

**CORPORATE SUSTAINABILITY AND GENDER
DIVERSITY: A STUDY OF WOMEN ON BOARD
OF DIRECTORS OF INDIAN COMPANIES**

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DECLARATION

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ABSTRACT

‘Corporate Sustainability and Gender Diversity: A Study of Women on Board of Directors of Indian Companies’ has been undertaken to examine the two most debated contemporary issues in business, namely ‘Corporate Sustainability’ and ‘Gender Diversity’ in corporate leadership positions. The study has contributed to the field of research in these areas by presenting the status quo on sustainability disclosure practices and the representation of women on corporate boards of Indian listed companies, and by examining the relationship between the two. It has also attempted to decipher the decision makers’, the Directors, perceptions on what drives corporate sustainability and what impedes the appointment of women on boards of directors. In examining the perceptions of directors on the role women can play to promote the cause of sustainability and the value or benefits they bring on board, this study has presented a strong business case for appointing more women on corporate boards.

This study has been undertaken at a time when the whole world is witnessing the adverse effects of environmental pollution and climate change. The growth of population is placing unprecedented demands on the natural resources leading to competition for resources. Economic disparity, poverty and inequality are challenges that the world is battling with even in the 21st century. Gender inequity and discrimination in society as well as the workplace is posing another serious threat to the principle of equal rights and opportunities. Although some research on Indian companies has been conducted in the past, to separately examine the status of disclosure practices in Corporate Governance and Corporate Social Responsibility, the concept of corporate sustainability has still not been well researched. The foundations of sustainability lie in the business’ sensitivity and openness towards a new model that integrates environmental and societal needs and concerns with its bottom-line. This study has comprehensively and simultaneously examined the performance of a company on all the dimensions of sustainability – economic, environmental and social. It has achieved this by devising an objective mechanism and an instrument or index that can assess and analyze a company’s impacts and contribution to the environment and society

through its disclosures in quantitative as well as qualitative terms. Given the long term nature of sustainability, a longitudinal study over a period of six financial years i.e. from 2006-2007 to 2011-2012 has been undertaken for a useful and complete analysis.

Literature provides evidence that the Boards of Directors are the key internal drivers of sustainability. Prior research has also presented some evidence in favour of putting more women on boards highlighting the intangible as well as tangible benefits women presence on boards can bring to organizations. Gender diversity on boards has been found to encourage board members to be more focused on the ethical underpinnings of sustainability and the long term goals ultimately impacting the performance of companies. However, past empirical studies in this regard have been mainly restricted to data from Norway and other Scandinavian countries, Australia, US and UK. Similar research studies on board diversity in Asian and particularly Indian context are virtually non-existent, a gap to which this study responds.

In concurrence with the assumption that sustainability requires a change in mindset, this research has analyzed the perceptions of directors about the presence and contribution of women on the Board of Directors and Corporate Sustainability. Even though some director perception surveys have been undertaken around the world in the past, such surveys, in the Indian context are a rarity. In the past some researchers have limited such surveys to a single gender in the form of either all male surveys or all female surveys, thereby not providing the complete picture and limiting thorough analysis of the problem under investigation. This study has overcome these limitations and gaps through its Directors' Perception survey with both men and women directors as its respondents.

To achieve the first three objectives of the study, a sample of companies listed on the BSE500 index were originally selected. The final sample of 185 companies belonging to 19 sectors was derived after eliminating companies that were acquired or merged, delisted, liquidated or naturally replaced by the end of financial year 2011-12 and for which annual reports were not available. The Finance sector makes up the largest group of companies, followed closely by

industries such as Healthcare, Capital Goods and Transport equipments. All sample companies were later classified under two broad categories of 'High Profile' (HP) and 'Low profile' (LP) industries.

Content analysis of annual reports was used to analyze the sustainability disclosure practices. A Corporate Sustainability Index (CSI) along with decision rules was developed to measure the extent and quality of a company's sensitivity towards societal issues, its environmental concern and the overall corporate sustainability disclosures. The CSI comprised 80 items or indicators and used a system of variable scores for different items to overcome the drawback of superficial and forced definition of a score on any item of the index. The CSI produced robust results on inter – rater reliability and internal consistency tests.

To achieve the fourth objective of the study, a census of all the women on boards of BSE500 companies was taken followed by a randomly drawn sample of an equal number of male directors. A final sample of 300 respondents was selected for administering the Directors' Perception survey comprising 20 questions finalized after pretesting. The same questionnaire was used for soliciting responses of men as well as women directors primarily on two aspects or categories: i) their understanding of corporate sustainability and ii) their perceptions about representation of women on boards. As part of analysis of gender diversity on boards, four scales were created such that each one represented and measured one factor or aspect that influenced and explained the status of representation of women on boards of directors. These scales were named as – Qualifications, Skills & Competence, Opportunities, Stereotypes and Board Conduct. Each of the four scales produced robust results on internal consistency test - Cronbach's alpha.

Multiple analytical techniques were used to find answers to the research questions. Specific to the type of data and the hypothesis to be tested, appropriate techniques were employed. Descriptive statistics such as frequency distribution tables and percentage, mean, cross tabulation etc. were used for preliminary and basic level analysis of responses to the survey. Comparisons of means were done between companies with High Corporate Sustainability Score (CSS) and Low CSS, and between companies with no women on boards and companies with more

than one woman on their boards. Student's t-test was used for this purpose. ANOVA was also used to evaluate the differences in the perceptions of men and women directors regarding the factors that promote and inhibit the representation of women on boards. Chi-Square and the Fisher's Exact tests were used to analyze responses on multiple questions using categorical and ordinal scales, in the perception survey to see if there was a significant difference between men and women directors. Time Series Linear Trend analysis was used for forecasting the future women on boards of directors. Correlation and 2-Stage Least Square (2SLS) method regressions models were used to test the relationship between various identified variables.

Objective one of this study was achieved by analyzing the Corporate Sustainability Index Scores of the sample companies over the period of the study. The preliminary analysis showed that only 41 per cent of total sample companies had average CS scores higher than the sample average. It was further analyzed that only 15 per cent and 6 per cent of sample companies participated in voluntary sustainability disclosure initiatives of UNGC and GRI respectively. This supported the assumption about the unsatisfactory performance of the companies on the sustainability disclosures in their annual reports. It was found that CS scores significantly varied across sectors and size of the companies. However, the variations in CS Scores between old and young companies were statistically insignificant.

Objective two of the study was accomplished by analyzing the data of women on boards of directors of sample companies over the period of the study. The preliminary analysis of the data gathered from annual reports showed that women made up just 5% of all directors on the sample and as many as 112 (60.6%) companies had no representation of women at all on their boards. Only half a percent (0.59%) companies had more than three women on their boards. The results of projections for status of women on boards in future highlighted that, *ceteris paribus*, at the current rate of growth in number of women on corporate boards, it will take Indian companies 130 more years to reach where Norway is today with 40% women on boards and almost one and a half century (166years) to achieve gender equity on boards of its listed companies. It was further found that

approximately 50% of women on boards of the 185 sample companies were independent directors chosen on board for their expertise and experience rather than the much prevalent notion of women directors gaining entry into boardrooms by virtue of their family ties. A majority 84% of women directors held single directorships. A reasonably good percentage of women directors were active contributors as Board or Committee Chairs (23%) and members (47%). No significant differences between gender diversity on boards of companies and their sector classification were found. The results of comparison of means showed that the companies with two or more women on their boards were significantly bigger in terms of total assets, market capitalization and net sales as compared to companies with no women on their boards. However, no significant differences were found between the two groups of companies with respect to company age.

Towards the accomplishment of objective three, to examine the relationship between gender diversity on boards and the economic, social and environmental performance of companies, two stage least square (2SLS) regression method was used. After controlling for sector classification, size, age, surplus resources, board size and board independence, no statistically significant relationship between the representation of women on boards of companies and their economic, social and environmental performance was found. This indicates that gender diversity on boards, in its current state in the sample companies, does not contribute towards prediction of the corporate sustainability performance dimensions. The statistically insignificant estimates of gender diversity in the models may point towards a general lack of value addition by women on boards towards a company's performance, but at the same time can be taken as an indication of the prevalence of 'tokenism' in the appointment of women directors on boards of directors of companies.

The analysis of the responses to the Directors' Perception Survey, objective four of the study, found that men had a higher response rate as compared to women. Majority of both gender respondents were 'Independent' directors. Women were relatively younger and less experienced than their male counterparts. There was similarity or likeness between men and women respondents in terms of their educational backgrounds, annual incomes and their value systems.

With respect to the analysis on Corporate Sustainability dimensions of the survey, only a moderate awareness of the concept of Triple Bottom Line (TBL) was found amongst the respondents. Although 'Management of a Company' emerged overall as the most important driver of corporate sustainability, the women gave higher importance to 'Public and Media'. 'Governance' was widely accepted as the major sustainability issue confronting organizations followed by 'Energy use' and 'Environmental Quality'. It was also interesting to find that the companies on which female respondents were serving as directors were more likely to have separate CSR committees as compared to companies on which male respondents were serving. Although prior literature produces evidence that women generally tend to be more ethical and conscious to the needs of all stakeholders and are more involved in CSR and similar activities, the analysis of the respondents' involvement in crucial decisions on the board produced different results. No significant difference was found between men and women directors' involvement in decisions regarding Corporate Donations & Ethics, Customer Service, Human Resources and Public Relations. Towards the goal of Corporate Sustainability, Innovation, Corporate Reputation, Quality Management Systems and Employment trends, featured more frequently as parts of board agenda, while Gender issues emerged as the most ignored and neglected sustainability issue.

Perceptions of men and women regarding the adequacy of representation of women on boards were found to vary significantly, with higher percentage of women as compared to men feeling women are underrepresented. Qualifications, skills and competence that women bring on board was recognized as a factor promoting the case of gender diversity as women add value to the boards' proceedings as well as performance of the organization. On the other hand the prevalence of stereotypes and biases against women in the organizations was perceived as an inhibitor to women's representation on boards. The women respondents exhibited a higher level of 'Dissatisfaction' with the opportunities and the discretion they have to do creative work. Although most of the respondents felt their companies lacked processes to attract and retain female talent, there was not much support for quotas or reservations for women directors. This was of particular significance in the light of the current corporate regulatory

environment where the new Companies Act 2013 has mandated appointment of at least one women director on boards of specific companies.

The Corporate Sustainability disclosure practices adopted by Indian companies are far from satisfactory. A similar conclusion can be drawn from Indian companies' adoption of international sustainability reporting initiatives like GRI and UNGC. Also, in India, women are found to be highly underrepresented on boards of directors of companies. There is a general perception that enough is not being done to attract and retain the talented women. In this context, the call for efforts in the direction of increasing awareness about corporate sustainability and gender diversity are imperative. Businesses need to make sustainability the very core of their operations. Systems and processes for assessing and managing the impacts of business activities on the society and the environment have become critical for success and long term sustainability. There is also an urgent need to have systems and internal processes in place to create opportunities for women and to develop a pipeline of women talent, to get women ready for board positions. Companies can improve gender diversity on their boards by adopting measures like employing 'head hunters' to fill board positions and providing equal opportunities to women for presenting themselves for board service, organizing diversity trainings to sensitize people to the need, importance and the ways of tackling diversity, stereotypes and discrimination. Mandatory sustainability disclosure requirements and quotas for women directors may seem to be an initial solution to the problem, but it will only be through change in mindsets and change in culture, that organizations will truly become sustainable.

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Dated:

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TABLE OF CONTENTS

Chapter	Title	Page No.
1	Introduction	1 - 15
2	Review of Literature	16 – 43
3	Research Methodology	44 – 77
4	Corporate Sustainability Disclosures Practices and Gender Diversity on Boards of Directors	78 – 106
5	Relationship between Women on Boards and Corporate Sustainability	107 – 127
6	Perceptions of Directors	128 – 182
7	Summary and Conclusions	183 – 207
	Bibliography	208 – 223

Appendices

I	List of Sample Companies
II	Directors' Perception Survey Questionnaire
III	Corporate Sustainability Index (CSI)
IV	Comparison of CSI with other Sustainability Frameworks
V	List of Publications
	i. Gender Diversity on Corporate Boards: A Case of India
	ii. Corporate Sustainability Disclosure Practices of Indian Companies: An Empirical Analysis
VI	List of conferences and workshops
	i. AIMA's 6 th National Conference on 'Developing Women Business Leaders: An Agenda for Action'.
	ii. PCMA – SMS 7 th International Conference on 'New Paradigms in Management Theory and Practice'.

LIST OF TABLES

Table No.	Title	Page No.
3.1	Structure of Corporate Sustainability Index (CSI)	58
3.2	Summary of Analytical Framework of the study	68-71
4.1	Descriptive Statistics of Sample Companies	79
4.2	Indian companies: Membership of UNGC and adoption of GRI reporting guidelines	81
4.3	Summary descriptive statistics of Sustainability Scores	82
4.4	Comparison of Sustainability scores across 19 sectors	83-84
4.5	Comparison of Sustainability scores in Low and High profile sectors	85
4.6	Homogeneity of Variances	86
4.7	ANOVA - CSS and Sector classification	86
4.8	Multiple Comparisons	87
4.9	Comparison of Means for companies with High and Low CSS with respect to Company Size and Age	89
4.10	Comparison of Means for companies with High and Low CSS with respect to Performance measures	90
4.11	Status of Directors	92
4.12	Sector-wise percentage of companies with Women on Boards	97
4.13	ANOVA – Gender diversity on boards and Sector classification	99
4.14	Comparison of Means for companies with no Women on Boards and with Women on Boards with respect to Company Size and Age	100
4.15	Comparison of Means for companies with no Women on Boards and with Women on Boards with respect to performance of companies	101
4.16	Projections of Women on Boards till 2021-22 (in numbers)	102

Table No.	Title	Page No.
5.1	Descriptive Statistics of all variables	109
5.2	Correlation Matrix for Independent and Control Variables	110
5.3	Correlation Matrix for all variables used in H0 ₇	112
5.4	Correlation Matrix for all variables used in H0 ₈ and H0 ₉	114
5.5	2SLS estimates of relationship between gender diversity on boards of directors and economic performance measured by ROA	115
5.6	2SLS estimates of relationship between gender diversity on boards of directors and economic performance measured by ROE	117-118
5.7	2SLS estimates of relationship between gender diversity on boards of directors and economic performance measured by MBV	119
5.8	2SLS estimates of relationship between gender diversity on boards of directors and Social Involvement	122
5.9	2SLS estimates of relationship between gender diversity on boards of directors and environmental concern	123-124
6.1	Distribution of respondents by age and gender	133
6.2	Chi-Square Test for Awareness of TBL and Gender	137
6.3	Chi-Square and Fisher's Exact test Q4 with gender	138
6.4	Cross tabulation of Awareness of TBL – Better positioning due to CS (counts)	139
6.5	Chi-Square & Fisher's Tests for association between Awareness of TBL – Better positioning due to CS	139
6.6	Gender wise Cross tabulation of Awareness of TBL – Better positioning due to CS (counts)	140
6.7	Chi-Square Tests for Association between Gender, Awareness of TBL and Better positioning due to CS	140
6.8	Drivers of Sustainability	141

Table No.	Title	Page No.
6.9	Gender wise Cross tabulation of Awareness of TBL and Drivers of CS (Counts)	142
6.10	Chi-Square Tests for Association between Gender, Awareness of TBL and Drivers of CS	142
6.11	Sustainability issues companies are most committed to (Multiple response summary data table)	143
6.12	Chi-Square Tests for Association between Gender and Existence of separate CSR committee	145
6.13	Existence of a separate CSR committee and Code of Conduct	145
6.14	Cross tabulation of responses on Separate CSR committee and Code of conduct (count)	146
6.15	Chi-Square Tests for Association between Separate CSR committee and Code of conduct	146
6.16	Frequency on which sustainability agenda gets discussed in boardroom	150
6.17	Extent of Involvement in Strategic Decisions – Percentages and association with gender	153
6.18	Chi-Square Result table for Board Diversity statements with Gender	157
6.19	Cross tabulation of responses (counts) on Mix of professionals is adequate and Women are not adequately represented on Boards	158
6.20	Perceptions about Adequacy of Diversity on Corporate Boards	158
6.21	Chi-Square Tests for association between adequacy of diversity of experiences & backgrounds and gender diversity on corporate boards	159
6.22	Responses on Opportunities available for women for acquiring board positions	162
6.23	Responses on Board Conduct	166

Table No.	Title	Page No.
6.24	Descriptive Statistics of the four Sub-scales and the Overall Scale	166
6.25	ANOVA results for H ₀₁₃ -H ₀₁₇	168
6.26	Satisfaction on the way Companies operate, Discretion to deal with problems & opportunities to do creative work	169
6.27	Chi-Square Tests of Association of Q15 (i-iii) with Gender	171
6.28	Cross tabulation of responses (counts) on whether Enough is being done for women and whether there should be Quotas for Women	174
6.29	Chi-Square and Fisher's Exact test results for training programmes for women across gender of respondents	178

LIST OF FIGURES

Figure No.	Title	Page No.
1.1	Carroll's CSR Pyramid	4
1.2	Timeline of important events in the evolution of Corporate Sustainability	8
1.3	Global Framework of Principles, Guidelines, Standards and Tools for Sustainability	7
1.4	Role of Board and CSR Committee	11
1.5	India's leaking pipeline	14
2.1	Model of Sustainable Development	20
2.2	Conceptualization of Sustainability	21
2.3	Sustainability Value Framework	29
2.4	Linking Gender Diversity on the BODs and Sustainability	35
3.1	Model to test Hypothesis H ₀₇ , H ₀₈ and H ₀₉	72
4.1	Sector classification of sample companies	78
4.2	Sector wise Corporate Sustainability disclosure scores	84
4.3	Sustainability scores in Low and High profile sectors	86
4.4	Companies with at least one woman on their boards	93
4.5	Status of Women on Boards of Companies with Five or More Independent Directors	94
4.6	Number of Directorships Held By Women	94
4.7	Percentage of Women MDs / CEOs	95
4.8	Status of Chairpersonships and Memberships held by Women Directors	95
4.9	Type of Committees in which women were chairpersons and members	96
4.10	Sector-wise percentage of total women on boards	98
4.11	Future Tend of Women on Board	103
6.1	Gender wise distribution of respondents	130
6.2	Type of Directorships	131
6.3	Experience and percentage of respondent directors	132
6.4	Age Distribution - percentage respondents	133

Figure No.	Title	Page No.
6.5	Qualification - Number of Men & Women	134
6.6	Annual Income distribution shown as number of respondents in each category	135
6.7	Principles that Directors hold dear	136
6.8	Level of awareness of the concept of Triple Bottom Line (TBL)	137
6.9	Engaging in sustainable activities help companies better position themselves in the eyes of the stakeholders	138
6.10	Separate CSR committee in companies on which the respondents were serving as directors	144
6.11	Frequency on which sustainability agenda gets discussed in boardroom	148
6.12	Extent of Involvement in Strategic Decisions	151
6.13	Adequacy of diversity of experience and backgrounds on corporate Boards	156
6.14	Adequacy of Gender diversity on corporate boards	157
6.15	Responses on QSC subscale regarding Contribution of Women's Qualifications, Skills & Competencies / Benefits of Gender Diversity on Boards	160
6.16	Responses on subscale regarding existence of Stereotypes against women	165
6.17	Satisfaction on the way company operates	169
6.18	Satisfaction on the Discretion to deal with problems	170
6.19	Satisfaction on the Opportunities to do creative work	170
6.20	Company has internal processes to create opportunities for women	172
6.21	Enough is being done to attract and retain women on boards	172
6.22	Responses to 'Should there by quotas or reservations for women on boards?'	173
6.23	Percentage responses on the most important method for increasing the representation of Women on Boards of Directors	175
6.24	Percentage responses on the kind of training that would help women acquire board positions	177

CHAPTER 1

INTRODUCTION

India has made progress at a phenomenal pace over the last few decades in the fields of education, health services, infrastructure, business and technology. The world has witnessed India's robustness and resilience that could see it through one of the world's worst financial crisis of 2008. At the same time economic development and progress in India has been lopsided on many counts characterised by an unequal creation and distribution of wealth and economic benefits amongst regions, sectors and people. India is still fighting some challenges dating back to the pre-independence or British India, such as the population explosion, poverty and inequality. The fast growth and surge of economic activities and progress over the past few decades has also posed other serious challenges that are affecting the very existence of the Indian race in the long term. An increase in industrial units, vehicles on roads, modernization and urbanization are leading to harmful effects on not only the environment but also the social system. Pollution, deforestation, erosion and contamination of the soil and water table, global warming and climate change, degradation in the natural ecosystem is proving harmful to the industry as well as society. They pose severe sustainability challenges that need to be addressed collectively.

'Sustainability' is an integral part of the Indian ethos. The Gandhian philosophy of simple living in harmony with nature and community engagement, the 'Chipko' movement of the 1970s against deforestation, alternative 'green' energy projects, emphasis on environmental education in schools and institutes of higher education are only a few examples of Indians' consciousness, care and commitment to sustainability issues. The Indian corporate sector shares this concern by engaging in innovations, developing environment friendly technologies, products and processes, maintaining diversity and equity at work, and actively engaging with the community through developmental projects. The government and regulators are also acknowledging ecological and socio-cultural issues as primary concerns while bringing out policies and legislations for corporate. The latest Companies Act 2013 is an attempt in the direction of making

Indian companies conscious of their responsibilities towards larger sustainability issues.

In this scenario, the focus, in the workplace, is tilting towards a more inclusive and collaborative model of growth and development which values engagement of all stakeholders in safeguarding their larger common interests. A comprehensive, objective and transformational approach, characteristic of feminine style of management, to find solutions to sustainability challenges may be helpful. This makes the current focus on gender diversity, in the context of sustainability, imperative.

This research investigates the status of corporate sustainability and gender diversity in Indian companies. It carries out an extensive content analysis of the annual reports to understand and evaluate the extent and quality of sustainability disclosures. In support of the existing literature, which emphasizes the important role of corporate leadership and the board of directors in driving the culture of sustainability in an organization, this study attempts to understand and decipher the implications of gender diversity on boards of directors on sustainability dimensions.

The subsequent sections of this chapter give an overview of the evolution of the concept of corporate sustainability along with some important milestones, the existing frameworks of guidelines and principles of sustainability in the global and Indian context and examine the importance and role that women in the organizations can play in taking the agenda of sustainability forward. This will help in putting things in perspective from the sustainability point of view.

EVOLUTION OF THE CONCEPT OF CORPORATE SUSTAINABILITY

The term ‘Corporate Sustainability’ is shrouded by a certain degree of ambiguity. One of the reasons for this is the existence or prevalence of the concepts like Corporate Governance (CG) and Corporate Social Responsibility (CSR). These seemingly synonymous, yet distinctive fundamental concepts emerged as responses to some critical events in business and have matured over the years.

Still, some scholars may argue that these almost create parallel worlds. Although it is not within the scope of this research to study in detail the interrelation - similarities or differences between these concepts, the key points in the evolution of these concepts have been briefly discussed and presented below to clearly define the context in which the term ‘corporate sustainability’ is used throughout this thesis.

Definitions

Corporate Governance: Corporate Governance may be defined as the set of rules according to which a company is managed. The main purpose of corporate governance is to define a relationship between those who own it and those who manage it. It lays down the principles which control the interface and dealings between the company’s owners and all other persons directly affected by the activities of the company. The objective of corporate governance is to create value for all the stakeholders and to promote transparency / openness, integrity and accountability.

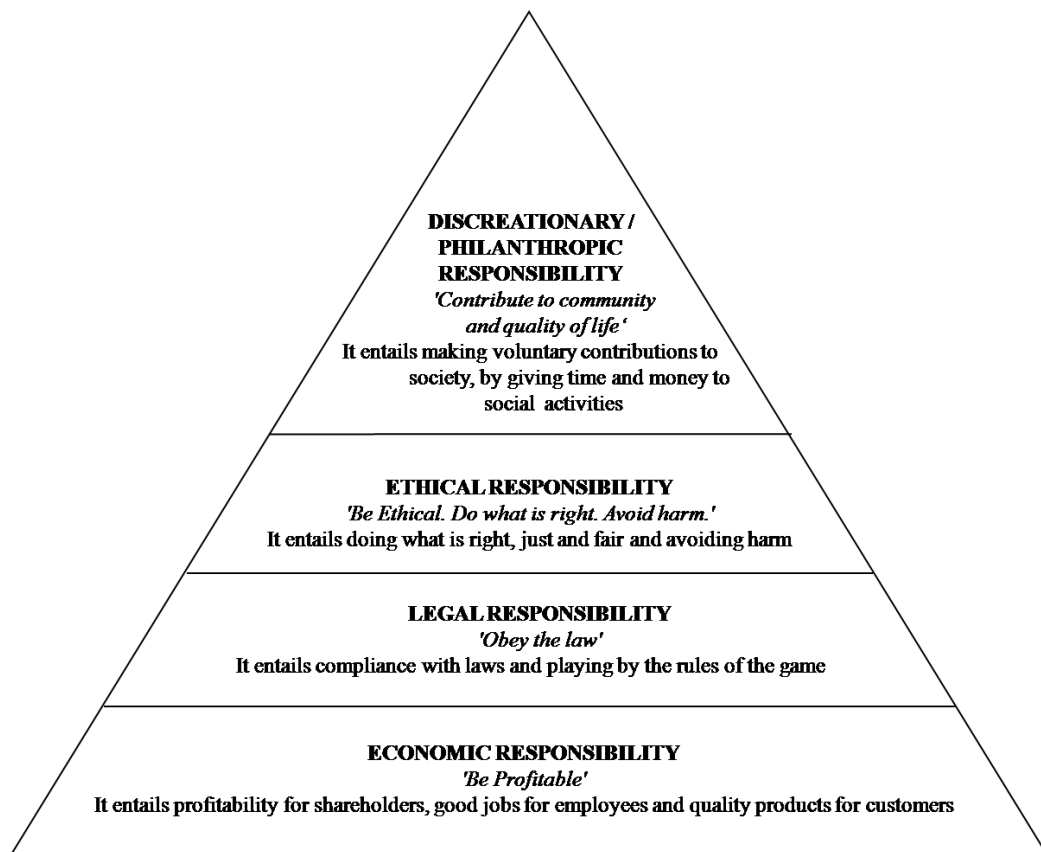
The idea and need of corporate governance started taking shape in the early 19th century, which saw dramatic changes in the global economic landscape with the emergence of the large scale corporation (White, 2007). 1960s - 70s witnessed the introduction of key initiatives and changes in the way the modern businesses were governed and may be regarded as the modern era of corporate governance. However, in India the corporate governance initiatives picked up steam only after 1991’s liberalization. The CII’s voluntary code on corporate governance in 1998 can be seen as the first formal effort in the direction of bringing about reforms in the way Indian corporations were governed.

A company which is responsive to stakeholders’ requests for information, has a majority of outside and independent directors with formal mechanisms of criteria based selection; performance appraisal and remuneration of directors are some key features generally reflective of a well governed company.

Corporate Social Responsibility (CSR): Different authors have defined CSR differently. Corporate Social Responsibility (CSR) is defined by WBCSD as “the continuing commitment by business to contribute to economic development while

improving the quality of life of the workforce and their families as well as of the community and society at large” (WBCSD, 2003). Figure 1.1 gives a graphic description of the most widely accepted and referred conceptualization of CSR given by Carroll. Carroll categorized CSR into four layers – economic, legal, ethical and discretionary responsibilities and presented the CSR model as a pyramid (Carroll, 1991). CSR is generally interpreted as voluntary philanthropic activities such as donations and contributions made by companies for social activities. Many organizations view CSR as an additional activity to their core operations and lack the formal systems to report such activities.

Figure 1.1: Carroll’s CSR Pyramid



Source: Carroll, A. B. (1991).

The conceptualization of these two concepts resulted in what may be called as a ‘role neurosis’ (Mason & Mahony, 2007) in modern business, where a manager or director is faced with some seemingly irreconcilable objectives. At one moment he/she is compelled to act as a guardian of shareholders’ interests in ensuring highest economic returns and at the very next expected to act as a citizen and

ensure the social and environmental responsibility of business is met. Contrary to this notion of conflict and contradiction, ‘What is good for business should also be good for the environment and the society’ formed the basis for the evolution of the concept of corporate sustainability.

Corporate Sustainability: Corporate sustainability emerged as a business paradigm challenging the established traditional growth and profit maximization models. The most widely accepted definition of sustainability has been given in the Brundtland Commission Report as “meeting the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987). Corporate Sustainability refers to the contribution of companies towards sustainable development through integration of social and environmental concerns in their strategies, with a long term perspective, leading to economic progress. It is mainly concerned with recognizing and managing the impacts that a company’s activities have on the environment and society. Although sustainability issues are relevant and important for all types of organizations, a ‘one-size-fits-all’ approach does not generally work for sustainability reporting (WBCSD, 2003, p. 7) with every company deciding its own approach of reporting its positive as well as negative impacts.

Despite the logical progression and maturation of all these three concepts on the evolutionary path over the years, some authors argue their case that CSR and Corporate Sustainability are synonymous and that the latter concept has emerged just to soften the too much focus on ‘Social’ aspects emphasized by CSR.

Similarities and Differences between CG, CSR and Corporate Sustainability

All the three concepts highlight the ethical responsibilities of companies towards their stakeholders, including the society and the environment and they promise important benefits – both financial and non-financial arising from their adoption.

Good governance mechanisms have been known to reconcile the diverse needs and interests of the owners, managers and all other stakeholders of the organization, including the financiers, investors, customers and society and instill confidence in the organization (OECD, 1999; World Bank, 1999; Ho, 2005). Ho (2005) also finds evidence that good governance improves an organization’s

competitiveness and performance. This benefit transcends across regions and sectors. CSR in turn reinforces and strengthens relationships with stakeholders, thereby safeguarding the company's long term interests and ensuring sustainable growth in the future (Knox & Maklan, 2004). Hancock (2005) argues that CSR plays a crucial role in determining the profitability of a company. The commitment of a company towards ethical conduct and practices has resulted in improved financial performance. Companies actively engaging in CSR activities avoid expensive litigation and provide higher returns to investors (Hancock, 2005) as well as enhance their brand image and reputation (Beardsell, 2008) making them sound and attractive business enterprises. In this respect, CSR may be considered as an extended model of corporate governance with a more voluntary approach towards socially relevant activities. By anticipating and managing potentially adverse impacts on people and the environment as advocated by corporate sustainability, companies would be able to address risks – both, tangible and reputational. Business opportunities would increase opening and broadening access to markets, thereby increasing shareholder value.

