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ASSOCIATION BETWEEN GENDER DIVERSITY IN BOARD COMPOSITION AND FIRM PERFORMANCE: EMPIRICAL EVIDENCE FROM FINLAND

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Abstract

The purpose of the study is to examine the relationship between gender diversity in board composition and firm performance. The relationship is examined using 2011 and 2012 financial performance data for 50 Finnish listed companies. Two models are used to examine the relationship between gender diversity and firm performance. The first model uses percentage of women representation on the boards to measure gender diversity. The second model uses a dummy variable with a value of 1 for boards with one woman and 0 for boards with more than one woman representation on the board. The intended relationship is examined using Ordinary Least Square (OLS) regression method. Relationship between gender diversity and firm performance is controlled for board size, firm size, leverage and industry.

The business case for gender diversity is not supported in this particular study. Even after using two different models to examine the relationship between gender diversity in the boardroom and firm performance, our results did not find a significant relationship. Female board members who break the glass ceiling are professionals representing the relevant experience and competence. They have been hired endogenously to the boards after a stringent selection process. Therefore, it is argued that the issue of gender does not matter and the impact of gender diversity on the performance of a firm is insignificant.

Despite the fact the Finland enjoys a gender egalitarian image, Finnish boards are still to an extent dominated by men. The study shows a moderate female representation on Finnish corporate boards i.e. 27%. However, this value is at least equal to or larger than other Nordic countries except Norway.
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1 INTRODUCTION

1.1 Background

Research in corporate governance has been mainly driven by agency theory. According to Jensen and Meckling (1976) agency relationship occurs as a result of corporate managers not being owners but agents of owners and these agents are contracted to manage the company on owners’ behalf. Given that agents are managers not direct owners, and thus have little personal wealth at stake, their actions for self-interest could result in agency cost, which could lead to harmful results for the firm and the owners. Agency problem arises whenever managers have chance to advance their own benefit at the expense of shareholders. There are many ways to cope with the principal-agent problem such as; monetary and non-monetary incentives. Another way to mitigate the principle-agent conflicts is to form a committee of board of directors whose role is to control and monitor the activities of executive management. Hillman and Dalziel (2003) discuss two fundamental roles of board of directors; providing the firm with resources and monitoring the management on behalf of shareholders. However, a meaningful measure of good governance cannot really be constructed Brickley and Zimmerman (2010). Effective board composition as a control device is yet another concern in corporate governance.

Given the intensified importance of good governance in the corporate institutions, hiring competent and diverse top management team is critical for the success of corporations. The worldwide diffusion of codes of good governance has raised awareness on the structure of firms’ board of directors in order to protect shareholders’ rights. Both endogenous factors such as increased internal efficiency of the firm and exogenous factors such as legitimization are two main theoretical explanations for board diversity. This consequently leads to a key issue whether the diversity especially in relation to gender may stimulate firm performance. The link between diversity on boards and financial firm performance has attracted the attention of researchers around the globe. Among the issues faced by corporations related to corporate governance, diversity in terms of gender, race, age, education and independence of directors has been a focal point of research. Board diversity and independence is one of the several issues faced by modern corporations Milliken and Martins (1996).
Existing literature offers conflicting results regarding the relationship between diversity and business performance. On one hand, value-in-diversity perspective suggests that firms should give importance to diversity in order to enhance performance. Proponents of this approach (Watson, Kumar and Michaelsen 1993) argue that diverse teams can lead to competitive advantage. Moreover, diversity enhances group performance by increasing knowledge, innovation and creativity. Diversity is hence valuable for business as it leads to direct return on investment, greater profits and earnings (Herring 2009).

On the other hand, skeptics view diversity as a value deteriorating factor. Diversity-as-process perspective argues that diversity in boards can potentially be a disadvantage for business processes and performance. It creates conflicts and other problems that diminish organization’s profitability and efficiency. Knight, Pearce, Smith, Olian, Sim, Smith and Flood (1999) found out a negative association between demographic diversity and group consensus. Furthermore, it was observed that more time and effort was required by heterogeneous groups to perform a task which ultimately reduces team performance.

Another paradoxical view has been found out which suggest that diversity leads to conflicts which in turn results in better business performance. This could happen because heterogeneous groups are disposed to greater conflict, but conflict forces them to superior solutions common in like-minded groups. They look towards problems and solutions in different ways by challenging prevailing ideas. Hence diversity results in dispute which eventually leads to innovation (Miller and Del 2009).

1.2 Prior research

Existing literature over gender diversity and firm performance is interdisciplinary. The research has combined various academic fields such as, corporate governance, management, finance, law, leadership, sociology and even entrepreneurship. Studies have been conducted on micro and macro levels- individual, board, firm and industry. The perspectives at the individual level are human and social capital theories as well as gender schema. The predominant perspectives at board level are
token, social networks and social identity as well as critical and political theories at industry level. However, most of the studies have been firmly, based on agency theories, institutional and resource dependency. The previous literature has studied gender diversity as percentage of women on boards and firm performance has been measured with accounting and stock-based measures.

Campbell and Mínguez-Vera (2008) discuss two major perspectives; ethical and financial to explain why the representation of women on boards is important. From an ethical perspective, it is considered to be immoral to limit the participation of women in corporate boards on the grounds of gender. These perspectives suggest that firms should regard gender diversity not a mean to an end but an end itself. The later perspective is based on the argument that gender diversity has a positive impact on financial performance of the firm. It is assumed that firms that do not benefit from diversity spoil their financial performance. Moreover, studies have focused on the magnitude of female representation on corporate boards around the globe and have identified the factors that are most relevant to study the relationship between gender diversity and individual, group and firm performance.

Evidence provided by the prior literature about the relation between gender diversity and firm performance is difficult to interpret. Even though, at first inspection, there is a positive correlation between gender diversity and firm performance, this correlation does not exist anymore when the omitted variables are applied. Also, the reverse causality destroys the relationship. Some studies tend to report that the ability of female directors to influence firm performance depends on specific circumstances of the companies such as firms’ strategies (Dezső and Ross 2012) and willingness to take risk (Smith, Smith and Verner 2006). Overall, the evidence for business case for female directors is found to be a double-edge sword.

There are arguments that greater gender diversity may serve to enhance firm performance (Bantel & Jackson 1989). The assumption behind the arguments is that greater diversity promotes better understanding of markets, harmonizing the diversity of directors with the diversity of customers, suppliers and other stakeholders, thus increasing firm’s ability to penetrate markets. Furthermore, it is assumed that diversity increases creativity and innovation and add to competitive
advantage of the firm by increasing corporate reputation. It brings informational and social diversity to the top management and encourages the participation of female in middle level management (Dezsö and Ross 2012). Some studies also argue that diversity enhances problem solving by giving different perspectives and hence giving a broader view to complexities of business environment.

Erhardt, Werbel and Shrader (2003) intended to find the relationship between demographic diversity on boards of directors and firm financial performance. Studying the diversity on executive board of directors specifically, they found a positive association between diversity and organizational performance. Demographic diversity was measured in terms of gender and ethnic representation on boards and organizational performance as both return on assets and return on investment. Their results thus showed that diversity has a positive impact on overall organizational performance. Similarly, Mahadeo, Soobaroyen and Hanuman (2012) challenged whether a diverse composition on boards is advantageous for companies operating in developing countries. Studying diversity in terms of age, gender, educational background and director independence, it was found that age and gender effect short term performance positively.

Conversely, there are arguments against gender diversity assuming a negative effect on firm performance. The assumption behind these arguments is that greater gender diversity may deteriorate decision making as a result of conflicts and greater time consumption by heterogeneous groups. Williams and O’Reilly (1998) argue that homogenous groups tend to be more supportive and face fewer group conflicts. Another supporting assumption of the argument is that women are more risk averse while adding less value to the firm. Moreover, they are costly to the firm because of absenteeism and turnover (Cox, Taylor and Blake 1991). Altruism among men might also explain conflicts in the boardroom since it is argued that men are more altruistic than women when the cost of altruism is low and vice versa when the cost is high (Andreoni and Vesterlund 2001).

Despite of the strict requirement of gender equality on the boards by corporate governance codes, the trend of women representation on board has been found to be very less around the globe. Jhunjhunwala (2012) reported that, in 2011, the global
percentage of women on board was 9.8% with only 58.3% of firms having female directors on board. This means that more than 40% of the companies don’t have even a single female member. Likewise, 2010 Catalyst Census of the board seats of Fortune 500 Corporation held by women documented 15.7% of board seats as compare to 15.2% in 2009. Simpson et al. 2010 reported 11.91% women on boards of S&P 1500 companies in 2007. Figure 1 and 2 provide with the number of men and women, as well as the percentage of women, on the board of directors of the S&P 1500 companies, over the period of 2003-2007. More about the magnitude of women participation on boards will be discussed in part two of the study.

Figure 1. Distribution of board Seats classified by the gender of the holder for the S&P 1500 companies (Simpson, Carter & D’Souza 2010: 29).
1.3 Research problem and approach of the study

The research problem of this study is derived from the concern that is the focal point of many researches in the field of corporate governance. The concern is written down in a question as follow: Is board heterogeneity in terms of gender beneficial for firms? Can a business case for gender diversity be built? Do factors like firm size, board size and industry type affect the relationship between gender diversity and firm performance? Moreover, are boards diverse in terms of gender, specifically in Finland? Therefore, the aim of the study is to find out if having women on corporate boards affect financial performance of the firm. Furthermore, the study intends to identify the trend of female participation in Finnish listed companies and to further investigate if it is recommendable for firms to have women on the boards.

The aim of theoretical framework is to identify the issues related to board composition, why and how the boards should be diverse and specifically diversity with respect to gender. Theoretical framework is a guideline towards the empirical part of the study and answers the first research question aiming to the relationship between gender diversity and firm performance. The relationship is studied with
statistical tests such as regression analysis. The research question is written in the following way.

*Research question 1: Is there an association between gender diversity in corporate boards and firm financial performance?*

In addition, the study further aims to document the trend of female participation in Finnish corporate boards. The empirical data that is used to answer this research question is manually collected from the annual reports of the Finnish listed companies. The second research question of the study is written in the following way.

*Research question 2: What is the level of gender diversity in the corporate boards of Finnish listed companies?*

Research approach in a study is determined by the level of knowledge, information on hand, the desired target and problem of the research itself. In the field of accounting, research paradigm and tradition is typically related to positivism or hermeneutics. Moreover, positivism is equated with quantitative research and generally it is related to empirical evidence. The objective of the research is to find out whether gender diversity in board composition is related to financial performance of the firms. Based on the form of data and research problem, the study is quantitative in nature and hence, it is classified as positivistic approach.

