table 8-2 The impact of nomination committees on board gender demography

<table>
<thead>
<tr>
<th></th>
<th>Percentage point change in % women on company boards over subsequent year</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>Average 2003-2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple matching</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nomination Committee</td>
<td></td>
<td>0.98%</td>
<td>0.54%</td>
<td>-0.56%</td>
<td>0.32%</td>
</tr>
<tr>
<td>No Nomination Committee</td>
<td></td>
<td>0.48%</td>
<td>0.50%</td>
<td>-0.89%</td>
<td>0.03%</td>
</tr>
<tr>
<td>Nearest neighbour matching</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nomination Committee</td>
<td></td>
<td>0.93%</td>
<td>1.34%</td>
<td>0.32%</td>
<td>0.87%</td>
</tr>
<tr>
<td>No Nomination Committee</td>
<td></td>
<td>0.30%</td>
<td>0.51%</td>
<td>-0.41%</td>
<td>0.13%</td>
</tr>
</tbody>
</table>

Table 8-3 extends the analysis to consider whether the gender composition of nomination committees affects their impact on subsequent board diversity. Here, the methods described above are repeated to pair companies with nomination committees that have female directors as members with comparable companies with nomination committees without female members. As above, both methods of matching suggest that where women are members of nomination committees, their presence leads to a significantly greater increase in the proportion of women on boards in subsequent years. For the simple matching process, the presence of at least one woman on a nomination committee leads to a rise of around one percentage point in the proportion of women on firms’ boards in excess of that which is found for companies with all-male nomination committees (p=0.045). For the nearest neighbour approach the difference between the groups is more
than half a percentage point each year, or around 1.75 percentage points cumulatively over the period under study.

Table 8-3 The impact on board demography of gender diverse nomination committee

<table>
<thead>
<tr>
<th>Nomination Committee Type</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>Average 2003-2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least one woman on Nomination Ctte</td>
<td>1.77%</td>
<td>1.18%</td>
<td>0.30%</td>
<td>1.08%</td>
</tr>
<tr>
<td>No woman on Nomination Ctte</td>
<td>0.46%</td>
<td>-0.91%</td>
<td>0.69%</td>
<td>0.08%</td>
</tr>
<tr>
<td>At least one woman on Nomination Ctte</td>
<td>1.44%</td>
<td>1.91%</td>
<td>0.71%</td>
<td>1.36%</td>
</tr>
<tr>
<td>No woman on Nomination Ctte</td>
<td>1.56%</td>
<td>0.04%</td>
<td>0.68%</td>
<td>0.76%</td>
</tr>
</tbody>
</table>

Table 8.4, provides a summary of the evidence presented above by identifying the changes in the proportions of women on corporate boards that the analysis suggests occur in the period 2003-5 depending on which of the three logical “types” of nomination committees a firm has (no nomination committee, an all-male nomination committee, a nomination committee with at least one female member). Again, a distinction is made between the two approaches to matching. These findings underline the fact that in the absence of a nomination committee there is almost no subsequent change in the pattern of board diversity, a finding strongly resonant with processes culminating in homosocial reproduction and the observation by Dugger (1981) that institutional roles are reproduced in subsequent executive generations. Where firms have nomination committees, there are substantially greater rises in the percentage of women on corporate boards, though these are significantly greater for the nearest neighbour matching method. Lastly, where there is female representation on nomination committees, this further contributes to rises in the proportion of female board directors. This last finding is strongest for the simple matching process.
Table 8-4 Summary of impacts of nomination committees on board demography

<table>
<thead>
<tr>
<th>Simple matching</th>
<th>Percentage point change in % women on company boards over subsequent years</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>Average 2003-2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Nomination Committee</td>
<td></td>
<td>0.48%</td>
<td>0.50%</td>
<td>-0.89%</td>
<td>0.03%</td>
</tr>
<tr>
<td>All male nomination committee</td>
<td></td>
<td>1.44%</td>
<td>-0.36%</td>
<td>0.13%</td>
<td>0.40%</td>
</tr>
<tr>
<td>At least one woman on Nomination Ctte</td>
<td></td>
<td>2.75%</td>
<td>1.72%</td>
<td>-0.26%</td>
<td>1.41%</td>
</tr>
<tr>
<td>Nearest neighbour matching</td>
<td></td>
<td>0.30%</td>
<td>0.51%</td>
<td>-0.41%</td>
<td>0.13%</td>
</tr>
<tr>
<td>No Nomination Committee</td>
<td></td>
<td>2.49%</td>
<td>1.38%</td>
<td>1.00%</td>
<td>1.63%</td>
</tr>
<tr>
<td>All male nomination committee</td>
<td></td>
<td>2.38%</td>
<td>3.26%</td>
<td>1.03%</td>
<td>2.22%</td>
</tr>
</tbody>
</table>

Finally, turning to the hypotheses, in general these results indicate support both the proposed hypotheses. Firms with nomination committees do appear to have substantially and significantly greater subsequent rises in the proportion of women serving on their boards than firms without nomination committees. At the same time, the composition of those nomination committees, and the presence of women on them in particular, does seem to have an important additional effect. Where women sit on nomination committees the subsequent rises in the proportion of women on such boards is significantly higher than where they do not.