Despite these similarities and common benefits, there exist some distinct differences between these concepts. Sparkes (2003) emphasizes that companies today are not only evaluated on their products and services and the profits they make but by the way in which they make them. So, if in CSR a company focuses on what it should do with its profits after they are made, in Corporate Sustainability it focuses more on how the profits should be made e.g. by bringing efficiencies and reducing costs, cutting down on waste and pollution, innovations in technologies and processes. The concept of Corporate Sustainability is long term in its scope and strongly advocates participation, engagement and collaboration with stakeholders. The economic issues which are overlooked in CSR form one vital dimension of corporate sustainability. Good governance encourages full disclosure and transparency, creating a strong connection between a corporate's social responsibility and its sustainability. This supports the argument that these concepts are a part of a continuum or stages which have evolved over the years. Corporate Governance and CSR maybe called the alter-egos of sustainability, representing only one dimension of Corporate

Sustainability. For the purpose of this research, corporate sustainability is believed to encompass good governance and CSR practices.

Figure 1.2 (on page no. 8) presents in detail the important events in the evolution of corporate sustainability in the form of a timeline starting from the early 1960s up to 2013.

Framework of principles and guidelines on sustainability

Various global voluntary initiatives have been taken over the last three to four decades that provide a comprehensive framework of principles, guidelines, standards and tools for sustainability. Some of the major initiatives are depicted in Figure 1.3.

Figure 1.3: Global Framework of Principles, Guidelines, Standards and Tools for Sustainability

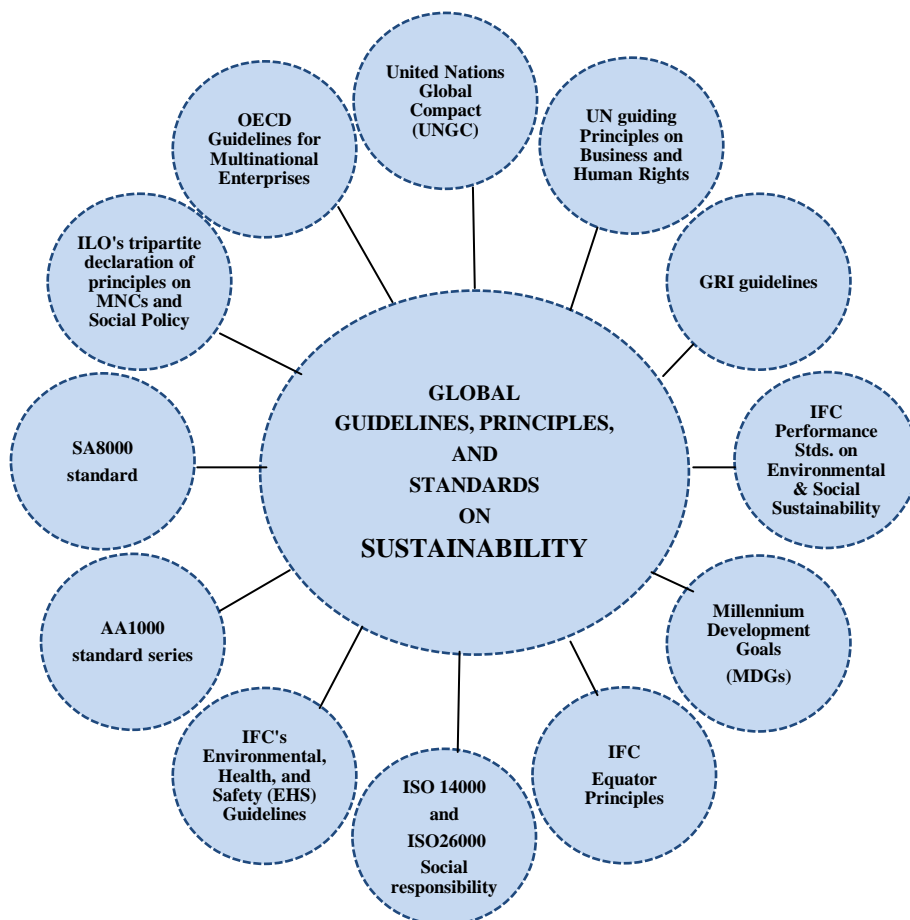
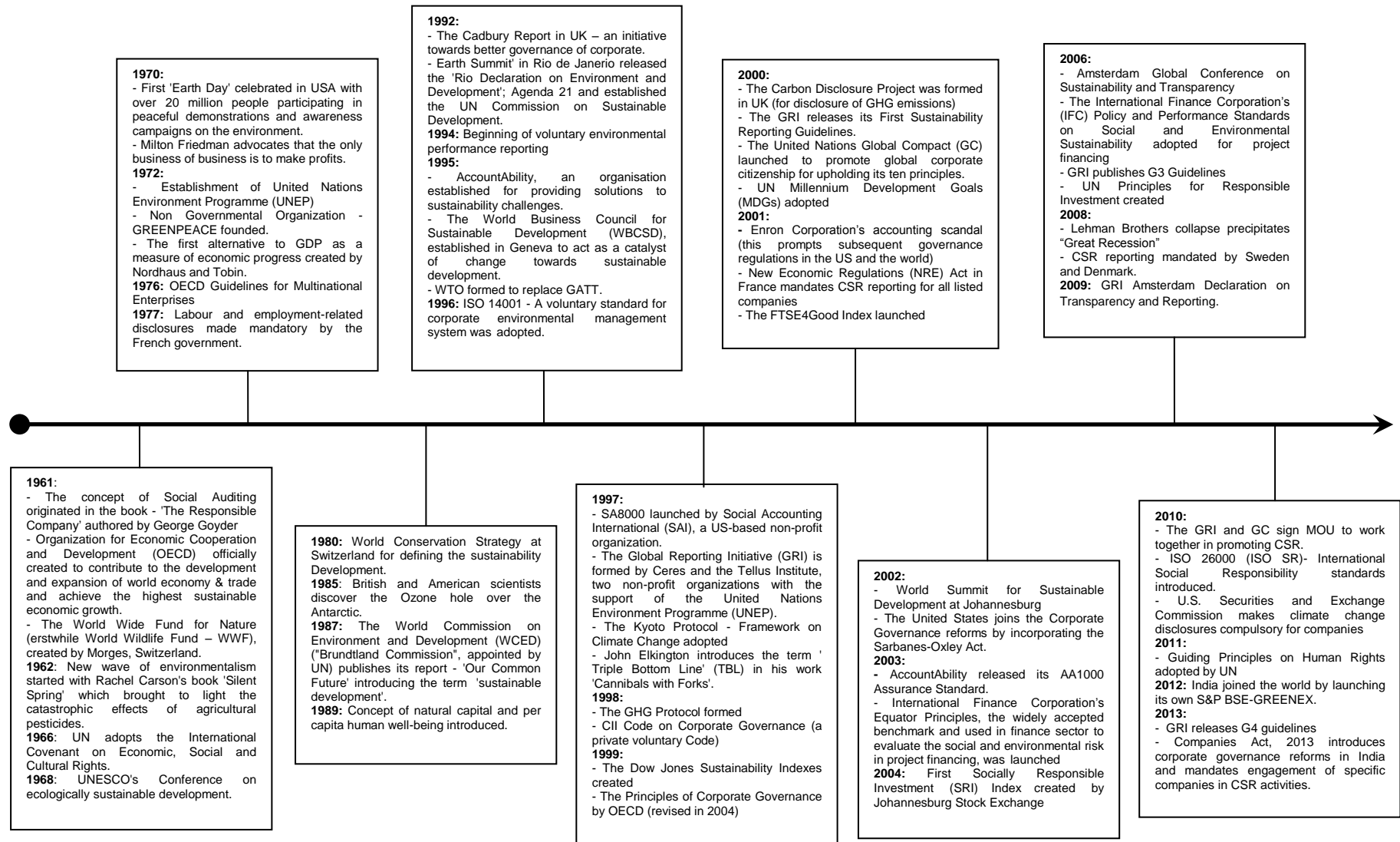


Figure 1.2: Timeline of important events in the evolution of Corporate Sustainability



Most of these initiatives place the following underlying core values and principles as their very foundation:

1. Accountability and Transparency
2. Respect and protection of human rights
3. Respect for stakeholder interests
4. Respect for Law
5. Inclusivity – stakeholders participation in development of strategies
6. Environmental responsibility and sustainability
7. Equity and justice - especially equal rights and opportunities for women and abolition of child labour
8. Community involvement and development
9. Eradication of poverty and hunger
10. Improvement in education and health
11. Ethical and anti-corruption practices
12. Collaboration and building strong networks

India has also attempted to respond to challenges posed by the rapidly changing ecological, political and business environment. Although India has some basic regulatory framework especially for environmental protection, adoption of most of the sustainability codes and guidelines for corporations are purely voluntary in nature. Indian environmental laws were enacted in the early 1970s as an outcome of deliberations in the United Nations Conference on Human Environment. The catastrophic Bhopal Gas Tragedy in 1984 triggered the enactment of the Environment Protection Act. The Biological Diversity Act was enacted in 2002 in support of the Earth Summit' and the 'Rio Declaration on Environment and Development' in 1992. Some of the other regulatory frameworks in support of environment protection and conservation include the Energy Conservation Act 2001 and the National Tariff Policy 2006 which makes it mandatory for corporations to purchase or generate a certain proportion of its energy consumption from renewable energy sources. Clause 49 of SEBI's listing agreement was incorporated to ensure adherence to governance standards by listed companies. In addition to this various guidelines and directives are issued by the Government of India, Ministry of Corporate Affairs on issues like human rights,

abolition of child labour and discrimination, anti-corruption and fair practices etc. from time to time.

Besides the legal framework, various voluntary codes have been developed over years to guide the corporate in addressing sustainability concerns e.g. the Corporate Responsibility for Environmental Protection (CREP) proposed by the Central Pollution Control Board of India and voluntary initiatives taken by industry associations and chambers like CII and FICCI.

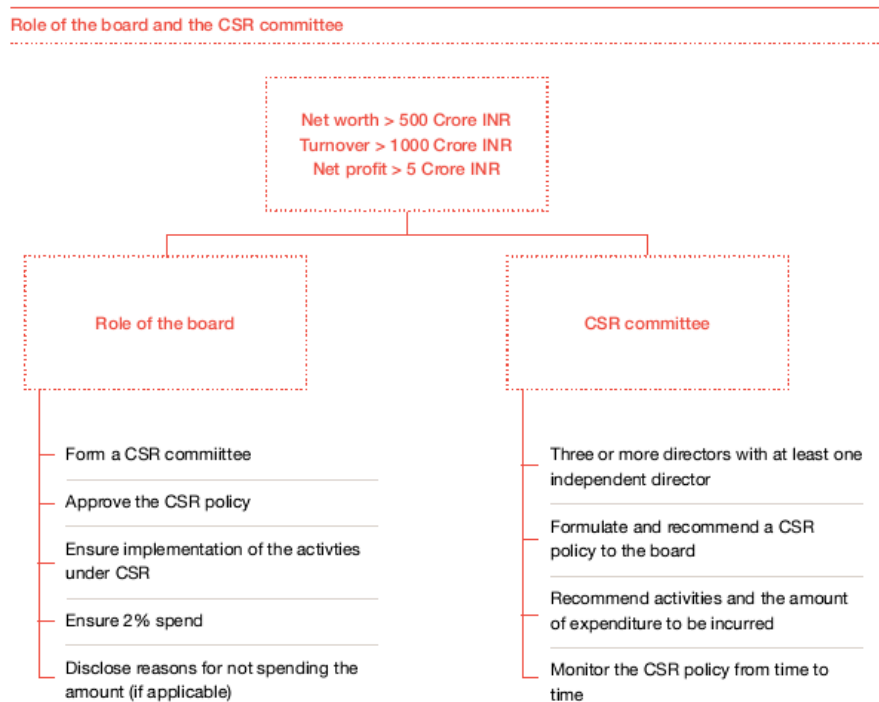
The latest Indian initiatives in this direction include the National Voluntary Guidelines on Social, Environmental and Economic Responsibilities released in 2011 by the Ministry of Corporate Affairs. These guidelines are applicable to both big and small businesses and provide them with detailed guidance on the critical aspects for a responsible and sustainable business by adopting the 'Triple bottom line' concept. The guidelines provide nine principles and 48 indicators relating to ethics and transparency, product life cycle, promotion of the interests of employees, stakeholder engagement and inclusion, respect and promote human rights, protect and restore environment, promotion of public and regulatory policy, equitable development and provide value to consumers.

The new Companies Act, 2013 was passed by the Parliament and notified on August 30, 2013. The key changes in this act with reference to the clauses relevant to governance, CSR and sustainability, extracted from Companies Act (2013) are discussed briefly as follows:

1. Clause 149 specific to Directors:
 - a. 1/3rd independent directors on boards of listed public companies (companies with paid up capital of 100 crore or more or Turnover of 300 crores or more)
 - b. Code of conduct laid down for Independent directors
 - c. At least one woman director on board (in the above specified companies)
 - d. At least one director on board who has stayed in India for not less than 182 days in the previous year (Resident Director).
 - e. Nominee directors not to be independent directors

- f. Only an Independent Director can be an alternate to an independent director.
 - g. Nomination and Remuneration Committee mandatory for specified companies.
 - h. Maximum number of directors on a board increased from 12 to 15.
 - i. Maximum number of directorships held by a director increased from 15 to 20 (out of which not more than 10 in Public companies including alternate directorships)
2. Clause 135 specific to CSR:
- a. Constitution of CSR Committee and CSR spending made compulsory for the companies with:
 - i. Net Worth of rupees 500 crore or more, or
 - ii. Turnover of rupees 1000 crore or more, or
 - iii. Net Profits of rupees 5 crore or more.
 - b. CSR Committee to have at least 3 directors with at least 1 being an independent director.
 - c. Mandatory CSR spending of 2% of average net profits of last 3 years

Figure 1.4 Role of the Board and CSR Committee



Source: PwC (2013) - PricewaterhouseCoopers.

The global and Indian sustainability frameworks offer prescriptions to governments and corporations to fight social and environmental challenges and perform in a sustainable manner (Doane, 2005). At the core of these prescriptions is the need to change mindsets and involve the top leadership and management in integrating sustainability principles in the core activities and processes of the organization. The leadership plays a vital role as they develop sustainability strategies and create a sustainability culture in their organizations. The board, thus, should be a major contributor in shaping the firm's sustainability strategy (White, 2006). In this context the debate on the transformative role of the Boards of Directors of companies is pertinent. This also brings into focus the composition of the ultimate decision making body – the Board of Directors, and the ideal mix of qualifications, talent, experience, attitude and temperament that would help create sustainable businesses. Diversity in general and gender diversity on boards in specific is being recognized as the key factor in determining an organization's commitment towards addressing sustainability issues.

WOMEN ON CORPORATE BOARDS AND SUSTAINABILITY

This section of the chapter briefly underlines how having more women on boards can help the cause of sustainability. The contributions made by women directors have been strongly supported in prior research and have been elaborated further in the next chapter. The status quo of women in India's workforce is also presented, as it serves as a breeding ground for women in leadership positions, in order to gain a better perspective on the representation of women on corporate boards.

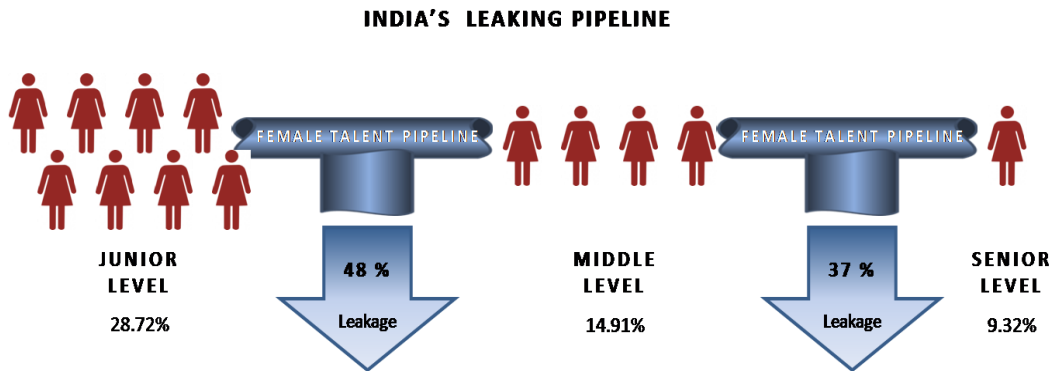
Gender diversity on Boards of Directors is one of the most important governance and sustainability challenges faced by corporations today (Singh et al., 2008). Empathy, emotionality and patience, traits that women so naturally possess, in addition to knowledge and competence could hold the key to gaining a better perspective and finding solutions to sustainability challenges of the modern world. The important role that women can play in tackling sustainability challenges is rooted deep in their biological and emotional being. They are a 'natural fit' as they have not only been bestowed the gift of giving life (they are the source of our future generations) but also the sensitivity required to sustain it. The basic

behavioural and emotional DNA of women generally makes them more conscious and supportive of the needs of others, a much needed trait for supporting the cause of sustainability. There is growing recognition and appreciation for a feministic transformational style/approach characterised by collaboration and participation, respect and trust that fosters open and effective communication. Women, by character, are known to be more sensitive, adaptable and flexible leaders, making them better suited for the fast changing global organizations of today. To further strengthen the case for promoting more women corporate leaders some previous studies have established a significant positive correlation between women leadership and financial performance of a company. Having qualified and liberal women in the work force in leadership roles as presidents, CEOs and valued members of the corporate ‘think tanks’ – the boards of directors would equip them with the power to influence and change the way things are done, in the way they ought to be done for the larger good of the organization and humanity. Despite this, there is a conspicuous absence of women on corporate boards. Although India can boast of a couple of dozen women CEOs, it does not compare favourably to the number of qualified women in the workforce.

In the context of the workforce in India, there is evidence that women represented nearly 26.1% of all rural and 13.8% of the urban workforce in 2009-2010 (Catalyst, 2012a). The representation of women in legislative, management, and senior official positions is even lower – a meagre 3%. The disparity is evident even in the pay structures / remuneration / compensation packages with women earning only 62% of men’s salaries for the same nature and amount of work (Catalyst, 2012a).

An inter-country comparison of women in the workforce of Asian countries conducted in 2011 shows India has the lowest (29%) compared to China (46%), Japan (42%) and Singapore (42%) (Francesco & Mahtani, 2011 - Gender Diversity Benchmark for Asia report). Figure 1.5 shows India’s leaking pipeline of female talent. The term ‘leaking pipeline’ is an analogy used to describe the decreasing number of women at different levels in an organisation (Francesco & Mahtani, 2011).

Figure 1.5: India's leaking pipeline
 (Adapted from Gender Diversity Benchmark for Asia 2011)



Figures based on - Gender Diversity Benchmark for Asia report (2011)

Figure 1.5 shows heaviest leak of 48.07% at the junior level. India ranks adversely at this level in comparison to China, where only 20.65% of women drop out of the workforce at the junior level. According to this report, in Asia, Hong Kong had the lowest drop out or leak of 13.79% at this level. India ranked second best in terms of losing only 37.49% women at the middle level as compared to Japan's 70.24%. Although this is an encouraging sign for women at the middle level management positions in India, it would not help the corporate enough as there would be fewer women at the middle level to mentor and promote to fill up senior level and leadership positions. This would definitely further adversely reflect on the presence of women on corporate boards.

The heavier leaks in the talent pipeline at junior level stage hint that Indian women tend to give up their careers at a young age probably due to family responsibilities. This also hints at certain issues the corporate might need to look into in terms of making their culture conducive to meet the needs of this segment of the talent pool and create opportunities for them to join back – a win - win situation for both. Other challenges faced by women like lack of ample opportunities and mentorship, stereotyping and bias, prevalence of discriminatory practices such as 'Glass Ceiling' and 'Glass Cliff', unfavourable work environment and culture, lack of technical knowledge or business acumen, tokenism etc. could also explain this dismal status of women. A further investigation into the current status of women in the workforce and especially at

the level of the board of directors is important. This study tries to accomplish this by studying the female representation on boards of the sample companies over a period of 6 years and also be carrying out a perception survey of both male and female directors to analyze the potential reasons for this status as well as to recommend where and what transformative changes need to be made.

This research was conducted to evaluate the status and association of corporate sustainability and gender diversity on boards of directors of listed companies in India. For a better understanding of the rationale and process adopted for conducting and the results of this research, this thesis has been organized into seven chapters. This chapter on introduction of the concepts of sustainability and gender diversity in the context of sustainability is followed by an elaborate presentation of literature review in Chapter 2 which presents the theoretical foundation for research. Chapter 3 presents the research design with strongly referenced methodologies used at various stages towards the accomplishment of the defined research objectives. It discusses in detail the process of sample selection, design and validation of instruments used for collection of data from multiple sources and the analytical tools used to test the hypothesis and accomplish the objectives of this research. The fourth chapter presents the findings on the status of corporate sustainability disclosure practices and the status of gender diversity on boards of directors of the sample companies over a period of six years. Chapter 5 investigates the association of women on boards with the three dimensions of corporate sustainability and other company characteristics.

One of the major objectives of this research was to understand the perception of men and women directors with reference to different aspects in the growing debate on gender diversity. The analysis and findings of the director perception survey carried out for this purpose are presented in chapter six.

Finally, chapter seven summarizes the findings and concludes the research and presenting the implications of the findings on corporate sustainability disclosure practices and gender diversity on boards of directors. It also discusses the limitations of the methodologies adopted in the study and presents a scope for future research in this area.

CHAPTER 2

REVIEW OF LITERATURE

“If I have seen further than others, it is by standing upon the shoulders of giants.”
-Isaac Newton

The existing literature on corporate sustainability and gender diversity, both in the global and Indian context, has been extensively referred in order to identify the research gaps and formalize the objectives and methodologies for this research. The review of literature has been focused on two main aspects of the research topic namely the conceptualization and measurement of corporate sustainability, and the role and contribution gender diverse boards can make to meet sustainability challenges. This chapter is organized in two sections, each devoted to address the above mentioned aspects. The elaborate literature reviewed for creating a corporate sustainability disclosure measurement index and appropriate analysis tools has been cited in detail in the relevant sections of the chapter on research methodology.

CONCEPTUALIZATION OF CORPORATE SUSTAINABILITY

Interest and concern for sustainability has grown tremendously over the last quarter of a century. It has been a widely debated topic in the academic and corporate circles. Extensive research on corporate governance, corporate social responsibility and corporate sustainability has now established that the activities of an organization deeply effect its external environment including the natural environment and the society. Therefore organizations today are accountable to a much wider audience as against the notions of accountability only towards their shareholders. This is a major shift from what Milton Friedman described as “the only business of a business is to make profits” assuming the responsibility of business only towards the shareholders, to the idea of being responsible to all the stakeholders such as the employees, customers, creditors, society etc. All stakeholders are not only directly or indirectly affected by the operations of a business but may have some amount of direct or indirect control over them.

A whole new idea of social and environmental performance, responsibility and accountability of a business, as a part of the larger social order around the world, has emerged. Many researchers have established that financial results and emphasis on the single bottom line of 'profits', is holding back even the large corporations from accepting their accountability towards the society and the environment. Gray et al. (1987) challenged the prevailing accounting practices as falling short of complete transparency, relevance, full disclosure and highlighted the need of a stakeholder approach to accounting which recognizes the wide stakeholder community. White (2007) emphasized the need to rewrite and redefine the 'contract' or relationship of commitment that exists between a company and its stakeholders which is based on trust of ensuring a sustainable and better future. According to White (2007), the purpose of a corporation, in a generic but flexible statement is "to harness private interests to serve the public interest".

Sustainability

The term 'Sustainability' is not free from controversies or confusions as divergent views on its meaning and scope exist. Significant efforts have been made to decipher what sustainability means in general and for a business organization in particular. The Brundtland Report may be taken as the first organized global attempt to address the issue of sustainability. The Commission was created by United Nations, with an objective of evaluating, creating awareness and addressing challenges posed by the rapid depletion of natural resources and degradation of the environment due to unabated and irresponsibly conducted commercial and economic activities. The Brundtland Report highlighted the harmful effects of such relentless activities on environment and social development. It presented a global framework for drafting policies for sustainable development. It defines sustainability, in what is known as the most acknowledged definitions, as "meeting present needs without compromising the ability of future generations to meet their own needs" (WCED, 1987). The underlying principle behind this definition of sustainability lies in the finiteness of the resources available in this world. So if any resource is relentlessly used in the present without any effort being made for its replenishment or replacement or

regeneration, it is bound to exhaust and become extinct and unavailable in future e.g. coal, oil etc. Alternatives will need to be adopted consciously and voluntarily in the present to preserve these resources or as a compulsion in the future when these resources become extinct, to fulfill a particular need necessitated by that resource. Sustainability advocates a controlled use of resources depending upon their regenerative powers also defined as the carrying capacity of the ecosystem (Hawken, 1993). This principle is equally applicable to nations, societies as well as corporations and individuals.

Traditionally, the term sustainability, the origin of which can be traced back thirty years (Reed & DeFillippi, 1990), also implies permanence and continuity (Marsden, 2000; Hart & Milstein, 2003; Aras & Crowther, 2008). Many researchers and organizations have viewed the terms sustainability and sustainable development as synonymous, an assumption also made for the purpose of this study.

Corporate Sustainability

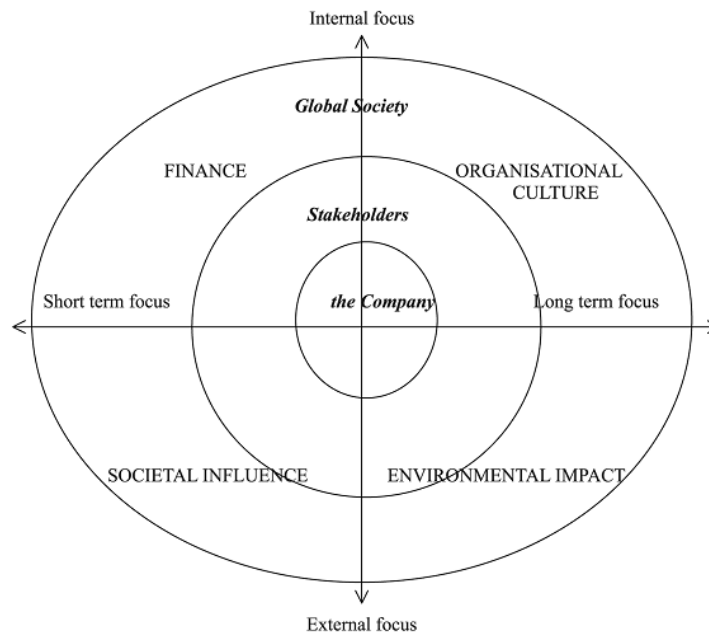
In the organizational context, McElroy et al. (2007) define sustainability in terms of its impacts on all the stakeholders –present as well as future, including the natural environment and society. But, a mere recognition of environmental and social issues will not create sustainable organizations. Integration of these issues in the core strategy and operations is paramount (UNGC-Accenture, 2010). As a constituent part of the social and ecosystem, the effects of an organization's operations should not only be measured in cost-benefit terms in the present but also in terms of its potential impacts in future (Hart, 1997). Initiatives and strategies adopted by companies committed to sustainability like producing recycled paper, replanting trees, producing recyclable vehicles and electronic goods etc. not only help in accommodating for their unsustainable operations but also internalize the costs in the present rather than passing them to the future (Aras & Crowther, 2008). Acknowledging and managing the effects of economic activity, positive and negative, in a manner that leads to overall advantages in the long term is integral to the idea of corporate sustainability.

Grayson et al. (2008) have presented a new perspective on corporate sustainability, by underlining the importance of innovation to increase profits and at the same time add value to the environment and society at large. An approach of conducting business activities that generates huge amounts of wastes, consumes large amounts of energy, ignores the community interests and pollutes the environment needs to be radically changed. Harnessing innovations in these areas would not only transform a business towards sustainability but also present a great untapped business opportunity. Corporations can create and sustain value for all stakeholders by adopting a long term approach in embracing these opportunities, mitigating risks and distributing the favourable and adverse effects in a way which pays attention to the future as well as the present (Aras & Crowther, 2010). So, Corporate Sustainability can also be defined as a way of enhancing shareholder value by mitigating risks arising from economic, ecological and social environments (Sustainability Asset Management – SAM Group).

Dimensions of Corporate Sustainability

The dimensions of sustainability are closely linked to or derived from the stages of evolution of this concept. Many scholars in the past have conceptualized corporate sustainability without considering the economic or financial performance as its important dimension or integral part. Such authors were primarily confined to defining corporate sustainability as being synonymous with corporate social responsibility. The widely accepted assumption has been that the goals of maximizing financial gains or profits and improving environmental and social performance are contradictory and conflicting. However, Aras & Crowther (2008) argue that financial performance is a vital element of corporate sustainability. They have defined the four dimensions of sustainability as societal influence, environmental impact, organizational culture and finance which can be depicted as a two-dimensional model of sustainable development as Figure 2.1.

Figure 2.1: Model of Sustainable Development



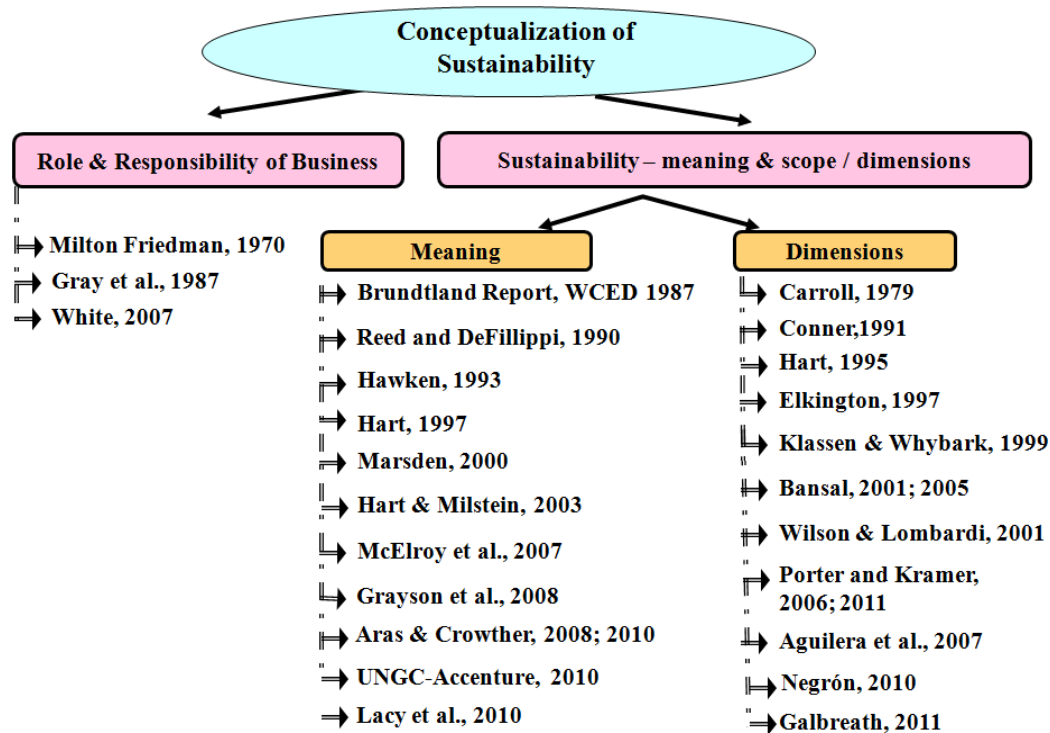
Source: Aras & Crowther (2008)

Several scholars and organizations, adopting the definition of World Commission for Economic Development, have conceptualized sustainability as having three mutually dependent dimensions - environmental quality or concern, social equity or sensitivity, and economic growth (Bansal 2001, 2005; Elkington, 1997; Galbreath 2011; Wilson & Lombardi, 2001). The success of any one of them is contingent to the success of the other two (Bansal, 2001). Figure 2.2 presents a graphic summary of the literature on conceptualization of sustainability.