Although the relation between gender diversity and firm performance has been studied extensively, the evidence of the previous literature is inconsistent and unclear. The results are still ambiguous whether it is gender diversity that enhances firm performance or that high performing companies tend to employee more gender diverse workforce. Mainly because of data limitation, most of the studies are unable to control for observable factors like firm age or leverage. More importantly, the studies are unable to account for (a) reverse causality and (b) unobservable heterogeneity that might concurrently affect the level of gender diversity and firm performance. Due to these reasons, gender diversity and firm performance relation in
this study is inspected by controlling for factors like firm size, board size, industry and leverage.

1.4 Scope and structure of the study

This study is designed to investigate the relationship between gender diversity and firm financial performance using the data for 50 listed companies in Finland. In an egalitarian society like Finland women are no more a marginal group in labor market since they are equally educated to men. Petäjäniemi (1996) documented that in Finland, among the university students, 60% are women and more are going for postgraduate studies. Moreover, 11% of senior management consists of women and 30% of the middle management. Legislation aiming to promote equality between men and women and to eliminate discrimination based on gender in social and work life has been passed in 1987. In addition, gender discrimination has also been included in criminal law stating penalization and prosecution in case of gender discrimination in workplace.

Generally the scope of the study originates from the influx of women into higher positions to meet the challenges of corporate world which makes gender diversity a hot topic in the research community. The study is directed to examine the relationship between gender diversity and firm performance. As can be seen from figure 3, the scope of gender diversity originates from the solution towards principal-agent problem. The two main solutions towards principal-agent problem are monetary/non-monetary incentives and monitoring. Although, monetary/non-monetary incentives are scoped out of the study, they are shortly introduced in the theoretical framework to give reader a comprehensive understanding about the ways to mitigate principal-agent problem. Monitoring, as composition of board of directors, is the main concept of the study which align the interest of principal and agent.
Figure 3. Scope of the study.

Figure 4 shows the structure of the study. The study begins with the introduction to research topic, discussing the research question and the objective of the research. Following the background of the research, the chapter introduces some previous studies leading to the research problem and the approach of the study. Shortly, it presents the scope and the structure of the study. Overall, the aim of this chapter is to give a snapshot to the topic of the study.

Part two of the study acts as a theoretical framework. Chapter two discusses the principal-agent problem and its solutions. Monetary and non-monetary incentives and monitoring (board of directors) are being discussed. Chapter three gives an introduction to board diversity and discusses costs and benefits of having a diverse board. Then it shortly discusses balancing these costs and benefits. The fourth chapter aims to discuss the status of women on the corporate boards and specifically socio-economic and political status of women in Finland. Finally it talks over the results of previous studies related to gender diversity and the association between gender diversity and firm performance and how it has been measured.
Chapter five of the study executes the empirical research and the results are illustrated. It discusses the research methodology adopted to test the research question and then explains the data that has been used for empirical analysis. Eventually, this part also illustrates the empirical research process and the empirical results that are measured by OLS regression. Chapter six of the study finally concludes the findings and discusses the limitations faced by the research process and some recommendations for future research.
Figure 4. Structure of the study.
2 AGENCY PROBLEM AND ITS SOLUTIONS

Agency theory is originated from the study of Berle and Means (1932) “The Modern Corporation and Private Property”. Since the study of Berle and Means, scholars are concerned about the separation of ownership and control. Separation of ownership and control in modern corporations leads to the conflict of interest between principal and agent Jensen and Meckling (1976). The agency theory can be explained through three basic behavioral assumptions between principal and agent. The agency theory literature assumes that the principal and agent are rationale and self-interested. Furthermore the principal and agents both are considered to be risk averse. These behavioral characteristics could result in potential conflicts of interest. The examples of agency are ubiquitous. Fundamentally, all the contractual relationships such as the state and governed or the employer and employee have important elements of agency. However, in organizational setting a typical example would be the interest divergence between shareholder and management.

The agency theory also assumes that both the parties are utility maximizers. With this assumption it is reasonable to believe that both principal and agent will not act in the interest of each other. As shown by Jensen and Meckling (1976), executives tend to be self-interested even at the expenses of the shareholders. In an environment of asymmetric information, it is not possible for shareholders to verify all the actions of the executives. Therefore, in this situation two common solutions to address the principal-agent conflict are: Incentives (monetary and non-monetary) and monitoring (Jensen & Murphey 1990).

2.1 The principal-agent problem

Principal-Agent problem occurs in an agency relationship in which one or more participants (the principal(s)) designate another participant (the agent(s)) to perform some services in a particular domain (Ross 1973). In an agency relationship the cooperating parties have different goals and interests and the agency theory describes this relationship using the metaphor of contract (Jensen & Meckling 1976). Personal choice and preference formation are central to the concept of agency theory. The foundation of agency is the delegation of personal choice of the principal to the agent.
creating interdependence in the business matters. However, information asymmetry could be an impediment in the contract between principal and agent. Agents, being managers have information advantage over the principal as they are the key decision makers. The agents know more about the current conditions and future prospects of the firm than the principal. As a result, adverse selection occurs where agents could exploit their information advantage at the expense of principal. But it is effectively impossible for principal to assess the behavior of agent. As a result of separation in ownership and control another type of information asymmetry such as moral hazard could occur. Scott (1997:8) defines moral hazard as the type of information asymmetry whereby one or more parties in a business transaction could examine their actions in the fulfillment of the transaction and others cannot. To control for such kind of problems performance evaluation of agents would be based on net income.

According to Jensen (1998) agency theory has originated from the information economics. The theory has developed along two lines: principal-agent and positivist. Both the streams share a common unit of analysis, the contract between principal and agent. However, they differ in other aspects such as; the principal agent literature is generally mathematical and non-empirical while positivist agency literature is generally non-mathematical and empirical. Positivist agency theory is more concerned with identifying the situations in which the principal and agent have conflicting goals and designing governance mechanisms that solve the agency problems. The principal-agent stream focuses on developing the optimal contract, behavior versus outcome, between the principal and the agent.

Eisenhardt (1989) argues that agency theory tends to resolve two problems. First, it resolves the problems that arise when the interests of principal and agent vary and when the principal is not sure of what the agent actually is doing. The main concern here is that the principal cannot verify all the actions of the agent to know whether the agent has behaved appropriately. Second, agency theory resolves the problem of risk sharing when it emerges due to divergence in attitude of principal and agent towards risk. The issue here is that principal and agent may prefer different actions due to different risk preferences. Executives mostly intend to enhance the value of their human capital that is linked to the firm specific factors of earning variability.
Agency theory is an important tool in understanding and prescribing the executive compensation and composition of board of directors. Furthermore, agency theory has been a well-known theoretical framework from which to design executive incentives and describe the roles of board of directors. In agency theory, there are several assumptions about goals of corporate ownership and human motivation which require a closer look: 1) board of director is an important principal-agent delegate; 2) corporate owner’s priority of wealth maximization; 3) board of director acts as single unitary actor; and 4) management and board action are result of economic factors.

The basic assumption of agency theory is that the interest of principal and agent deviate. Various devices are formed in order to align the utility of the principal with that of the agent. According to agency theory, the principal can limit the deviation of the interest by exerting monitoring on the agent, and by establishing appropriate incentives to control for the opportunistic behavior of the agent. Hence, the principal may incur monitoring costs. Also, it may pay agent to use resources to assure that the agent would not take certain actions that would harm the principal or to compensate the principal if the agent takes such action. Hence, the agent may incur some ex-ante bonding cost. Even after these devices there may remain divergence between principal’s interest and agent’s actions. As this divergence still would harm the principal’s benefit, it can be viewed as residual loss. The sum of all monitoring costs, bonding costs and residual costs is called agency cost (Hill and Jones 1992).

The expenses related to agency problem are called agency costs. Ross, Westfield & Jordan (2008) divided agency costs into two categories such as; indirect and direct costs. Costs that are incurred as a result of a lost opportunity are indirect costs whereas direct costs are incurred due to many reasons. The first type of direct cost is the expenditure that benefits the management on the expenses of shareholders wealth. An example would be management buying an unneeded and luxurious corporate jet that is not required by shareholders. The second type of direct cost consists of bonding and monitoring expenses. An example would be payment to outside auditors to ensure the accuracy of financial statement information. It is costly, if not impossible to create an optimal contract between shareholders and executives that specifies the rights and obligations/liabilities of both principal and agent.
2.2 Solutions to the principal-agent problem

Although shareholders are not able to remove all the potential risks embedded in conflict of interest between principal and agent, they are able to minimize them by establishing incentives for executives and monitoring them. According to agency theory, compensation and monitoring policy shall be planned to provide incentives for the executive to decide on the actions that would enhance the shareholders’ wealth. To build an optimal contract between executive and shareholder, a number of unobservable factors are needed to be considered. Such factors are for instance: the executive’s cost of effort and the risk awareness (Jensen & Meckling 1976:308).

Agrawal and Knoeber (1996) proposed seven mechanisms to alleviate the agency problems between managers and shareholders. Three of them rely on the outside parties of the firm such as capital markets (debt) which evaluates manager’s performance, labor market and market for corporate control. Labor market relies on prospective employers to monitor manager and corporate control relies on prospective acquirers. The fourth control mechanism is the monitoring by firm’s large shareholders and board of directors. However, the fourth mechanism has its own agency problems but there exist several solutions for this agency problem. These include greater use of outside directors and more shareholdings by blockholders or by institutions. Agrawal and Knoeber argued that these mechanisms are interdependent and optimal use of each mechanism is possible except for the board composition.

2.2.1 Monetary and non-monetary incentives

Agency theory suggests two main solutions to the agency problem; incentives and monitoring. Incentives that seek to align the interests of the principal with those of the agent are further divided into two categories such as; intrinsic incentives (self-motivation) and extrinsic incentives (monetary and non-monetary) (Franco-Santos, Bourne & Huntington 2004). Monetary incentives are designed by considering three essential policies. First, structuring the compensation and incentive package by rewarding Chief Executive Officers (CEOs) for their good performance and, penalizing them for poor performance. Second, enforcing dismal of CEO in case of
poor performance and third, making CEO substantial owner of the leading firms (Jensen & Murphay1990). It is important that the executives are compensated for the risk that they take, to make them innovative and to engage them in assignments that enhance shareholders’ value.

Compensation and incentive arrangement is one of the main methods to align the interest of executives and shareholders, and hence, mitigate the agency problem. Compensation policy plays a critical role in firm’s success, not only for the reason that it drives executive’s behavior but also it determines the kind of executives a firm attracts. There are two ways through which executive compensation could enhance shareholder and firm value. First, executive’s incentives are aligned with firm performance and firm value. For instance, executives are given stock option to exercise them at bargain price. As the firm value increases, the value of stock option increases hence motivating executives to enhance shareholders wealth. Second way is that the promotion and job opportunities drive executives to enhance shareholder and firm value. Executives with better performance would have higher chances of getting promoted. As indicated by Ross et.al (2008), executives with better performance would have high demand for job opportunities in the labor market and higher demands on salaries.