8.4 Discussion and conclusion

This study completed the nested research agenda outlined in chapter 1 by exploring the role played by nomination committees, and their composition, in the evolving pattern of board diversity by adopting a matched-pairs method that twins companies with nomination committees with those without them and then compares how the boards of each group evolve. Consonant with the proposed hypotheses, the findings show that firms with nomination committees have greater subsequent increases in the prevalence of women on their boards than those without them. This suggests the nomination committee is an effective corporate governance mechanism which successfully intervenes to stop interpersonal relationships from defining corporate board composition and mitigates some of the power other studies have found wielded by CEOs over the board appointment process (Lorsch and McIver, 1989; Tosi et al., 2003; Seidel and Westphal, 2004). This is a point of particular importance when considered in the context of this analysis, which showed that there is almost no change in the proportion of directors that are female in this
period among firms that do not have nomination committees. Set against a context where the prevalence of women on corporate boards in the US has risen very substantially in the last ten years or so, the absence of any change in this group is a strong indicator of Kanter’s (1977) observations regarding the tendency of elites to self-replicate. Without concerted and directed action specifically targeting board diversity, male dominated corporate boards look set to prevail. Although the finding that firms without nomination committees observed virtually no change in the proportion of board seats held by women, the finding is consonant with what one would expect to see in light of the literature on positive affect and social cohesion, and the finding that men prefer to work in groups that are male dominated (Chatman and O’Reilly, 2004)

Contributions to managerial practice
This study offers some notable implications for management practice. In particular, the findings presented here strongly suggest voluntary approaches to increasing board diversity do work. Although Norway’s decision to introduce affirmative action resulted in a steep rise in the share of female board directors, this study suggests ‘soft-law’ approaches are effective too, offering an alternative to the more heavy handed approach of legislation, which has also been associated with some negative outcomes for the women concerned (Taylor-Carter et al., 1995). Some research into affirmative action, whilst not specifically focused on the board of directors, seems applicable in a board context. The research results are mixed. At the company level, Taylor-Carter et al. (1995) identified a risk with exclusive focus on filling required quotas associated with affirmative action initiatives. Rather than systematically assessing the firm’s hiring, training and development practices, a focus on filling quotas might not result in lasting systematic changes to attitudes, corporate culture and perception of women in the workplace. On an individual level, women associated with affirmative action initiatives are often seen as incompetent regardless of actual qualifications or competencies exhibited (Heilman et al., 1997). Hence, affirmative action programmes, though very effective in shaping board demography, are unlikely to be without issues and problems. At the time of writing, nomination committees of one form or another are almost ubiquitous among large companies in the US. This suggests that voluntary mechanisms are likely already to be playing an important role in shaping America’s boardrooms. However, many European and Asian countries have been much slower to adopt this particular corporate governance mechanism. A third of Spanish firms do not have a nomination committee (Osma and Albornoz, 2005), only 3.2% of
Greek firms have adopted a nomination committee and across South East Asia there is substantial variation in the uptake of this particular committee. In Hong Kong 30% of firms rely on the nomination committee, in Malaysia 63% of companies have a nomination committee whilst for Singapore the number is 97% whilst in Taiwan no company use the nomination committee (Nowland, 2008). This suggests the findings from this study can help inform corporate governance practice in other countries where the committee structure is less widespread.

This research complements the substantial amount of research that has been done regarding the implications of firms developing more sophisticated governance structures. Where research on remuneration committees and audit committees has often found their effects to be ambiguous (Barkema and Gomez-Mejia, 1998; Weir and Laing, 2001; Daily, 1996; Klein, 2002), this research suggests that nomination committees are playing a very important role in supporting more meritocratic and transparent processes of recruitment to corporate boards.