Bansal (2005) emphasizes the role that organizations play in improving the standard of living by creating and distributing wealth through its commercial and economic activities. According to Conner (1991), firms can create additional value for customers by lowering the cost of products and services they need through process or production innovations and efficiencies. However, these activities may lead to depletion of natural resources, ecological degradation, pose serious threats to health and hamper public welfare. Thus, economic growth must be tied intrinsically to environmental quality and social equity (Bansal, 2001, 2005; WCED, 1987) while conceptualizing corporate sustainability. It is also pertinent to mention here that the economic responsibility of an organization is not only to increase value and profits or to accept its accountability through

transparency and reporting of authentic financial data, but it involves assuming responsibility for all direct or indirect economic impacts that its operations have on the stakeholders.

Figure 2.2: Conceptualization of Sustainability



The environmental concern dimension of corporate sustainability aims to ensure that a company’s operations do not adversely impact and exploit the three elements of nature – air, water and land (Bansal, 2005) beyond the limits of replenishment or regeneration and renewal. To quote T. S. Eliot, “A wrong attitude towards nature implies, somewhere, a wrong attitude towards God.” The adverse environmental impacts of organizational activities, cultures, products, processes and technology are easily visible in things such as generation and disposal of waste, emissions and effluents discharged, high energy consuming processes and technology, the lighting office facilities etc. Scholars have identified three main areas for development of strategies for sustainable environment. First, companies need to shift from pollution control through activities such as responsible waste disposal to pollution prevention through cleaner production processes which focus on minimizing or eliminating waste before it is created (Hart, 1997). Secondly, strategy of reducing greenhouse gas emissions (Klassen & Whybark, 1999) through innovation in production

processes and investing in ‘tomorrow’s’ technologies rather than relying on historical competencies (Hart, 1997). Lastly, by engaging in product stewardship, companies can mitigate cradle-to-grave impacts of their products (Bansal, 2001), starting with using fewer materials in production to recycling or reuse at the end (Hart, 1997).

There is a kind of ‘social warming’ (Negrón, 2010) taking place around the world. Porter & Kramer (2006, 2011) argued that a company will not be able to make profits at the cost of the society in the long run. They challenged and criticized the outdated approach to value addition adopted by companies which ignored the needs of customers and suppliers, or the economic distress of communities in which they operate. They proposed the principle of shared value, where economic value is created alongside creation of value for society rather than treating them as tradeoffs. Today, organizations are increasingly being pushed by a multitude of stakeholders like employees, consumers, institutional investors, governments, non-governmental organizations (NGOs) etc. to respond to social issues (Aguilera et al., 2007). Today, markets are defined and governed more by ‘social needs’ rather than the conservative ‘economic needs’ (Porter & Kramer, 2011). Social initiatives may include those internal to an organization like changing labor relationships, working conditions and those external to an organization such as investing in infrastructure development for local communities or involvement in philanthropic activities (Aguilera et al., 2007). This is also supported by Carroll (1979) through his three-dimensional model of corporate performance which highlights a company’s responsibilities towards society and community. Social harms can create internal costs for firms, so by shifting social issues from the periphery to the core of business operations, a company can achieve better economic success (Porter & Kramer, 2006; 2011). This consciousness and obligation for the direct and indirect social impacts of an organization forms a critical dimension in the cause of promoting corporate sustainability.

Environmental concern and social involvement should no longer be considered ‘adjuncts’ of an organization’s core activities (Bansal, 2001). In the context of sustainability, an organization should be committed to achieving economic prosperity by engaging in activities that are good for the environment as well as society. Wilson & Lombardi’s (2001) analysis of ‘Triple bottom line reporting’

showed that there is a general acceptability by businesses, of their responsibilities regarding environmental impacts of their operations, however social accountability and reporting is yet to become mainstream.

Initiatives to Assess and Measure Sustainability

Infusing sustainable practices in an organization and inculcating a sustainability culture requires a systematic long term approach and actual authentic data. Although many sustainability initiatives have been implemented around the world there is a need for a more planned, logical, fact and data based method with a high degree of transparency for sustainability disclosures. Till this is achieved the real sustainability performance of companies can never be evaluated. As the old saying goes - 'What cannot be measured cannot be achieved or improved'.

Different methodologies have been adopted thus far to measure sustainability qualitatively and quantitatively. These can be broadly categorized into disclosure or reporting based and stock market based methods. New techniques of evaluating the effects of organizations on the natural environment and the society at large and analyzing organizations' sustainability performance are continuously evolving.

Australia, Austria, Canada, Denmark, France and Japan are a few countries which had enforced mandatory sustainability reporting guidelines upto 2008. In India, Clause 49 of Listing agreement of Securities and Exchange Board of India (SEBI Circulars, 2000, 2004, 2006), aimed at ensuring compliance to principles of good governance, is mandatory for all listed companies. However, integration of environmental and social activities in company reports is purely voluntary. Mandatory regulatory frameworks, wherever existing, complement the principles and standards laid down by various global voluntary sustainability initiatives such as UN Global Compact, Millennium Development Goals, IFC led Equator Principles and GRI sustainability reporting guidelines. Some of the initiatives for sustainability reporting and assessment methodologies are discussed at length in the following sections.

The Global Reporting Initiative (GRI) framework for sustainability reporting is well established and widely accepted by businesses, academicians and researchers alike. GRI is a non-profit, multi-stakeholder, network based organization founded in Boston in 1997. The first version of the GRI Guidelines was launched in 2000. GRI reporting framework adequately enumerates both 'what' and 'how' to report. The identification of content of a sustainability report is based on the principle of materiality, stakeholder inclusiveness, sustainability context and completeness. The quality of a sustainability report is determined by balance, clarity, accuracy, timeliness, comparability and reliability (GRI, 2006). GRI is continuously evolving and improving its comprehensive guidelines to enable organizations to measure, report and become accountable for their governance and sustainability performance. In March 2011, GRI published the G3.1 version with supplementary guidelines related to reporting on gender and human rights performance of companies. The sector specific supplements make GRI guidelines applicable to organizations of all sizes, sectors and location.

The GRI Guidelines are often juxtaposed with other international initiatives and sustainability frameworks. GRI has many global strategic partnerships, one of them being with the United Nations Global Compact (UNGC). GRI guidelines are the reference points of the UNGC principles. Its framework also enjoys synergies with the Environmental, Health, and Safety (EHS) Guidelines, Performance Standards on Environmental and Social Sustainability as well as the Equator Principles formulated by the International Finance Corporation (IFC). The UN Global Compact (unglobalcompact.org) is the largest voluntary corporate citizenship and sustainability initiative in the world that was launched in 2000. It encourages and supports organizations around the globe to bring their strategies and operations in line with the ten UNGC principles addressing environment, labour practices, human rights, and ethical conduct.

Another initiative in this direction, reinforcing the above, is the declaration of the UN Millennium Development Goals (MDGs) in September, 2000. The eight goals focus on reducing poverty and financial disparity, improving quality of life, sustainability of natural environment and connecting globally through cooperation, networking and collaborations (un.org). Specific targets have been set for each of the goals, to be achieved by 2015. Although the prime

responsibility of achieving these targets rests with the governments, it would also make good business sense to contribute towards the same. Companies, especially the private sector, can contribute by providing products and services which are environment friendly with no harmful effects on health of consumers and are reasonably priced, by creating jobs and providing career advancement and growth opportunities, valuing human rights and maintaining labour standards, engaging in responsible and ethical practices, generating income and investment and developing infrastructure. Efforts towards achievement of the MDGs would create a safe environment, manage costs and risks, and create new opportunities for all.

International Finance Corporation's (IFC) Equator Principles, launched in June, 2003, are widely accepted benchmark in finance sector and are widely used by project financiers to evaluate the social and environmental risks. Its ten principles centered on social responsibility and safeguarding environment serve as guidelines for project development and financing. As per the official website of Equator Principles, till June 2013, 79 financial institutions had formally implemented the Equator Principles. Spread over 35 countries these made up over 70 per cent of international Project Finance debt in emerging markets (equator-principles.com). IDFC is the only Indian institution to adopt the equator principles.

In addition to the equator principles, IFC, a part of the World Bank Group (IFC & Mercer, 2009) has also formulated Environmental, Health, and Safety (EHS) Guidelines and IFC Performance Standards on Environmental and Social Sustainability to identify risks and impacts in relation to project-level activities.

All the above initiatives mutually emphasize the need for organizations to implement sustainability policies in their business practices.

The close connection between investment potential and responsibility as established by prior studies in this domain has also led to the emergence of several inclusive market – based and investor-led sustainability initiatives and ratings such as the Dow Jones Sustainability Index (DJSI), FTSE4Good Index Series and S&P BSE-GREENEX.

The Dow Jones Sustainability Indexes (DJSI) is the oldest global benchmark for sustainability assessment which was launched in 1999. It is a family of 16 indices each composed of sustainability leaders identified by using a comprehensive assessment process which employs multiple criteria such as energy consumption, climate change strategies, employee and stakeholder relations and corporate governance. In 2012 the Dow Jones Indexes merged with indices of Standard & Poor's, an American financial services company, to create S&P Dow Jones Indices. These are jointly administered by S&P Dow Jones Indices and RobecoSAM (sustainability-indices.com).

The ratings of FTSE4Good Index Series were launched in 2001 from the London Stock Exchange(ftse.com) and are calculated by FTSE International Limited (“FTSE”) and Ethical Research Services (EIRIS) Limited or their agents. The indices provide investors information on performance of companies around the world that have adopted responsible business practices. Involvement of a company in environmental sustainability and countering climate change, safeguarding human rights, maintaining good labour practices, challenging corruption and bribery, form the criteria for inclusion in the index. This index serves as an important guide for multiple stakeholders such as investors, bankers and stock exchanges. UNICEF is the main beneficiary of all licensing revenues of FTSE4Good. The indices are reviewed twice a year and are constantly being improved.

India has also joined the world by launching its own S&P BSE-GREENEX in February, 2012. It is the 25th dynamic index hosted on the Bombay Stock Exchange which assesses the ‘carbon performance’ of stocks based on purely quantitative performance based criteria using publicly disclosed energy and financial data (S&P BSE-GREENEX, 2012).

The Carbon Disclosure Project (CDP) is another investor-led sustainability initiative which helps organizations and cities globally to measure and share environmental information, disclose and control their impacts on the environment (cdp.net). CDP is an international, not-for-profit organization which is globally the largest repository of voluntary disclosure reports and data on environmental impacts and risks, and climate change. This data can be used by cities, companies

and investors to take informed and long term decisions for a sustainable and better world.

Varieties of other sustainability metrics are evolving and are being validated. New approaches for measuring sustainability impacts are emerging. Sustainability Balanced Scorecard is one such approach which helps in linking organization's strategic objectives and goals with measures and actions (Grayson et al., 2008). Grayson et al. (2008) also advocate a new approach to corporate sustainability called S²AVE - Shareholder and Social Added Value with Environment restoration, committed towards all stakeholders including society and environment.

Context-based measurement models like the Ecological Footprint (EF) tool (Rees, 1992) also exist for environmental reporting. However, they are rarely used in business context. McElroy et al. (2007) devised a quantitative quotients-based method - the Social Footprint to assess and disclose the social commitment and performance of an organization. The concept and approach of 'sustainability quotients' as measures of a company's environmental and social performance rely on quantifying the effects of organizations on, what McElroy et al. (2007) call 'the carrying capacity of non-financial or 'anthro' capital'.

Drivers of Corporate Sustainability

Sustainability is perhaps one of the most challenging issues confronting the policy makers today. Bansal (2001) suggests that companies that fail to tackle sustainability issues will lose any opportunity of building competitive advantage and will eventually perish. This criticality attached to sustainability has led to extensive efforts being made towards understanding how firms respond to sustainability and integrate it in their strategy and operations.

Both, external as well as internal drivers of sustainability have been proposed with more stress being laid on external drivers. Population growth and climate change have compelled the society as well as corporations to recognize the need and respond to sustainability issues. Poverty and inequality are placing demands of employment generation and active participation of the corporate sector in

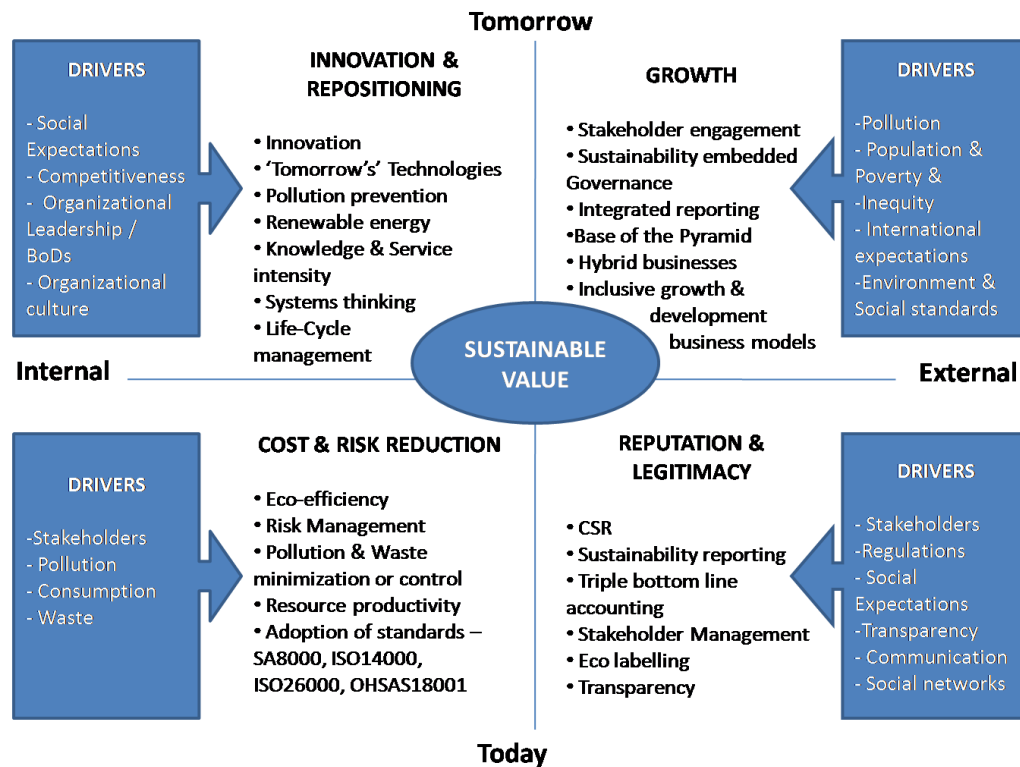
providing food, healthcare and shelter (Cumming, 2004). Economic globalization has driven companies operating in multiple countries to meet the international expectations and environmental and social standards. Advances in connectivity and digital communication have ushered an era of transparency by making it easy for stakeholders to track a company's sustainability performance and also to share their opinions widely through the social networks. It has drastically reduced the time taken to build as well as destroy an organization's reputation (CERES Report, 2010).

Results of other studies in this area suggest that all stakeholders such as customers, employees, investors, suppliers, public, the government, law makers and regulatory agencies influence organizations to adopt sustainability practices. Customers are fast becoming conscious of the environmental and social impacts of the products and services they buy, giving strong preference to 'green' products that are bio-degradable or recyclable and produced without exploitation of labour or other unethical and corrupt practices. Employees show allegiance towards organizations which have a culture of fair and non-discriminatory practices and are socially responsible. Investors and suppliers look at the sustainability performance of a company to evaluate its future and long term growth prospects. The government, law makers and regulatory bodies are constantly engaged in developing policy frameworks for effective implementation of various sustainability initiatives. Mandating achievement of minimum standards in terms of sustainability performance and disclosures is one of the important determinants of corporate sustainability. Bansal (2005), in her identification of factors that influence corporate sustainability, found that media pressure was important only in the early periods. She also found a positive correlation between corporate sustainability and international experience, and mimicry. Political agenda and conflict can also be identified as factors leading to expectations from corporates to deliver on the Millennium Development Goals (MDGs) and responsible governance (Cumming, 2004).

A number of internal factors that have been found to impact or drive sustainability of a company include organization's culture, policies, management and its board of directors.

Figure 2.3 depicts the sustainability value framework as an adaptation from Hart & Milstein (2003) and a CII report on global and Indian trends in sustainable business. The figure highlights the drivers of corporate sustainability along with appropriate strategies within each quadrant that would lead to potential gains and a win-win situation for all.

Figure 2.3: Sustainability Value Framework



Source: Hart & Milstein (2003) and CII report on Global & Indian Trends in Sustainable Business

The Board of Directors is identified as the most important internal driver of sustainability. They have been described as the ultimate decision making group and overseers within corporations acting as the ultimate steward of the well being and performance of the organization (White, 2006). Hendry & Kiel (2004) argue that boards keep a check over the management through financial and strategic controls and thus significantly influence strategies. They ratify and monitor the crucial decisions of an organization (Fama & Jensen, 1983a, 1983b) which have a direct impact on its performance.

The evolution of the modern age large scale corporations has added more complexity to the roles of the board of directors. The board plays an integral role in shaping the culture and values of the organization, approving strategies, reviewing and monitoring financial performance, ensuring compliance with laws, setting compensation of the top executives and structuring its own governance processes and procedures (White, 2006; Arfken et al., 2004). Rindova (1999) argues that directors use their valuable problem-solving skills for strategic decision making by performing cognitive tasks such as scanning, interpretation and choice. With so much power vested in the board, determining its right composition assumes critical importance.

The external drivers of sustainability are well established and supported by literature in comparison to internal determinants of an organization's sustainability practices, which are far less in number and thus, present a definite opportunity for further research and investigation.

GENDER DIVERSITY ON BOARDS AND CORPORATE SUSTAINABILITY

Board composition and especially the diversity on corporate boards have emerged as one of the most important issues faced by the modern corporation (Kang et al., 2007). Diversity in the composition of boards can be categorized into easily observable characteristics such as gender, ethnic backgrounds, age and nationality as well as variety of characteristics that represent less visible forms of diversity like qualifications and educational backgrounds, professional experience, personal style, religion and affiliations and memberships of organizations (Kang et al., 2007; Arfken et al., 2004). In the context of stakeholder governance, board composition must ensure adequate representation of diverse stakeholders (White, 2006). Although diversity and heterogeneity may lead to initial intra-group conflicts in decision making (Jehn, 1995; Carter et al., 2003), they can be turned in favour of the organization by managing the structure of the group and group norms. Forbes & Milliken (1999) recommend the need to understand group dynamics and manage the board processes to enable boards into effective strategic decision making groups.

Lynall et al. (2003) theorized that board composition and its impact on the firm's performance is a demonstration of the firm's life cycle stage. The board composition is expected to change, as an organization progresses through different stages of its life cycle, in response to the changes in the environment. Diverse boards with a mix of knowledge and experience result in generation of a variety of ideas and perspectives of a problem, add to creativity and innovation, which help in critical evaluation of multiple alternatives and making astute decisions (Carter et al., 2003; Arfken et al., 2004). Diversity further strengthens the three pillars or underlying principles governing board's actions – loyalty, care or due diligence and good business judgement (White, 2006). Arfken et al. (2004) propose better understanding of the market, better product positioning and promoting accountability as additional benefits of diversity on boards. However, the positive impacts of diversity on the organization are more intangible in nature and difficult to measure, because of which board diversity sometimes falls short of becoming a top business priority (Robinson & Dechant, 1997).

Contribution of Women on Boards

Gender is undeniably the most contemporary and widely discussed issue, not only in the political and social arena but also among the top management and decision makers in corporations (Kang et al., 2007). Gender diversity on corporate boards, by virtue of its many advantages, is being recognized as an important factor in sustainable development. Having gender diverse boards provides legitimacy to an organization in the eyes of stakeholders (Hillman et al., 2007). It reflects an organization as being representative of the population it serves by promoting equity and justice, which improves its reputation in the eyes of the public and other stakeholders (Rhode & Packel, 2010). However, organizations with only legitimacy as their target, may appoint women on their boards as mere tokens. Results of Kesner (1988) and Bilimoria & Piderit (1994) affirm that women are much more than cosmetic additions to the boards or tokens and that women directors add value to boards through their knowledge, competence and affiliations (Hillman et al. 2002) which can prove to be beneficial for the organization they serve.

The generic differences between men and women in terms of their nature, mannerisms, attitude, as well as their competence and skill sets provide a valuable assortment of attributes needed for better decision making. Adams & Ferreira (2009) find a positive association between board's level of gender diversity and its effectiveness. The new insights, new information and new perspectives provided by women on boards help in meeting the sustainability challenges. Female directors bring much more than their feministic perspectives to the board room. Nielsen & Huse (2010a; 2010b) support this argument with the findings of their study of Norwegian firms where women directors were found to significantly contribute to boards' strategic decision making by virtue of their different values as well as their prior professional experiences. Hillman et al. (2002) find that although women directors generally come onto boards from non-business backgrounds, they often hold advanced degrees in areas like marketing, public relations, and law as well as have leadership experience at the local community or government level. A study of boards of directors of UK companies by Singh et al. (2008) reveals that there is a higher probability of women holding an MBA degree and having international exposure as compared to men. Many studies in the past have highlighted women as being the major decision makers when it comes to purchasing. This supports the arguments by Kang et al. (2007) and Brennan & McCafferty (1997), that women have a better understanding of the needs and behaviour of consumers. Women can play an important role in addressing the needs of the customers and therefore, contribute actively to the bottom line and add value. Burke (1994) suggests that although women on boards have little direct impact on the other women in their companies, they might serve as role models for these women and contribute indirectly by bringing out 'women friendly' policies. Another indication of women's contributions far exceeding the legitimacy argument is the appointment of women as members of important board committees. Although the number of women as members of such committees is on the rise, studies like Rhode & Packel (2010) highlight underrepresentation of women as chairs of some of the most influential compensation, audit, and nominating committees.

Central to corporate sustainable development, is the idea of stakeholder management, building stakeholder relationships and representing and

safeguarding their diverse interests in decision making (Bansal, 2005). A responsible business stands committed not only to its shareholders and investors but also to its employees, suppliers, communities and the environment. The Board of directors are faced with the challenge of balancing their diverse interests and conflicting demands. Evidence from Rosener (1995) suggests that women are better equipped with temperament and skills to tackle ambiguity, conflict, and uncertainty making them proficient problem-solvers. By virtue of their strong moral overtone (Arfken et al., 2004) and belief of nurturing relationships and focus on needs of others, women are better at representing the interests of different stakeholders and keeping them connected to the organization (Biggins, 1999; Hisrich & Brush, 1984; Rosener, 1995 and Hillman et al., 2007). These relational abilities of women on board help an organization demonstrate its social responsiveness (Galbreath 2011). Contrary to men who are more focused on monetary and technical issues, women on corporate boards contribute more effectively on qualitative, human and ethical issues like managing social impacts of their company (Huse et al., 2009; Huse & Solberg, 2006; Rosener, 1990; Bear et al., 2010; Ibrahim & Angelidis, 2011). This enables women directors to broaden the strategic discussions in the boardroom from societal perspective pressing for stronger controls and enforcement wherever necessary. Grosser & Moon (2005) in their study on the role of corporate social responsibility in gender mainstreaming, also argued in favour of increased participation of women for better societal governance. A study of companies in the finance sector and basic materials sector conducted by Schnake et al. (2006) finds that representation of women on boards is positively related with the social responsiveness reflected by lower number of 10K investigations or cases against the companies in Finance sector, where as no significant relationship could be established in the Basic materials sector companies.

The economic crisis has acted as a catalyst for pushing the case for greater female participation at the top. Although this has led to a slow paced increase in the representation of women in corporate leadership positions, yet the presence of women on boards is hardly noticeable (Singh & Vinnicombe, 2004). The arguments in support of gender diversity at the top are beyond the discussions on principles of equity and justice alone; they are strongly and objectively focused on

the astute business judgement for warranting long term growth and organizational success (Maitland, 2009). Women have been known not only to improve the quality of boardroom discussions and behaviours but their presence has also been associated with quantitative aspects such as performance of an organization and economic growth. Previous research and literature presents some evidence of links between presence of women on boards and the economic, social and environmental - sustainability performance of organizations (Galbreath, 2011).

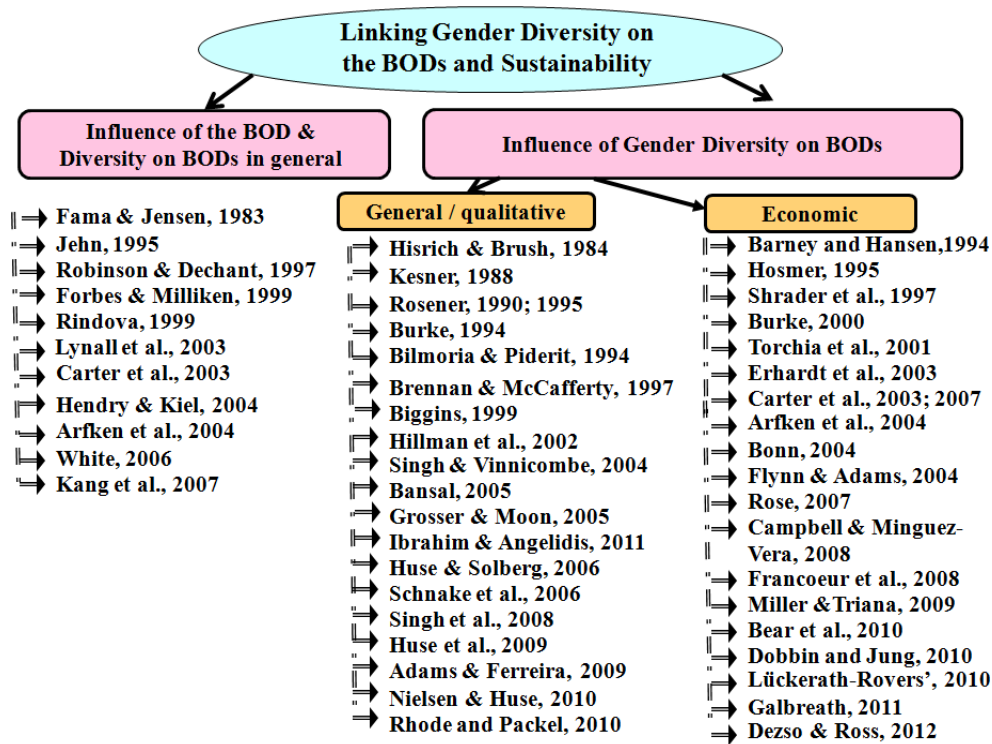
Impact of Gender Diversity on Boards on firm's performance

Huse et al. (2009) emphasize that gender diversity on boards is essential for value creation. Some research has been conducted in the past which provides evidence that presence of women on boards affects a company's economic performance. However, such research has been limited owing to the present business environment, where shareholder value is a multi dimensional construct and economic results are dependent on performance on environmental and social dimension (Hart & Milstein, 2003). Of the research studies conducted on exploring the link between presence of women on boards and the company performance, some report positive association while others report negative or no effects. Figure 2.4 presents a graphic summary of the literature linking gender diversity on boards of directors and sustainability.

The strong morality and ethical conduct associated with women presence (Arfken et al., 2004) is supported by Galbreath (2011) who finds that boards with more women offer higher transparency, effective monitoring and accountability which increase shareholder and investor confidence. Gender diverse boards are perceived to uphold integrity with fewer conflicts of interests (on the part of the directors) while taking decisions having implications for other stakeholders. Trust based upon this underlying assumption results in improving the organization's reputation leading to better contracting opportunities and joint benefits for all stakeholders (Hosmer, 1995). Ethical conduct and trust requires lesser number of controls, supervision or governance mechanisms (Barney & Hansen, 1994) which reduces transactions costs for enforcing contracts and leads to competitive advantage. Investor trust, better oversight and governance, reduced transaction

costs and ethical utilization of funds would lead to better economic performance of the organization (Galbreath, 2011; Hosmer, 1995). Torchia et al. (2001) in their survey of CEOs of Norwegian companies find a positive link between number of women on boards and the organization's innovation capacity. They find that it takes at three women directors on a company's board to enable them to contribute significantly towards their company's innovation.

Figure 2.4: Linking Gender Diversity on the BODs and Sustainability



Erhardt et al. (2003) report a positive association between women on boards and the ROA and ROI, two widely used measures of economic performance. Galbreath (2011) has reported a positive link between proportion of women on boards and the economic growth of a firm measured by the proxies ROE and market-to-book value. However, no significant relationship of women on boards was found with ROA, which is also supported by Dobbin & Jung (2010). This study also recognized a positive link between women on boards with social responsiveness and no significant relationship with environmental quality. Shrader et al. (1997) examined the effects of gender diversity on four financial performance measures of ROS, ROA, ROI, and ROE. They found no significant link between women in top management and women on boards with any of the four financial performance variables. Lückerrath-Rovers' (2010) study also used

multiple performance measures for testing the effect of women presence on boards and financial performance, finding a positive relationship with ROE and no significant relationship with ROA, ROS and ROIC (Return on Invested Capital). Bear et al. (2010) in their study of top Fortune 2009 companies from healthcare sector found a positive relationship between the number of women on boards and the ratings for CSR and firm reputation. Miller & Triana (2009) in their study of Fortune 500 companies, find a positive association between board gender diversity, measured as a proportion and using Blau's Index, and innovation using research and development expenses as a proxy for innovation. However, they found no significant relationship between gender diversity and ROI, ROS and reputation measured using scores from 2004 Fortune Corporate Reputation Survey. Carter et al. (2003, 2007) and Rose (2007) investigated the relationship between women on boards and firm's financial performance measured by Tobin's Q. Although, significant positive relationships were found between the presence of women or minorities on the board of Fortune list firms and firm value by Carter et al. (2003, 2007), no significant relation between Tobin's Q and gender diversity on boards of Danish companies was found by Rose (2007). At the same time Dobbin & Jung's (2010) study showed negative relationship between women directors on boards and Tobin's Q. Carter et al. (2003) also found positive relationships between the presence of female directors and firm size and board size and an inverse or negative relationship with the percentage of insiders on the board. In a later five year study of S & P 500 companies, Carter et al. (2010) used absolute numbers of women on board rather than proportion of women (used in their studies in 2003 and 2007) to represent gender diversity on boards and found no significant association and a positive association with Tobin's Q and ROA respectively. Campbell & Minguez-Vera (2008) used panel data analysis of Spanish companies to conclude that gender diversity of boards affect the financial performance of the firm. They found that gender diversity, measured by the proportion of women on the board and the Blau Index and the Shannon Index, has a positive effect on the firm value measured by Tobin's Q. Adams & Ferreira (2009) find an average negative consequence of gender diversity on firm performance, confining the positive impact only in case of companies with weak governance. Gender diversity on boards was linked to higher revenues in a study of Canadian companies (Burke, 2000). Dezsó & Ross (2012) used 15 years of

panel data of S&P 1,500 firms and found that, other things remaining constant, a company with at least one woman on its board has higher Tobin's Q as compared to companies with no women on their boards. This association between women on boards and financial performance is significant only when the company is focused on innovation. Bonn (2004) finds that although the proportion of female directors in Australian companies is less than 5%, female director ratio is positively associated with firm performance measured by the market-to-book value ratio. Rather than using stock returns or accounting ratios, Francoeur et al. (2008) used level of risk when comparing women presence and firm performances, for a large sample of companies listed on the Toronto Stock Exchange over the period 1990 - 2004. Results showed that with higher percentage of women on board, firms operating in high risk environments generated high positive abnormal returns (Francoeur et al., 2008).