An optimal compensation package will resolve issues such as; attracting and retaining executive on the lowest cost, encouraging executives to create the shareholder value rather than destroying the firm value, as well as vigilantly managing the risks. Designing an optimal compensation package would create a tradeoff between the costs and benefits by minimizing the shareholders costs and maximizing the executive benefits. There are different types of compensation packages that provide different incentives to the executives such as; the combination of basic salary package and retirement benefits would create attraction or retain incentives for the executives. Each type of compensation package would affect executive motivation differently, would create different degrees of risk taking and different orientation in executive decision making.

Executives not only get attracted by monetary incentives but they also consider non-monetary incentives such as: prestige, honor, public visibility and power. These
fundamental human needs are critical and would motivate executive to take actions in the interest of shareholders even in the absence of monetary incentives and direct monitoring. These non-monetary incentives are associated with firm reputation, success and accomplishment and position is community. Jensen and Murphay (1990) indicate that these non-monetary incentives, as compared to monetary incentives, won’t motivate executives to act in the interest of shareholders until they positively vary with the firm value.

When executive incentives are closely tied to the firm performance, there would be high probability of dismal as a result of poor performance by executives. Dismal as a result of poor performance forces executives to take actions in the interest of shareholders because their reputation and position is tied with the firm. Furthermore, due to public humiliation led by visible dismal, executives carefully consider actions that would increase the possibility of dismal and public humiliation. Other than dismal, an internal force, there are other external forces such as; competition in labor market, market of corporate control and takeovers that provide incentives for executive. However, these external forces are beyond the control of board of directors (Jensen & Murphay 1990).

2.2.2 Monitoring

Corporate governance refers to set of internal and external controls that mitigate principal-agent conflicts of interest that result due to separation of ownership and control (Williamson 1984). In the absence of such control mechanisms managers are more likely to deviate from the interest of shareholders. Besides monetary and non-monetary incentives, a second mechanism for reducing agency problems is the board of directors, whose role is to monitor and discipline management on behalf of external owners. Directors are typically individuals with substantial experience and expertise who serve top management in making strategic and operational decisions. According to agency theory, shareholders are able to directly control the actions of executive to overcome the agency problem. However, in a situation of separate ownership and control it would be ineffective for shareholders to accomplish both monitoring and governance tasks which consequently would lead to free riders problem. Hence, it would be effective for shareholders to form a group of board of
directors who would represent their interest. Board of directors, on behalf of shareholders, would review the actions of executive management thereby reducing the risk of agency problem.

The primary theoretical framework to investigate the board of directors has been agency theory. According to agency theory, boards perform the monitoring function to control and observe senior managers’ interest to make sure they do not diverge from interest of the shareholders. Therefore, board composition mitigate at-least partially the costs associated with the separation of ownership and control. However, prior research is ambiguous with respect to the board monitoring issues. Tuggle, Sirmon, Reutzel and Bierman (2010) argue that attention of boards towards monitoring depends on certain circumstances such as CEO duality and firm’s deviation from prior performance. Their study shows that boards do not constantly monitor the behavior of the top management; instead, the board monitoring function is contextual. Other studies like (Wright, Kroll & Elenkov 2002) conclude that board monitoring is effected by outside directors whereas (Hambrick & Jackson 2000) associated equity ownership of outside directors with greater levels of monitoring.

Fama and Jensen (1983) argue that the delegation of internal control authority to the board of directors make the boards critical to the internal controls within both small and large organizations. Even though the board itself delegates the decision making authority to the top management, boards still retains the ultimate control to the top management. These controls include the board’s right to authorize the important decision making and choose to reward or dismiss the important decision making agents. Furthermore, the boards are responsible to establish appropriate inter control mechanisms and monitor top managements obedience with these systems. While considering the importance of both inside and outside directors, Fama and Jensen suggest that the effectiveness of monitoring function of the boards is a mix of both insiders and outsiders who serve.

Agency theory argues that boards are an important element of corporate governance since they possess legal power to hire, fire, safeguard to equity capital and compensate top executives (Williamson 1984). Board of directors performs three important roles; contracting, monitoring and consulting. Directors contract with
managers to provide valuable inputs which result in organizational output. By monitoring, board of directors improves the accuracy of the organizational output and by serving organization as a consultant boards make manager more efficient and productive which in turn enhances firm output. Hence, the boards are an important and efficient instrument for inter controls. As indicated by Fama and Jensen (1983), organizational mechanisms play a critical role in aligning the interest of principal to that of the agent and among those organizational mechanisms, the most important role is of board of directors. The boards have legal power to exercise control on top executives and monitor major policy initiatives. Advancements in agency theory specify that the stress made towards rewards and control systems not only enhance executives’ efforts but they also affect the nature of decisions taken by top management (Eisenhardt 1989).

As argued by Beatty and Zajac (1994), an optimal level of monitoring depends on the degree of incentive gap between principal and agent. A tough monitoring by board of directors would be required when the manager’s compensation is not tied to the performance of the firm. A strong monitoring would be effective in a situation when the benefits of monitoring would overweight the costs. Therefore, an optima level of monitoring depends on the degree of incentive aspect of agency problem. In addition Raheja (2005) argue that the optimal level of board composition depends on the characteristics of directors and the firm. The optimal board structure is tradeoff between maximizing the benefits for inside directors to reveal the private information, minimizing the cost of coordination incurred by the outside directors and maximizing the ability of outside directors to reject less profitable projects.

Board of directors can implement a number of governance mechanisms in order to increase monitoring of the top management. The first governance mechanism that could affect the monitoring involves the proportion of outside directors in the board. Outside directors are considered as professional experts in internal organizational control (Fama & Jensen 1983). In addition, outside directors play effective monitoring role in the boards. Fama and Jensen argue that the boards have incentives to build reputation as expert monitors.
Concentrating on one of the important task of the boards, hiring and firing the top management, Hermalin and Weisbach (1988) provided a board-specific model. In the model, the board has to decide to dismiss or keep the CEO. The decision of dismissal of CEO depends on the performance of CEO and the board also obtains an additional signal from outside if required. The board’s ability to find an additional signal is the function of board independence. However, the board independence depends on the bargaining game between the board and CEO. If the CEO performs exceptionally well, board’s independence decline. Moreover, the model predicts that CEO turnover depends on the performance when the boards are independent and board independence declines with increased tenure of CEO.

Besides concentration on the board composition in terms of board independence, numbers of inside and outside directors and board ownership structure, prior studies have also considered the composition in terms of demographic characteristics of the board members. Board diversity has been a major issue among researchers as well as practitioners. Directors may differ in characteristics such as age, ethnicity, gender, educational and functional background and industry experience. Previous studies have examined the effect of demographic diversity on board effectiveness, strategic change, corporate reputation and firm performance.

Theories like resource dependency and agency theory have emphasized on the economic and institutional functions of the boards. According to the resource dependency theory, boards are able to link the top management to the external environment and secure critical resources and this role is viewed as the economic function of the boards. In addition, boards have an institutional and governance function according to which directors control the management’s opportunism behavior and ensure that the organizational actions are according to the interest of shareholders. Finally, boards not only provide resources to the firm, but also play a strategic function by taking important decision on strategic change which enables organizations to adapt to the strategic change.
3 BOARD DIVERSITY AND ITS COSTS AND BENEFITS

The variety in the composition of board is viewed as board diversity. Composition of the boards could be according to educational and professional background, age of the directors, ethnicity and gender. There are internal and external reasons for having diverse boards such as; bringing diverse ideas and strategic input to the boards influence on decision making by top executive and leadership style, providing females employees with mentors, and ensuring better boardroom behavior. On the contrary, more diverse boards could lead to greater conflicts in the teams. However, the composition of the board depends on the organizational size, industry type, firm diversification strategy and external networking (Hillman, Shropshire and Cannella 2007). This chapter will further discuss the reasons for having diverse boards, the possible costs and benefits and how to balance them.

3.1 Defining board diversity and why it matters

The American Heritage dictionary of the English Language defines the term “diversity” as variety or point in which things vary. In corporate governance, assortment in composition of board of directors is known as diversity in board (Kang, Cheng and Gray 2007: 195). This assortment is divided into two categories such as observable and less visible diversity. Observable diversity include age, nationality, gender and ethnic background which are seen directly whilst less visible includes industry experience, functional, educational and occupational backgrounds. Burton (1991) views diversity a merit principle which is beyond mere active representation of the group. The concept not only seek representatives in particular interest, but it goes beyond by identifying people with certain characteristics arising out of a range of experiences which overrules policy issues. Thus Burton argues diversity in view of “skills” versus “representation”.

Groups can differ in non-observable characteristics in many ways. For example a type of diversity that relates to less visible attributes is dissimilarity in values of members of a workgroup or in personality characteristics. Though these characters are not easily visible, they shape ones personality which affects the way how issues are tackled. These differences create major disparity in preferred interaction styles.
Further, a major characteristic that relates to organizational context is diversity in knowledge, experience and skills. In a diverse group it could be expected that the members have had different experiences there by having significantly different viewpoints on issues (Jackson, Brett, Sessa, Cooper, Julin and Peyronnin1991).

Pfeffer (1983) discussed another way of diversity in terms of organizational cohort membership. According to the author, people who join organization at the same time may develop similar knowledge and skill sets. Not only skills but also similar communication and identification patterns are developed with respect to the time of entry, consequently affecting the way how these groups interact among group members. Understanding how diversity affects the overall performance of the organizations is of increasing importance. As organizations are going global, the extent of employees interacting with diverse people will increase creating a need to organize heterogeneous workgroups.

3.1.1 Why board diversity matters

As a result of large scandals during the beginning of the decade for instance, Worldcom, Enron in US and Ahold, Parmalat in Europe, a number of practitioners have called for enhanced board diversity. The need for more board diversity is supported by the empirical findings that it increases novelty, gives better view of global markets and understanding of diverse customer need Daily and Dalton (2003). Moreover, both in America and Europe, public demand for more diverse boards has caught attention during the last decades. In US for example, one of the biggest pension funds and a leader in corporate governance TIAA-CREF argued that boards should not only be diverse in background and experience but also in terms of gender, race and age (TIAA-CREF 2007). Whilst Brancato and Patterson (1999) emphasized that board diversity should be meaningful from the perspective of value creation for shareholder; others argued that board diversity is a goal in itself (Bilimoria1997).

Diversity has both short term and long term consequences as shown in Figure 5. The relationship between diversity and performance of individual, group and organization is affected by various interdependencies such as group social integration, range of perspectives, number and quality of ideas, behavior of low level employees and
communication within and outside the group members. However, this study particularly focuses on the effect of observable i.e. gender diversity on organizational performance. Diversity has short term consequences which as a result are affecting to individual, group or an organization. If this combination is optimized specifically on organizational level, it offers incentives to firms and are positively affecting to the long term outcomes such as performance.