**Theoretical contributions**

Looking more broadly at the implications of this research for theorising about processes by which women come to be represented on corporate boards suggests that such processes are complicated. Particularly intriguing is the observation that where women are present on nomination committees firms have substantially greater rises in the subsequent prevalence of women on their boards. One possibility, and that which the conceptual development advanced, is that the presence of a female member on nomination committees reduces the tendency for the committee to identify potential female recruits as being out-group and hence breaks the tendency for homosocial reproduction. Equally, though, other mechanisms may play an important role. Appointments to boards rely on adequate supply of female managerial talent as well as demand, and roles in companies that already have female directors are likely to be more attractive to potential candidates. Similarly, existing female directors may be members of networks and communities that help companies to identify and attract further female directors. Although homosocial reproduction is generally discussed in contexts where men are the benefactors of this particular sociological process, there is in principle nothing to suggest that women do not similarly rely on interpersonal and social-psychological processes in the same way men do. The increased prevalence of female board directors where more women sit on the nomination
committee may be a result of women engaging in the same practices as men by homosocially reproducing.

Limitations
This study has a number of limitations. First, the study is confined to a particular study period and set within a single country. Given the findings in chapters 6 and 7 which clearly showed the importance of country context, it is possible that the functioning of nomination committees is to some extent contingent on aspects of the environment within which firms operate. Aligned to the limitation of a single-country focus is the fact that nomination committees are now commonly considered best practice in large public American companies and are almost ubiquitous. However, this was not the case for the time frame studied, when only ca 60% of the sample firms had adopted nomination committees, which suggests there was no deep issues associated with the sampling. In terms of sample size, when this study is considered in the context of previous matched pairs studies on corporate boards and corporate board committees, this study compares favourably. Evaluating a proposed link between corporate board committee structure and firm performance, Premuroso and Bhattacharya (2007) constructed 23 pairs of firms from the S&P 500. In other studies of board independence, Daily and Dalton (1997) identified 45 matched-pairs in their assessment of the impact of a dual CEO/Chairman role, similarly in research into bankruptcy Daily (1996) constructed 53 pairs whilst Hambrick and D’Aveni (1988) twinned 53 companies in their assessment of firm failure. Secondly, the focus on the nomination committee has been at the expense of seeing the nomination committee as part of a portfolio of mechanisms of internal governance. Finally, the study suffers from the drawback that is common to all quantitative research of this kind – it was not possible to observe the processes in action, merely their outcomes.

Future directions
The limitations of this study may offer useful future research opportunities. In particular, future work might explore the interdependencies between the presence and functioning of nomination committees and other aspects of firms’ governance architectures, and complementary research of a more phenomenological nature that seeks to document processes associated with homosocial reproduction and the structures as they are understood by those that implement and use them would be invaluable. Widening the geographic perspective to take account of the use of nomination committees in other
national context should also be considered in light of the findings in this thesis that national institutional context play an important role in defining board level outcomes.

8.5 Chapter summary

This chapter addressed three objectives. Firstly, it evaluated the antecedence and literature on nomination committees before developing a set of testable hypotheses informed by homosocial reproduction. Secondly, these hypotheses were tested using matched pairs analysis, thirdly, the results were discussed and the implications of both a theoretical and a managerial nature were considered. The findings of this analysis show that firms with nomination committees have significantly higher subsequent rises in the prevalence of women on their boards than firms that do not and that this effect is substantially more pronounced where nomination committees have female members. Although the hypotheses put forward in this chapter did not follow Scott’s (1995) ‘pillar’ structure adopted in chapters 6 and 7, the institutional theoretical lens adopted clearly reflect normative and cultural-cognitive elements. Normative systems of behaviour such as those that originate through the numerous social processes associated with homosocial reproduction “regulate the relations of individuals to each other” (Parsons, 1934/1990 p 327). In particular, homosocial reproduction engenders institutional practices that perpetuates a normative and cultural-cognitive role systems and constitutive rules, which collectively sees men recruiting men in their own image at the expense of women, who continue to be prevented from adding their skills, talent and cognition to the board’s “talent pot” in the absence of structural intervention.
CONCLUSION
9. Conclusion

This chapter pulls together the main findings and contributions of the thesis. The chapter seeks to link the research avenues identified in the literature review with the conceptual development in chapter 3 and the subsequent empirical research presented in chapters 5, 6, 7 and 8, and, show how this thesis contributes to extant literature through the four research contributions set out in chapter 1. It will also seek to explore further where this area of research may go next. The two core objectives of the chapter are to evaluate the contributions and relevance of the thesis with reference to the gaps identified in previous literature and to discuss the limitations of this thesis and build on these to suggest new and valuable directions for further research.

This chapter starts from the premise that the eight propositions developed in Chapter 3 have been empirically tested, and the result of these tests, in parallel with the systematic international mapping of the prevalence of women on the board, form the core contribution to extant academic literature. The chapter goes on to reflect on these findings and their implications for research.