Although the body of evidence strongly backing the benefits associated with increase in the representation of women on corporate boards is growing and governance codes are being reformed, the world's boardrooms still remain predominantly male. A report by Catalyst (2012b) shows that Scandinavian countries, such as Norway (40.1%), Sweden (27.3%) and Finland (24.5%), have the highest representation of women on boards. Countries in the rest of the world each have less than 20% women on boards. USA and UK have 16.1% and 15% board seats held by women, whereas China has 8.5% women on corporate boards. India has a meagre 5.3% representation of women directors on boards, only a slight improvement from a figure of 5% in 2010. 54% of companies on the BSE100 in 2010 had no women board directors (Catalyst, 2012a). Despite these small improvements in the representation of women on boards of directors of corporations around the globe, these slow trends point towards existence of certain barriers which need to be investigated and analyzed.

Barriers to Gender Diversity in the Boardroom

A substantial amount of empirical data and evidence lends support to the benefits of increasing the number of women on boards. According to Goldman Sachs, gender equality in the workplace could improve United States' GDP by 9 per cent,

Europe's by 13 per cent and Japan's GDP by 16 per cent (Maitland, 2009). Despite these figures, the results of a census study of Women in Leadership, conducted by the Equal Opportunity for Women in the Workplace Agency (EOWA), an Australian Government agency, in 2010 shows that women hold only 8.4 per cent of Board Directorships in ASX 200 companies compared to a figure of 8.2 per cent in 2002. The trend data shows there has been no significant change (EOWA, 2010). This miniscule increase of 0.02 per cent over 8 years is a cause of concern.

Arfken et al., 2004 found women almost non-existent in the boards of directors of Tennessee's companies. One of the most frequently cited reasons is the existence of a 'glass ceiling' (Hillman et al., 2002) which limits the progression and growth of qualified women up the top management and leadership ladder. Women's growth in an organization is also hampered by 'glass walls' which confine and limit women only to specific areas and positions, such as human resources, public relations etc. (Arfken et al., 2004). Gender discrimination and stereotyping portrays women as being unprepared and unworthy of succeeding to higher positions such as board directors (Hillman et al., 2002), women are generally not perceived to be ready for such positions (PwC, 2008). In contrast to a male, for a female to be seen as worthy by virtue of her abilities, she is usually required to prove her competence. Hillman et al. (2002) describes this situation faced by women in the workplace as "twice as good to be considered half as good" theory. In addition to these hindrances, women have a higher chance than men to be appointed in unstable and insecure positions like directors of companies which are performing badly or are facing certain lawsuits, a phenomenon described as the "glass cliff" (Ryan & Haslam, 2007). Prevalence of such biases makes it more difficult for women to perform and prove their competence. Nielsen & Huse (2010a; 2010b) also find that stereotypes and perceptions of women as 'unequal' board members have a tendency to limit their contribution.

Another barrier is what Martha Frase-Blunt (2010) calls the "Mini-Me" syndrome. For filling up important positions in the company, the management and decision makers tend to appoint person with whom they are more at ease, people who are similar to them in characteristics such as gender, age and background. The process of appointment of directors on boards, which traditionally relies on accessing the

existing network and pool of experienced and high profile executive officers or retired executive officers of corporations, tends to exclude the female talent pool as women generally do not follow these traditional career paths (Hillman et al., 2002). More male directors are found to be CEOs/COOs of large companies, whereas female directors generally have board experience of smaller companies (Singh et al., 2008). The different occupational choice considerations of women and the tendency of people already on board to appoint more people similar or like themselves is leading to loss of opportunities for both women and the organizations. Ruigrok et al. (2007) found that in Swiss companies, women are generally appointed as board members based on their affiliation to the management through family ties and that possession of an understanding of business or advanced educational degrees are not significant. Claringbould & Knoppers's (2007) study provides evidence that men tend to frame such processes of recruitment on boards so as to maintain their control and dominance, whereas women, generally use their competence and experience as a proof of their worthiness for appointment as directors. Besides these entry barriers and lack of equal promotion opportunities, the work of Bibb & Form (1977) finds the prevalence of wage discrimination leading to disproportionate earnings and low incomes of females. Female executives generally have lower levels of objective career success than their male counterparts (Judge et al. 1995). These barriers lead organizations to a situation where they are confronted with loss of female talent best described as a leaking pipeline analogy, ultimately resulting in high attrition and replacement costs, loss of opportunities for growth and advancement and prevalence of an archaic organizational culture (PwC, 2008).

The results of some studies also suggest that once appointed on boards, participation and inputs from women directors may not be openly accepted or welcomed by their male colleagues. Men directors disregard inputs from their female colleagues on issues related to engineering and technologies (EOWA, 2008) and those related with science such as emissions, waste management and climate change. This is likely to have an impact on firms' environmental quality and performance. Issues dealing with the impact of business activities on the natural environment and investment in environmental 'green' technologies in manufacturing are considered to be more technical and match with the profiles of

male directors (Klassen & Whybark, 1999; Mann et al., 1998). Hillman et al. (2002) find a distinct pattern of qualifications and expertise between the men and women directors, with men having stronger backgrounds in business as well as technical disciplines such as engineering and science and women with backgrounds in non-profit and community service-based organizations. So, for technical issues such as those related to environmental quality, male directors generally rely on inputs from their male colleagues who have technical backgrounds as opposed to women directors. Even though environmental issues involve ethical ramifications and require a long term perspective, the inputs of women directors are generally ignored. Due to these differences between men and women directors with regard to their educational backgrounds and experiences, gender-based biases and stereotypes might find their way into the boardrooms (Galbreath 2011). Bilimoria & Piderit (1994) also found evidence of sex-based bias in committee memberships in Fortune 300 companies, with preference given to men for compensation and finance committees and to women for public affairs committee.

Many authors worry that tokenism will lead to women being appointed on boards as 'trophy' directors and thus, reduced to a role of a rubber stamp. Companies also lose their sense of urgency for achieving adequate representation of women on their boards after appointment of one or two token female directors (Rhode & Packel, 2010). Kanter (1977) affirmed that effectiveness of women in the corporation depended on proportions in which they found themselves. Women found in minority in skewed groups (85:15) could be called 'tokens' and treated as representative or symbols of their category. Women in 'token' status have high visibility which tends to create performance pressures, they face polarization and exaggeration of differences with the dominant (male directors in higher proportion) leading to self-consciousness and isolation, and women as tokens are easily stereotyped and their assimilation of these generalizations results in role encapsulation (Kanter, 1977). Thus, tokenism impairs performance of women on boards and makes it more difficult for them to contribute on merit and as equal members (Rhode & Packel, 2010). Zimmer (1988) argues that the solution to the problem of tokenism does not only lie in making structural changes at the organizational level and increasing the number of women but lies more in

bringing about changes at the broader level of the sexist society of which the organization is a part. More efforts may be required in this direction.

Norway is particularly interesting in this context and has received international attention for innovative approaches for improving gender diversity in the boardroom. Embarrassed that women held just 7.5 per cent of board positions, the Norway government issued a directive requiring its 650 public companies to appoint at least 40% women on their boards by 2005 (Goldsmith, 2002). In 2003, challenging the prevalence of 'old-boys' network' in the boardroom, Norway government enacted and enforced this law of 40% quota for women on boards of all listed companies in Norway (Ferreira, 2009). By the year 2008, 93 per cent of Norway's public limited companies were in compliance. The stick approach, through Norway's law, worked and the women representation on boards increased from 7% to 39% (Janet, 2008). Other countries like Spain and Sweden are contemplating a similar strategy (Ferreira, 2009). India has also taken steps to promote gender diversity on boards of its listed companies by the enactment of the new Companies Act, 2013 which mandates appointment of at least one woman director on boards of listed companies with paid up capital of 100 crore or more or Turnover of 300 crores or more. The impacts of these efforts will only be seen in the future.

In the words of Maitland (2009), companies must ensure that 'women are fairly represented at all levels, from the showroom to the boardroom.' Around the world, countries and corporations are recognizing the importance of developing, training and promoting women up to the board level. Results of Adams & Ferreira (2009) suggest that imposing mandatory quotas for women directors in companies with strong governance tends to have a negative effect on their value. So whether legislations and quotas to this effect are the right solution remains to be further evaluated.

Summary of review of literature

WCED (1987) definition of sustainability is its most accepted conceptualization, as "meeting present needs without compromising the ability of future generations to meet their own needs", with many previous scholarly works quoting this /

making it the base of their research. This makes every entity in the present and future as stakeholders. Integration of environmental and societal consciousness alongside the economic considerations, in the core strategies will lead to long term sustainability of a company. These three dimensions of corporate sustainability are mutually dependent and can lead to improved performance of an organization. To present a strong business case for embracing practices that promote ethical conduct of business which safeguards the interests of all stakeholders and inculcates a culture of sustainability, organizations are increasingly adopting mechanisms to record, report and analyze their overall performance on these dimensions. There is also a common strong support, in literature, against the 'one size fits all' system for prescribing sustainability disclosure reporting requirements with evidence of different corporate sustainability frameworks being used by different companies to assess their relative performance or rating and taking corrective steps in future. Frameworks provided by GRI, UN Millennium Development Goals, UN Global compact, Equator principles and DJSI are some of the major international initiatives to promote corporate sustainability practices and disclosures.

External and internal factors are known to drive of sustainability initiatives taken by a company. All stakeholders, especially the leadership and the composition, especially the role of diversity in the composition of board of directors have been shown to play an instrumental role in establishing a sustainability culture in their organization. In any debate on diversity, gender diversity becomes pertinent. Although potential benefits of gender diversity in general have been established in the past, there has been a recent small stream of research on gender diversity with specific reference to the board of directors and the role it can play in the long term sustainability of the organization. The existing literature in presenting a case for putting more women on boards, highlight the intangible as well as tangible benefits women presence on boards can to bring to organizations. However, there exist some ambiguity and contradictions on impact women have especially on the financial performance of a company. It is also found that there is also no consistency in the choice of measure of gender diversity as well as measurement variables reflecting the three dimensions of sustainability.

Also a few scholarly works, although separately suggest that women have an influence on the economic performance, social responsiveness and the environmental consciousness reflected by a company, there is very less research investigating their impact on all these three sustainability together was found.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter presents the research design adopted for this study. It details out the methodologies used at various stages of research for the accomplishment of the defined research objectives.

Rationale of Study

The world is witnessing the adverse effects of environmental pollution and climate change. The growth of population is continuing to place unprecedented demands on the natural resources leading to competition for resources. The sheer scale and complexity of these challenges advocates a need to sensitize the society about sustainability. Although, a large number of governments and businesses have come together at global level to implement policies to control and offset these adversities by proposing frameworks for sustainability, yet, a lot needs to be done. The ethical underpinnings of sustainability are also strongly grounded in the business' sensitivity towards a new model that integrates environmental and societal needs and concerns with its bottom-line.

A company needs to adopt a pragmatic approach to assess the need and impact of the sustainability concerns it faces. Although some research on Indian companies has been conducted in the past, to separately examine the status of disclosure practices in Corporate Governance and Corporate Social Responsibility, the concept of Corporate Sustainability has still not been well researched. There is still a dearth of studies which comprehensively and simultaneously examine performance of a company on all the three dimensions of sustainability – governance, environment and social concerns, and also on identifying the determinants of sustainability disclosures made by companies. This study responds to this gap.

Up until now, research has been predominantly focused/concentrated on understanding '*Who*' drives corporate sustainability and '*Why*' firms adopt sustainability, what are the advantages of aligning its products and processes with sustainability principles. This study focuses on the '*What*' and '*How*' of corporate sustainability. It aims at understanding '*what*' an organization considers as being a

dimension of sustainability and 'how' it records and reports sustainability information to its stakeholders. It also endeavors to devise an objective mechanism or instrument to measure the level of sustainability information disclosures in quantitative as well as qualitative terms. An instrument that can assess and analyze a company's impacts and contribution to the environment and society through its disclosures has undoubtedly become pertinent in recent times, a gap to which this study responds.

Literature also suggests that sustainability issues are becoming important in the board room discussions. Diversity on boards will encourage the board members to be more focused on long term goals to achieve sustainability. Presence of women on boards contributes to accomplish the objective of sustainability. It is also noted that most empirical research on board diversity to date has been mainly restricted to data from Norway and other Scandinavian countries, Australia, US and UK and there is a dearth of research on board diversity in Asia and particularly India. In this context, this study aims at understanding the state of women representation on Board of Directors of Indian listed companies and its possible implications on Corporate Sustainability.

The existing literature in presenting a case for putting more women on boards highlights the intangible as well as tangible benefits women presence on boards can bring to organizations. However, the different studies in this regard present mixed results with some studies finding a positive association between gender diversity on boards and the performance of a company while others finding a negative or no association between the two. Similar studies in Indian context are virtually non-existent. This study aims at investigating the possibility of such associations in a sample of Indian listed companies.

In concurrence with the assumption that sustainability requires a change in mindset, this research also aims at understanding the perceptions of directors about the presence and contribution of women on the Board of Directors and Corporate Sustainability. Although few director perception surveys have been undertaken around the world in the past, such surveys, in the Indian context are a rarity. In the past some researchers have limited such surveys to single gender respondents in the form of either all male surveys or all female surveys (Burke,

1995; Sheridan, 2001), thereby not providing the complete picture and limiting thorough analysis of the problem under investigation. This study tries to overcome these limitations and gaps through its Directors' Perception survey with both men and women directors as its respondents (Hillman et al., 2002; Westphal & Stern, 2007; Nielsen & Huse, 2010a, 2010b). This permits complete analysis with useful comparisons in perceptions, expectations and recommendations coming from each category.

Objectives

This study has been undertaken with the following objectives in mind:

1. To study the corporate sustainability practices followed by Indian Companies.
2. To examine the status of gender diversity on corporate boards in Indian companies.
3. To examine the relationship, if any, between women presence on BOD and the three dimensions of sustainability i.e. economic performance, sensitivity towards societal issues and quality of environmental disclosures of a company.
4. To understand the perception of directors, men and women, about sustainability and the representation of women on boards.

Hypothesis

To study corporate sustainability practices through disclosures made in the annual reports, a Corporate Sustainability (CS) Index was developed and its scores used to test the following null hypotheses:

- H₀₁ There is no significant difference in CS disclosure practices of companies and their industry / sector classification.
- H₀₂ There is no significant difference in CS disclosure practices of companies and their size.
- H₀₃ There is no significant difference in CS disclosure practices of companies and their age.

For accomplishing the second objective of this study the status of gender diversity on corporate boards in the sample Indian companies was examined over the period of 6 years and a thorough analysis conducted in testing the following null hypotheses:

H0₄ There is no significant difference in gender diversity on boards of companies and their industry / sector classification.

H0₅ There is no significant difference in gender diversity on boards of companies and their size.

H0₆ There is no significant difference in gender diversity on boards of companies and their age.

To study whether there is a relationship between the representation of women on BOD and the economic, social and environmental sustainability the following three assumptions or null hypotheses were tested:

H0₇ There is no significant relationship between gender diversity on boards and the economic performance of a company.

H0₈ There is no significant relationship between gender diversity on boards and the sensitivity of a company towards societal issues.

H0₉ There is no significant relationship between gender diversity on boards and the quality of environmental disclosures of a company.

To understand the perception of directors, men and women, about sustainability and the representation of women on boards, the following hypotheses were tested:

H0₁₀ There is no significant difference in men and women directors' awareness of the concept of Triple Bottom Line (TBL) and their identification of key drivers of Corporate Sustainability.

H0₁₁ There is no significant difference between men and women directors' views on the importance and frequency on which the key sustainability issues feature on the boardroom agenda.

H0₁₂ There is no significant difference in the perception of men and women directors regarding the diversity on boards of directors.

H0₁₃ There is no significant difference in the perception of men and women directors regarding the qualifications, skills and competence that women bring on board.

H0₁₄ There is no significant difference in the perception of men and women directors regarding the opportunities for women's appointment on Boards.

H0₁₅ There is no significant difference in the perception of men and women directors regarding the existence of stereotypes against women.

H0₁₆ There is no significant difference in the perception of men and women directors regarding the professional conduct of Board's activities.

The details on the measures chosen and the techniques used for testing these assumptions are explained in detail in the section on methodology.

Methodology

Sample & Sampling Techniques:

To achieve the first and the second objectives of studying the corporate sustainability practices followed by Indian companies and examining the status of gender diversity on their Boards of Directors, a sample of companies listed on the BSE500 index were originally selected. BSE500 index was chosen as it represents nearly 93 per cent of the total market capitalization on Bombay Stock Exchange and it covers all 20 major industries of the economy (Sikand et al., 2013; BSE website). Also out of a total of 12176 directors on boards of 2086 BSE listed companies who had filled information till April 15, 2010, only 604 (5%) were women. This figure was 169 out of 3271 (5%) on BSE500 companies also. So again the sample frame was truly representative.

Given the long term nature of sustainability, a longitudinal study over a period of 6 financial years i.e. from 2006-2007 to 2011-2012 was undertaken for a useful and complete analysis. The year 2006-07 was chosen as the initial year for the study as in January 2006 the recommendations of the Narayan Murthy Committee (2004) constituted to assess the adequacy of corporate governance practices came into effect. The committee's recommendations led to the revision of the Clause 49 of Listing requirements of SEBI (SEBI circulars, 2000, 2004 and 2006). So in

choosing the period for this study starting from 2006-2007 it was considered appropriate to assume that the sample companies would mostly comply with (atleast) all the mandatory requirements of Clause 49 (Kaur et al., 2009). This allowed the analysis of the reporting and disclosures made by the sample companies based on guidelines other than Clause 49.

From the original sample of BSE500 companies, 245 companies were eliminated as they were acquired / merged, delisted, liquidated or naturally replaced by the end of financial year 2011-12. 25 companies were further excluded as they had a reporting period other than the financial year (Bettman & Weitz, 1983; Sikand et al., 2013). By doing this same period of comparison and control of extraneous factors like economic and political environment etc. was ensured. After extensive efforts of collecting the 6 year data through annual reports, Capitaline Plus corporate database, Directors' database and company websites, 45 companies, with missing data of one or more years, were further eliminated to derive the final sample which consisted of 185 companies (Sikand et al., 2013). Reporting and disclosure practices and status of gender diversity on boards of directors of these 185 companies (Annexure I) were studied over a period of 6 years. The relationship of women presence on BOD and the economic performance, social involvement and environmental concern of a firm was later studied for the same sample companies.

The final sample of companies represented 19 sectors. The Finance sector (17 per cent) makes up the largest group of companies, followed closely by industries such as Healthcare (10 per cent), Capital Goods (9 per cent) and Transport equipments (8 per cent).

All sample companies were later classified under two broad categories of 'High Profile' and 'Low profile' industries (Hackston & Milne, 1996). The first three sectors with the highest number of companies in the sample as mentioned above can also be classified as 'Low Profile' sectors (Hackston & Milne, 1996) as they represented industries with low consumer visibility, a low level of political risk (Roberts, 1992; Hackston & Milne, 1996), or low degree/intensity of competition. Transport equipments and Agriculture sectors classified under 'High profile' (Hackston & Milne, 1996) jointly contributed 14 per cent of total companies in

the sample. A total of 66.49 per cent (123 companies) companies in the sample represented 'Low Profile' sectors.

For understanding the perception of directors, men and women, as to the representation of women on boards and sustainability, a survey of directors was carried out.

Past research studies involving boards of directors, such as Sheridan (2001), Burgess & Tharenou (2002), Daily et al. (1999), Burke (1995), Holton (1995) and Mattis (1993) were carried out primarily focusing on views of only one gender – generally that of female directors, thereby not presenting a holistic picture or complete understanding of whether women's and men's perceptions are different (Sheridan & Milgate, 2005). A few and more recent studies have tried to overcome this limitation by exploring the perceptions and views of both men and women directors. These include Westphal & Stern (2007), Huse et al. (2009), Nielsen & Huse (2010a, 2010b), Hillman et al. (2002) and Ibrahim & Angelidis (2011).

This study carries out a Directors' Perception Survey in the Indian context by using a sample of both men and women directors of BSE 500 companies. In 2010, out of a total of 12176 directors, 604 women directors on boards of companies listed on BSE were identified from the Directors' Database – a database of directors of companies listed at Bombay Stock Exchange (BSE) and a corporate governance initiative of BSE. A similar status was found on BSE500 with 169 WOB out of a total of 3271 total directors, making the overall women representation on boards of directors approximately 5% of total directors.

Names of the directors were taken from the Directors' Database and the company annual reports. The addresses of directors were obtained from the Ministry of Corporate Affairs database.

To have a reasonable sample for the study, all 169 Women directors (on BSE500) were taken in the sample and with an equal number of Men directors randomly selected, the initial sample was planned as having 338 respondents. So the technique of 'Census' was adopted for selecting Women and 'Random Sampling' was adopted for selection of Men into the sample for the perception study.

On further evaluation it was observed that mailing information was either not available or was partially available or there were visible/obvious errors in the addresses for 19 women directors, so they had to be excluded from the sample. Making the final sample of women directors = 150. So an equal number of Men directors were selected randomly, making the final sample of 300. The men directors whose addresses were not available or partially available or were incorrect were replaced with another male director, so that the sample does not fall below 300.

Sources of Data and Data Collection

This study made use of both – Primary and Secondary data for the purpose of accomplishing its objectives. Structured questionnaire was used to gather primary data from the sample directors. A corporate Sustainability Index (CSI) was developed for examining the extent and quality of sustainability disclosure practices of the sample companies. The survey questionnaire and the CSI were pre-tested for validity and reliability.

Secondary data was collected from audited Annual Reports filed with the Stock Exchanges, Sustainability Reports, company and stock exchange websites, Capital Market database ‘Capitaline Plus’, Directors Database, Ministry of Corporate Affairs and Registrar of Companies.

The type of secondary data that was used in the study included the information of companies listed on BSE and comprising BSE 500 companies, information of company mergers/acquisitions, liquidations, de-listing etc., information of board of directors of BSE 500 companies, financial information such as Profits before depreciation, interest and taxes (PBDIT), Profits after tax (PAT), Share Capital and Share Price data, Book value and market value of shares, Sales, Market Capitalization, Total assets etc. Further details of the data used along with its source are discussed along with every variable explained in the next section.

Annual reports were chosen as the most appropriate data source in the absence of other reliable and authentic secondary sources to study the environmental and social aspects of sustainability. Annual reports have been successfully used, over

other published documents, by many researchers in the past. Evidence was found regarding annual reports being used as a data source in studies of organizational behaviour and strategy (Arndt & Bigelow, 2000; Bettman & Weitz, 1983; Salancik & Meindl, 1984). They have been known to provide comparable sets of data (Bettman & Weitz, 1983; Arndt & Bigelow, 2000) for a broad sample of companies. Annual reports have been consistently used in research exploring issues related to sustainability (Bansal, 2005), especially disclosures related to environmental and social quality and their correlation with performance (Clarkson et al., 2008; Cormier et al., 2005; Hackston & Milne, 1996; Maignan & Ralston, 2002; Patten, 2002). Annual reports are a significant communication tool for general public and an instrument of impression management (Arndt & Bigelow, 2000). One concern in using annual reports as a data source has been the probability of inflation in the contents. However, as emphasized by Krut & Munis (1998), this may be dismissed on the grounds that companies can be held accountable for their commitments in these reports. Therefore content of the annual reports can be assumed to be reasonably accurate and reliable.

Content analysis was used to analyze the sustainability practices. In content analysis a script is codified based on some selected criteria (Weber, 1988). Subsequently, quantitative index or scales are derived on the basis of a scoring system and used for further analysis and inferences capable of replication (Krippendorff, 1980). Use of content analysis has been widely used and documented in literature as the most appropriate method to study and analyze the environmental and social performance of companies. Past studies on environmental and social disclosures such as Abbott & Monsen (1979), Bowman (1984), Guthrie & Mathews (1985), Guthrie & Parker (1990), Hackston & Milne (1996), Maignan & Ralston (2002), Patten (2002), Cormier et al. (2005) and Clarkson et al. (2008) as well as sustainability studies by Bansal (2005) and Galbreath (2011) used content analysis.

Directors' Perception Survey Questionnaire

Substantial time and effort was invested in designing the survey questionnaire, constructing measurement scales and eliminating ambiguity. Questions in the

survey instrument were drawn after extensive and in-depth study of previous empirical and conceptual research work and literature. Inputs from the AIMA's National Conference on 'Developing Women Business Leaders: Agenda for Action' held on January 20-21, 2012 and interaction with board of directors during and after the conference, inputs from preliminary personal interviews with the Registrar of Companies and some of the directors and senior management officials of companies, correspondence with authors of research papers and reports led to development of a clearer methodology. Expert opinions helped in removing ambiguities and helped improve the survey instrument leading to the final draft mailed for pre-testing.

Pretesting: Initially an 8 page questionnaire with 32 questions was designed after multiple iterations. The questionnaire was mailed, for pretesting, to 50 directors - 25 men and 25 women directors. To increase the response rate, a follow up / reminder was posted after 1 month of the initial posting of the questionnaires as done in other studies involving participation of corporate elites such as Directors, MDs/CEOs etc. A follow up or reminder has been documented to increase the response rate in similar studies in the past such as Burke (1995), Sheridan (2001) and Sheridan & Milgate (2005). These studies have documented one follow up for their surveys. A second reminder was sent two months after the initial posting (Westphal & Stern, 2007; Nielsen & Huse, 2010a). The pre-testing analysis was done on 16 questionnaires, 10 received from men and 6 received from women directors after the two follow ups.

Most of the questions were treated as categorical - nominal and ordinal, which were put to test using simple statistical tools. Four sub-scales were created by combining related statements from the 37 items or statements spread over two questions such that each one represented and measured one factor that influenced and explained the status of representation of women on boards of directors. These sub scales were named as – Qualifications, Skills & Competence, Opportunities, Stereotypes and Board Conduct. Some statements in these subscales were negatively framed and so have been reverse coded. The internal consistency of each of these scales was evaluated using Cronbach's alpha. The α of 0.851, 0.758, 0.762 and 0.718 for each of the sub scales mentioned above was found to be

greater than 0.70 considered acceptable in literature, also because Cronbach's alpha generally tends to be lower when working with reverse coded items.

Key modifications made, during iterations and discussions with experts as well as after pre-testing, included removal of the 'Ranking' scales by converting them either into rating (5 or 3 point Likert) or to categorical/nominal (tick one which is most appropriate) as ranks were missed in most of the cases and there were lot of missing values which would have been a problem at the time of analysis. The number of open ended questions was reduced from 3 to just 1, some non-strategic, non-response questions were deleted, and wording of some statements was improved and footnotes added at some places to remove ambiguity. Some multiple statement questions or scales were also pruned after running internal consistency tests.

A six page questionnaire with 20 questions (Annexure II) was finalized after pretesting. The same questionnaire was used for soliciting responses of men as well as women directors primarily on two categories: i) their understanding of corporate sustainability and ii) their perceptions about representation of women on boards.

The final questionnaire consisted of eight questions dedicated to assessing the perceptions of directors participating in the survey on corporate sustainability. Questions involved testing the awareness of respondents with respect to Triple Bottom Line concept, the stakeholders who drive sustainability, the most pressing sustainability issues of companies, constitution of separate CSR committees and Code of Conduct, the frequency with which sustainability issues form agenda of the board and the extent of involvement of men and women directors in strategic decisions involving the company.

The second aspect, that the questionnaire was designed to measure was the perceptions of men and women director respondents on the representation of women on boards. It involved questions regarding adequacy of diversity in general and gender diversity in particular, the factors promoting and inhibiting the representation of women on boards. It also examined the level of satisfaction of respondents with reference to - the way their companies operate, the discretion to deal with problems in own way and the opportunities to do creative work. Other

questions also evaluated the support for quotas for women on boards, trainings and other methods for improving gender diversity on boards.

The questionnaire also had seven demographic and general questions such as gender, age, education, experience, type of directorship held and annual income.

The final questionnaire was mailed to the randomly selected sample of men and women directors. The survey was kept 'anonymous' not requiring the respondents to disclose their identity or that of their company. This was done with an expectation of improving the response rate which was generally found to range between 30-40% in similar studies in the past. A cover letter elucidating the objectives of the survey along with a stamped self-addressed envelope was attached to each questionnaire and was mailed to the directors' residential address listed in and obtained from the Ministry of Corporate Affairs database. A postcard follow-up was mailed after one month of the date of initial mailing (Burke, 1995, Sheridan 2001, Sheridan & Milgate 2005) and again after three months from the date of initial mailing.

Of the total 300 final questionnaires mailed, 96 responses were received making the response rate of 32%. 22% responses were received from women and 42% from men. This was considered reasonable and adequate considering the elite class of respondents involved.

Variables and Models

To operationalize the concepts of corporate sustainability and gender diversity and to meet the different objectives of this study a set of items and variables were required. The process of identification of variables was deeply grounded in theory.

Variables:

1. Social Involvement, Environmental Concern and overall Corporate Sustainability Scores:

The sensitivity towards societal issues and quality of environmental and overall corporate sustainability disclosures of a company were measured through an index constructed from a set of items which represented social involvement, environmental concern and governance and engagement of companies. These variables were labelled as Social Involvement Score (SIS), Environmental Concern Score (ECS) and overall Corporate Sustainability Score (CSS). The methodology adopted to derive these scores is explained below.