Figure 5. Effects of diversity on organizations. Adapted from (Milliken & Martin 1996:418).
Ideally, board membership should reflect the community it serves. Nowadays diversity is not only a human issue but has become an organizational issue both inside and outside organizations. Those companies who have learnt to manage gender diversity have reaped benefits from it in terms of retention of talented workforce, enhanced group performance, better response to changing market place and reduce turnover cost (Levin and Mattis 2006). Moreover, female on the top brings informational and social benefits, enriches behavior exhibited by managers and motivates women in the middle management (Dezső and Ross 2012). However, the contribution of women in the boardroom depends on the willingness to spend time on preparing and being present of the most important decision-making arenas (Huse and Anne 2006).

It might be argued why one would connect gender diversity to firm performance in the first place? In board of director literature one of the recruiting themes is that diversity in the boards brings better financial performance. The assumption of better firm performance as a result of diverse composition of board is traced back to resource dependence theory. The theory focuses on institutional and governance function of board structure and assumed that the boards are part of organizations and its environment. By providing resources and information to the organization, boards facilitate access to valuable resources and mitigate the uncertain environment. Some of the empirical analysis reveals results in favor of the recruiting theme. Siciliano (1996) documented that the more diverse the board is in terms of occupational diversity, the higher social performance and greater fundraising results are. Specifically, a favorable relationship was found between gender diversity and firm’s level of social performance. Moreover, the reasons of socially homogenous boards shown in Upadhyay (2012) are economic reasons and existing governance structure.

Walt and Ingley (2003) discussed few reasons for the case of diversity. These include theoretical reasons, moral obligations by boards to shareholders and stake holders, and commercial reasons. Theoretical reasons include agency theory which can be argued as board’s monitoring role to protect shareholder’s right and resource dependency theory which considers boards as a link between organization and the key resources important to enhance its performance. Moral obligations are related to the social responsibility of boards such as, good corporate citizens who don’t
discriminate, who abide by the legal obligations as well as treat the organization’s stakeholders ethically. Commercial reasons include building a case for diversity which focuses on treating the diversity issue as important as any other business investment.

3.2 Analysis of costs and benefits of diversity

This part of the study reveals that there are benefits, but also important drawbacks, to business rationales for board diversity. One might wonder why gender diversity and firm performance be connected at first place. There are good reasons to think why gender diversity might enhance or deteriorate firm performance. Research in social psychology has revealed some costs related to having diverse teams. It is argued that loyalty in a team depends on the similarities of group members thereby diversity in the boards might result in reduced teamwork effectiveness. According to Athey, Avery and Zemsky (2000) less mentoring in the lower management occurs if the upper management group is more diverse hence mentoring is most likely to occur in similar groups. Moreover, the similar the teams are the more trust they possess (Kanter 1977). Kanter highlighted that trust among the team members is more advantageous but difficult to achieve in uncertain environments. The results imply that diversity in board is more beneficial in high tech firms but is also more costly. On the contrary, Upadhyay (2012) found that firms facing greater level of uncertainty tend to have more homogenous board.

Board diversity may make the group decision making more costly (Arrow 1951). It may result in increased time consumption for decision making, less efficient board meetings and increased probabilities of ambiguities. Moreover, heterogeneous groups have less cognitive consensus which lessens satisfaction with decision and is negatively related to the anticipated ease of decision implementation (Mohammed and Ringseis 2001). However heterogeneity initially deteriorates the proper functioning, communication and understanding of the tasks of a team. While working in a diverse team, the group experiences more conflicts and disagreements and ultimately outperforms homogenous groups in generating alternative solutions to the problems (Jackson, May and Whitney 1995). Frink, Robinson, Reithel, Arthur, Ammeter and Ferris (2003) gave two reasons for why gender diversity might hurt
firm performance. First, gender diversity might tend employees to pay more attention to the differences within “us” and “them” in the organization. Second, people tend to be more comfortable being in a group of similar people. These problems might affect group performance hence affecting firm performance negatively.

Agency theory and Resource dependency theory discuss how a board facilitates administrative functions as well as functions related to providing environmental linkages between firm and outside resources. According to agency theory, board of directors fulfills administrative functions such as expert advice to executive management, oversight and control and providing access to information. Resource dependence theory addresses how board of directors brings environmental linkages for instance, access to capital, suppliers and other corporative partners (Bryant and Davis 2012). Thus agency theory and resource dependency addresses potential for synergy between managers and owners.

While studying the impact of board on strategy, Stiles (2001) documented that diversity in board related to gender, race and nationality, might enhance access to critical resource, which suggest a positive impact of board diversity. Robinson and Dechant (1997) listed five business reasons of firms going for more diverse boards. Diverse boards result in; 1) better utilization of talent 2) enhanced creativity 3) enhanced quality of team problem solving 4) increased marketplace understanding and 5) enhanced breadth of understanding in leadership positions.

Research on group performance provides valuable insights into issues that might be applicable to board matters. Roberge (2013) states that members in a diverse group experience more empathy on individual as well as on group level which thus enhances group performance. People in a diverse group work harmoniously and increase overall group performance. Furthermore, group diversity increases problem solving capacity (Hoffman and Maier 1961). This reveals that more affective groups (board) should have members that represent variety in age, gender and nationality. Hyung-Jin and John (2013) developed a demographic diversity framework and found that flow of diverse knowledge is positively associated with performance but it is not necessarily true that demographic diversity is related to flow of diverse knowledge. However, demographic diversity is related to behavioral integration. Hence
demographic diversity is a double-edged sword which has both positive and negative effects on the performance.

3.2.1 Balancing costs and benefits

Managing diversity is a comprehensive managerial process for developing an environment that works well for all employees. It facilitates organizations to develop steps to generate a natural capability to tap the potential abilities of employees (Thomas 1992). Diversity and its affective management can yield competitive advantage for organizations. Organizations wishing to maximize the benefits and minimize drawbacks of diversity are required to learn how to manage the tensions occurred in diverse groups. A board nomination committee may be expected to manage diversity affectively by creating a mix of team that can offer valuable information but on the other hand maintain sufficient homogeneity for affective decision making. The tradeoff would depend on the industry and firm specific features for instance, information needs, power distance in the hierarchies, board culture and work environment and performance related remunerations (Adams and Ferriera 2004).

Every diversity initiative in the organization must be aligned with the organization’s mission. It must be integrated into the organization’s strategies with the aim of creating an institutional environment where people differing in terms of age, culture, religion and nationality must be valued and respected (Ewoh 2013). However, even if firms intend to have an efficient board structure, there isn’t always a relationship between board composition and firm performance. For example if the firms intend to increase the market value by having a diverse board, they tend to do so. Projections related to firm value consequently depends on factors that could be unrelated to efficiency. According to sociological institutional theories it can be said that firms for a long time run the business according to business myths and recipes that are not related to financial efficiency (Meyer and Rowan 1977). On the contrary, governance structures arise endogenously. Economic actors choose the structures as a response to the problems they face while the benefits and costs have already been taken into consideration (Adams, Hermalin and Weisbach 2008).
4 GENDER DIVERSITY STATUS AND EFFECT ON FIRM PERFORMANCE

The women representation on the corporate boards, to a greater extent, has been underrepresented over the past few decades. Men occupy most of the board seats leading practitioners and researchers to the idea of ‘tokens’. However women representation on the corporate boards has been increasing in number over the years. In Nordic countries and particularly, in Finland, the female representation on boards has been recorded to be high. Norway has implemented laws to make the percentage of female representation equal to 40%. However, Prior research in this field is inconclusive about the contribution of women to the firm value and performance. This chapter will further discuss the current status of women on boards, socio-economic and political status of women in Finland. Furthermore, prior research regarding the relationship between gender diversity and firm performance will be discussed.

4.1 Status of gender diversity on the corporate boards

Two main issues have been considered in previous studies regarding trend of female representation on corporate boards such as percentage of women representation on boards and number of companies that have one or more women on boards. Prior studies have documented that the percentage of women representation on boards is less as compared to percentage of companies having women on their boards. This shows that majority of the seats are held by men and the few that are represented by women are considered as tokens. Jhunjhunwala (2012) reviewed the global statistics of women representation on boards and documented that the percentage of women on board was 9.2%, 9.4% and 9.6% in 2009, 2010 and 2011 respectively. Moreover, in the years 2009, 2010 and 2011, 55.3%, 56.4% and 58.3% of the boards had at least one woman on their boards. Furthermore, a global study of Fortune 200 companies by Governance Metric International in 2009 documented 23% of companies with no women on their boards, 26% had only one woman, 29% had only two women directors and 23% had three or more women directors on their corporate boards. Figure 6 and 7 exhibit the top 25 and bottom 25 countries in terms of women on their corporate boards between 2008 and 2012.
Figure 6. Top 25 countries in terms of women on boards. Adapted from (Jhunjhunwala 2012).
Ample of evidences show that woman to a much greater extent is underrepresented on the boards of the firms and in most of the countries there are still firms with not a single woman on boards. Research on this issue has been documented as early as 1977 and continued to be a hot research issue henceforth. Not in a single country

<table>
<thead>
<tr>
<th>Country</th>
<th>Women on Boards</th>
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<tbody>
<tr>
<td>Malaysia</td>
<td>7.6%</td>
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<tr>
<td>Austria</td>
<td>7.5%</td>
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<tr>
<td>Singapore</td>
<td>6.9%</td>
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<tr>
<td>Mexico</td>
<td>6.8%</td>
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<tr>
<td>Egypt</td>
<td>6.7%</td>
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<tr>
<td>Taiwan</td>
<td>6.5%</td>
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<td>Hungry</td>
<td>6.1%</td>
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<tr>
<td>Russia</td>
<td>5.9%</td>
</tr>
<tr>
<td>Brazil</td>
<td>5.1%</td>
</tr>
<tr>
<td>India</td>
<td>4.8%</td>
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<tr>
<td>Indonesia</td>
<td>4.5%</td>
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<tr>
<td>Italy</td>
<td>3.7%</td>
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<td>Kuwait</td>
<td>2.7%</td>
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<td>Portugal</td>
<td>2.3%</td>
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<tr>
<td>Oman</td>
<td>2.3%</td>
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<tr>
<td>South Korea</td>
<td>1.9%</td>
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<tr>
<td>Chile</td>
<td>1.9%</td>
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<tr>
<td>UAE</td>
<td>1.2%</td>
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<tr>
<td>Bahrain</td>
<td>1.0%</td>
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<tr>
<td>Japan</td>
<td>0.9%</td>
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<tr>
<td>Abu Dhabi</td>
<td>0.6%</td>
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<tr>
<td>Qatar</td>
<td>0.3%</td>
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<td>Saudi Arabia</td>
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<td>Peru</td>
<td>0.0%</td>
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<td>Morocco</td>
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Figure 7. Bottom 25 countries in terms of women on boards. Adapted from (Jhunjhunwala 2012).
around the globe has more than 50% of female representation on the corporate boards (DuPlessis et al. 2012). The hindrance to the advancement of women might possibly come from culture, lifestyle, different preferences and organizational and individual mind set.