9.1. Advancing extant literature on women board directors

This thesis has addressed the research propositions put forth in chapter 3 and responded to elements of the research agenda articulated in chapter 2. The literature review presented in chapter 2 and the conceptual framework proposed in chapter 3 together offered a systematic research map into the prevalence of women on the board. The starting premise was the observation that the body of descriptive literature, which accounted for a substantial tranche of the literature on women on the board, was geographically narrowly drawn, and largely concentrated in the US, Canada, the UK and Australia (Burke, 1997, 1999, 2000; Singh et al., 2001; Singh and Vinnicombe, 2004; Farrell and Hersch, 2005; Sheridan, 2001; Sheridan and Milgate, 2003, 2005; Burgess and Tharenou, 2000; Conroy, 2000; Conyon and Mallin, 1997) and only a small number of studies focused on smaller countries such as Spain (Campbell and Minguez-Vera, 2008), Denmark (Smith et al., 2006), New Zealand (McGregor, 2000) and Switzerland (Ruigrok et al., 2007). Secondly, empirical literature had largely attempted to account for women’s presence or absence from the board with reference to single-level studies focusing on firm or board level characteristics (Kesner, 1988; Bilimoria and Piderit, 1994; Westphal and Stern, 2007; Erhardt et al., 2003; Carter et al., 2001), individual traits (Sheridan and Milgate, 2003,
(2005; Burgess and Tharenou, 2002; Hillman et al., 2002; Selby, 2000; Holton, 2005; Rose, 2007) or industry factors (Harrigan, 1981; Elgart, 1983; Hillman et al., 2007; Thomas, 2001; Brammer et al., 2007), leaving the national institutional context substantially unexplored. Thirdly, conceptually most research into women’s prevalence on the board was framed in board level theories such as agency theory (Jensen and Meckling, 1976; Lynall et al., 2003, Daily et al., 2003), resource dependence theory (Ong and Lee, 2001; Roberts et al., 2005; Davis et al., 1997; Sundaramurthy and Lewis, 2003; Donaldson and Davis, 1991) and stewardship theory (Pfeffer, 1972; Selznick, 1949; Muth and Donaldson, 1998), which did not adequately take account of the wider firm context women had to negotiate to acquire board seats. Consequently, the research agenda and conceptual development identified the need to firstly, broaden the theoretical perspective on women board directors to account for the firm specific context, secondly, analyse systematically the prevalence of women on the board in an international perspective, and thirdly account for the role played by the institutional environment at the national, industry and firm level to understand better why women acquire board seats in some institutional contexts, but not in others. Next, the research contributions made to each of these scholarly areas will be discussed and the theoretical and managerial implications of the research will be explored.

9.2. Broadening the theoretical perspective on women board directors

This thesis has extended the theoretical perspective adopted in research on women corporate board directors through the application of institutional theory, as reflected in the regulative, normative and cultural-cognitive pillars. The adoption of Scott’s (1995) institutional pillars for the study of women on the board answered calls from the literature to further “contextualise” research into female corporate board directors (Terjesen and Singh, 2008; Lubatkin et al., 2007) and explain the prevalence of women’s board participation with reference to the wider institutional environment in which women seek board directorships and within which companies choose to appoint them. This application of institutional theory constituted one of the research contributions of the thesis. The need to move beyond the dominant board level theoretical frameworks normally adopted in studies of women on the board was made evident by the continued disregard in extant research of the role played by the institutional environment in accounting for why boardrooms remain predominantly male. Where the wider country context was taken into account it was done so without reference to theory (Terjesen and Singh, 2008).
The application of institutional theory as operationalised through the regulative, normative and cultural-cognitive pillars progressed research in two ways: Firstly, as far as it has been possible to ascertain it is the first study to address systematically the prevalence of women on the board using Scott’s (1995) pillars and secondly, the inherent multi-level character of the framework meant that the large and persistent variation in the prevalence of women on the board could be effectively explained by reference to a broader set of explanatory variables across multiple levels of analysis, which resulted in a more holistic view of how institutional context shapes gender demographic patterns at board level.

Adding institutional theory to the conceptual arsenal at the researchers’ disposal offers the opportunity to build a more nuanced and complete explanation for the international disparity in women’s participation across the world’s board rooms. In doing so, research can progress our understanding of what enables or prevents women from acquiring board directorships, which in turn can help inform policy and managerial practice and ultimately contribute to increasing the proportion of board directorships held by women. Applying institutional theory also answers Aguilera’s (2005) call to address how the prevailing institutional climate influences corporate governance and pushes the boundaries of board research beyond the confines of the ‘usual suspect’ theories, such as agency, resource dependence and stewardship. It extends the theoretical focus of the issue of gender homogeneous boards away from being a board level phenomenon only, to one that is embedded in a wider context where a larger constituency of stakeholders can play a useful role in addressing the gender imbalance.