A Corporate Sustainability Index (CSI) along with decision rules was developed (Annexure III). The Index was developed through a systematic approach by identifying, quantifying and analyzing the number and nature of the components that made up the composite index based on theory, pragmatism or intuitive appeal (Bossel, 1999; Singh et al., 2009; Warhurst, 2002). The frameworks of World Business Council for Sustainable Development (WBCSD), the Global Reporting Initiative (GRI), the United Nations Global Compact (UNGC) Principles, Millennium Development Goals, the Equator Principles and International Finance Corporation's Performance Standards on Social and Environmental Sustainability as well as its Environmental, Health and Safety (EHS) Guidelines formed the foundation for development of a sustainability reporting and assessment index (Annexure IV). All important aspects and indicators reflecting an organization's commitment, performance and quality of information disclosed with regards to sustainability were included in the index. Composite indicators or categories were also selected based on the earlier researches and works of Abbott & Monsen (1979), Bansal (2005), Clarkson et al. (2008), Cormier et al. (2005), Davis-Walling & Batterman (1997), Dias-Sardinha & Reijnders (2001), Galbreath (2011), Gamble et al. (1995), Gray *et al.* (1995), Hackston & Milne (1996), ISO (1999), Kaur et al. (2009), Maignan & Ralston (2002), Morhardt (2001), Morhardt et al. (2002), Patten (2002), Waddock & Graves (1997), Westphal & Zajac (1998), Williams (1999) and Wiseman (1982). This resulted in deriving a

set of standardized indicators of corporate sustainability - governance, sensitivity towards societal issues and environmental integrity.

The CSI was designed to measure the extent and quality of sustainability disclosures of organizations– including both positive and negative contributions. The Index had three parts: (i) Governance and Engagement (GE) Indicators, (ii) Environmental Concern (EC) Indicators and (iii) Social Involvement (SI) Indicators. Table 3.1 presents the structure of Corporate Sustainability Index (CSI).

The first part of the index was related to aspects of governance and stakeholder engagement. This part assessed the extent and completeness, details of information regarding the governance structure of the organization including the composition, qualifications and expertise of the Board of Directors and its committees as well as mechanisms for linking their compensation to the performance of the organization. This part also assessed an organization on the approaches it adopted for stakeholder engagement and how it responded to their recommendations and concerns.

The second part of the CSI was related to the second dimension of sustainability i.e. environmental concern. It measured an organization's effects on natural environment, including ecosystems, air, water and land. This part consisted of four categories – Environmental vision, strategy and management, Environmental performance indicators, Compliance and recognitions, and Environmental spending. Every category included different aspects and indicators which were scored based on the extent of disclosure in the annual reports. An organization's environmental performance was measured in terms of efficiency in use of material, energy and natural resources as well as in terms of efforts made to minimize the harmful impacts of its activities on environment by controlling waste and pollution etc. It also included adherence to various environmental laws and codes and transparency in disclosing the amount spent on initiatives to protect the natural environment.

The Social Involvement part of the index assessed the impact and contribution of an organization on the society. It concerned with the third dimension of sustainability and consisted of five categories – Labour Practices, Human Rights

Performance Indicators, contribution to community, Product Quality and Customer Satisfaction and Compliance & recognitions. It also included the measures taken by an organization to eradicate poverty, discrimination, child labour and corruption.

Each one of the categories included aspects and indicators which were scored based on the extent and quality of disclosure in the annual reports.

Table 3.1: Structure of Corporate Sustainability Index (CSI)

Part	Category	Aspects	Indicators / Items
Governance & Engagement (GE)	Governance	1	12
	Stakeholder Engagement	1	3
	Total GE Score (GES)	2	15
Environmental Concern (EC)	Environmental Vision, Strategy and Management	1	8
	Environmental Performance	5	17
	Compliance and Recognitions	1	3
	Environmental Spending	1	2
	Total EC Score (ECS)	8	30
Social Involvement (SI)	Labour Practices	4	17
	Human Rights Performance Indicators	1	2
	Contribution to Community	2	9
	Product Quality and Customer Satisfaction	1	4
	Compliance and Recognitions	1	3
	Total SI Score (SIS)	9	35
Total Corporate Sustainability Score (CSS)		19	80

Scoring system:

The methodology of designing the index overcomes the shortcomings of many previous systems by taking into consideration the extent and quality of actual disclosures made by an organization on various items in comparison with the expected level of disclosures from a responsible corporation.

Different scoring systems to measure environmental concern and social involvement had been adopted by researchers in the past. Some studies used variable scores for different items or indicators e.g. scores of '0' and '1' for some

topics, '0' to '2', '0' to '3' and even '0' to '4' for some topics (Davis-Walling & Batterman, 1997 and GRI, 2006). '0' signified no reporting and score increased depending on the level and nature of detail of the narrative. The maximum score was representative of a comprehensive detail along with quantitative measure of a topic. Then there were studies by Bansal (2005), Galbreath (2011) and Westphal & Zajac (1998) which used a binary system of scoring using '0' and '1' where '0' represented no indication of the item and '1' represented some presence. Many similar studies in the past gave equal weightage to all items and used a scoring system of '0' to '3' for all items/topics, the most prominent of such studies being by Wiseman (1982) and ISO (1999). Wiseman Index and scoring system (Wiseman 1982) had been used by many researchers for almost over two decades with minor modifications by some yielding satisfactory results. Patten's (2002) modified Wiseman index had scores of '0' to '8' for every item while, Cormier et al. (2005) used an index similar to Wiseman (1982) but scored each item on a scale of '1' to '3'.

Considering that all items on the index may not be rated at the same levels in terms of completeness of disclosures by assigning points on a common fixed scale e.g. 0 or 1, 0 to 3, 1 to 3 etc., a system of variable scores for different items was adopted. This avoided any superficial and forced definition of a score on any item of the index. Out of a total of 80 items on the index, 45 items use up to three points each (Scale of 0 – 3) depending on the comprehensiveness of coverage, and 35 items worth two points each (Scale of 0 – 2). For the determination of the quality of information, the composite score is obtained by summing up the scores of all indicators in each category of the CSI. An equal weightage and importance is attached to all items. Therefore, companies analyzed with the index can achieve a minimum of '0' points and a maximum of 205 points.

The scoring system treats the items more generically and comprehensively, therefore ensuring wider applicability amongst different kinds of companies and sectors. Explicitly laid out decision rules for scoring each item makes it less subjective and easy to replicate results.

Pre-test:

Since there was an element of subjectivity arising out of interpretation of the disclosures in annual reports and scoring each item on the index constructed for this study, pretesting of the initially constructed index was done for a small sample from the annual reports to be used for this study. A random sub-sample of twenty companies was selected for pretesting. Data was extracted from their annual reports, coded and scored on the index two academic experts separately (Hackston & Milne, 1996). Two rounds of pretesting were performed. These pretesting rounds and multiple iterations of the index, progressively achieved consensus on what constituted a good sustainability disclosure, and led to the finalization of the index. The final round scores were compared and tests were performed to ensure inter – rater reliability and internal consistency of the index.

The inter-rater reliability was tested using content analysis reliability measure Krippendorff's α (Krippendorff, 1980; Hackston & Milne 1996). In the absence of any defined standard for establishing reliability of environmental and social disclosures using content analysis, 0.80 or better was found to be generally accepted level of inter-rater reliability (Guthrie & Mathews, 1985; Hackston & Milne, 1996). However, there are studies like by Wimmer & Dominick (1991) which suggest a Krippendorff's α of 0.75 or better as acceptable. The reliability test indicated Krippendorff's $\alpha = 0.895$ signifying 89.5% agreement between raters occurring above chance. As the inter-rater reliability score of $\alpha = 0.895$ was found to be satisfactory, content analysis was later performed using the final index after modification resulting from the pretesting process.

For assessing the internal consistency of the items, Cronbach's alpha coefficient (Cronbach, 1951) was computed. The results obtained from the composite CS Index with Cronbach's alpha = 0.950 confirmed the reliability of the index. The Cronbach's alpha values for all the three component parts of the index were above 0.70 thus ensuring the construct's internal consistency and validity (Huang et al., 2012).

The score for every sample company based on the final index was computed for each year (2006 to 2011) separately and then a 6-year average was calculated.

The scores were normalized by converting them into their natural log figures for making them statistically comparable. Normalized scores were further adjusted by multiplying all scores by ten to obtain more visually manageable scores (Singh et al., 2009). These scores were used as dependent variables for further tests and accomplishing the objectives of the study.

2. Gender Diversity or Women on Boards:

Past studies have used different measures of gender diversity. Torchia et al. (2011) has used absolute number of women on board to measure gender diversity, whereas Bear et al. (2010) used Blau's Index. Miller & Triana (2009) and Campbell & Minguez-Vera (2008) used two proxies to measure gender diversity – the Blau's Index and ratio of women on boards. Carter et al. (2003) and Adams & Ferreira (2009) used a dummy variable to record the presence or absence of women on board and also used women's ratio on the board to measure gender diversity. The percentage of women directors on board has also been widely used in other studies such as Shrader et al. (1997), Erhardt et al. (2003), Bonn (2004), Rose (2007), Lückert-Rovers (2010), Nielsen & Huse (2010a; 201b) and Galbreath (2011).

This study uses two proxies as measures of gender diversity – (i) Blau's Index and (ii) proportion of women directors on boards.

For a categorical or nominal variable like gender, Blau's (1977) index of heterogeneity ($1 - \sum p_i^2$) is used, where 'p' is the proportion of members in a group and 'i' is the number of categories, in case of gender a total of two categories, across all groups. Miller & Triana (2009) explain that the values of the Blau's index can range from a minimum of 0 to a maximum value that depends on the number of categories calculated by the formula $[(i-1)/i]$. So in case of gender diversity, an index value of 0 indicates complete concentration of group members in one category meaning complete homogeneity e.g. all board members are either male or all are female. The index value of 0.5 indicates perfect or the highest degree of heterogeneity or level of diversity representing perfectly gender balanced boards with 50% male and 50% female directors.

A six year average (2006-2011) figures were used to test the different hypotheses.

Data for women on boards, independent directors and total board size was taken from company annual reports, Directors Database – an online database as a part of Corporate Governance Initiative of BSE and Ministry of Corporate Affairs.

3. Economic performance

Based on an extensive literature review, evidence of a multitude of proxies for economic performance or the financial indicators of a firm's performance was found which were used by prior researches with similar objectives. Economic impact was measured in terms of confidence of investors by Arfken et al. (2004) and Flynn & Adams (2004) and as reduction in transaction costs because of fewer protective devices by Hosmer (1995) and Galbreath (2011). ROA & ROI were used by Daily & Dalton (2003); Erhardt et al. (2003), ROA and ROE were used by Hackston & Milne (1996), Weber et al. (2005) Tobin's Q and ROA by Carter et al. (2003, 2010). Tobin's Q was also used by Rose (2007), Campbell & Minguez-Vera (2008) and Adams & Ferreira (2009), whereas revenues were used by Burke, 2000. Bonn 2004 measured economic performance in terms of ROE and Market-Book Value, which was also taken as a proxy of economic growth and used by Galbreath (2011). Clarkson et al. (2008) used Tobin's Q and ROA in addition to leverage ratio and stock price volatility whereas Cormier et al. (2005) used stock market performance – Leverage and Market Return. Shrader et al. (1997) and Lückerath-Rovers (2010) used ROA, ROE and ROS as proxies for economic performance of a company.

ROA, ROE and Market-to-Book Value were used as measures of Economic performance and growth for the purpose of this study. The accounting measures - ROE and ROA report the operating efficiencies and also indicate how effectively the funds of investors are utilized for maximizing returns. The proxy of Market-to-book value was indicative of the future growth potential and performance of a firm.

- (i) Return on Assets (ROA) is the total return on assets measured as a ratio of profits (before depreciation, Interest and taxes) and total assets.

$ROA = \text{Profit before Depreciation Interest \& Taxes (PBDIT)} / \text{Total Assets}$

This formula correctly reports the operating efficiencies of firms and is useful for inter-firm comparisons as it is not influenced by varying capital structures. A higher ROA highlights better performance.

(ii) Return on Equity (ROE): Return on equity is a book value measure of shareholder value creation. This measure is also more relevant in the context of corporate governance and sustainability in that the task of the board is to get management to enhance shareholder value. This ratio exclusively measures the return on owners' funds. This is a significant ratio from the point of view of the owners or equity shareholders.

$ROE = \text{Profit After Tax (PAT)} / \text{Equity share capital}$

As in the case of ROA, a high ROE is considered a sign of good performance of a company.

(iii) The ratio of Market-to-Book Value is indicative of the future growth potential and performance of a firm.

All these variables/proxies were computed for each year (2006-2011) separately and then a 6-year average calculated and used to test the hypothesis. Data was obtained from Capitaline Plus, a secondary online database and company annual reports.

4. Sector Classification

Several prior studies in this domain have found sector or industry classification as a factor influencing the disclosure practices of companies. Hackston & Milne (1996) established a positive association between high and low profile industries and the measures of social disclosures adopted by them. The disclosures on social and environmental aspects have been found to be greater in companies categorized as 'High-profile' as compared to companies belonging to low-profile industries. Studies conducted by Patten (1991) and Roberts (1992) produced

similar findings. Patten (1991) attributes an industry's political visibility as a key influencer of the kind of disclosures made by a company. According to him a company's environmental and social disclosures are aimed at avoiding pressures and protests and tackling demands from advocates of social justice and interests. Dierkes & Preston (1977) and Kelly (1981) argue that companies in primary, secondary and specifically extractive sectors, whose activities affect the environment, tend to make more disclosures about the environmental impacts of their operations. On the other hand consumer-oriented and companies engaged in tertiary sector reveal more about their social concern with an objective to increase sales as well as to improve their reputation in the eyes of the stakeholders (Cowen et al., 1987). Social disclosures also appeared to have a very strong association with industry (Gray et al., 1995).

The sample companies in this study were categorized into 19 sectors. They were then following Hackston & Milne (1996) grouped into High and Low Profile sectors. Hence, the sector classification was represented by a dummy binary variable with '1' for High profile sector and '0' for Low profile sector. This was used to test the hypothesis that the sector to which a company belongs influences the extent and quality of corporate sustainability disclosures.

5. Size of Company

A number of past studies such as Kelly (1981), Trotman & Bradley (1981), Pang (1982), Belkaoui & Karpik (1989), Patten (1991, 1992) and Gray et al. (1995) have established a relationship between company size and the extent of disclosures especially about the environmental and social impacts of business operations.

Neu et al. (1998) and Scott (1994) found a positive association between company size and disclosure practices, a finding supported by more recent studies conducted by Cormier & Magnan (1999) and Cormier et al. (2005). This is strongly connected to the agency and legitimacy theory. Larger companies by virtue of their large scale of operations, make a greater impact on the environment and society (Cowen et al., 1987). They are also likely to have large number of

shareholders expecting complete information on the company's impacts and steps to mitigate adversities. Large companies attract more stakeholder scrutiny (Fombrun, 1996; Suchman, 1995) and effectively use annual reports to communicate such information (Cowen et al., 1987). Hackston & Milne (1996) argue that a large 'High-profile' company, in terms of assets or sales, disclosed more information about its social and environmental impacts. However, for a 'low-profile' company, size-disclosure relationship did not hold true. Ng (1985) and Roberts (1992) also failed to establish any significant impact of company size on disclosure practices.

This study attempts to evaluate the potential association of company size on the extent and quality of disclosure practices of Indian listed companies.

Different methods to measure company size have been employed in previous studies e.g. sales was used by Trotman & Bradley (1981) and Kimberly (1976) and log of sales was used by Belkaoui & Karpik (1989) and Patten (1991). Average revenue over the four years of the study period was used by Roberts (1992). Waddock & Graves (1997) used total assets, sales and number of employees to quantify and measure company size. Some researchers used multiple measures for size in their studies such as Trotman & Bradley (1981) who used total assets along with sales as proxies to measure company size. Patten (1991) also used *Fortune* 500 rankings along with log value of sales.

Reasons for choice of certain measures of company size over the others were not documented in literature and could not be ascertained, so two measures of size – market capitalization and total assets were used in this study. The natural log of total assets (Bansal, 2005; Clarkson et al., 2008) and the natural log of Market Capitalization (Hackston & Milne, 1996) were used as proxies for company size. The total assets and market capitalization values were transformed into their log values to achieve normal distributions (Cox & Snell, 1981).

6. Age of the organization

Age is calculated as the number of years since the establishment or incorporation of the company. The age of a company in the year 2012 was taken for the purpose

of the study. Based on previous studies, company age is assumed to be positively related with the quantity and quality of disclosures. As Roberts (1992) puts it, as a mature firm is more concerned about its reputation, it is expected to make more social responsibility disclosures as compared to young companies. For the purpose of this study Nat Log of Age in year 2012 was used for analysis.

7. Slack resources

Surplus resources are the funds available with the company to meet contingencies thereby easing the pressure on organizations in times of adversities (Bourgeois, 1981; Bansal 2005). Levinthal & March (1981) suggest that companies invest these surplus or idle funds to enhance their capabilities and thereby become better equipped to meet the challenges posed by the company's external environment (Cheng & Kesner, 1997). Even in the specific context of sustainability, substantial amount of investments are required to critically analyze the company's current performance on economic, social and environmental dimensions through elaborate audits as well as to develop and implement new technologies and systems. In this context, Bansal (2005) suggests that companies with extra financial resources tend to perform better. So, organizational slack helps firms to implement corporate sustainability initiatives.

Schuler (1996) and Bansal (2005) used the difference of current assets over current liabilities as a measure of extra liquidity and organizational slack whereas Net profits were used as a proxy for slack variable by Waddock & Graves (1997) and Galbreath (2011). Natural log of Net Profits was used as a proxy for slack resources for this study.

8. Board size

The total number of directors on board was taken as a measure of board size. Board size has known to influence company's value in studies conducted by

Carter et al. (2003), Dalton et al. (1998) and Nielsen & Huse (2010a; 2010b). Natural log of board size was used for the purpose of analysis.

9. Board Independence:

Past studies have indicated that boards with outside/independent membership and representation act as better guardians of the interests of the society and the environment as compared to the executive directors on corporate boards (Ibrahim & Angelidis, 2011). Studies by Baysinger & Butler (1985) and Pearce & Zahra (1992) also suggest that companies that have boards with a higher percentage of outside directors perform better in comparison with companies which do not have independent boards.

Following Nielsen & Huse (2010a; 2010b), for the purpose of this study, Board's independence was measured as a percentage of independent directors in the board composition.

Models and Analytical techniques to test various hypotheses

Multiple analytical techniques were used to find answers to the research questions. Specific to the type of data and the hypothesis to be tested, appropriate techniques were employed. Information collected was presented in the form of tables and charts for better understanding and inference. Descriptive statistics such as frequency distribution tables, percentage, mean and cross tabulation etc. were used for preliminary and basic level analysis of the status of corporate sustainability disclosure practices, the status of women on corporate boards of the sample companies and the responses of the directors who participated in the perception survey.

Comparisons of means were done between companies with High CSS and those with low CSS. The High CSS group consisted of companies which had a CSS score of over 1 standard deviation from the mean and the Low CSS group consisted of companies which had a CSS of over 1 standard deviation below the

mean. A similar comparison between two groups created on the basis of the level of gender diversity on their boards. Comparisons of means were also done between companies with no women on boards and those with more than one woman on their boards. Companies with one woman were ignored to control for tokenism. Student's t-test was used for this purpose. ANOVA was also used to evaluate the differences in the perceptions of men and women directors regarding the factors that promote and inhibit the representation of women on boards. Chi-Square and the Fisher's Exact tests were used to analyze responses on multiple questions using categorical and ordinal scales, in the perception survey to see if there was a significant difference between men and women directors.

Time Series Linear Trend analysis was used for forecasting the future women on boards of directors. Correlation and regressions models were used to test the relationship between various identified variables. Table 3.2 provides consolidated information on all the hypotheses, the variables and the analytical tools used to test these hypotheses.

Correlation tests were conducted between independent variables to evaluate whether the problem of multicollinearity existed. Correlations between dependent and independent variables including control variables were conducted to determine fitness of data for further testing through multiple regression models using 2-Stage Least Square (2SLS) method.

Table 3.2: Summary of Analytical Framework of the study

Hypothesis	Variables	Analytical techniques
H0 ₁ There is no significant difference in CS disclosure practices of companies and their industry / sector classification.	1. Nat Log Corporate Sustainability Scores (CSS) 2. Sector Classification - Industry Dummy	- Levene Statistic - ANOVA - Post Hoc tests – LSD method

Hypothesis	Variables	Analytical techniques
H0 ₂ There is no significant difference in CS disclosure practices of companies and their size.	1. Nat Log Corporate Sustainability Scores (CSS) 2. Size - Nat Log Market Capitalization - Nat Log Total Assets - Nat Log Net Sales	- Comparison of Means between Cos with High CSS and Low CSS – using t-test
H0 ₃ There is no significant difference in CS disclosure practices of companies and their age.	1. Nat Log Corporate Sustainability Scores (CSS) 2. Nat log Age	- Comparison of Means between Cos with High CSS and Low CSS – using t-test
H0 ₄ There is no significant difference in gender diversity on boards of companies and their industry / sector classification.	1. Number of WOB 2. Sector Classification - Industry Dummy	- ANOVA – companies with no WOB and with ≥ 2 WOB
H0 ₅ There is no significant difference in gender diversity on boards of companies and their size.	1. Number of WOB 2. Size - Nat Log Market Capitalization - Nat Log Total Assets - Nat Log Net Sales	- Comparison of Means – companies with no WOB and with ≥ 2 WOB – using t-test
H0 ₆ There is no significant difference in gender diversity on boards of companies and their age.	1. Number of WOB 2. Nat Log of Age	- Comparison of Means – companies with no WOB and with ≥ 2 WOB – using t-test
Forecast of number of WOB in future	Number of WOB	- Time Series Linear Trend analysis was used for forecasting the future women on boards of directors
H0 ₇ There is no significant relationship between gender diversity on boards and the economic performance of a company.	Refer Model in Figure 3.1	- Comparison of Means – companies with no WOB and with ≥ 2 WOB – using t-test - Correlation - 2SLS Regression

Hypothesis	Variables	Analytical techniques
H0 ₈ There is no significant relationship between gender diversity on boards and the sensitivity of a company towards societal issues.	Refer Model in Figure 3.1	-Comparison of Means – companies with no WOB and with ≥ 2 WOB – using t-test - Correlation - 2SLS Regression
H0 ₉ There is no significant relationship between gender diversity on boards and the quality of environmental disclosures of a company.	Refer Model in Figure 3.1	- Comparison of Means – companies with no WOB and with ≥ 2 WOB – using t-test - Correlation - 2SLS Regression
H0 ₁₀ There is no significant difference in men and women directors' awareness of the concept of Triple Bottom Line (TBL) and their identification of key drivers of Corporate Sustainability.	Responses to Questions 3 and 5 of the Directors' Perception Survey	- Descriptive Statistics - Cross Tabulation - Chi-Square - Fisher's Exact test
H0 ₁₁ There is no significant difference between men and women directors' views on the importance and frequency on which the key sustainability issues feature on the boardroom agenda.	Responses to Questions 13 of the Directors' Perception Survey	- Descriptive Statistics - Cross Tabulation - Chi-Square - Fisher's Exact test
H0 ₁₂ There is no significant difference in the perception of men and women directors regarding the diversity on boards of directors.	Responses to Question 10 (i) & (ii) of the Directors' Perception Survey	- Cross Tabulation - Chi-Square - Fisher's Exact test

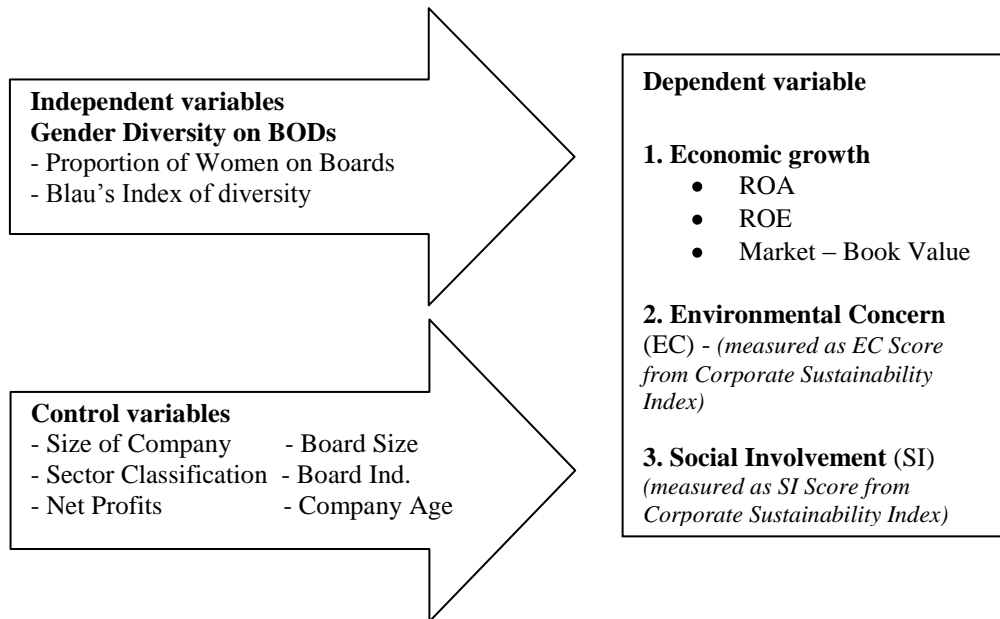
Hypothesis	Variables	Analytical techniques
H0 ₁₃ There is no significant difference in the perception of men and women directors regarding the qualifications, skills and competence that women bring on board.	Responses to Questions 11 and 12 of the Directors' Perception Survey Qualifications, Skills & Competence subscale scores	- Descriptive Statistics - Means and Standard Deviations - ANOVA
H0 ₁₄ There is no significant difference in the perception of men and women directors regarding the opportunities for women's appointment on Boards.	Responses to Questions 11 and 12 of the Directors' Perception Survey Opportunities subscale scores	- Descriptive Statistics - Means and Standard Deviations - ANOVA
H0 ₁₅ There is no significant difference in the perception of men and women directors regarding the existence of stereotypes against women.	Responses to Questions 11 and 12 of the Directors' Perception Survey Stereotypes subscale scores	- Descriptive Statistics - Means and Standard Deviations - ANOVA
H0 ₁₆ There is no significant difference in the perception of men and women directors regarding the professional conduct of Board's activities.	Responses to Questions 11 and 12 of the Directors' Perception Survey Board Conduct subscale scores	- Descriptive Statistics - Means and Standard Deviations - ANOVA

Model to test Hypothesis H₀₇, H₀₈ and H₀₉:

One of the objectives of this research was to study whether there was any relationship between women presence on Board of Directors and economic performance of a company, its sensitivity towards societal issues and the quality of environmental disclosures of a company.

Therefore, three dependent and one independent variable were identified. Based on past research, some “usual suspects” known to influence the disclosures and performance of a company were identified. So these were included as ‘control’ variables in the study besides the independent variable – Gender Diversity.

Figure 3.1: Model to test Hypothesis H₀₇, H₀₈ and H₀₉



Techniques for testing the Model

Regression analysis as well as comparisons of means was used to study the effect of gender diversity on boards and the corporate sustainability dimensions namely economic performance, social involvement and environmental concern. Each of the dependent variables was regressed against measures of gender diversity as per the following basic equations:

$$\text{Economic Performance} = \alpha_0 + \alpha_1 \text{Gender Diversity} + \sum \alpha x + \varepsilon \quad (\text{A})$$

$$\text{SIS} = \alpha_0 + \alpha_1 \text{Gender Diversity} + \sum \alpha x + \varepsilon \quad (\text{B})$$

$$\text{ECS} = \alpha_0 + \alpha_1 \text{Gender Diversity} + \sum \alpha x + \varepsilon \quad (\text{C})$$

Where:

α_0 – Constant

x – Control Variables

ε – Error term

Economic Performance - ROA, ROE and M-B Value were taken as measures of Economic Performance.

Gender Diversity - Proportion of Women on Boards and Blau's Index of gender diversity were taken as measures of Gender Diversity.

SIS is the Log value of Social Involvement Score derived from CSI Index.

ECS is the Log value of the Environmental Concern Score derived from CSI Index.

Six year (2006-2011) average values were used for all Dependent and Independent variables.

Various control variables, shown in earlier studies to influence the dependent variables, are included in the model. They include:

Sector Classification – measured by a Dummy variable used for classifying all companies into '1' – High Profile and '0' Low Profile companies.

Company Size – measured by Nat Log of Total Assets, Nat Log of Market Capitalization and Nat Log of Net Sales.

Company Age – measured as Nat Log of Age of a company calculated in the year 2012.

Surplus resources – was measured by Nat Log of Adjusted Net Profits.

Board Size – measured as Nat Log of total number of directors on boards.

Board Independence – measured in terms of percentage of independent directors on boards.

Values of total assets, market capitalization, net sales, adjusted net profits, board size and board independence in the base year 2005 were used in the analysis.

Two Stage Least Square Method

Problem of endogeneity has been known to arise in past studies evaluating the link between board diversity and a company's financial as well as social and environmental performance. Endogeneity arises in a situation when an independent variable could affect the dependent variable and at the same time the dependent variable could also affect the independent variable i.e. there exists a two ways or simultaneous relationship. This tends to make a clear cut differentiation between the dependent and the independent variables very difficult.

In such cases the use of Ordinary Least Square (OLS) regression analysis could provide biased results. To control for endogeneity, a simultaneous-equation model and 2- Stage Least Square (2SLS) Method was used (Carter et al., 2003).

H0₇ There is no significant relationship between gender diversity on boards and the economic performance of a company.

For testing hypothesis H₀₇ the following systems of equations (1a, 1b and 2a, 2b), (3a, 3b and 4a, 4b) and (5a, 5b and 6a, 6b) were created for the three different measures of a company's economic performance and the two measures of gender diversity.

$$\text{ROA} = \alpha_0 + \alpha_1 \text{ Prop. of WOB} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (1a)$$

$$\text{Prop. of WOB} = \alpha_0 + \alpha_1 \text{ ROA} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (1b)$$

$$\text{ROA} = \alpha_0 + \alpha_1 \text{ Blau's Index value} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (2a)$$

$$\text{Blau's Index Value} = \alpha_0 + \alpha_1 \text{ ROA} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (2b)$$

$$\text{ROE} = \alpha_0 + \alpha_1 \text{ Prop. of WOB} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (3a)$$

$$\text{Prop. of WOB} = \alpha_0 + \alpha_1 \text{ ROE} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (3b)$$

$$\text{ROE} = \alpha_0 + \alpha_1 \text{ Blau's Index value} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (4a)$$

$$\text{Blau's Index Value} = \alpha_0 + \alpha_1 \text{ ROE} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (4b)$$

$$\text{MBV} = \alpha_0 + \alpha_1 \text{ Prop. of WOB} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (5a)$$

$$\text{Prop. of WOB} = \alpha_0 + \alpha_1 \text{ MBV} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (5b)$$

$$\text{MBV} = \alpha_0 + \alpha_1 \text{ Blau's Index value} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (6a)$$

$$\text{Blau's Index Value} = \alpha_0 + \alpha_1 \text{ MBV} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (6b)$$

H₀₈ There is no significant relationship between gender diversity on boards and the sensitivity of a company towards societal issues.