A US research and advisory organization has penned down hindrances women face in their career advancement such as a Perception that women’s management and leadership style don’t align with the corporate culture, Compensation and appraisal system not uniform for both men and women, Assumption that women will not relocate for career advancement. Furthermore, there is lack of mentoring for women and women are eliminated from various means where men learn the underwritten rules for success. In addition, there is failure to hold managers responsible for advancing women and there are false assumptions about women in their commitment to career and abilities. Finally, there still exist benefits systems and productivity measures that do not take into account new policies such as flexible work arrangements.

In 2011 over 50% of middle level workers in corporate America were women whereas only 2.6% were females among CEOs of Fortune 500 companies (Branson 2012). Studying the degree of gender diversity in top leadership in US corporations, Sharma and Givens-Skeaton (2012) found that only 9.9% of women represent the executive officers of firms in Russell 1000 index. This shows that there is lack of gender diversity even in US corporations. Similarly the issue of female representation has been a hot debate in Europe. In countries like Norway, France, Netherlands, and Switzerland, where there are quotas for female seats by law, the underrepresentation of women has been changed and is expected to improve into gender balance in future. Branson (2012) documented that between 2004 and 2010, the percentage of women increased from 7% to 13.5% in Austria, 7% to 12.5% in France, 3% to 12% in Belgium and 3.5 to 12% in Spain. On the Pacific Rim, in Australia, the percentage of women representation on the corporate boards has remained constant at 8.5% during 2004 to 2010. However, in the later years the number jumped from 8.5% to 11.2% from April 2010 to March 2011 and then to 13% by August 2011. By March 2012, the percentage is around 13.8%.
The statistics showing the representation of women across corporate globe varies but the most recent literature reflects a gradual increase in the percentage of seats held by women in boards. A reason behind the improvement is that the Governments and organizations have spawned a number of initiatives towards increasing the number of women in corporate boards. These initiatives might vary from country to country but most of them fall under the following categories. (a) Implementation of quota laws (b) mandatory disclosures (c) certificate and pledge programs (d) renewed institutional investor activism (e) compliance with exchange regulations and (f) renewed institutional investor activism. Appealing more women to serve corporate boards requires that they have sufficient skills and experience to compete male counterparts. In US, 57.3% and 58.5% of women have earned bachelor’s and master’s degrees which show a less gender gap in tertiary. This possibly explains why the number of female board directors serving US boards is increasing recently.

4.1.1 Women socio-economic and political status in Finland

Socio economic and political structure of a country has potential significant impact on shaping women representation on corporate boards (Terjesen and Singh 2008). Using a dataset of 43 countries Terjesen and Singh found that in countries where there are more women on corporate boards, a greater representation of women in the senior management positions exists. Likewise other Nordic countries, Finland enjoys gender equality in the workplaces earning a gender egalitarian image. According to Global gender gap report 2009, where the report index showing how well the resources of a country are being equally distributed among the two genders; male and female, Finland has been ranked on the second highest position whereas Iceland is the first and Norway third and Sweden being fourth (Hausmann, Tyson and Zahidi 2009). Finland remains still the second on the list till 2012. The gender egalitarian image is due to the social and economic development in the Finnish society. In Europe, Finland is the first country to appoint female parliamentarian in 1907 however gender equality has been in progress after Second World War. The act of equality between men and women has been in force since 1987 (Pesonen, Tienari and Vanhala 2009). Since 2000, Finland nominated female president who was reelected for the second term in 2006.
The development in Finnish society has been facilitated by introduction of specific arrangements in order to enhance the active participation of both male and female in labor force. Extensive day care system, the social support of parenthood available for a nominal fee has enabled even women with small children to work outside homes. These parental benefits are considered as social rights of parents and children: not only for those who are working or are students. Double-earner family model dominates, as a result of increasing number of both men and women in labor force. Finland is more egalitarian compare to other countries like Germany and UK as women are not forced to choose between having children and pursuing a career in workplaces (Tienari, Quack and Theobald 2002).

Overall, it is viewed that, to a significant extent, gender equality has been achieved in Finnish society (Korvajärvi 2002). However, there still exists a gender pay gap in Finland. Women get 80% of the pay men would get for an identical job (Pesonen et al. 2009). With international comparison, a sharp segregation between masculine and feminine jobs continues in Finnish labor market. The rationale for this has been discussed over the past decades but no clear consent has been found yet. A hostile debate to tackle vertical segregation has however leaded to extension of gender-based quotas to corporate boards (Tienari, Meriläinen and Lang 2004). Also, corporate governance code in Finland explicitly mentions that both genders should be present in the boards (Corporate governance code 2010). Though the code does not mention any recommendations related to gender quotas.
4.2 Gender diversity and firm performance

Among diversity issues, gender is the most debated issue in corporate governance and has received attention of researchers and practitioners recently. This debate has led to implementation of governmental regulations regarding women on boards. In many countries the number of women on corporate boards is recorded to be very low however it is increasing (Adams and Ferreira 2009). In 2003 Norwegian government implemented a law which posits that, by July 2005 the share of gender on the board of directors of all listed companies should be at least 40%; at the time women had a share of only 9%, with the penalty for disobedience (Ahern and Dittmer 2012). Moreover, in 2008 Finland amended its corporate governance code and added the gender element focusing on diverse composition of corporate boards. Same was followed in Sweden where threats were given to firms not keeping diversity in terms of gender.

The regulation that the boards should be diverse in terms of gender is of the notion that women on boards improve firm performance. There are many hypothetical reasons why presence of women on board might be associated with firm performance. Carter, Simkins and Simpson (2003) suggest that board with more women leads to better understanding of market place that is itself diverse in terms of gender. Moreover, a diverse board in terms of gender increases innovation and creativity (Miller & Del 2009), results in better decision making and corporate reputation (Bear, Rahman and Post 2010). However, findings of prior studies are inconclusive.

Campbell and Míñuez-Vera (2008) found a significant positive effect of gender diversity on firm performance. However, the opposite causal relationship was insignificant which means that the better performing firms do not affect the gender composition of the boards. This result was consistent with all the previous findings that have controlled for reverse causality. Similarly, Carter, D'Souza, Simkins and Simpson (2007) found a significant positive relationship between gender diversity and firm financial performance primarily through the percentage of women present on the audit committee.
Carteret al. (2003) listed five reasons of how diversity might affect firm performance. First, gender diversity may result in a better understanding of customers. Since firms are being globalized, the market places are becoming more diverse, thus creating a need of better understanding and handling of diverse markets. In this framework, it is worth considering the findings of Brammer, Millington and Pavelin (2007). Studying gender diversity among UK corporate boards, Brammer, Millington and Pavelin found that highest rate of women directors is associated with industries like banking, retailing, media and utilities. All these industries are considered to be close with end customers. Second, diversity leads to better problem solving. More diverse groups give variety of perspectives in conflict handling. Third, diversity enhances creativity and innovation and fourth it increases corporate leadership effectiveness. Diversity results in better understanding of difficulties of the environment leading to better decision making. Finally, it supports global relationships.

In addition, gender diverse boards are characterized by tougher monitoring, are more aligned with the interest of shareholders and have greater participation of directors in decision-making. Moreover, women on the boards have better attendance as compared to men and men have less attendance problems when the boards are more gender diverse (Adams and Ferreira 2009). These findings suggest that gender diverse boards are prone to tougher monitoring and are more effective than homogenous boards. However, this has both positive and negative effect on performance.

On the other hand, there are theoretical reasons for a negative association of gender diversity with firm performance. Williams and O’Reilly (1998) documented that gender diverse groups are characterized with greater emotional conflicts. This characteristic might lead to a negative firm performance. Moreover, gender diverse boards are characterized by greater time consumption and less effective decision making (Lau and Murnighan, 1998) and lack of communication (Miller, Burke and Glick 1998) hence resulting in a negative impact on performance. Farrel and Hersch (2005) failed to document a convincing argument that gender diversity is a value enhancing strategy. Studying whether addition of woman on boards would have significant affects Farrel and Hersch found insignificant abnormal returns on every additional woman hired to the board.
Increasing gender diversity on the boards might be costly for firms. Daunfeldt and Rudholm (2012) found a negative impact of gender diversity on return on total assets during a study of 20,487 limited companies in Sweden. The negative impact was found when companies voluntarily made their boards diversified. Their findings suggest that legal requirements for increasing gender diversity on boards might decrease firm performance. Supporting this suggestion Ahern and Dittmar (2012) found same results in Norwegian context. Motivated by the gender quota passed in 2003, the study found that the quota resulted in a significant decline in Tobin’s Q.

Furthermore it is argued that the more boards are heterogeneous, the less effective they are in terms of decision making. Moreover, employees tend to protect their interest in the boardroom on the expense of shareholders. Consistent with the argument Bøhren and Strøm (2007) found that more diverse boards in terms of gender has negative influence on firm performance. Similarly, Adams and Ferreira (2009) documented a negative impact of gender diverse boards on firm performance showing the firms perform worse when there is high gender diversity. However, more women on boards have a significant impact on board inputs, for instance, better attendance record and board governance. On the contrary, Cox and Blake (1991) argued that as a result of higher turnover and absenteeism, women increase the cost of the firm.

Also, prior research has found no link between gender diversity and firm performance. Adding to this argument Rose (2007) found no association between female representation on boards of Danish listed companies and financial firm performance. Regardless of the fact that Denmark has a reputation of treating both genders equally, only 4% of female representation was found consistent with other researches (Mahadeo et al. 2012). Supporting this finding Shrader, Blackburn and Iles (1997) did not find any relation between boards with higher proportion of women on top management and firm financial performance. They associated their findings with the less presentation of female members on the boards.

Overall, literature suggests inconclusive and ambiguous findings regarding the association on gender diversity and firm financial performance. However, recent studies have found more positive relationships between women on boards and firm
financial performance (Terjesen, Sealy and Singh 2009). The ambiguity in findings might be because of the use of different estimation methods. Some studies do not control for unobserved heterogeneity and factors like age and size of the firm (which are found to be associated with firm performance). These factors if not controlled, give a vague picture. A further consideration might be regarding the sample selection which is mostly taken from big firms. Therefore, the result might not be the representative of other small firms. Moreover, there are studies which do not control for reverse causality. A study that does not consider this might conclude that gender diversity affects firm performance which might be vice versa.
5 RESEARCH AND METHODOLOGY

The empirical part of the study starts with describing and analyzing the data related to gender diversity in board composition and firm performance. The data has been collected manually from the annual reports of firms as well as Worldscope’s database provided by Thomson Reuters. All the control variables have been discussed in this chapter following the discussion of alteration made to the sample data. The study continues with unfolding the methodologies that are used to analyze the data in order to discuss the relationship between gender diversity in Finnish boards and firm performance.