9.3. International mapping of the prevalence of women on the board
The second research contribution to emerge from this thesis is arguably the most systematic and comprehensive academic review of the pattern of female corporate board directorships to date. From the thorough review into scholarly research on female corporate board directors conducted in chapter 2, it became evident that the majority of studies concerned with mapping the evolving pattern of female corporate board participation had confined their attention to a narrow range of countries, specifically the US, Canada, the UK and Australia (Burke, 1997, 1999, 2000; Singh et al., 2001; Singh and Vinnicombe, 2004; Farrell and Hersch, 2005; Sheridan, 2001; Sheridan and Milgate, 2003, 2005; Burgess and Tharenou, 2000; Conroy, 2000; Conyon and Mallin, 1997). Although a minority of studies had explored the pattern of female board directors beyond these
geographic limits (Campbell and Minguez-Vera, 2008; Smith et al., 2006; McGregor, 2000; Ruigrok et al., 2007), a substantial proportion of emerging and developed economies had however, not been included in any of the studies. In particular, the major Asian and Latin American economies had largely been ignored, as had the former Eastern Bloc. Failure to account for the evolving pattern of female board participation in these regions meant only a partial picture of the prevalence of women on the board was available. The extensive analysis of the international variation in the prevalence of women on the board presented in chapter 5 most likely represents the most comprehensive review of the pattern of female board participation to date and consequently is a substantial contribution to extant literature on female corporate board directors.

A systematic overview of this variation is important for three reasons. Firstly, it highlights that the commonly held view in the literature that women tend to be located on the boards of larger companies with more independent boards may not be true in all circumstances (Burgess and Tharenou, 2000; Burke, 2000; Erhardt et al., 2003; Harrigan, 1981; Farrell and Hersch, 2005; Carter et al., 2003). Consequently, extant literature on women’s progress onto the board should be carefully considered in light of national variation and countries, and firms wishing to improve the gender balance of their corporate boards should be cautious of drawing general conclusions from the literature.

Secondly, from a comparative corporate governance perspective, these results suggest that particular elements of board composition are less susceptible to converging practices than others. As noted in chapter 5, the gap between the firms ranked in the top quartile for gender diverse boards versus those companies in the lower quartile widened over the observed period. Although data were only available for a period of five years, is suggestive of support to those corporate governance scholars who argue that path dependence and national institutional influences are more important in shaping local corporate governance practice than are international trends towards globalisation (Bebchuk and Roe, 1999; Gilson, 2001).

Thirdly, by systematically mapping the evolving pattern of female corporate board directors in a cross-national and cross-industry context, this thesis has provided a valuable starting point for researchers wishing to explore further the prevalence of women on the board.
9.4. Institutional context and the prevalence of women corporate board directors

This thesis has empirically tested the explanatory power of Scott’s (1995) institutional framework in accounting for the prevalence of women on the board with reference to national, industry and firm level institutional context and in doing so offered a third unique contribution. This thesis has added to extant scholarly understanding of why women successfully acquire board directorships in certain contexts, but fail to do so in others. Systematically analysing the role of Scott’s (1995) institutional pillars across the country, industry and firm level offered new insights into what drives the prevalence of women on the board. Reflecting the nested nature of the thesis, the salient contributions as they pertain to the national, industry and firm level will be discussed in turn.

National level influences on the prevalence of women on the board

The research carried out for this thesis established that national level institutional context does influence the prevalence of women on the board. In particular, the results of the country-level analysis suggest that elements of national culture and the normative environment are significant indicators of women’s prevalence on the corporate board. Chapter 7 extended the analysis presented in chapter 6 and tested the relative importance of national institutions when considered in relation to industry and the firm characteristics, and results, albeit based on a different sample, showed that national level institutions were of continued importance when compared with firm and industry characteristics. A particularly interesting finding to emerge from chapter 7 was the degree to which country context explained the prevalence of women board directors on multinational companies. Multinational companies have by some been considered to constitute a separate class of firms, not bound by home country culture, legislation and normative considerations (Kostova et al., 2008). However, this thesis found that the gender characteristics of multinational boards were firmly embedded in the home country context.