For testing hypothesis H₀₈ the following two systems of equations (7a, 7b) and (8a, 8b) were created for the measures of a company's Social Involvement (SI) represented by its Social Involvement Score (SIS).

$$\text{SIS} = \alpha_0 + \alpha_1 \text{ Prop. of WOB} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (7a)$$

$$\text{Prop. of WOB} = \alpha_0 + \alpha_1 \text{ SIS} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (7b)$$

$$\text{SIS} = \alpha_0 + \alpha_1 \text{ Blau's Index value} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (8a)$$

$$\text{Blau's Index Value} = \alpha_0 + \alpha_1 \text{ SIS} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (8b)$$

H₀₉ There is no significant relationship between gender diversity on boards and the quality of environmental disclosures of a company.

For testing hypothesis H₀₉ the following two systems of equations (9a, 9b) and (10a, 10b) were created for the measure of a company's Environmental Concern (EC) represented by its EC score (ECS).

$$\text{ECS} = \alpha_0 + \alpha_1 \text{ Prop. of WOB} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (9a)$$

$$\text{Prop. of WOB} = \alpha_0 + \alpha_1 \text{ ECS} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (9b)$$

$$\text{ECS} = \alpha_0 + \alpha_1 \text{ Blau's Index value} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (10a)$$

$$\text{Blau's Index Value} = \alpha_0 + \alpha_1 \text{ ECS} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age} \quad (10b)$$

Conclusion:

This chapter provided an overview of the methodology adopted to accomplish the objectives of this study. It provided the rationale of the study by identifying the research gaps in existing literature relating to corporate sustainability and gender

diversity. The appropriateness of the chosen period of study and the sample of companies was also highlighted. The chapter also explained in detail the methods used to operationalize and measure the concepts of corporate sustainability and gender diversity and the instrument (survey) developed to understand the perceptions of men and women directors. It presented the different hypotheses which when tested would help achieve answers to the research problems or objectives. Different variables, models and tools for analysis were identified for every hypothesis.

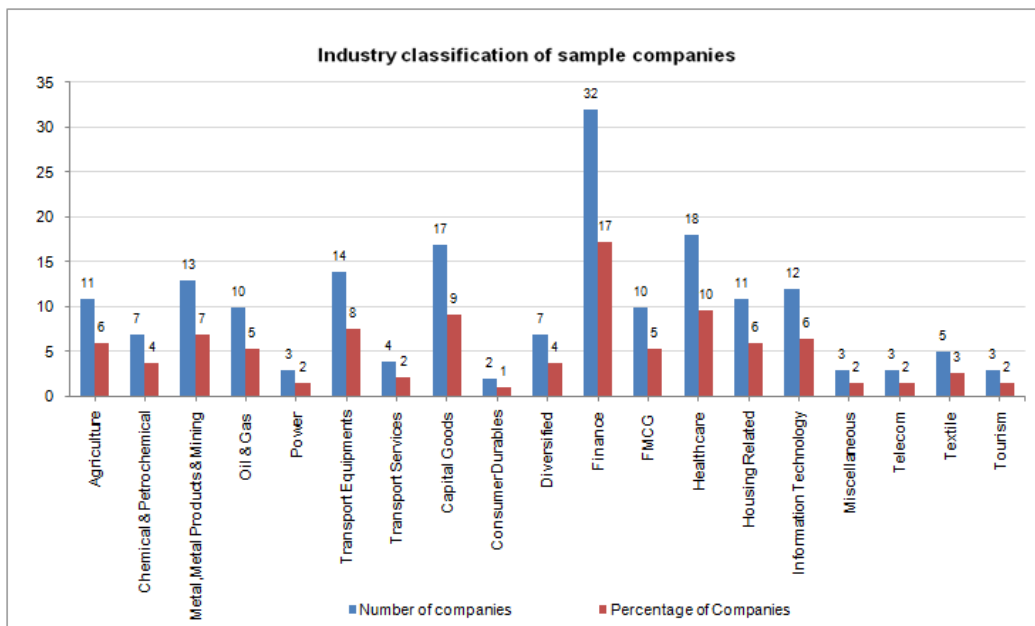
CHAPTER 4

CORPORATE SUSTAINABILITY DISCLOSURES PRACTICES AND GENDER DIVERSITY ON BOARDS OF DIRECTORS

To achieve objectives 1 and 2 of the study, the sustainability disclosure practices and representation of women on boards of directors of all the 185 companies in the final sample were studied in depth over the period of six years. The findings are discussed in detail below.

The final sample of companies represented 19 sectors depicted in Figure 4.1. The Finance sector (17 per cent) makes up the largest group of companies, followed closely by industries such as Healthcare (10 per cent), Capital Goods (9 per cent) and Transport equipments (8 per cent).

Figure 4.1: Sector classification of sample companies



All sample companies were later classified under two broad categories of ‘High Profile’ (HP) and ‘Low profile’ (LP) industries (Hackston & Milne, 1996). The first three sectors with the highest number of companies in the sample as mentioned above can also be classified as ‘Low Profile’ sectors (Hackston & Milne, 1996) as they represented industries with low consumer visibility, a low level of political risk, or low degree/intensity of competition. Transport equipments and Agriculture sectors classified under ‘High profile’ (Hackston &

Milne, 1996) jointly contributed 14 per cent of total companies in the sample. A total of 66.49 per cent (123 companies) companies in the sample represented 'Low Profile' sectors. Table 4.1 shows the descriptive statistics for sample companies.

Table 4.1: Descriptive Statistics of Sample Companies

Sector	No. of Cos.	%	HP / LP	Mean Total Assets*	Mean Market Cap.*	Mean Net Sales*	Mean Adj. Net Profits*	Mean Company Age**
Agriculture	11	5.95	HP	14228.98	18147.34	18489.35	1320.96	38.73
Chemical & Petrochemical	7	3.78	HP	7065.57	22937.19	10608.67	930.63	51.71
Metal, Metal Products & Mining	13	7.03	HP	38923.73	98614.79	40065.35	7931.05	43.23
Oil & Gas	10	5.41	HP	203543.22	399215.04	429341.36	29081.78	32.40
Power	3	1.62	HP	193956.83	415943.13	113429.00	23897.63	54.67
Transport Equipments	14	7.57	HP	19417.97	91245.91	49179.59	3893.70	46.43
Transport Services	4	2.16	HP	42914.40	69368.88	33929.23	5804.05	42.50
Capital Goods	17	9.19	LP	8418.41	78104.85	26904.74	2523.36	52.35
Consumer Durables	2	1.08	LP	3090.80	24906.45	13061.95	723.60	45.50
Diversified	7	3.78	LP	14732.21	32850.71	30920.40	1253.71	62.57
Finance	32	17.3	LP	10341.74	87183.23	44872.21	6121.79	68.19
FMCG	10	5.41	LP	10190.64	111833.81	26817.56	3276.01	44.60
Healthcare	18	9.73	LP	6444.31	47680.63	10408.71	1447.15	37.28
Housing Related	11	5.95	LP	14762.73	39541.90	15304.90	1121.81	48.91
Information Technology	12	6.49	LP	6973.08	231623.33	28833.53	6415.26	27.83
Miscellaneous	3	1.62	LP	5538.43	23146.80	6463.83	879.40	46.67
Telecom	3	1.62	LP	62673.67	54904.47	24359.53	568.60	22.67
Textile	5	2.7	LP	21775.14	55276.28	23378.68	2379.54	70.60
Tourism	3	1.62	LP	13220.73	46629.20	7363.10	1259.03	68.00
Total Sample	185	100		27963.78	100951.02	51857.43	5305.70	48.72

* Mean Values in base year 2005-06 measured in millions of Rupees

** Mean Age of the companies in 2012.

The average capitalization of the sample companies over the six year period was 160770 million rupees. The companies in Finance, and Oil and Gas sectors constituted 20 per cent each of the total market capitalization of the sample. The companies in Agriculture, Textile, Tourism, Telecom, Consumer Durables, Transport Services and Miscellaneous sectors together constituted less than 5 per

cent of the total market capitalization of the sample. Reliance Industries Ltd. belonging to Oil and Gas sector was the largest company in the sample in terms of market capitalization.

The average size of the sample companies, in terms of total assets measured in 2005 was 27964 million rupees and in 2011-12 were 62960 million rupees. The average total assets of sample companies over 6 years were 47190 million rupees. In terms of total assets over the 6 year period, the smallest company in the sample was Tata Investment Corporation Ltd. and the largest company again was Reliance Industries Ltd.

In terms of Net Sales in the base year, Indian Oil Corporation Limited recorded the highest of 1741582.90 million and Havells India Limited recorded the lowest net sales of 104.20 million in that year. The average net sales of the entire sample were 51857.43 million rupees, with Oil & Gas and Power sectors having the highest mean net sales of 429341.36 and 113429.00 million. The ten companies in the Oil & Gas sector accounted for 45% of the total net sales of the entire sample.

The sample's mean Adjusted Net profits in the base year were 5305.70 million rupees. The lowest -4938.6 million of losses were for Tata Teleservices (Maharashtra) Limited as compared to the Oil & Natural Gas Corporation Limited's highest adjusted net profits for that year amounting to 140031.10 million rupees. The thirteen companies in Oil & Gas and Power sectors together accounted for 79% of the sample's net profits.

The average age of companies, calculated in 2011-12, was 48.7 years. Allahabad Bank (147 years) was the oldest company which belonged to Finance sector and the 12 years old Indiabulls Financial Services Ltd. (Finance), Godrej Consumer Products Ltd. (FMCG) and Ultratech Cemco Ltd. (Housing) were the youngest amongst the sample companies. 6 per cent companies were more than 100 years old, of these 58 per cent belonged to the Finance sector.

Status of Corporate Sustainability (CS) disclosure practices:

A preliminary analysis of the sample companies presented an interesting observation regarding the corporate sustainability disclosure practices of Indian

companies. It was found that in March 2012, out of a total of 200 Indian institutional participants in United Nations Global Compact (UNGC), only 70 (35 percent) were listed companies. The remaining were academic institutions or societies, business associations, cities and NGOs. Of these 70 companies 40 per cent are a part of the final sample used in this study. Table 4.2 presents the data of Indian companies with membership of UNGC and which have adopted GRI reporting guidelines.

Table 4.2: Indian companies: Membership of UNGC and adoption of GRI reporting guidelines

Year	Total no. of Sample Companies in UNGC	Total no. of Indian Companies in UNGC *	% of Co. in UNGC which are in sample	Total no. of Sample Companies in GRI	Total no. of Indian Companies in GRI	% of Cos. with GRI which are in sample
2000	1	3	33.33	Not available	Not available	Not available
2001	10	21	47.62	1	1	100
2002	15	29	51.72	1	3	33.3
2003	16	31	51.61	0	1	0
2004	16	32	50	3	5	60
2005	17	37	45.95	3	4	75
2006	20	44	45.45	5	6	83.3
2007	20	49	40.82	6	7	85.7
2008	25	58	43.1	16	22	72.7
2009	25	59	42.37	16	23	69.6
2010	28	68	41.18	17	25	68
2011	28	70	40	22	52	42.3
2012	28	Not available	Not available	12	26	46.2

* Cumulative figures as the companies are 'participants since'

Only 26 Indian companies had filed a sustainability report under the GRI framework and presented it for assessment. Most of these companies have an A/A+ application level rating. 46 per cent of these companies are a part of the sample in this study. 2011 saw the highest number of Indian companies (52) since 2001, to have presented their sustainability reports to GRI for assessment.

From this it can be analyzed that only 15 per cent and 6 per cent of sample companies participated in voluntary sustainability disclosure initiatives of UNGC and GRI respectively.

The extent and quality of Corporate Sustainability reporting practices were further examined for the sample companies by constructing and validating a Corporate Sustainability (CS) Index. The details of this have been discussed in the earlier parts of this thesis. The association between CS scores and the corporate characteristics was empirically tested to identify the potential determinants of corporate sustainability disclosures i.e. the industry/sector classification, company size and age. Multiple techniques such as descriptive statistics, ANOVA and t-test were used to examine their effects on the sustainability disclosures and test the following hypotheses:

- HO₁ There is no significant difference in CS disclosure practices of companies and their industry / sector classification.
- HO₂ There is no significant difference in CS disclosure practices of companies and their size.
- HO₃ There is no significant difference in CS disclosure practices of companies and their age.

The results have been discussed below.

Sustainability scores

The sustainability scores were calculated for all companies by using the CSI constructed and validated for this study. Table 4.3 depicts the summary descriptive statistics of sustainability scores obtained by the sample companies.

Table 4.3: Summary descriptive statistics of Sustainability Scores

Scores	Minimum	Maximum	Mean	Std. Deviation
Governance & Engagement Score (GES)	7	28.17	15.55	3.74
Environmental concern Score (ECS)	1	46.67	14.13	9.51
Social Involvement Score (SIS)	5	51.5	20.10	7.23
Corporate Sustainability Score (CSS)	20	119.17	49.78	16.96

A company in the Healthcare sector scored the lowest on Governance & Engagement part of the index, whereas a company in Information Technology

sector scored the highest. Both were classified as ‘Low Profile’ companies. Two companies with the lowest ECS of 1 belonged to Finance and Telecom sectors, whereas the highest ECS of 46.67 was attributed to a company in the sector named Miscellaneous. The lowest individual scores in SIS (5) and CSS (20) were attributed to companies in the Finance sector, whereas the highest were of companies in the Information Technology Sector. It is interesting to note that none of the companies in the ‘High profile’ sectors obtained either a minimum or a maximum score in any of the four scoring categories.

To examine whether CS disclosure practices of companies varied according to their industry / sector classification, the above results were subjected to further investigation by conducting a sector wise analysis of sustainability scores. Table 4.4 shows the results of comparison of sustainability scores across the 19 sectors and is supported by Figure 4.2. Table 4.5 shows the results of comparison of sustainability scores across two broad categories of High and Low Profile sectors. Figure 4.3 presents the CS scores across High and Low profile sectors graphically.

Table 4.4: Comparison of Sustainability scores across 19 sectors

Sector		GES ¹ ($\alpha^*=0.752$)	ECS ² ($\alpha^*=0.906$)	SIS ³ ($\alpha^*=0.901$)	CSS ⁴ ($\alpha^*=0.950$)
Chemical & Petrochemical	Mean	14.0476	18.2381	17.4762	49.7614
	Std. Deviation	3.51546	8.08569	5.28925	16.3966
Metal, Metal Products & Mining	Mean	15.4231	21.641	20.9487	58.0131
	Std. Deviation	3.99688	9.07297	8.67558	20.1626
Oil & Gas	Mean	15.9	19.3	26.8333	62.033
	Std. Deviation	4.28405	9.80105	11.2891	23.3614
Agriculture	Mean	15.7121	22.8939	21.303	59.9091
	Std. Deviation	3.69767	9.50066	6.41561	16.3507
Capital Goods	Mean	15.1863	15.0196	17.0294	47.2365
	Std. Deviation	2.74677	5.90547	6.35911	13.4628
Consumer Durables	Mean	17.6667	19.1667	21.5	58.335
	Std. Deviation	7.07107	13.1993	6.12826	26.3963
Diversified	Mean	14.5476	15.3571	19.4286	49.3357
	Std. Deviation	2.6505	6.87954	5.83243	11.14
Finance	Mean	15.4062	3.3542	20.2604	39.02
	Std. Deviation	2.53857	1.94676	6.05041	7.82315
FMCG	Mean	16.8167	15.4167	19.7	51.932
	Std. Deviation	5.35093	8.40901	7.02676	19.5697
Healthcare	Mean	14.7037	13.6852	18.0648	46.4539
	Std. Deviation	3.6562	5.52442	5.64243	12.2112

Sector		GES ¹ ($\alpha^*=0.752$)	ECS ² ($\alpha^*=0.906$)	SIS ³ ($\alpha^*=0.901$)	CSS ⁴ ($\alpha^*=0.950$)
Housing Related	Mean	14.0758	15.1364	16.8939	46.1064
	Std. Deviation	4.20011	8.23233	7.16716	18.1315
Information Technology	Mean	19.1389	10.3194	22.5694	52.0283
	Std. Deviation	4.78942	11.1741	11.3504	26.2538
Miscellaneous	Mean	16.1667	18.8889	20.9444	56
	Std. Deviation	2.02759	24.1139	6.92085	27.0716
Power	Mean	18.6667	23.5556	23.2222	65.4433
	Std. Deviation	5.65931	2.50185	5.45266	12.8085
Telecom	Mean	16.1667	7.5	22.8889	46.5567
	Std. Deviation	4.25245	7.6974	8.03522	18.9779
Textile	Mean	14.7333	18.7667	19.4333	52.934
	Std. Deviation	1.77404	8.31799	6.99464	15.4541
Tourism	Mean	15.9444	12.8333	14.7222	43.5
	Std. Deviation	4.57752	6.58492	2.41715	13.4532
Transport Equipments	Mean	15.0167	18.1643	22.1024	55.2836
	Std. Deviation	3.94476	5.75082	4.94151	11.3672
Transport Services	Mean	13.9583	5.9583	18.5	38.415
	Std. Deviation	2.83945	2.80005	5.20505	10.3079
Total	Mean	15.5508	14.1268	20.1023	49.7801
	Std. Deviation	3.74214	9.50738	7.23352	16.9585

¹ - Governance & Engagement Score

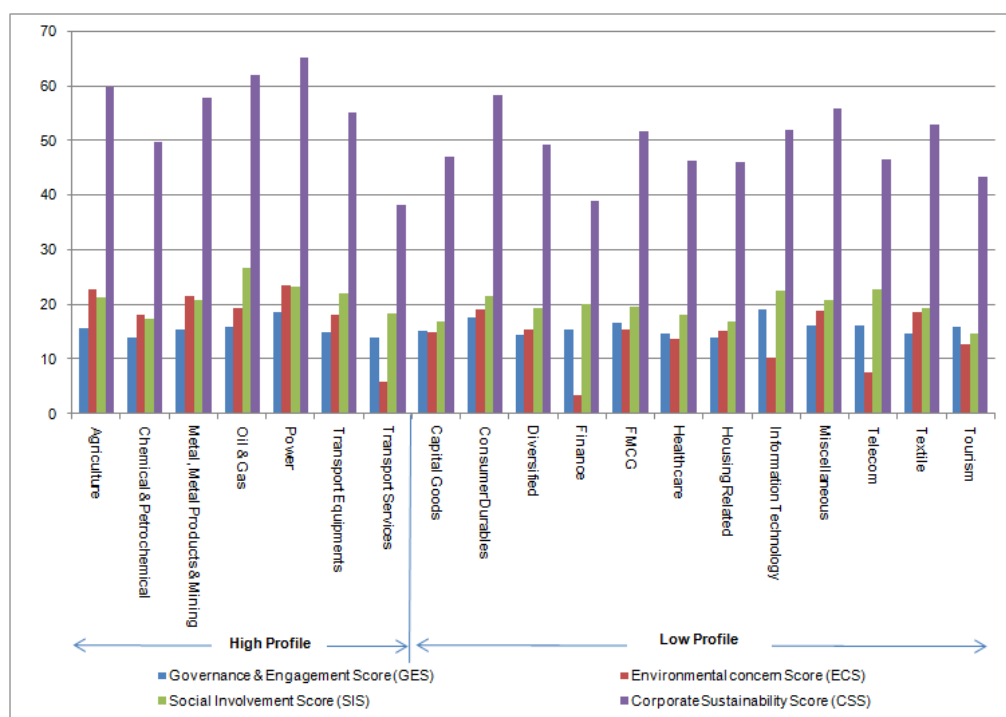
² - Environmental Concern Score

³ - Social Involvement Score

⁴ - Corporate Sustainability Score

* Cronbach's alpha

Figure 4.2: Sector wise Corporate Sustainability disclosure scores



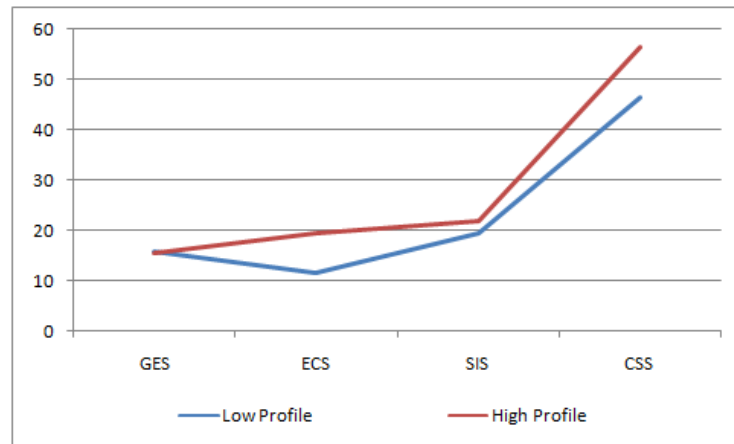
As illustrated in Table 4.4, the Power sector had the highest mean Corporate Sustainability (CS) Score by obtaining either of the top two ranks in the remaining three categories of GES, ECS and SIS too. It was followed by Oil & Gas and Agriculture sectors obtaining the second and third rank respectively. All three of these are ‘High Profile’ sectors. The Transport Services sector had the lowest mean CS Score followed by Finance sector. Although, most of the sectors had similar or very less variation in rankings in GES, ECS, SIS and CSS some exceptions were noteworthy. Information Technology sector had the highest mean Governance & Engagement score and was ranked fourth in SIS but was amongst the lowest four sectors in terms of the ECS. A similar trend was seen in the Telecom sector. Both these are ‘Low Profile’ sectors, thereby having high GES and SIS but low ECS. Transport services and Finance sectors had some of the lowest scores in all four categories.

It is interesting to note in Table 4.5, that on further clubbing of the nineteen sectors into two broad categories – High and Low profile, there is almost negligible difference in the mean GES, which is slightly higher for Low profile sectors, and in the mean SIS which is only marginally higher in High Profile sectors. In ECS and CSS, the High Profile sectors have higher mean scores, as also graphically presented in Figure 4.3.

Table 4.5: Comparison of Sustainability scores in Low and High profile sectors

Items	Sectors		High Profile Sectors (no. of Sectors = 7 no. of Cos. = 62)	
	Low Profile Sectors (no. of Sectors = 12 no. of Cos. = 123)		Mean	SD
Governance & Engagement Score (GES) (Chronbach’s $\alpha = 0.752$)	15.6436	3.68484	15.3667	3.8772
Environmental Concern Score (ECS) (Chronbach’s $\alpha = 0.906$)	11.4702	8.7886	19.3973	8.7011
Social Involvement Score (SIS) (Chronbach’s $\alpha = 0.901$)	19.2561	6.91262	21.7812	7.61261
Corporate Sustainability Score (CSS) (Chronbach’s $\alpha = 0.950$)	46.3701	15.6539	56.545	17.5339

Figure 4.3: Sustainability scores in Low and High profile sectors



ANOVA was applied to test whether there was any significant difference between sectors in terms of their sustainability disclosure scores (Huang et al., 2012). The results of testing of the null hypothesis $H0_1$: *There is no significant difference in CS disclosure practices of companies and their industry / sector classification*, are reported in Tables 4.6 and 4.7.

Results in Table 4.6 show that the assumption can be accepted only at 10 per cent level of significance. So, it can be concluded that the population variances are the same for all the sectors.

Table 4.6 - Homogeneity of Variances

Test of Homogeneity of Variances			
Sustainability Score			
Levene Statistic	df1	df2	Sig.
1.501	18	166	0.095

Table 4.7 - ANOVA - CSS and Sector classification

Corporate Sustainability Score					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.689	18	0.038	2.087	0.008
Within Groups	3.042	166	0.018		
Total	3.731	184			

Table 4.7 shows the F-Statistic of 2.087 with a corresponding p-value of 0.008 which is smaller than 0.05, suggesting that CS scores significantly vary across

sectors, leading to the rejection of the null hypothesis H_{01} . ANOVA results suggest that there is at least one sector with statistically significant difference from the other sectors in terms of the CS scores. To further investigate and find which two sectors are significantly different, Post Hoc tests were conducted. The Multiple Comparison Table (Table 4.8) reproduced below shows only the combinations/pairs of sectors with significant difference in the sustainability disclosure scores. Companies in Chemical & Petrochemical, Consumer Durables, Diversified, Miscellaneous, Telecom, Textile and Tourism sectors did not exhibit any significant difference in their CS scores and were omitted while preparing Table 4.8.

Table 4.8: Multiple Comparisons

Dependent Variable: CSS						
LSD						
(I) Industry	(J) Industry	Mean Difference (I-J)	Std. Error	Sig.	95 per cent Confidence Interval	
					Lower Bound	Upper Bound
Agriculture	Capital Goods	.10462*	0.05239	0.047	0.0012	0.208
Agriculture	Finance	.18052*	0.04732	0	0.0871	0.2739
Agriculture	Healthcare	.10825*	0.05181	0.038	0.006	0.2105
Agriculture	Housing Related	.12401*	0.05773	0.033	0.01	0.238
Agriculture	Transport Services	.18785*	0.07905	0.019	0.0318	0.3439
FMCG	Finance	.10552*	0.04905	0.033	0.0087	0.2024
Information Technology	Finance	.09503*	0.04583	0.04	0.0046	0.1855
Metal, Metal Products & Mining	Finance	.15592*	0.04453	0.001	0.068	0.2438
Metal, Metal Products & Mining	Transport Services	.16326*	0.07741	0.036	0.0104	0.3161
Oil & Gas	Finance	.17774*	0.04905	0	0.0809	0.2746
Oil & Gas	Healthcare	.10548*	0.05339	0.05	0.0001	0.2109
Oil & Gas	Housing Related	.12123*	0.05915	0.042	0.0044	0.238
Oil & Gas	Transport Services	.18508*	0.08009	0.022	0.027	0.3432
Power	Finance	.22857*	0.08174	0.006	0.0672	0.39
Power	Transport Services	.23590*	0.1034	0.024	0.0318	0.4401
Transport Equipments	Finance	.15229*	0.04338	0.001	0.0666	0.2379
Transport Equipments	Transport Services	.15962*	0.07675	0.039	0.0081	0.3112

* The mean difference is significant at the 0.05 level.

The significance levels for the combination Metal, Metal Products & Mining sector and Transport Services is 0.036 which is less than 0.05 implying that companies from these two sectors are different in the CS disclosure practices. Similarly, the test suggests that there are significant differences between Oil & Gas sector and Finance, Healthcare, Housing Related and Transport Services sectors. CS scores of companies in Agriculture sector also significantly varied from those of the above mentioned five sectors and Capital Goods sector. Significant variation was also found in sustainability scores of companies in the Power sector and those belonging to Finance and Transport Services sectors.

Comparison of means

To investigate whether significant differences existed between the CS disclosure practices of companies and characteristics such as company size and age, comparison of means analysis of High CS Score companies and Low CS Score companies was conducted. The original EC, SI and the overall CS scores were normalized by converting them into their natural log figures for making them statistically comparable. Normalized scores were further adjusted by multiplying all scores by ten to obtain more visually manageable scores (Singh et al., 2009). Companies with CSS of equal to mean+1SD or more were classified as 'High CSS Companies' and companies with CSS of mean-1SD or lower were classified as 'Low CSS Companies'. Log values of Total Assets, Market Capitalization, and Net Sales were used as proxies for company size and the log value of company's age in 2012 was used for analysis.

Table 4.9 shows the results of testing of the two null hypotheses $H0_2$: *There is no significant difference in CS disclosure practices of companies and their size* and $H0_3$: *There is no significant difference in CS disclosure practices of companies and their age*, using the t-test of differences in means for two groups of companies with High and Low Corporate Sustainability disclosure scores (CSS). It presents the mean values with standard error in parenthesis along with the value of t statistic along with its significance.

Table 4.9: Comparison of Means for companies with High and Low CSS with respect to Company Size and Age

Variable	High CSS Companies (N=31)	Low CSS Companies (N=21)	t statistic [#]
Total Assets [^]	10.3951 (0.2752)	7.7607 (0.4692)	5.164*
Market Capitalization [^]	11.7108 (0.2887)	9.9500 (0.2137)	4.902*
Net Sales [^]	10.9410 (0.2775)	8.9477 (0.2440)	5.073*
Company Age	3.7483 (0.0841)	3.5565 (0.1619)	1.051

[#] Where the p value of Levene's test was <0.05, the variances were not assumed to be equal and the t test values under 'equal variances not assumed' were used in that case.

[^] Values in rupees in millions

* Significant at 0.01 level of significance

** Significant at 0.05 level of significance

*** Significant at 0.10 level of significance

On analysis of Table 4.9, the values of t-statistic were found to be significant between the two groups of companies for all the three proxy measures for company size - Total Assets, Market Capitalization, and Net Sales at 1% level of significance, leading to the rejection of the null hypotheses H₀₂. Companies with High CSS were bigger in size in terms of all the three proxies of company size – Total Assets, Market Capitalization and Net Sales. Also, although High CSS companies were a little older (actual mean age of 47.23 years) as compared to Low CSS companies (actual mean age of 45.57 years), this difference in age was not found to be statistically significant, leading to the acceptance null hypothesis H₀₃.

From the above analysis and findings it can be concluded that the CS scores significantly vary with company size. However, the variations in CS Scores between old and young companies are statistically insignificant.

For further in-depth understanding of the possible association between sustainability disclosure practices and company performance, the significance of the differences in economic, social and environmental performance between the High CSS and Low CSS companies was also investigated. A company's financial performance was measured using ROE, ROA and Market-to-Book Value (MBV)

and its environmental concern and social involvement was measured using the normalized EC and SI scores from the Corporate Sustainability Index, as explained above. Natural Log of Adjusted Net profits was used as a proxy for the surplus resources available with the companies. Table 4.10 reports the results of this analysis.