5.1 Research and data description

The relationship between gender diversity and firm performance is examined by using the data from 50 Finnish publicly listed companies in the period 2011 and 2012. The sample data consisted of 50 observations. Data that measures gender diversity is collected manually from the annual reports of the companies available on Helsinki Stock Exchange. Firms’ accounting data related to firm performance and control variables is gathered from Worldscope database provided by Thomson Reuters. The study incorporates the data from the firms that fulfills the following terms and conditions as (a) Listed in Finnish stock exchange since 2011-2012 (b) Availability of full annual reports and (c) Substantial business dealings in Finland.

While measuring firm performance both accounting and finance measures have been used in previous research Campbell and Minguez-Vera (2008), Carter et.al (2003), Erhardt et.al (2003). Literature of economics and finance typically uses stock-market based measures and accounting-based measures or both measures are used in accounting literature. Following Adams and Ferreira (2009), Daunfeldt and Rudholm (2012) and Shrader et al. (1997) we used return on assets (ROA) as our measure of firm performance. The relationship between gender diversity and firm performance is examined by using the percentage of women representation on board (Independent variable) and Return on asset (Dependent variable). In addition, the relationship has been controlled using size of the firm (size), size of the board (boardsize), leverage (LEV) and industry type (dummy). Average number of employees per year is taken as
a measure for the firm size. Board size is measured as the total number of board members representing boards for more than 8 months. Industry as a dummy is categorized based on Global Industry Classification Standard (GICS). ROA is calculated with the following formula

$$ ROA\% = \frac{NetIncome_t}{AverageTotalAsset_t} $$

Where, $Net\ Income_t$ is the firm’s net income in the year $t$, and average total asset $AverageTotalAsset_t$ is the average of total asset in $t_1$ and $t_{t-1}$. By definition ROA is an indication of how profitable a company is relative to its total assets and how efficient a management is in using its assets. More over $LEV$ is computed with the formula as follows

$$ LEV = \frac{TotalDebt_t}{TotalAssets_t} $$

Where, $total\ debt_t$ is the sum of both long term and short term debt in the year $t$, and $total\ assets_t$ comprise of firm’s current assets and long term assets in the year $t$.

Data was checked for normality and was found to be non-normal. In order to make the data more normal for regression analysis five of the measures were winsorized at 5 percent level. Winsorization means to limit the extreme values by replacing the most extreme values to the next less extreme. The values below five percentile are set to equal it to the 5th percentile and, if required, the same is done to the values above 95 percentile. This method of dealing with outliers provides the easy and flexible way to mitigate the effects of outliers and data errors and distribute the data more normally especially when the sample size is small. Only the accounting data was winsorized since it does not apply to other variables of our study. These variables have been chosen as they are directly accessible from annual reports of the firms. Gender can be observed by photographs and board size by counting number of board of directors while director’s independence is disclosed by most of the firms.
Table 1 shows the distribution of observations by industry sectors, percentage of women on boards, ROA, leverage and the size of the companies falling in the related industry. The highest percentage of women representation on boards is in utilities with 42.9%. In addition, the highest numbers of observations are from industrials sector with 14 firms. Surprisingly, ROA in consumer discretionary is negative and women representation on the boards of the sector is lowest among the sample industries. Also, the consumer discretionary industry sector is the biggest in size with 65,139 employees.

Table 1. Distribution of observations by industry, women on boards (%), ROA, leverage and firm size.

<table>
<thead>
<tr>
<th>GICS</th>
<th>No of observations</th>
<th>Women on boards (%)</th>
<th>ROA</th>
<th>Leverage</th>
<th>Size (No of employees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Energy</td>
<td>2</td>
<td>35.4</td>
<td>0.0043</td>
<td>0.265</td>
</tr>
<tr>
<td>15</td>
<td>Materials</td>
<td>12</td>
<td>32.6</td>
<td>0.0266</td>
<td>0.227</td>
</tr>
<tr>
<td>20</td>
<td>Industrials</td>
<td>14</td>
<td>21</td>
<td>0.0454</td>
<td>0.100</td>
</tr>
<tr>
<td>25</td>
<td>Consumer Discretionary</td>
<td>4</td>
<td>18.1</td>
<td>-0.0176</td>
<td>0.167</td>
</tr>
<tr>
<td>30</td>
<td>Consumer staples</td>
<td>2</td>
<td>21.4</td>
<td>0.0398</td>
<td>0.076</td>
</tr>
<tr>
<td>35</td>
<td>Health Care</td>
<td>2</td>
<td>16.7</td>
<td>0.2667</td>
<td>0.107</td>
</tr>
<tr>
<td>40</td>
<td>Financials</td>
<td>6</td>
<td>30.8</td>
<td>0.0754</td>
<td>0.098</td>
</tr>
<tr>
<td>45</td>
<td>Information Technology</td>
<td>2</td>
<td>30.5</td>
<td>0.0223</td>
<td>0.146</td>
</tr>
<tr>
<td>50</td>
<td>Telecommunication Services</td>
<td>4</td>
<td>30.8</td>
<td>0.0932</td>
<td>0.297</td>
</tr>
<tr>
<td>55</td>
<td>Utilities</td>
<td>2</td>
<td>42.9</td>
<td>0.0730</td>
<td>0.307</td>
</tr>
</tbody>
</table>

Note:
Industrials sector includes capital goods, commercial & professional services, and transportation.
Consumer discretionary sector includes automobile & components, consumer durables & apparel, hotels, restaurants & leisure, media and retailing.
Consumer staples sector include food & drug retailing, food beverage & tobacco, household and personal products.
Table 2 summarizes statistics related to gender representation in the corporate boards and ROA of Finnish listed companies. It is documented that 105 (27.06%) positions are filled in by women as compared to 283 (72.93%) of male occupied positions. This percentage has been increased as compared to 11.7% of female representation in 2008 reported by Virtanen (2012). Moreover, every company in the sample has at least one woman representing the board which is in contrast with the finding of Virtanen (2012) where six companies without a female in the boards were documented. However, the difference in the results might be related to the sample we have considered i.e. 50 listed companies of Finland. Moreover, 15 companies in the sample have one female board of director and another 15 have two female directors on their boards. The highest number of women on the boards is three in 20 companies in the study sample. Furthermore, it is interesting to note that ROA in the firms with 1 female director and firms with 3 female directors on the boards is almost equal. In addition, ROA of the firms with 2 women on the corporate boards is less than the firms with 1 woman on their board of directors.

**Table 2. Gender frequency, representation across boards and ROA.**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency (Number of directors)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>283</td>
<td>72.93</td>
</tr>
<tr>
<td>Female</td>
<td>105</td>
<td>27.06</td>
</tr>
<tr>
<td>Total</td>
<td>388</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Composition of the board</th>
<th>Frequency (No of companies)</th>
<th>Return on Asset (ROA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No female director</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1 female director</td>
<td>15</td>
<td>0.0539</td>
</tr>
<tr>
<td>2 female director</td>
<td>15</td>
<td>0.0436</td>
</tr>
<tr>
<td>3 female director</td>
<td>20</td>
<td>0.0530</td>
</tr>
<tr>
<td>More than 3 female directors</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>0.1504</td>
</tr>
</tbody>
</table>
Table 3 shows the percentage of women on the boards and ROA over the year 2011-2012. The percentage in women on the boards was 26.2% in 2011 and 28.2% in 2012. Overall, there has been a growth of 7.63% in the percentage of women in boards over the years. ROA was 0.0576 in 2011 and 0.0432 in 2012. It is very interesting to note a decrease of 25% in ROA over the period of two years.

Table 3. Growth in women representation on the boards and ROA over the years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Women on boards (%)</th>
<th>Return on Asset (ROA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>0.262</td>
<td>0.0576</td>
</tr>
<tr>
<td>2012</td>
<td>0.282</td>
<td>0.0432</td>
</tr>
<tr>
<td>Growth (%)</td>
<td>0.763</td>
<td>-0.25</td>
</tr>
</tbody>
</table>

Figure 8 illustrates a comparison of gender representation and ROA in firms with various frequencies of women on boards. It is worth noting that as the number of women and the percentage of women on boards increase, ROA decreases. In firms with 14.5% of females in the boards, ROA is 0.0539 which fell to 0.0436 as the percentage of female on the boards increase. ROA increased from 0.0436 to 0.053 as the percentage of women increased to 38.1% but it is still less than ROA for firms with 14.5% of women. However, it does not provide a conclusion about the association between women on the boards and firm performance until the statistical test is performed.
Figure 8. Comparison of percentage of women on boards and ROA.

Table 4 determines that the size of the board varies from 5 to 11. There are two companies with 11 board members, one company with 10 and a board size of 9 in 11 companies. The most usual size is 7 in 16 companies and 8 in 13 companies. Only one company has a board size of 5 and six companies have 6 board members. The average size of the board is 7.760 in Finnish listed companies.

**Table 4. Size of the Boards.**

<table>
<thead>
<tr>
<th>Board size</th>
<th>Number of companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
</tr>
</tbody>
</table>
5.2 Research methodology

Clearly, the methods applied in upper echelons diversity studies are quantitative in nature Nielsen and Huse (2010). For statistical analysis majority of the studies relied on conventional approaches such as ordinary least square regression and correlation methods. Furthermore, some studies used questionnaire and survey methods. Moreover, studies commonly used large databases such as Standard & Poors but some also collected the data from annual reports of the companies. In terms of sampling, most of the studies have limited themselves to large firms, specific industry types or fortune 500 companies.

Likewise previous studies, this study is quantitative since the data is gathered from Worldscope database and financial reports of the firms. The study uses Correlation and Multiple ordinary least square (OLS) regression analysis techniques to study the relationship between gender diversity in corporate boards and firm financial performance. The study estimates the coefficient value of gender diversity.

To determine the nature of relationship between female membership in boards and firm performance the following model has been estimated.

\[(π_{it}) = β_0 + β_1 PWOM_{it} + β_2 boardsize_{it} + β_3 size_{it} + β_4 LEV_{it} + β_5 D_{it} + µ_{it}, \]  

(1)

Where, \(π\) represents firm performance and \(PWOM\) represents the percentage of women representation on board of directors. Moreover, the study has been controlled for size of the firm, size of the board, leverage and industry type.