The cross-national research carried out in chapter 6 and the multi-level study reported in chapter 7 comprehensively tested the country-level theoretical propositions articulated in chapter 3 (Propositions 1–3) which focused on each of Scott’s (1995) three pillars and the research avenue suggested in 2.3 which called for research to be conducted on national institutional determinants on the prevalence of women on the board. The finding that cross-country differences in the prevalence of women on corporate boards are substantial,
enduring, and to a great extent explicable by reference to the attributes of national institutions suggests that the failure to address macro-level influences and processes in board demography research is a serious omission, which opens up further research opportunities, and these will be discussed in section 9.3.

Industry level influences on the prevalence of women on the board

Testing Propositions 4, 5 and 6 in the study presented in chapter 7 revealed that the only factor in the industry institutional environment to be a significant predictor of the prevalence of women on the board was the share of jobs in a given sector occupied by women. The results therefore suggested partial support for Proposition 5 as articulated in chapter 3 which suggested that less unionised industries that had a larger share of female employees would have more women board directors. Results suggested industry unionisation was not an important consideration for the share of board directorships held by women; however the proportion of female employees in a given sector was significant. This finding is consonant with Hillman et al. (2007) who found that there were more women on the board of industries which had a larger share of female employees. No support was found for Proposition 4, which reflected the regulative pillar and proposed a relationship between state share ownership in a given industry and increased female board representation. Similarly, the results did not suggest that industry culture played a statistically significant part in explaining the gender composition of corporate boards, as suggested by Proposition 6.

Firm level influences on the prevalence of women on the board

This thesis found support for the contention that firm characteristics influence the prevalence of women on the board, and both Propositions 7 and 8 were supported. Proposition 7 suggested older boards had fewer women, and the effect of temporal considerations bore out. In chapter 7, Scott’s (1995) framework was subject to certain theoretical modifications at the firm level. The regulative pillar was deemed untenable in a firm level context given that any regulative initiative was likely to affect not a single firm but rather all firms in a given domain, be it industry regulations, listing requirements or national corporate governance codes. Regarding the normative and cultural-cognitive pillars, these were operationalised as one at the firm level, following Scott et al. (2000) and Scott (2004, 2005) and reflected in the average age of the board. The results of the analysis showed support for a negative relationship between age and women’s share of board
directorships. The higher the average age of the board, the lower was the share of female corporate board directors. Proposition 7 was therefore supported.

Chapter 8 completed the last piece of the nested ‘puzzle’ pursued throughout this thesis and explored the role of the nomination committee in explaining the share of board seats held by women, and through this analysis added the fourth and final research contribution to this thesis. Framing the enquiry in homosocial reproduction, a theory reflecting some of the normative and cultural-cognitive elements of Scott’s (1995) institutional pillars, the study adopted a matched pairs analysis and revealed the efficacy of the nomination committees in breaking the cycle of male dominated boards. The study supported Proposition 8. The study further established that where women were represented on the nomination committee, the subsequent share of board seats held by women rose further. These findings underline the impact voluntary corporate governance initiatives can have when comprehensively adopted.

**Contributions to managerial practice**

Some salient implications for managerial practice have emerged from the various studies carried out here. The accelerated rise in the share of board directorships held by women over time may be the result of a ‘snowballing’ effect, where increased attention and focus paid to the issue of women on the board in international business press, academic literature, women networks and increased awareness and appreciation of the benefits brought by diversity have begun an organic evolution of more gender equitable boards. Sustained awareness and increased attention to these issues by industry bodies and corporate interest organisations may be an important vehicle for increased board diversity. Major global corporate investors are becoming more attuned to diversity and have implemented diversity screens as part of their investment criteria (Schepers and Sethi, 2003), and such pressures may give countries that rely on investment from these businesses further impetus to assess and develop the composition of their corporate boards. If the current trend seen across the countries included in this study continues, the number of women on the board of directors will increase and women will grow as a force in corporate governance. As such, they will act as role models and mentors for younger women, contributing to a sustained pipeline of female executive talent. Focused efforts at attracting, retraining and retaining talent and ambitious women, may aid this process further.
Academic enquiry has established that women corporate board directors can make a positive contribution to firm performance. More gender heterogeneous boards have been associated with increased financial performance, product and marketing related benefits and improved talent management of female employees (Wolfman, 2007; Kanner, 2004; Daily and Dalton, 2003; Hillman et al., 1998; Thomson, 2005; Adler, 2001; Catalyst, 2007; Carter et al., 2003; Erhardt et al., 2003). These findings in conjunction with the results of the analysis presented in chapter 6 and 7 suggest that companies wishing to utilise the broadened talent pool made available by including women in the total market for directorial talent and consequently reap the many benefits they offer, should consider the broader institutional environment within which they operate when composing their board. Companies operating in countries found to have an institutional environment less conducive to female board participation should be mindful of the additional hurdles encountered by women harbouring board ambitions in these countries. Where the national institutional environment is less conducive to furthering women’s directorial ambitions, firms should be especially mindful of their board recruitment practices and take the steps necessary to ensure women are offered a fair chance, e.g. by instituting a nomination committee (preferably be with women serving on it), consider employing professional search and selection companies and consider professional spheres outside the private sector that may similarly offer well qualified female board talent.