Table 4.10: Comparison of Means for companies with High and Low CSS with respect to Performance measures

Variable	High CSS Companies (N=31)	Low CSS Companies (N=21)	t statistic [#]
ROA	.5537 (.0796)	10.6853 (5.9809)	-1.694
ROE	7.7216 (1.4635)	4.106 (1.3752)	1.714***
MBV	3.8182 (.6227)	5.1331 (1.5700)	-0.881
SIS	33.8725 (0.3328)	23.9043 (0.6421)	15.006*
ECS	33.1982 (0.4327)	13.7738 (1.52353)	12.265*
Adj. Net Profits ^	8.6118 (0.3118)	6.8381 (0.1681)	5.007*

[#] Where the p value of Levene's test was <0.05, the variances were not assumed to be equal and the t test values under 'equal variances not assumed' were used in that case.

[^] Values in rupees in millions

* Significant at 0.01 level of significance

** Significant at 0.05 level of significance

*** Significant at 0.10 level of significance

As reported in Table 4.10, the differences between these two groups, in terms of their financial performance measured by the proxy ROE were found to be statistically significant only at 10% level of significance. High CSS companies performed better financially and had a higher ROE of 7.7216 as compared to ROE of Low CSS companies of 4.1060. Companies with High CSS also had significantly higher surplus resources in terms of Adjusted Net Profits (t statistic significant at 0.01 levels) as compared to Low CSS companies. Although it was seen that Low CSS companies seemed to perform better as compared to High CSS companies with respect to ROA and Market-to-Book Value but these differences were not found to be statistically significant.

The differences between the Social Involvement Scores (SIS) and the Environmental Concern Scores (ECS) of companies grouped under high and low corporate sustainability score were also found to be significant at 1% level of significance. The High CSS companies exhibited a much better performance in Environmental concern (with a mean score of 33.1982 as compared to 13.7738 of Low CSS companies) as well as in Social involvement (average score of 33.8725 as compared to 23.9043).

Another interesting finding between the two groups of companies categorised on their High or Low Corporate Sustainability disclosure scores was made with respect to gender diversity on their boards of directors and the board independence. The High CSS score companies had a higher number of women on their boards; both in terms of proportions (5.0728 as compared to 4.1986 of Low CSS companies) as well as Blau's Index (.0876 as compared to .0712 of Low CSS companies), but the Low CSS companies had a higher proportion of independent directors (52.0418 as compared to 46.4264 of High CSS companies) on their boards. However, differences in both these variables, gender diversity on boards and board independence were not found to be statistically significant across High CSS and Low CSS companies.

Status of Women on Board of Directors of Companies:

The second objective of the study was to determine the status of representation of women on Boards of Directors of Indian companies. This was achieved by studying the different aspects related to gender diversity on boards such as the number and proportion of women directors, number of directorships held by women directors, their representation on various Committees in the capacity of members and chairpersons etc. The representation of women on corporate boards in the future was forecasted. An effort was also made to evaluate whether there was any link between presence of women on boards and certain organizational characteristics such as sector classification, size, and age. For this the following hypotheses were empirically tested:

H0₄ There is no significant difference in gender diversity on boards of companies and their industry / sector classification.

H0₅ There is no significant difference in gender diversity on boards of companies and their size.

H0₆ There is no significant difference in gender diversity on boards of companies and their age.

Descriptive statistics were used for basic level analysis of the status of women on corporate boards of the sample companies. Time Series Linear Trend analysis was used for forecasting the future women on boards of directors. Student's t-test was used to test H0₄ – H0₆.

Towards the achievement of the second objective and in examining the representation of women on the boards of the 185 companies in the sample over a period of 6 years, a number of key observations were made:

On an average, out of a total of 1905 directorships in the sample companies over 6 years, only 93 directorships were held by women. This represented just 5% of all directorships. These directorships were held by 80 different women. This result/percentage did not compare favourably with 2012 figures of other countries like Canada (10.3%), USA (16.1%) and UK (15.0) as also Hong Kong (9.0%) and Australia (8.43%) (Catalyst, 2012b). Norway with its 40.1% representation of women on boards may be considered simply 'out of the league' for any comparison.

Table 4.11 shows the data of total number of directors, women directors and independent directors on boards of the sample companies over a series of years.

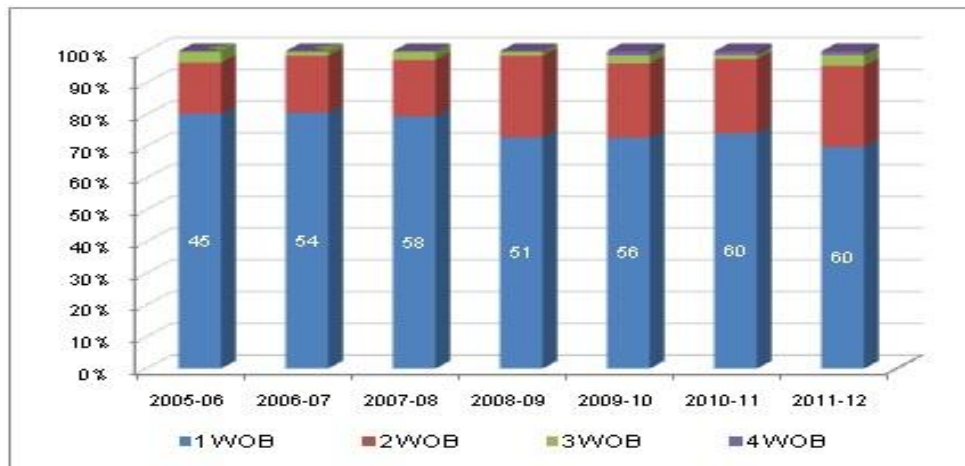
Table: 4.11 Status of Directors

Year	Number of Directors (Board Size)	Number of Women on Board (WOB)	Number of Independent Directors (ID)
2005-06	1846	69	962
2006-07	1862	81	926
2007-08	1902	90	934
2008-09	1931	90	984
2009-10	1949	102	1006
2010-11	1922	105	1006
2011-12	1923	117	996

In 2006-07 only 36% of companies had women on their boards. There was a year on year improvement in this status finally leading to a figure of 46.49% companies with women on boards in 2011-12. Over the period of study, less than half of the companies, only 73 (approx. 40%), had at least one woman on their boards - which conversely meant that 60% companies had no female representation at all and had all male boards. Of the companies with women on board just 18 (24%) companies had more than one female director on their boards. This hinted towards the prevalence of ‘tokenism’ on the boards with 75% of these companies having only one woman director and just over a half percent (0.59%) having more than three women on board.

Figure 4.4 shows the number of companies which had at least one woman on their boards.

Figure 4.4: Companies with at least one woman on their boards



These figures, show that there is still a lack of adequate representation of women in the boardrooms of India’s leading companies.

It was also observed that despite the Ministry of Corporate Affairs’ (MCA) proposed mandate of at least one seat for women on boards of companies with five or more independent directors, the results showed an average compliance of only 45%. Which means that on an average out of the 115 (62%) such companies in the sample only 52 had at least one woman on their board.

Figure 4.5: Status of Women on Boards of Companies with Five or More Independent Directors

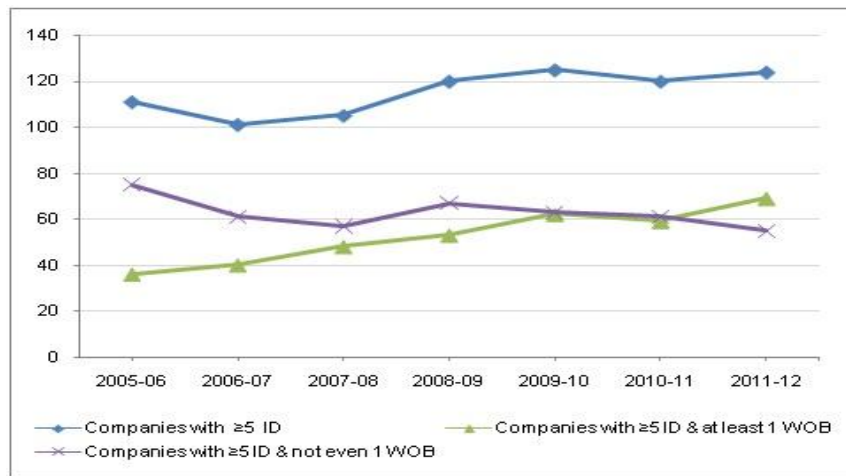
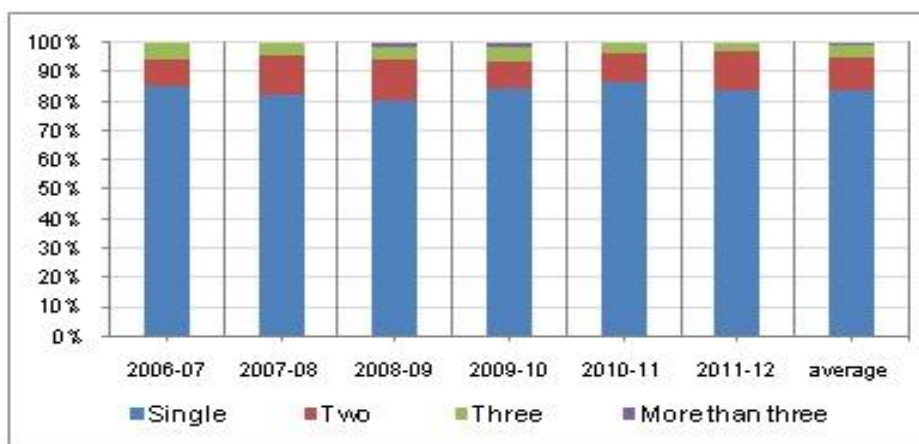


Figure 4.5 depicts the status of women on boards of companies with five or more independent directors. It was observed that in 2009-10 and 2010-11 almost 50% companies were in compliance and in 2011-12 this status became favourable with 56% of such companies (69 out of 124) having at least one woman on board.

Multiple directorships:

Figure 4.6 shows that on an average during the period of study, 83.74% women were serving on the board of a single company in the sample. 11.58% and 4.24% held directorships in two and three companies respectively. Just less than half percent women held more than 3 directorships.

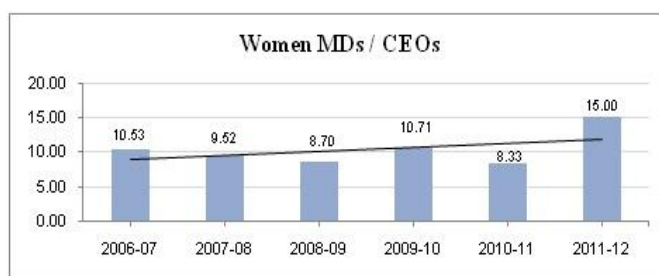
Figure 4.6: Number of Directorships Held By Women



Type of directorships and women as chairs of board/committees:

It was encouraging to find that of the total women on boards, 15% were executive directors. Almost 10% of women on boards were Managing Directors or CEOs of companies and there is an increasing trend in the future as shown in Figure 4.7.

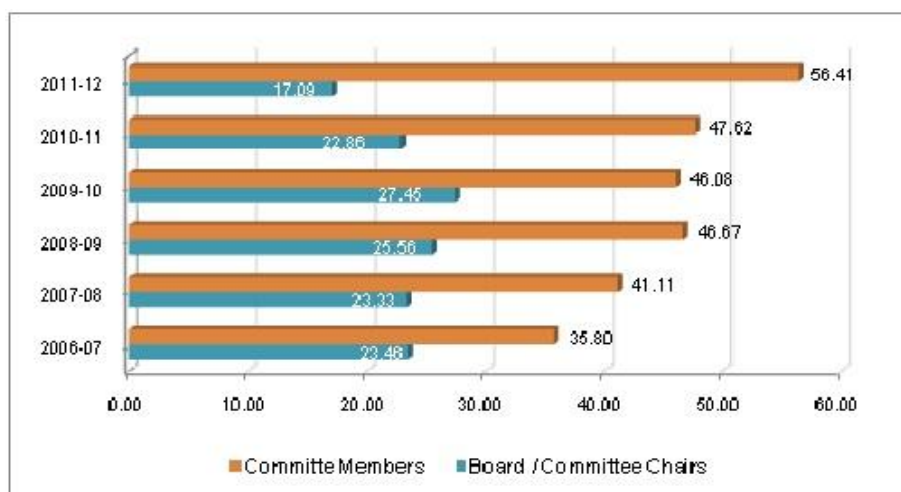
Figure 4.7: Percentage of Women MDs /CEOs



It was also observed that 29% of women on boards belonged to the ‘promoter’ category whether executive or non-executive, highlighting the existence of family connections between the female directors and their companies. Still a high 48% of women were neutral members on the boards under the category of ‘independent’ directors.

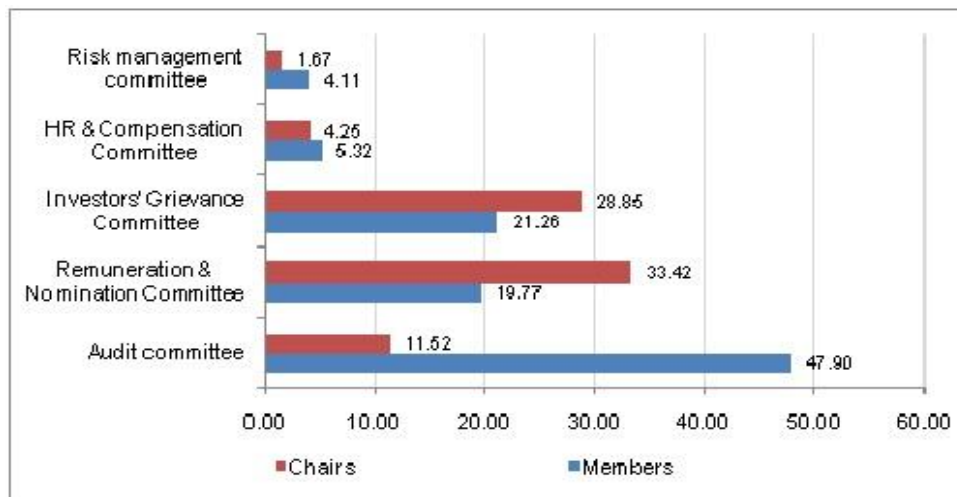
Figure 4.8 shows the Chairpersonship and Membership status of women directors. The total women on board share between themselves 23% of board/committee chairs and 47% of committee memberships. As can be seen in Figure 4.8, there was a rise in the committee membership status of women directors, but a declining trend in their appointment as board/committee chairs.

Figure 4.8: Status of Chairpersonships and Memberships held by Women Directors



It was also worth noting in Figure 4.9, that out of all the women members of some committee, a majority (48%) were members of the audit committee, followed by the Investors' grievance committee (21%). Figure 4.9 also shows that out of all the women who were chairpersons of some committees, a majority (33.42%) held the chair of the 'Remuneration and Nomination committee' followed again by 'Investors' Grievance Committee'.

Figure 4.9: Type of Committees in which women were chairpersons & members



Sector Comparisons

To examine whether companies varied in terms of gender diversity on their boards and their sector classification, the level of representation of women on boards in the sample of 185 companies was initially studied by grouping the companies initially in 19 different sectors and later clubbing the 19 sectors into two broad sector classification of 'High Profile' or a 'Low profile' sector as explained under methodology chapter of this thesis. Table 4.12 shows how different sectors were ranked according to the percentage of women across all the boards in that sector along with the total number of companies in a particular sector.

Table 4.12: Sector-wise percentage of companies with Women on Boards

Sector	No. of Companies	Percentage of companies with at least 1 WOB		Rank
		Within a sector	In total sample	
Agriculture	11	46.97	6.80	6
Capital Goods	17	37.25	8.30	3
Chemical & Petrochemical	7	47.62	4.43	10
Consumer Durables	2	50.00	1.33	16
Diversified	7	28.57	2.66	13
Finance	32	51.04	21.68	1
FMCG	10	48.33	6.41	7
Healthcare	18	40.74	9.74	2
Housing Related	11	48.48	7.08	5
Information Technology	12	45.83	7.32	4
Metal, Metal Products & Mining	13	37.18	6.37	8
Miscellaneous	3	11.11	0.47	18
Oil & Gas	10	23.33	3.02	12
Power	3	5.56	0.19	19
Telecom	3	33.33	1.33	16
Textile	5	50.00	3.28	11
Tourism	3	61.11	2.38	14
Transport Equipments	14	28.57	5.28	9
Transport Services	4	37.50	1.95	15

Of the total companies with at least one woman on board during the period of study, 21.68% companies belonged to Finance sector also categorized as a low profile sector, making it the highest contributor to the total companies with women on board. 51.04% Finance companies had at least one woman on their boards. Healthcare and Capital Goods sectors were ranked second and third respectively. The Power sector (high profile) came in last place with just 5.56% companies in that sector with women on their boards.

It was observed that there are more companies in the Low profile sector with women on their boards as compared to companies in high profile sector. Over the period of study, only 28.04% companies with at least one woman on boards are High profile companies.

Figure 4.10: Sector-wise percentage of total women on boards

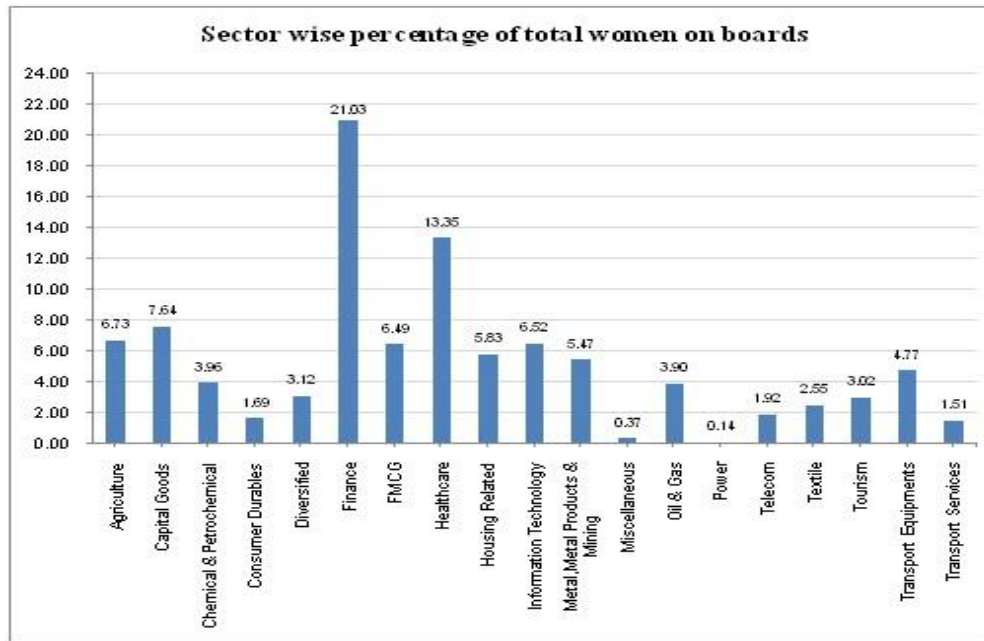


Figure 4.10 shows that of the total women on boards, 73.53% were on the boards of low profile sector companies and only 26.47% in high profile sector companies comprising Agriculture, Chemical & Petrochemical, Metal, Metal Products & Mining, Oil & Gas, Power, Transport Equipments and Transport Services sectors. Finance and Healthcare sectors led the way, with 21.03% and 13.35% of total women directors on their boards respectively. These were followed by the Capital Goods sector at 7.64% and then by FMCG sector at 6.49% of total women directors on their boards. Again Power sector (0.14%) along with Miscellaneous (0.37%) and Transport Services (1.51%) took the last three spots with the least number of women on their boards. Agriculture sector (6.73%) had the highest percentage of women on board amongst the high profile sector.

To further examine whether these differences were statistically significant and to test the null hypothesis $H0_4$: *There is no significant difference in gender diversity on boards of companies and their industry or sector classification*, analysis of variances (ANOVA) between two groups of companies – those that had no women on their boards and those that had more than one woman on their boards was conducted. The results of ANOVA between the two groups and sector classification are reported in Table 4.13.

Table 4.13: ANOVA – Gender diversity on boards and Sector classification

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.253	1	.253	1.098	.297
Within Groups	24.251	105	.231		
Total	24.505	106			

Results in Table 4.13 show the F statistic equal to 1.098 and a p value of 0.297, indicating insignificant results. Thus, the null hypothesis H_{04} is accepted suggesting that there are no significant differences in gender diversity on boards of companies and their sector classification. The differences were insignificant both in case of classification of companies in 19 sectors as well as in High and Low profile sectors.

Link between Characteristics of sample companies and Female Directors

One of the aims of this study was to consider various characteristics of the sample companies and note differences at the organisational level between companies with and without women on board. To test whether there are significant differences in gender diversity on boards of companies and their size and age, comparison of means using t test was undertaken for two groups of companies - those that had no woman on their boards and those companies that had more than one woman on the board. Companies with one woman were ignored to control for tokenism (Carter et al., 2003). Log values of Total Assets, Market Capitalization, and Net Sales were used as proxies for company size and the log value of company's age in 2012 was used for analysis. The results of t tests for null hypotheses H_{06} : *There is no significant difference in gender diversity on boards of companies and their size* and H_{07} : *There is no significant difference in gender diversity on boards of companies and their age*, are presented in Table 4.14. It presents the mean values with standard error in parenthesis along with the value of t statistic and its significance.

Out of the total 185 companies, 81 companies had no women on their boards and only 26 had more than one woman director on their board. 31 companies with no

women on board belonged to High Profile sectors as compared to 7 companies with two or more women on board. Companies with at least two women on the board of directors were found to have a higher average board size (11.54 as compared to 9.40 of companies with no women on board) and proportion of independent directors (54.73 as compared to 50.77 of companies with no women on board).

Table 4.14: Comparison of Means for companies with no Women on Boards and with Women on Boards with respect to Company Size and Age

Variable	Companies with 2 or more WOB (N=26)	Companies with no WOB (N=81)	t statistic [#]
Total Assets [^]	9.5063 (0.30124)	8.6706 (0.19179)	2.203**
Market Capitalization [^]	11.2320 (0.24901)	10.3379 (0.13127)	0.932*
Net Sales [^]	10.1995 (0.29472)	9.4683 (0.14540)	2.390**
Company Age	3.6354 (0.09381)	3.6897 (0.06474)	-0.431

[#] Where the p value of Levene's test was <0.05, the variances were not assumed to be equal and the t test values under 'equal variances not assumed' were used in that case.

[^] Value in rupees in millions

* Significant at 0.01 level of significance

** Significant at 0.05 level of significance

*** Significant at 0.10 level of significance

On analysis of Table 4.14, the values of t-statistic were found to be significant between the two groups of companies for Market Capitalization at 0.01 level and for Total Assets and Net Sales at 0.05 level of significance, leading to the rejection of the null hypotheses H0₆. Companies with two or more women on boards were bigger in size in terms of all the three proxies of company size – Total Assets, Market Capitalization and Net Sales. However, the t statistic for gender diversity and company age had a p value higher than 0.10 indicating insignificant results and acceptance of the null hypothesis H0₇.

From the above analysis and findings it can be concluded that gender diversity on boards of directors in companies significantly varies with company size but not with company age.

For further in-depth understanding of the possible association between gender diversity and performance of companies, the significance of the differences in economic, social and environmental performance between the two groups of companies with no women on board and with 2 or more women on board was also investigated. A company's financial performance was measured using ROE, ROA and Market-to-Book Value (MBV) and its environmental concern and social involvement were measured using the normalized EC and SI scores from the Corporate Sustainability Index, as explained earlier in this chapter. Natural Log of Adjusted Net profits was used as a proxy for the surplus resources available with the companies. Table 4.15 reports the results of this analysis.

Table 4.15: Comparison of Means for companies with no Women on Boards and with Women on Boards with respect to performance of companies

Variable	Companies with 2 or more WOB (N=26)	Companies with no WOB (N=81)	t statistic [#]
ROA	1.7099 (.45501)	3.6283 (1.62091)	-0.666
ROE	9.4809 (3.01349)	6.0633 (.79278)	1.097
MBV	3.5319 (.55878)	2.9736 (.31436)	0.874
Adj. Net Profits	8.0881 (0.30351)	7.1154 (0.15067)	3.081*
SIS	30.9070 (0.52812)	28.7869 (0.41248)	2.690*
ECS	23.2058 (1.89484)	23.6991 (0.90798)	-0.256
CSS	39.3959 (0.55273)	38.2836 (0.36788)	1.542

[#] Where the p value of Levene's test was <0.05, the variances were not assumed to be equal and the t test values under 'equal variances not assumed' were used in that case.

[^] Value in rupees in millions

* Significant at 0.01 level of significance

** Significant at 0.05 level of significance

*** Significant at 0.10 level of significance

As reported in Table 4.15, no significant difference was found between the two groups of companies with respect to the three proxy measures of financial

performance – ROE, ROA and Market-to-Book Value. However, significant variation (at 0.01 level) between the two samples was found with respect to surplus resources or adjusted net profits. The companies with two or more women on their boards had significantly higher profits as compared to companies with no women on their boards.

Results also show that the Social Involvement Scores (SIS) of companies with no women on board and those with more than one woman on board are significantly different. SIS in relation to gender diversity on boards has a t-statistic of 2.690 and a p value of 0.008. The conclusion is that companies with more women on boards have a better social involvement (mean score of 30.9070) as compared to companies with no women on boards (mean score of 28.7869). No significant difference were found between the environmental concern and the overall corporate sustainability scores between companies with no women and companies with two or more women on their boards.

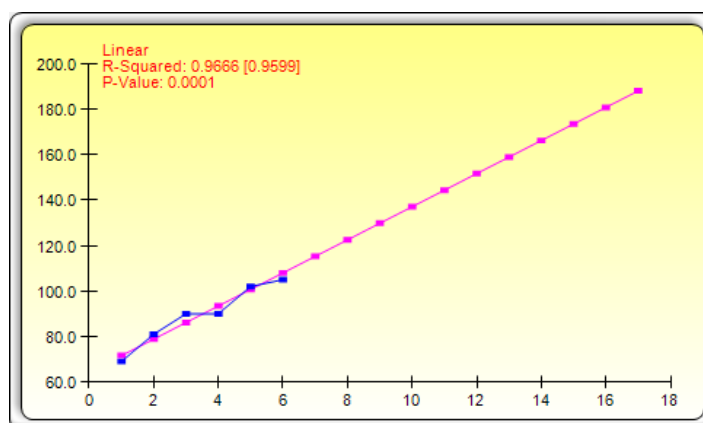
Further, to predict/forecast the status of women on corporate boards in future, the Time Series Linear Trend analysis was used. Table 4.16 shows the projections of women on boards till 2021-22.

Table 4.16: Projections of Women on Boards till 2021-22 (in numbers)

Year	Actual Women on boards	Forecast of Women on Boards
2005-06	69.0000	71.5714
2006-07	81.0000	78.8571
2007-08	90.0000	86.1429
2008-09	90.0000	93.4286
2009-10	102.0000	100.7143
2010-11	105.0000	108.0000
2011-12	117.0000	115.2857
2012-13		122.5714
2013-14		129.8571
2014-15		137.1429
2015-16		144.4286
2016-17		151.7143
2017-18		159.0000
2018-19		166.2857
2019-20		173.5714
2020-21		180.8571
2021-22		188.1429

Using trend analysis, a 30% increase as compared to the number of women on board in 2011-12 was forecasted at the end of next five years i.e. in 2016-17. This percentage would increase to 61% at the end of next ten years i.e. in the number of women on board for the sample companies in 2021-22 it was estimated at 188.

Figure 4.11: Future Tend of Women on Board



Ceteris paribus, the proportion of women on boards was estimated to increase from current 6% in 2011-12 to 6.94% in 2016-17 and 8.27% in 2021-22. At the current rate it will take Indian companies 130 more years to reach where Norway is today with 40% women on boards and almost one and a half century (166years) to achieve gender equity on boards of its listed companies. This presented a very discouraging scenario for women aspirants for board positions and a strong indication towards the need for some concrete steps to change the status quo.

Conclusion:

This chapter presented critical data and analysis on corporate sustainability disclosure practices and gender diversity on boards of directors of the sample companies, thereby accomplishing the first two objectives of the study.

Objective one of this study was achieved by analyzing the Corporate Sustainability Index Scores of the sample companies over the period of the study and testing $H_{01} - H_{03}$. The preliminary analysis showed that only 41 per cent of total sample companies had average CS scores higher than the sample average. 53 per cent of these companies belonged to five High profile sectors. In terms of 19 sector classification, 9 sectors had less than sample average CS score. It was

further analyzed that only 15 per cent and 6 per cent of sample companies participated in voluntary sustainability disclosure initiatives of UNGC and GRI respectively. This supported the assumption about the unsatisfactory performance of the companies on the sustainability disclosures in their annual reports.

In fulfilment of H0₁, it was found that CS scores significantly varied across sectors. There were significant differences between Oil & Gas sector and Finance, Healthcare, Housing Related and Transport Services sectors. CS scores of companies in Agriculture sector also significantly varied from those of the above mentioned five sectors and Capital Goods sector. Significant variation was also found in sustainability scores of companies in the Power sector and those belonging to Finance and Transport Services sectors. The sustainability disclosure practices also varied significantly between Metal, Metal Products & Mining sector and Transport Services sectors.

Results of tests for H0₂ and H0₃ showed that the CS scores significantly varied with size of the companies. However, the variations in CS Scores between old and young companies were statistically insignificant.

Additionally, it was also found that the High CSS companies exhibited a much better performance in Environmental concern as well as in Social involvement as compared to Low CSS companies. In terms of financial performance, High CSS companies were found to perform better only in one of the three proxies used to measure financial performance – ROE, ROA and Market-to-Book Value. These companies had a higher ROE of as compared to that of Low CSS companies; however this was found significant only at 10% level of significance.

Objective two of the study was accomplished by analyzing the data of women on boards of directors of sample companies over the period of the study and testing H0₄ – H0₆. The preliminary analysis of the data gathered from annual reports showed that women made up just 5% of all directors on the sample and as many as 112 (60.6%) companies had no representation of women at all on their boards. Only half a percent (0.59%) companies had more than three women on their boards. The results of projections for status of women on boards in future highlighted that, *ceteris paribus*, at the current rate of growth in number of women on corporate boards, it will take Indian companies 130 more years to reach where

Norway is today with 40% women on boards and almost one and a half century (166years) to achieve gender equity on boards of its listed companies.

It was further found that approximately 50% of women on boards of the 185 sample companies were independent directors chosen on board for their expertise and experience rather than the much prevalent notion of women directors gaining entry into boardrooms by virtue of their family ties (Ruigrok et al., 2007). A majority 84% of women directors held single directorships. A reasonably good percentage of women directors were active contributors as Board / Committee Chairs (23%) and members (47%). Also, out of all the women members of some committees, a majority were members of the audit committee, followed by the Investors' grievance committee and of all the women who were chairpersons of some committees, a majority held the chair of the 'Remuneration and Nomination committee' followed again by 'Investors' Grievance Committee'.