Earlier researchers have used one single measure for gender diversity which is percentage of women representation on the boards or a dummy variable which is 1 if there is at least one woman on the board, otherwise it equals zero. However, few researches also used Blau index as a measure for diversity. Our second model of the study uses a dummy variable to measure gender diversity. The variable has a value of 1 when there is at-least one woman present on the boards and 0 when more than one woman present on the boards. To determine the nature of relationship between
female membership in boards and firm performance a second model has been estimated which is written as follows.

\[(\pi)_t = \beta_0 + \beta_1 D1_{it} + \beta_2 \text{boardsize}_{it} + \beta_3 \text{size}_{it} + \beta_4 \text{LEV}_{it} + \beta_5 D_{it} + \mu_{it}, \] (2)

Where, \(\pi\) represents firm performance, \(D1\) is a dummy variable representing women representation on board of directors. \(D1\) gets a value of 1 when there is one woman present on the boards and 0 when more than one woman is present on the boards. The other independent variables remain same as in the model 1 and the study has been controlled for size of the firm, size of the board, leverage and industry type.
6 EMPIRICAL RESULTS

The results of the empirical study are being discussed in this chapter. First, descriptive statistics of the study sample have been discussed. The aim is to find the extant of gender diversity in Finnish listed companies. Secondly, in order to examine the association between gender diversity and firm performance and control variables, correlation and regression analysis has been conducted. Finally the results related to main research question of the study have been discussed. The aim is to find a relationship between gender diversity in board composition and firm performance.

Table 5 represents the descriptive statistics of the variables included in our data set after winsorization. The percentage of female representation on the board is noted to be 27%. The mean of percentage of women reveals that Finnish corporate board rooms have moderate level of women in the top management. This is expected since Finland has for long time had a reputation of treating the two genders equally. Yet, the value is at least equal or greater than the numbers reported for other Nordic countries in 2011 except Norway.

Table 5. Descriptive statistics after winsorization.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>Std. Dev</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWOMEN</td>
<td>50</td>
<td>0.27194</td>
<td>0.25000</td>
<td>0.109441</td>
<td>0.111</td>
<td>0.500</td>
</tr>
<tr>
<td>ROA</td>
<td>50</td>
<td>0.046492</td>
<td>0.047854</td>
<td>0.0375253</td>
<td>-0.0342</td>
<td>0.1243</td>
</tr>
<tr>
<td>Size</td>
<td>50</td>
<td>15295.54</td>
<td>11869.00</td>
<td>9799.868</td>
<td>3867</td>
<td>31466</td>
</tr>
<tr>
<td>BoardSize</td>
<td>50</td>
<td>7.760</td>
<td>8.000</td>
<td>1.2707</td>
<td>5.0</td>
<td>11.0</td>
</tr>
<tr>
<td>LEV</td>
<td>50</td>
<td>0.16727</td>
<td>0.15899</td>
<td>0.076757</td>
<td>0.047</td>
<td>0.300</td>
</tr>
</tbody>
</table>

Note: Variable definition

*PWOMAN* = Percentage of women representing the board;

*ROA* = Net income divided by average total assets;

*Size* = Natural logarithm of average number of employees in i<sup>th</sup> firm per year;
6.1 Correlation of research variables

The main objective of study is to examine the relation between gender diversity and firm performance. Table 6 shows Pearson’s correlation between independent, dependent and control variables. The correlation results show that gender diversity in the board composition is positively correlated with firm performance but statistically insignificant (0.134, p value > 0.05). Moreover, a negative correlation has been documented between size of the firm and women on corporate boards however the relation is insignificant (-0.156, p value < 0.05).

Table 6. Correlation between dependent, independent and control variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>PWOMEN</th>
<th>ROA</th>
<th>Size</th>
<th>Boardsize</th>
<th>LEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWOMEN</td>
<td>1</td>
<td>0.134</td>
<td>-0.156</td>
<td>-0.075</td>
<td>0.246</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.355</td>
<td>0.278</td>
<td>0.604</td>
<td>0.086</td>
</tr>
<tr>
<td>ROA</td>
<td>0.134</td>
<td>1</td>
<td>-0.266</td>
<td>-0.172</td>
<td>-0.061</td>
</tr>
<tr>
<td></td>
<td>0.355</td>
<td></td>
<td>0.061</td>
<td>0.233</td>
<td>0.674</td>
</tr>
<tr>
<td>Size</td>
<td>-0.156</td>
<td>-0.266</td>
<td>1</td>
<td>0.290</td>
<td>0.119</td>
</tr>
<tr>
<td></td>
<td>0.278</td>
<td></td>
<td></td>
<td>0.041</td>
<td>0.409</td>
</tr>
<tr>
<td>Boardsize</td>
<td>-0.075</td>
<td>-0.172</td>
<td>0.290</td>
<td>1</td>
<td>-0.181</td>
</tr>
<tr>
<td></td>
<td>0.604</td>
<td></td>
<td>0.041</td>
<td></td>
<td>0.209</td>
</tr>
<tr>
<td>LEV</td>
<td>0.246</td>
<td>-0.061</td>
<td>0.119</td>
<td>-0.181</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>0.086</td>
<td></td>
<td>0.409</td>
<td></td>
<td>0.209</td>
</tr>
</tbody>
</table>

Note: Industry dummy variable has been ignored in the correlation test.

PWOMAN = Percentage of women on the board,
ROA = Net income divided by average total assets,
Size = natural logarithm of average number of employees in i\textsuperscript{th} firm per year,
Boardsize = number of board of directors present of the corporate boards,
LEV = firm I’s total debt divided by total asset.
6.2 T-test

Table 7 determines the statistical results for \textit{t-test}. Women representation on the boards has been divided into two groups such as: firms with one woman present on the boards and firms with more than one woman present on the boards. Table 8 shows that ROA of the firms with one woman present on their boards is 0.041630 which is less than ROA (0.048575) of the firms with more than one woman present on the boards. However, we fail to accept that there is an equal variance between the means of ROA (p> 0.05). The mean of size of the firm with having one woman on the board is 9.44, which is greater as compare to the mean of size (9.3813) with more than one woman present on the boards. The difference between the means in case of size of the firm is insignificant (p> 0.05). However, the difference in the mean of board size in the two categories is significant (p<0.05). Mean of board size in the firms having one woman on the boards in 7 as compare to the mean 8.086 for the firms having more than one woman present of the boards. The difference between means of the leverage is insignificant (p>0.05).

Table 7. T-test.

<table>
<thead>
<tr>
<th>Variables</th>
<th>1 Female</th>
<th>&gt; 1 Female</th>
<th>p &lt; 0.05</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>0.041630</td>
<td>0.048575</td>
<td>0.554</td>
<td>-0.596</td>
</tr>
<tr>
<td>Size</td>
<td>9.4476</td>
<td>9.3813</td>
<td>0.769</td>
<td>0.295</td>
</tr>
<tr>
<td>Boardsize</td>
<td>7.00</td>
<td>8.086</td>
<td>0.004*</td>
<td>-2.984</td>
</tr>
<tr>
<td>Leverage</td>
<td>0.14086</td>
<td>0.17859</td>
<td>0.112</td>
<td>-1.619</td>
</tr>
</tbody>
</table>

Note: *Significant at 5% level
Total N= 50
6.3 Regression analysis

Table 8 documents the regression results for our first model of the study to examine the relation between gender diversity and firm performance. The results reveal that the explanatory power $R^2$ of overall model is 49.4% and adjusted $R^2$ is 31.2%. This implies that 31.2% of variation in firm performance is due to gender diversity. The moderate value of explanatory power shows that the hypothesis effectively and moderately explains the subject matter. The results in table 5 present the estimation model 1, where the dependent variable is return on assets. The results indicate that even after controlling for board size, size of the firm, industry and leverage, the relationship between gender diversity and firm performance is insignificant ($p > 0.05$). This is inconsistent with our research question 1 that there is a relation between gender diversity and firm performance. These results are consistent with Shrader et.al (1997) and Carter, D'Souza, Simkins and Simpson (2010) and in contrast with Campbell and Mínguez-Vera (2008), Smith et.al (2006), Erhardt et.al (2003) and Adams and Ferriera (2009).

The study interestingly found a statistically significant negative relationship between gender diversity and firm performance in some specific industries like IT, energy, finance, consumer staples, materials, and consumer discretionary and industrial including transportation, commercial and professional services and capital goods. Nevertheless, in industries like telecommunications and utilities the results were insignificant suggesting no effect of gender diversity on firm performance. These results are inconsistent with the findings of Ali, Kulik and Metz (2011) where they found a positive and stronger impact of gender diversity on firm performance in service industries as compared to manufacturing industries. We did not find any significant relationship between size of the firm, size of the board and leverage on firm performance. However, the type of industry seems to be an important sign for the significance of gender diversity on firm performance.
Table 8. Association between gender diversity in the boards and firm performance.

<table>
<thead>
<tr>
<th>Explanatory Variable</th>
<th>Parameter estimates</th>
<th>Standard Error</th>
<th>t value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.149</td>
<td>0.071</td>
<td>2.084</td>
<td>0.044*</td>
</tr>
<tr>
<td>PWOMEN</td>
<td>0.055</td>
<td>0.057</td>
<td>0.958</td>
<td>0.345</td>
</tr>
<tr>
<td>Size</td>
<td>0.005</td>
<td>0.005</td>
<td>1.022</td>
<td>0.314</td>
</tr>
<tr>
<td>Boardsize</td>
<td>-0.126</td>
<td>0.121</td>
<td>-1.044</td>
<td>0.304</td>
</tr>
<tr>
<td>LEV</td>
<td>-0.007</td>
<td>0.008</td>
<td>-0.844</td>
<td>0.404</td>
</tr>
<tr>
<td>D1</td>
<td>-0.093</td>
<td>0.030</td>
<td>-3.063</td>
<td>0.004*</td>
</tr>
<tr>
<td>D2</td>
<td>-0.069</td>
<td>0.027</td>
<td>-2.617</td>
<td>0.013*</td>
</tr>
<tr>
<td>D3</td>
<td>-0.004</td>
<td>0.037</td>
<td>-0.111</td>
<td>0.912</td>
</tr>
<tr>
<td>D4</td>
<td>-0.031</td>
<td>0.044</td>
<td>-0.701</td>
<td>0.488</td>
</tr>
<tr>
<td>D5</td>
<td>-0.070</td>
<td>0.033</td>
<td>-2.121</td>
<td>0.041*</td>
</tr>
<tr>
<td>D6</td>
<td>-0.074</td>
<td>0.034</td>
<td>-2.194</td>
<td>0.035*</td>
</tr>
<tr>
<td>D7</td>
<td>-0.098</td>
<td>0.044</td>
<td>-2.202</td>
<td>0.034*</td>
</tr>
<tr>
<td>D8</td>
<td>-0.107</td>
<td>0.036</td>
<td>-2.937</td>
<td>0.006*</td>
</tr>
<tr>
<td>D9</td>
<td>-0.083</td>
<td>0.030</td>
<td>-2.763</td>
<td>0.009*</td>
</tr>
<tr>
<td>N</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>R-Square</td>
<td>0.494</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.312</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * significant at 5% level