The finding that where women constitute a larger share of the total employee base for a given industry they are also more broadly represented at board level, suggests industry interest organisations and other sector related associations may have an important role to play in attracting more female employees into industries where women make up a smaller part of the employee base. The gender demography of the industry workforce may create both a pull and a push effect, as regard the gender composition of corporate boards. In light of the suggestion that women corporate board directors have an important role to play as role models for younger ambitious women (Thomson, 2005); they may also serve to attract women to industries where they are less widely represented at the rank-and-file level. Conversely, where women make up a larger share of the employee base, there is similarly a larger share of women who accumulate the necessary skills and experiences to progress up the executive ladder, and this may attract still further women to the industry and its corporate board (Konrad et al., 2008).
At the firm level, the finding that board directors’ age influence the board’s gender demography suggests boards and CEOs committed to broadening the gender profile of the board should similarly consider the age of the board’s directors. Board directors’ age was hypothesised to influence the prevalence of female board directors on the basis that age has been found to create salient bonds between cohorts and act as a basis for out-group bias, which in turn has been associated with homosocial reproduction. Chapter 8 illustrated the importance of adopting a nomination committee to intervene in these interpersonal processes which have been found to play an important role in preventing women from acquiring corporate board directorships (Westphal and Zajac, 1995; Westphal and Stern, 2006. 2007; Westphal and Milton, 2000).

**Theoretical contributions**

The biggest theoretical contribution offered by this thesis is the testing of the efficacy of institutional theory in accounting for the prevalence of women on the board. Scott’s (1995) synthesis of three institutional pillars was not specifically designed to account for board-related phenomena, yet the framework proved helpful in accounting for cross-national and multi-level variation, underlying the inherent strength of Scott’s (1995) synthesis. Adopting an institutional theory for this thesis extended our understanding of where it may offer helpful insights and pushed the theoretical boundaries of board research, showing that broader theoretical views that extend beyond the immediate board remit should be considered as a valuable addition to the theoretical arsenal employed in future board research. In particular, an interesting conceptual approach may be to combine the insights from resource dependence theory with institutional theory the notion of corporate boards co-opting their institutional environment through mimetic or normative isomorphism.

The insights offered by homosocial reproduction when applied to the adoption of nomination committees suggested there are important interpersonal processes at play that without concerted interventions may well continue to perpetuate an all-male board. The finding that nomination committees, and the gender composition of the nomination committee, accelerated the rate at which women subsequently attained board seats, underlined the need to further our understanding of how these process operate, both when they appear to favour men and when they appear to favour women.
A final interesting theoretical observation was made in the course of the exploration of the role played by national institutions for the prevalence of women on the board of MNCs, and the observation that more international firms reflected more of their national institutional characteristics than did less international firms. Institutional theory according to DiMaggio and Powell (1983) would suggest that firms requirement for legitimacy, would result in isomorphic pressures for firms to show sensitivity to issues of diversity on the boards of their largest companies. However, there is little evidence to suggest that this is indeed happening; rather the trend appears to be for continued divergence both within and across countries and industries. This has implications for non-legislative initiatives aimed at redressing the gender balance on corporate boards. Countries that adopt a voluntary approach to corporate governance matters, such as gender diversity on their corporate boards, may record an overall rise the prevalence of female directors. However, such a trend may be masked by some industries taking a more proactive approach to making their boards gender heterogeneous, whilst others make little or no effort to recruit female corporate board directors. Although the overall national trend would be for increased corporate board diversity, some industries might still fail to recruit from the full potential talent pool, which could lead to sub-optimal performance.

Limitations

As is true for any empirical study of significant magnitude, this thesis suffers from some notable limitations. As was noted in chapter 2, much of the extant literature on women corporate board directors is based on inconsistent samples, and as illustrated in chapter 4, much research has relied on relatively small sample sizes. In conducting the research for this thesis, the reason for this persistent shortcoming in the literature became apparent. Data availability across nations was frequently found to be inconsistent or lacking altogether. Where obvious and large flaws were noticed, remedial work was conducted such as building a database from scratch for the prevalence of women on the board in India, Argentina, Mexico, Brazil and Chile. However time restrictions and language issues prevented exploration of some notable regions such as the Middle East and South Asia. Organisations such as the European Commission track the prevalence of women on the board on a yearly basis, which proved a useful source and a means of triangulating data from BoardEx. However, other parts of the world not covered by the European Commission’s data, remain unaccounted for.
Sampling issues were not just evident at the national level extracting industry and firm level data that was consistent and reliable were often problematic. At the industry level in particular, it was virtually impossible to obtain consistently reported figures. Whilst the World Bank and various research agencies associated with the United Nations, and the United Nations themselves carry out annual or bi-annual data collection exercises, some countries and some industries are noticeably more diligent in their data provision than others.

At the firm level, although the use of information sources like Datastream made sampling easier, it was often the case that the smaller trading economies had fewer entries and less consistently reported data. For example, nomination committee data were only available for the US, which restricted this particular analysis to one country. Despite these limitations, the research presented here in all likelihood represent the most systematic and comprehensive research on women’s share of corporate board directorships to date.

An obvious “missing link” in this research is the absence of the voice of the women concerned themselves. As alluded to in chapter 8, a shortcoming of much statistical work is the inability to observe the process, but merely witness an outcome. In particular, what this research fails to account for is the rather fundamental question, ‘do women want corporate board directorships?’ It is implicitly assumed in this research that qualified career-orientated women covet corporate board positions. This may not always be the case. Research suggests women may decide on alternate careers that are equally fulfilling, but do not involve the politics and profile of corporate board directorships (Burke and Mattis, 2000; Sing et al., 2001). If that is the case, institutional context may only be part of a much broader explanation for the persistent absence of women on the board.

**Directions for future research**

These limitations offer some exciting avenues for future research. A consistently built and updated international database of women’s prevalence on the board reflecting firm level detail would enable researchers to continue to push the boundaries of scholarship in this important area still further. However, whilst such a feat is perhaps beyond a humble researcher, and better left to the likes of BoardEx, collecting data at the national level for some of the countries currently not covered by these commercial data providers, would be a useful starting point. Given the large variation observed across predominantly European
countries in chapter 5, it can be expected that similar variations are observed in other regions, such as South Asia. The emphasis on large listed firms in scholarly literature that addresses the role and place of women on the board might be contributing to suppressing the real extent of cross-national differences in the prevalence of women on the board. The literature would benefit from an understanding of how the institutional context differs, if at all for small firms. As the vast majority of the world’s firms is not listed, understanding the dynamics surrounding the boards’ composition of these firms may arguably bring more benefits to women who wish to acquire board directorships, as the size of the corporate universe of unlisted firms offers many more board seats for which women can vie.

The data inconsistency was not only evident for the dependent variable, percentage women on the board. Some of the independent variables were also less consistently available. For example, the absence of data on numerous aspects of country welfare systems may limit this analysis. Future work may benefit from assessing the degree to which welfare provisions such as adequate childcare facilities matter for whether women attain board directorships.

Further research, possibly of a more phenomenological nature, can add important insights into the prevalence of women on the corporate board of directors by addressing the issue of motivation. Understanding what motivates women to pursue board directorships, or alternatively, what makes women decide not to seek board responsibility can help further our understanding of why board seats continue to be predominantly occupied by men. If women are found not covet corporate board responsibility, this adds another dimension to the wider explanation for why women continue to occupy noticeably fewer board seats than men.

Zahra and Pearce (1989) posited that to understand corporate boards, their dynamics, structure, impact and processes, a multi-theoretical perspective is necessary. Combining institutional theory with insights from other board theories or theories borrowed from sociology and social psychology may help complete the conceptual picture.

9.5. Chapter summary
This chapter had two core objectives: to evaluate the contributions and relevance of the thesis with reference to the gaps identified in literature in chapter 2 and to suggest new and
valuable directions for further research. There were three substantial gaps in the literature,
which stemmed from restricted geographic focus in extant research, lack of international
comparative data on the evolving pattern of female board participation and an absence of
empirical research considering the wider institutional context in accounting for women on
the board. This thesis has comprehensively addressed these gaps in the literature, and in
doing so made important contributions to scholarship on women board directors.
The context within which a firm operates is an important factor in accounting for women
on the board, and the adoption of institutional theory as articulated by Scott (1995) proved
an important addition to the extant literature on women board directors, which may now
benefit from a more holistic view of what determines the gender composition of corporate
boards globally.
Bibliography


Kunnskapsdepartementet, Nyhetsbrev om barnehage Nr. 1 2006 http://odin.dep.no/filarkiv/268694/nyhetsbrev_01_06.pdf Accessed March 13