PWOMAN = Percentage of women representing the board, ROA = Net income divided by average total assets
Size = natural logarithm of average number of employees in i<sup>th</sup> firm per year, Boardsize = number of board of directors present of the corporate boards, LEV = firm I’s total debt divided by total asset, D1 is dummy variable = 1 if D1 is Consumer discretionary industry or 0 otherwise, D2 dummy variable = 1 if D2 is industrials industry
or 0 otherwise, D3 dummy variable = 1 if D3 is telecom industry or 0 otherwise, D4 dummy variable = 1 if D4 is utility industry or 0 otherwise, D5 = dummy variable = 1 if D5 is materials industry or 0 otherwise, D6 = dummy variable 01 if D6 is Consumer staples industry or 0 otherwise, D7 = dummy variable =1 if D7 is energy industry or 0 otherwise, D8 = dummy variable =1 if D8 is IT industry or 0 otherwise and D9 = dummy variable =1 id D9 is financial industry or 0 otherwise

Table 9 documents the regression results for our second model of the study to examine the relationship between gender diversity and firm performance. The dependent variable in the second estimation model is return on asset. The results reveal that the explanatory power $R^2$ of overall model is 48.5% and adjusted $R^2$ is 29.9%. This implies that 30% of variation in firm performance is due to gender diversity. The results indicate that even after having a different variable to measure gender diversity and it’s affect on firm performance as well as controlling for board size, size of the firm, industry and leverage, the relationship between gender diversity and firm performance is insignificant (p> 0.05). This is inconsistent with our research question 1 that there is a relation between gender diversity and firm performance.

The results of model two reveals a significant negative relationship between gender diversity and firm performance in some specific industries like telecommunications, finance, consumer staples, consumer discretionary and industrial that includes transportation, commercial and professional services and capital goods. Interestingly, there is an insignificant relationship between firm performance and size of the firm, size of the board and leverage. When comparing the results of model 1 and model 2, it can be seen that there is no major difference in the results. Both the models depict an insignificant relationship between gender diversity and firm performance. Similarly, the models show an insignificant relationship between firm performance and board size, firm size and leverage. However, contrary to the first model, the second model of the study found no relationship between some industries like materials and energy industry. This difference suggest for cautious interpretations when it comes to consideration of industry type.
Table 9. Association between gender diversity in the boards and firm performance.

<table>
<thead>
<tr>
<th>Explanatory Variable</th>
<th>Parameter estimates</th>
<th>Standard Error</th>
<th>t value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.179</td>
<td>0.069</td>
<td>2.619</td>
<td>0.013*</td>
</tr>
<tr>
<td>D1</td>
<td>-0.007</td>
<td>0.014</td>
<td>-0.486</td>
<td>0.630</td>
</tr>
<tr>
<td>Size</td>
<td>-0.007</td>
<td>0.005</td>
<td>0.549</td>
<td>0.586</td>
</tr>
<tr>
<td>Boardsize</td>
<td>0.003</td>
<td>0.114</td>
<td>-1.430</td>
<td>0.161</td>
</tr>
<tr>
<td>LEV</td>
<td>-0.163</td>
<td>0.009</td>
<td>-0.812</td>
<td>0.422</td>
</tr>
<tr>
<td>D2</td>
<td>-0.088</td>
<td>0.030</td>
<td>-2.934</td>
<td>0.006*</td>
</tr>
<tr>
<td>D3</td>
<td>-0.067</td>
<td>0.027</td>
<td>-2.502</td>
<td>0.017*</td>
</tr>
<tr>
<td>D4</td>
<td>-0.004</td>
<td>0.037</td>
<td>0.115</td>
<td>0.909</td>
</tr>
<tr>
<td>D5</td>
<td>-0.015</td>
<td>0.041</td>
<td>-0.379</td>
<td>0.707</td>
</tr>
<tr>
<td>D6</td>
<td>-0.059</td>
<td>0.031</td>
<td>-1.927</td>
<td>0.062</td>
</tr>
<tr>
<td>D7</td>
<td>-0.075</td>
<td>0.035</td>
<td>-2.145</td>
<td>0.039*</td>
</tr>
<tr>
<td>D8</td>
<td>-0.084</td>
<td>0.042</td>
<td>-2.019</td>
<td>0.051</td>
</tr>
<tr>
<td>D9</td>
<td>-0.099</td>
<td>0.036</td>
<td>-2.790</td>
<td>0.008*</td>
</tr>
<tr>
<td>D10</td>
<td>-0.076</td>
<td>0.029</td>
<td>-2.594</td>
<td>0.014*</td>
</tr>
<tr>
<td>N</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>R-Square</td>
<td>0.485</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.299</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * significant at 5% level
D1 = dummy variable with value 1 if there is one woman on the boards and 0 if more than 1,
ROA = Net income divided by average total assets Size = natural logarithm of average number of employees in iᵗʰ firm per year, Boardsize = number of board of directors present of the corporate boards, LEV = firm i’s total debt divided by total asset, D2 is dummy variable = 1 if D2 is Consumer discretionary industry or 0 otherwise,
D3 dummy variable = 1 if D3 is industrials industry or 0 otherwise, D4 dummy variable = 1 if D4 is telecom industry or 0 otherwise, D5 dummy variable = 1 if D5 is utility industry or 0 otherwise, D6 = dummy variable = 1 if D6 is materials industry or 0 otherwise, D7 = dummy variable 01 if D7 is Consumer staples industry or 0 otherwise, D8 = dummy variable =1 if D8 is energy industry or 0 otherwise, D9 = dummy variable =1 if D9 is IT industry or 0 otherwise and D10 = dummy variable =1 id D10 is financial industry or 0 otherwise

One plausible reason behind insignificant relationship could be as Bilimoria and Piderit (1994) argued that female board members are traditionally assigned with the tasks that are less strategic and less related to the firm performance. Bilimoria and Piderit found a preference for men in more strategic related committees such as compensation committee, executive committee and finance committee and women in less strategic related such as membership in public affairs committee. Moreover, Huse and Solberg (2006) argued that big decisions are quite often made in other arenas than the boardrooms and they may not be equally open to all board members. Therefore, women need to understand the inside dynamics of the boardroom and must be willing to make alliances with the influential actors. Another reason could be that, overall, women’s tenure on the corporate boards has been shorter than men’s although women are equally, if not better, qualified than men on the directors’ characteristics such as professional background, occupation, business and non-business directorship Burke and Mattis (2000). However, unfolding the tenure of directors is not in the scope of the study. To unfold the tenure of the directors was out of scope of our study since only two years of time frame has been taken into account.
7 CONCLUSION

For the past few decades, gender diversity has been a major issue within corporate governance and hence a hot research issue. Policy debates for governance reforms explicitly specify for gender diversity thereby pressurizing organizations to choose female directors into the boardrooms. Proponents suggest that gender diversity has many benefits including improved managerial task performance, new ideas generation and better communication, provides number of benefits such as improved managerial task performance, new ideas, and summing up to greater firm performance. On the contrary, skeptics view gender diversity a deteriorating factor leading to poor firm performance. They argue that gender diverse boards might have more conflicts and slower decision making. Thus the consequences of having more gender diverse boards are little understood and inconclusive creating a motivation for academic attention.

In this research the relationship between gender diversity and firm performance has been examined. A significant relationship is hypothesized between gender diversity and firm financial performance. Two models are developed to study the relationship between gender diversity and firm performance. First model uses percentage of women on the boards as a proxy for gender diversity and firm performance is measured with return on assets. The regression model is extended including firm size, size of the board, leverage and type of industry as control variables. The second model uses a dummy variable to measure gender diversity. The variable gets a value of 1 when one woman is present on the board and 0 when more than one. All other control variables remain the same as in the model 1. 50 Finnish listed firms are used over the years 2011-2012. Ordinary least square regression is used to conduct the analysis. Contrary to the number of other studies this study, even examining the study with two models, does not find a significant relationship between gender diversity and firm performance. The results show that gender in relation to board composition does not influence firm performance. The results are consistent with the finding of Rose (2007), evidence from Denmark, where an insignificant relationship was found between women on corporate boards and firm financial performance.
The business case for gender diversity is not supported in this particular study. We argue that female board members who break the glass ceiling are professionals representing the relevant experience and competence. They have been hired endogenously to the boards after a stringent selection process. Therefore, the results of the study imply that the issue of gender does not matter and there is no impact of gender diversity on the performance of the firm. Another plausible reason of gender diversity not being pivotal to firm performance could be that women directors are assigned with the tasks that are less related to firm performance (Bilimoria and Piderit 1994). However, more research is needed in order to get an insight about the nature of the tasks women directors perform and whether women make a valuable contribution to the boards. Case study method could disclose interesting facts about the working style in corporate boards since quantitative methods may be inconvenient to explore board dynamics and influence of women directors on boards’ working style.

Moreover, women directors being left out of the traditional “old boy’s network” might have decided to adapt the traditional shared believes and group norms of the boards by underestimating the special feature stemming from their unconventional backgrounds. Women serving the corporate boards want to be seen as directors first and women second since they have been selected to the boards due to their abilities first and foremost (Burke 1997). However, further research must be conducted to examine the effect of psychological traits. Finally, one could argue that the insignificant relation between gender diversity and firm performance is due to the low representation of women on corporate boards which is, according to our study, 27% in Finland.

In the first model of the study, the results documented a negative relationship between gender diversity and firm performance in industries like IT, energy, finance, consumer staples, materials, consumer discretionary and industrial such as transportation, capital goods and commercial and professional services. Likewise the second model of the study showed a negative association in telecommunications, finance, consumer staples, consumer discretionary and industrial that includes transportation, commercial and professional services and capital goods. These results imply that effect of gender diversity on firm performance might be firm specific. The
results suggest for further study by focusing the relationship between gender diversity and firm performance in specific industries. The results of this study needs to be treated with caution as they cannot be generalized due to differences in governance, economic and institutional infrastructure.
8 CAVEATS AND FUTURE RESEARCH

This study has certain limitations many of which indicate suggestion for future research. First limitation is related to the sample of the study. The hand collected data certainly is a representation of a population but a sample of 50 is small for the purpose of statistical analysis. The study suggests for future research that take large sample of dataset for statistical analysis. Secondly, unlike few other studies, this study did not control for reverse causality. In future research, the two-way causality of relationship between gender diversity and financial firm performance needs to be demonstrated adequately. Thirdly, in terms of statistical analysis, this study relied on conventional approach such as OLS regression analysis. Future studies need to use survey and case study methods in addition to statistical analysis so that to get a closer insight of executives’ characteristics and background.
REFERENCES