In testing H0₄ it was found that of the total companies with at least one woman on board during the period of study, a majority belonged to Finance sector. Healthcare and Capital Goods sectors were ranked second and third respectively whereas Power sector was ranked last in terms of companies with women on boards. It was also observed that there are more companies in the Low Profile sector with women on their boards as compared to companies in High Profile sector. However, there were no significant differences between gender diversity on boards of companies and their sector classification, leading to the acceptance of H0₄.

H0₅ and H0₆ were tested by comparison of means of two groups of companies - those that had no woman on their boards and those companies that had more than one woman on the board. The results showed that the companies with two or more women on their boards were significantly bigger in terms of total assets, market capitalization and net sales. However, no significant differences were found between the two groups of companies with respect to the age of company. Companies with two or more women on their boards had significantly higher profits as compared to companies with no women on their boards. Although the two groups did not vary significantly in the three proxy measures of financial performance – ROE, ROA and Market-to-Book Value, companies with two or

more women on their boards exhibited better social involvement as compared to companies with no women on boards. This finding of a positive association between presence of women on boards and the social performance is consistent with previous studies like Bear et al. (2010), Galbreath (2011) and Ibrahim & Angelidis (2011). No significant difference were found between the environmental concern and the overall corporate sustainability scores between companies with no women and companies with two or more women on their boards.

The results also showed that companies with higher degree of gender diversity had a higher average board size and proportion of independent directors as compared to companies with no women on board.

A further comparison between companies which had at least one woman on their boards for all six years of the study and those that had no women on boards in all years of study revealed that companies with women presence on boards had a higher Market-to-Book Value (mean of 4.2842) as compared to companies with no women on board (mean of 2.9736). The t statistic of 2.251 was found to be significant at 5% level of significance with a p value of 0.027. This lent some support to results of previous studies (Bonn, 2004; Galbreath, 2011) which highlight the positive link between women presence on boards and the financial performance of the company.

CHAPTER 5

RELATIONSHIP BETWEEN WOMEN ON BOARDS AND CORPORATE SUSTAINABILITY

One of the objectives of this research was to study whether there was any relationship between women presence on Board of Directors and economic performance of a company, its sensitivity towards societal issues and the quality of environmental disclosures of a company.

For accomplishing this and testing Hypotheses H0₇ – H0₉, three dependent and one independent variable were identified. Based on past research, some “usual suspects” known to influence the disclosures and performance of a company were also identified which were included as ‘control’ variables in the study.

H0₇ There is no significant relationship between gender diversity on boards and the economic performance of a company.

H0₈ There is no significant relationship between gender diversity on boards and the sensitivity of a company towards societal issues.

H0₉ There is no significant relationship between gender diversity on boards and the quality of environmental disclosures of a company.

The study used two proxies as measures of the independent variable, gender diversity – (i) Proportion of women directors on boards, and (ii) Blau’s Index. Return on Assets (ROA), Return on Equity (ROE) and Market-to-Book Value (MBV) were employed as measures of a company’s economic performance, the first dependent variable. The Environmental Concern Score (ECS) and Social Involvement Score (SIS) for every sample company were derived from the Corporate Sustainability Index. The scores were normalized by converting them into their natural log figures for making them statistically comparable. Normalized scores were further adjusted by multiplying all scores by ten to obtain more visually manageable scores (Singh et al., 2009). These scores were used as the other two dependent variables for further tests and accomplishing the objectives of the study.

The sample companies in this study were categorized into 19 sectors / industry groups. They were then grouped into High and Low Profile sectors (Hackston & Milne, 1996). Hence, the sector classification was represented by a Dummy binary variable with '1' for High profile sector and '0' for Low profile sector. Log of Total assets, Log of Market capitalization and Log of Net sales were used as proxies of company size. Surplus resources were measured by the log value of the Adjusted Net Profits whereas log of age of a company in the year 2012 was taken for the purpose of the study. Values were transformed into their log values to achieve normal distributions (Cox & Snell, 1981). Log of number of directors on board were used as a proxy for board size and the percentage of independent directors on board was used as a measure of board independence.

All the dependent and independent variables/proxies were computed for each year (2006-2011) separately and then a six year average calculated and used to test the hypotheses, whereas the control variables' values computed in the base year 2005-06 were used.

Two methods of analysis – Comparisons of means and regression, were used to assess whether gender diversity had any impact on the performance of a company. The results of comparisons of means were discussed in Chapter 4 of this thesis. This chapter explains the results of 2 Stage Least Square (2SLS) regression models discussed in Chapter 3 on Research Methodology and presents the analysis of the relationship between gender diversity on boards and the economic, environmental and social performance of companies using the total sample.

Before regression analysis, the descriptive statistics and the correlation results are discussed as a part of preliminary analysis of the variables in the complete sample.

Table 5.1 reports the descriptive statistics of the 185 sample companies on all the variables used in the regression models.

As reported in Table 5.1, the sample companies exhibited low gender diversity on their boards characterised by a mean proportion of women on boards of a low 4.861 (5%) as well as a Blau's index value of only 0.084 signifying low diversity. The average ROE, ROA and MBV of the sample companies was found to be 6.62, 2.691 and 3.461 respectively. The sample exhibited huge variations in size, measured by the proxies Total Assets, Market Capitalization and Net Sales each

having high standard deviations. Similar findings were observed in surplus resources. The average age of the companies in the sample was 48.72 years with the youngest company being only 12 years old. On an average the companies in the sample had 10 members on their board of directors with almost 52% of independent directors.

Table 5.1: Descriptive Statistics of all variables

	Minimum	Maximum	Mean	Std. Deviation
Gender Diversity:				
Prop. of WOB	0	23.15	4.861	5.658
Blau's Index	0	0.36	0.084	0.094
Economic Performance:				
ROE	-4.48	69.86	6.62	9.073
ROA	-0.33	120.19	2.691	9.949
MBV	-10.76	28.27	3.461	3.667
Environmental Concern:				
ECS	1	46.67	14.127	9.507
Social Involvement:				
SIS	5	51.5	20.102	7.233
Company Size:				
Total Assets	14.4	803199.4	27963.78	84182.26
Market Capitalization	2155.7	1867255.3	100951.02	224630
Net Sales	104.2	1741582.9	51857.43	158530
Surplus resources:				
Adj. Net Profits	-4938.6	140031.1	5305.7	14409.83
Company Age	12	147	48.72	28.214
Board Size	4	19	10.09	2.65
Board Independence:				
Prop. of Ind. Directors on Board	25	88.89	52.445	16.003

(Financial variables measured in Rupees in millions)

Correlation

Pearson's Correlation tests were conducted to check the 'independence' of the independent and control variables to be used in the regression models explained in Chapter 3. This was done with the objective of evaluating the existence of multicollinearity indicated by a high degree of correlation between independent variables (Hair et al., 2010) which highlights a lack of independence of variables and redundancy. Tabachnick & Fidell (2007) and Hair et al. (2010) in their books, state that redundancy in variables may increase variance and standard errors in regression analysis. Correlation coefficient values higher than 0.90 are considered indicative of existence of high multicollinearity (Tabachnick & Fidell, 2007 page 88-90) amongst variables.

Table 5.2 presents the Pearson pair wise correlation matrix for all the independent and control variables used in the analysis.

Table 5.2: Correlation Matrix for Independent and Control Variables

		Sector Dummy	Total Assets	Market Cap.	Net Sales	Adj. Net Profits	Age	Board Size	Prop. of Ind. Dir.	Prop. of WOB	Blau's Index
Sector Dummy	Pearson Corr.	1	.366*	.061	.234*	.185**	-.075	.062	-.258*	-.127	-.125
	Sig. (2-tailed)		.000	.408	.001	.012	.311	.402	.000	.086	.090
Total Assets	Pearson Corr.	.366*	1	.588*	.785*	.658*	.083	.306*	-.062	.087	.091
	Sig. (2-tailed)	.000		.000	.000	.000	.262	.000	.403	.240	.216
Market Cap.	Pearson Corr.	.061	.588*	1	.707*	.822*	.062	.258*	-.014	.124	.130
	Sig. (2-tailed)	.408	.000		.000	.000	.400	.000	.852	.094	.079
Net Sales	Pearson Corr.	.234*	.785*	.707*	1	.799*	.203*	.310*	-.013	.081	.090
	Sig. (2-tailed)	.001	.000	.000		.000	.006	.000	.858	.276	.223
Adj. Net Profits	Pearson Corr.	.185**	.658*	.822*	.799*	1	.161**	.250*	.043	.113	.121
	Sig. (2-tailed)	.012	.000	.000	.000		.030	.001	.567	.128	.102
Age	Pearson Corr.	-.075	.083	.062	.203*	.161**	1	.062	.109	-.054	-.052
	Sig. (2-tailed)	.311	.262	.400	.006	.030		.400	.142	.465	.483
Board Size	Pearson Corr.	.062	.306*	.258*	.310*	.250*	.062	1	-.056	.095	.104
	Sig. (2-tailed)	.402	.000	.000	.000	.001	.400		.455	.200	.161
Prop. of Ind. Dir.	Pearson Corr.	-.258*	-.062	-.014	-.013	.043	.109	-.056	1	.130	.131
	Sig. (2-tailed)	.000	.403	.852	.858	.567	.142	.455		.079	.076
Prop. of WOB	Pearson Corr.	-.127	.087	.124	.081	.113	-.054	.095	.130	1	.997*
	Sig. (2-tailed)	.086	.240	.094	.276	.128	.465	.200	.079		.000
Blau's Index	Pearson Corr.	-.125	.091	.130	.090	.121	-.052	.104	.131	.997*	1
	Sig. (2-tailed)	.090	.216	.079	.223	.102	.483	.161	.076	.000	

* Correlation is significant at the 0.01 level (2-tailed) ** Correlation is significant at the 0.05 level (2-tailed)

As reported in Table 5.2, generally moderate correlations (below 0.300) between variables were found, ranging from a low of 0.052 to a high of 0.822. Correlation coefficient between Adjusted Net Profits (a proxy for surplus resources available with a company) and Market Capitalization (a proxy of company size) is 0.822. However, since all correlation coefficients are below 0.90 (Tabachnick & Fidell, 2007), they were retained for use in further analysis. Also, despite some high correlation found between company characteristics such as Total Assets, Market Capitalization, Net Sales and Adjusted Net Profits, they were the most commonly used control variables by researchers in models that evaluate a company's performance. Trotman & Bradley (1981) used both sales and total assets as measures of company size, Belkaoui & Karpik (1989) and Patten (1991) used sales, Bansal (2005) and Clarkson et al. (2008) used Total assets and Hackston & Milne (1996) used Market Capitalization as a proxy for company size. Net profits were used as a proxy for slack variable by Waddock & Graves (1997) and Galbreath (2011). So, all these variable were retained for analysis as control variables. Also, despite the high correlation between Proportion of women on boards and Blau's Index indicating high multicollinearity, there was evidence of both these measures simultaneously being used in past studies by researchers such as Campbell & Minguez-Vera (2008) and Miller & Triana (2009). Since the models in this study have been designed to separately test the hypothesis using these two proxies of gender diversity on boards of companies, the high correlation between them has been considered irrelevant.

Testing of Hypotheses – H0₇ to H0₉

For testing *H0₇*: *There is no significant relationship between gender diversity on boards and the economic performance of a company*, twelve equations, as explained in Chapter 3, were developed for three proxies of economic performance and two proxies of gender diversity on boards. The simultaneous equation model for H0₇ is briefly presented as follows:

$$\text{ROA or ROE or MBV} = \alpha_0 + \alpha_1 \text{ Prop. of WOB or Blau's Index} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age}$$

Prop. of WOB or Blau's Index = $\alpha_0 + \alpha_1$ ROA or ROE or MBV + α_2 Sector classification + α_3 Board Size + α_4 Board Independence + α_5 Company Size + α_6 Surplus resources + α_7 Company Age

Pearson correlation test was first conducted to establish if there was any association between the variables, independent as well as control, with the dependent variables.

Table 5.3 presents the correlation results of all variables with the three proxy measures of economic performance – ROA, ROE and MBV.

Table 5.3: Correlation Matrix for all variables used in H0₇

		Sector Dummy	Total Assets	Market Cap.	Net Sales	Adj. Net Profits	Age	Board Size	Prop. of Ind. Dir.	Prop. of WOB	Blau's Index
ROE	Pearson Corr.	.006	.017	.289*	.084	.199*	-.012	.068	.015	.072	.079
	Sig. (2-tailed)	.936	.823	.000	.258	.007	.867	.362	.835	.331	.286
ROA	Pearson Corr.	-.159**	-.411*	-.047	-.118	.044	.079	-.041	.054	-.074	-.075
	Sig. (2-tailed)	.031	.000	.527	.111	.553	.283	.581	.467	.315	.313
MBV	Pearson Corr.	-.127	-.192*	.113	-.079	-.030	-.162**	-.023	-.028	.114	.120
	Sig. (2-tailed)	.086	.009	.128	.284	.682	.027	.762	.705	.123	.103

* Correlation is significant at the 0.01 level (2-tailed). ** Correlation is significant at the 0.05 level (2-tailed).

It can be observed from Table 5.3 that control variable Total Assets is significantly and negatively correlated with ROA and MBV at 0.01 levels. Analysis of other control variables shows Market capitalization and Adjusted Net Profits are correlated with ROE (significant at 0.01 level), Sector dummy and company age variables are negatively correlated with ROA and MBV respectively, significant at 0.05 levels.

For testing H0₈: *There is no significant relationship between gender diversity on boards and the sensitivity of a company towards societal issues*, four equations were developed for one proxy of social involvement / performance and two

proxies of gender diversity on boards. Summary of the simultaneous equation model is as follows:

$$\text{SIS} = \alpha_0 + \alpha_1 \text{ Prop. of WOB or Blau's Index} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age}$$

$$\text{Prop. of WOB or Blau's Index} = \alpha_0 + \alpha_1 \text{ SIS} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age}$$

Similarly for testing H_{09} : *There is no significant relationship between gender diversity on boards and the quality of environmental disclosures of a company*, four equations were developed for one proxy of environmental concern or performance and two proxies of gender diversity on boards, the simultaneous equation model in brief is as follows:

$$\text{ECS} = \alpha_0 + \alpha_1 \text{ Prop. of WOB or Blau's Index} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age}$$

$$\text{Prop. of WOB or Blau's Index} = \alpha_0 + \alpha_1 \text{ ECS} + \alpha_2 \text{ Sector classification} + \alpha_3 \text{ Board Size} + \alpha_4 \text{ Board Independence} + \alpha_5 \text{ Company Size} + \alpha_6 \text{ Surplus resources} + \alpha_7 \text{ Company Age}$$

Similar to testing methodology adopted for H_{07} , Pearson correlation tests were conducted for all variables involved in testing H_{08} and H_{09} to establish if there was any association between the variables, independent as well as control, with the dependent variables. Table 5.4 presents the correlation results of all variables with the Social Involvement Scores (SIS) and the Environmental Concern Scores (ECS) derived from the Corporate Sustainability Index.

Table 5.4: Correlation Matrix for all variables used in H0₈ and H0₉

		Sector Dummy	Total Assets	Mkt. Cap.	Net Sales	Adj. Net Profits	Age	Board Size	Prop. of Ind. Dir.	Prop. of WOB	Blau's Index
SIS	Pearson Corr.	.157**	.468*	.528*	.528*	.506*	.044	.227*	-.051	.127	.131
	Sig. (2-tailed)	.032	.000	.000	.000	.000	.552	.002	.489	.084	.075
ECS	Pearson Corr.	.402*	.448*	.232*	.217*	.123	-.071	.185**	-.247*	-.043	-.037
	Sig. (2-tailed)	.000	.000	.002	.003	.096	.338	.012	.001	.564	.616

* Correlation is significant at the 0.01 level (2-tailed). ** Correlation is significant at the 0.05 level (2-tailed).

It can be observed from Table 5.4 that control variable Total Assets, Market Capitalization and Net Sales are significantly and positively correlated with both SIS and ECS at 0.01 levels. Analysis of other control variables shows that Adjusted Net Profits are positively correlated with SIS and board independence is inversely related to ECS (both results significant at 0.01 levels). Sector dummy and Board size variables are positively correlated with the dependent variables SIS and ECS but at different significance levels.

Overall analysis of correlation showed that some variables in the developed models exhibited significant relationships with the three dimensions of corporate sustainability performance – financial, social and environmental. This was followed by further testing of the hypotheses using 2SLS regression technique, results of which are discussed in the subsequent part of this chapter.

Multiple regression analysis using 2-Stage Least Square (2SLS) method was used for testing H0₇ – H0₉. Twenty tests were conducted in which each performance measure (dependent variable), measured by ROA, ROE, MBV, SIS and ECS was regressed against one proxy measure of board gender diversity at a time, together with other control variables.

Tables 5.5, 5.6 and 5.7 report the results of 2SLS regression models for testing H0₇ and to evaluate whether a relationship between women on boards and the economic performance dimension of sustainability exists. The estimates for the effect of gender diversity on financial performance of companies as measured by ROA are shown in Table 5.5, while those for ROE and MBV are presented in

Table 5.6 and 5.7 respectively. The regression results of models developed for testing whether there is any significant relationship between women on boards and the sensitivity of a company towards societal issues (H0₈) are shown in Table 5.8 and results of relationship between gender diversity on boards and the quality of environmental disclosures of a company (H0₉) are reported in Table 5.9.

Table 5.5: 2SLS estimates of relationship between gender diversity on boards of directors and economic performance measured by ROA

Variables	Dep. V – ROA (1a)	Dep. V – Prop. of WOB (1b)	Dep. V – ROA (2a)	Dep. V – Blau’s Index (2b)
Sector Dummy	.367 (1.515)	-1.868*** (1.007)	0.364 (1.514)	-0.031*** (0.017)
Total Assets	-5.655* (.682)	0.101 (0.542)	-5.657* (0.682)	0.001 (0.009)
Market Capitalization	-1.173 (.897)	0.009 (0.605)	-1.170 (0.897)	0.000 (0.010)
Net Sales	1.422 (.953)	- 0.120 (0.643)	1.425 (0.952)	-0.001 (0.011)
Adj. Net Profits	4.088* (.943)	0.598 (0.665)	4.098* (0.942)	0.010 (0.011)
Age	.569 (1.112)	-1.012 (0.742)	0.563 (1.112)	-0.017 (0.012)
Board Size	2.693 (2.576)	1.267 (1.731)	2.741 (2.578)	0.027 (0.029)
Prop. of Independent Directors on Board	-0.007 (.041)	0.029 (0.027)	-0.007 (0.041)	0.001 (0.000)
Prop. of WOB	-0.115 (.114)			
ROA		-0.052 (0.051)		0.000 (0.001)
Blau’s Index			-7.090 (6.818)	
N	185	185	185	185
R ²	0.372	0.067	0.372	0.071
Adjusted R ²	0.338	0.018	0.339	0.022
F - Statistic	11.169*	1.361	11.182*	1.442

* Statistically significant at 0.01 level

** Statistically significant at 0.05 level

*** Statistically significant at 0.10 level

In Table 5.5, model 1(a) and 2(a) show results with ROA as the dependent variable. Model 1(b) used Proportion of WOB as the dependent variable where 2(b) reports results with Blau’s Index as the dependent variable. The estimated

coefficient values are reported along with standard errors within brackets underneath the parameter estimates.

The results show that in the ROA equations, models (1a) and (2a), the estimated equations explain 34% of the variation of the observations and the F value is 11.2 significant at 0.01 level, which suggests that not all relationships can be attributed to chance. The estimated coefficients for the control variables Total Assets and Adj. Net Profits are statistically significant at 0.01 levels. A proxy for company size, estimated coefficients for Total assets are negative in both Model 1(a) and 2(a) suggesting that ROA declines as the size of company increases. This negative relationship is also reflected in the negative coefficients for Market capitalization (another proxy for company size), however the results were not found to be statistically significant at any level. The coefficient estimates for adjusted net profits, used as a proxy for surplus resources, were found to be positive and significant at 0.01 levels in both the models for ROA. This suggests that surplus resources are significant in explaining the ROA; companies with more surplus resources tend to have a higher ROA.

In the ROA models 1(a) and 2(a), it was interesting to find negative coefficients for both the measures of gender diversity, -0.115 ($p=0.316$) for proportion of WOB and -7.090 ($p=0.300$) for Blau's Index, suggesting that presence of women on boards results in decline in ROA. However, this association was not found to be statistically significant at any of the levels – 0.01, 0.05 or 0.10. This finding is consistent with previous studies like Shrader et al. (1997), Carter et al. (2003), Lückérath-Rovers (2010), Dobbin & Jung (2010), Galbreath (2011) and Dezso & Ross (2012). In the gender diversity equations, models (1b) and 2(b), a negative relationship between the presence of a female director and sector classification was reported. Interestingly, presence of women on boards was not found to be associated with any other variable. Although a negative estimated coefficient (-0.052) was reported for ROA, it was not found to be statistically significant. In Model 2(b) as well no significant relationship between ROA and Blau's Index was reported.

These results provided evidence that no association existed between ROA and either of the measures of presence of women directors on boards.

The estimates of the relationship between gender diversity on boards of directors and economic performance measured by ROE are presented in Table 5.6. Models 3(a) and 4(a) show results with ROE as the dependent variable. When ROE is regressed against proportion of women on boards (3a) and against Blau's Index (4a), the estimated equations explain approximately 8% of the variation of the observations and the F value is 2.86 significant at 0.01 level, which suggests that relationships between variables is beyond chance. The negative estimated coefficients of Total Assets in both these models show similar results as in ROA models. However, in ROE the results were found to be significant only at 0.10 levels, suggesting that ROE declines as the size of a company measured in terms of Total assets increases. Market capitalization exhibited a significant positive relationship with ROE at 0.01 levels, signifying that as the size in terms of market capitalization increases the company's financial performance in terms of its ROE also increases. ROE showed some evidence of a positive relationship with both the measures of gender diversity on boards with the estimated coefficient values of 0.087 for the proportion of WOB and 5.665 for Blau's index. However, as was the case with ROA, this association was not found to be significant with p values of 0.474 and 0.438 respectively. The results of regression for the relationship of ROE with all other variables such as sector classification, net sales, surplus resources, company age, board size and independence came out to be insignificant.

Table 5.6: 2SLS estimates of relationship between gender diversity on boards of directors and economic performance measured by ROE

Variables	Dep. V – ROE (3a)	Dep. V – Prop. of WOB (3b)	Dep. V – ROE (4a)	Dep. V – Blau's Index (4b)
Sector Dummy	1.658 (1.629)	-1.950*** (1.010)	1.668 (1.619)	-0.032*** (0.017)
Total Assets	-1.217*** (0.729)	0.436 (0.461)	-1.217*** (0.729)	0.007 (0.008)
Market Capitalization	3.336* (0.959)	-0.046 (0.624)	3.334* (0.959)	0.000 (0.10)
Net Sales	-0.992 (1.018)	-0.159 (0.642)	-0.994 (1.018)	-0.002 (0.011)
Adj. Net Profits	0.226 (1.008)	0.381 (0.633)	0.225 (1.007)	0.006 (0.011)

Variables	Dep. V – ROE (3a)	Dep. V – Prop. of WOB (3b)	Dep. V – ROE (4a)	Dep. V – Blau’s Index (4b)
Age	-0.057 (1.188)	-1.042 (0.743)	-0.048 (1.188)	-0.018 (0.012)
Board Size	1.109 (2.754)	1.093 (1.730)	1.066 (2.756)	0.024 (0.029)
Prop. of Independent Directors on Board	0.015 (0.044)	0.029 (0.027)	0.014 (0.044)	0.001 (0.000)
Prop. of WOB	0.087 (0.122)			
ROE		0.035 (0.048)		0.001 (0.001)
Blau’s Index			5.665 (7.288)	
N	185	185	185	185
R ²	0.131	0.064	0.132	0.068
Adjusted R ²	0.085	0.015	0.086	0.019
F - Statistic	2.855*	1.302	2.867*	1.386

* Statistically significant at 0.01 level

** Statistically significant at 0.05 level

*** Statistically significant at 0.10 level

Models 3(b) and 4(b) used proportion of WOB and Blau’s index respectively as dependent variables to test the relationship of gender diversity with other identified variables. Similar to ROA model results, a negative relationship between the presence of a female directors and sector classification was reported. Also, presence of women on boards was not found to be significantly associated with any other variable. In contrast to ROA model results, although a positive estimated coefficient (0.035) was reported for ROE in Model 3(b), it was not found to be statistically significant. In Model 4(b) as well no significant relationship between ROE and Blau’s Index was reported.

Similar to ROA results, these results provided no evidence of significant association between ROE and either of the measures of presence of women directors on boards, results consistent with Shrader et al. (1997), Bonn (2004) and Dezso & Ross (2012).

Table 5.7: 2SLS estimates of relationship between gender diversity on boards of directors and economic performance measured by MBV

Variables	Dep. V – MBV (5a)	Dep. V – Prop. of WOB (5b)	Dep. V – MBV (6a)	Dep. V – Blau’s Index (6b)
Sector Dummy	-0.167 (0.537)	-1.854*** (1.006)	-0.164 (0.537)	-0.030*** (0.017)
Total Assets	-0.753* (0.242)	0.552 (0.468)	-0.752* (0.242)	0.008 (0.008)
Market Capitalization	1.578* (0.318)	-0.203 (0.643)	1.577* (0.318)	-0.003 (0.011)
Net Sales	0.004 (0.338)	-0.193 (0.638)	0.003 (0.338)	-0.003 (0.011)
Adj. Net Profits	-0.652** (0.334)	0.499 (0.638)	-0.652** (0.334)	0.008 (0.011)
Age	-0.656*** (0.394)	-0.926 (0.748)	-0.653*** (0.394)	-0.016 (0.012)
Board Size	-0.113 (0.914)	1.145 (1.742)	-0.134 (0.914)	0.025 (0.029)
Prop. of Independent Directors on Board	-0.026*** (0.014)	0.034 (0.027)	-0.026*** (0.014)	0.001 (0.000)
Prop. of WOB	0.048 (0.040)			
MBV		0.173 (0.144)		0.003 (0.002)
Blau’s Index			3.040 (2.418)	
N	185	185	185	185
R ²	0.243	0.069	0.235	0.074
Adjusted R ²	0.194	0.020	0.194	0.025
F - Statistic	5.780*	1.410	5.801*	1.502

* Statistically significant at 0.01 level

** Statistically significant at 0.05 level

*** Statistically significant at 0.10 level

Table 5.7 shows the results of MBV equations in models 5(a) and 6(a). The proportion of WOB is used as dependent variable in Model 5(b) and Blau’s Index is used as dependent variable in equation 6(b). The estimated equations in which MBV was regressed against the two gender diversity measures were found to explain 19% of the variation and the F value was 5.8 significant at 0.01 level, which indicated that not all relationships were due to chance. MBV was reported to have significant relationships with five out of the nine variables defined in models 5(a) and 6(a). Results of both these models were found to be similar /

almost identical. In both the models MBV was found to be significantly associated with the two proxies of company size. The estimated coefficients for Total assets were negative with the parameter estimate of -0.75 and a p value of 0.002 in both models. This was supported by the results of ROA and the ROE models discussed earlier. In both models 5(a) and 6(a), Market capitalization coefficients were positive and also significant at 0.01 levels, similar to results of ROE models discussed earlier. This evidence suggests that economic performance measured by MBV is significantly linked with the size of a company. MBV increases with increase in Market capitalization but tends to decline with increase in the company's total assets. Interesting findings in terms of association of MBV and surplus resources were made. In contrast to the positive link established between ROA and surplus resources, MBV was found to have negative coefficients with respect to adjusted net profits used as measure of surplus resources. The negative relationship between MBV and surplus resources was statistically significant in both MBV models with the parameter estimate value of -0.652 and a p value of 0.05. It can be concluded that companies with higher amount of surplus resources have a lower MBV. Similar to the earlier two models of ROA as well as ROE, no significant relationship was found between MBV and the third proxy of company size – Net sales.

Two other interesting results were reported by the MBV models which were not evidenced to be significant in the earlier models of ROA and ROE. The first was the negative link between company age and MBV, which suggested that older companies tend to have lower MBV and the second was the negative association between board's independence, measured as a percentage of independent directors on board, with MBV. It can be inferred that companies with more independent boards would suffer in their economic performance measured in terms of MBV. The parameter estimate of -0.656 ($p= 0.09$) for company age and estimate of -0.026 ($p = 0.07$) for board independence indicated their statistical significance at 0.10 levels.

Results of relationship between MBV and the two measures of gender diversity came out to be positive but statistically insignificant in all the four models 5(a and b) and 6(a and b).

The models using proportion of WOB and Blau's index as dependent variables (5b and 6b) produced no significant results for any of the variables except sector classification. Similar to ROA and ROE model results, a negative relationship between the representation of WOB and sector classification was reported.

The results of regression models provided no evidence of existence of a significant association between MBV and either of the measures of presence of women directors on boards.

Overall analysis of models to test the H_{07} can be summarized as follows: Total assets contributed significantly and negatively to the prediction of all the three measures of economic performance – ROA, ROE and MBV whereas Market capitalization contributed positively and significantly to predict ROE and MBV. Contribution of company age and Board independence was negative but significant in predictions of MBV. Although surplus resources measured as adjusted net profits contributed negatively in the prediction of MBV, they exhibited a significant positive effect which predicting ROA. Although some evidence of a negative association between gender diversity on boards and ROA, and a positive association between gender diversity on boards and ROE and MBV was found, these relationships failed to be of any statistical significance. Hence it can be concluded that gender diversity, measured as a proportion of women on boards and Blau's Index, do not contribute to the prediction of ROA, ROE and MBV, the three measures of the economic performance of a company, leading to the acceptance of the null hypothesis H_{07} that there is no significant relationship between women on boards and the economic performance of a company. Gender was found to have no impact on the financial performance of the sample Indian companies. These findings are in agreement with results of studies by Shrader et al. (1997) and Rose (2007).

Models 7 to 10 tested the relationships between the representation of women on boards and the environmental and social dimensions of corporate sustainability by testing hypotheses H_{08} and H_{09} . The results of the 2SLS regression analysis are presented in tables 5.8 and 5.9.

Table 5.8: 2SLS estimates of relationship between gender diversity on boards of directors and Social Involvement

Variables	Dep. V – SIS (7a)	Dep. V – Prop. of WOB (7b)	Dep. V – SIS (8a)	Dep. V – Blau’s Index (8b)
Sector Dummy	0.360 (0.564)	-1.937*** (1.007)	0.356 (0.564)	-0.032*** (0.017)
Total Assets	0.147 (0.254)	0.372 (0.457)	0.149 (0.254)	0.006 (0.008)
Market Capitalization	0.892* (0.334)	-0.055 (0.614)	0.891* (0.334)	0.000 (0.010)
Net Sales	0.755** (0.354)	-0.298 (0.647)	0.753** (0.354)	-0.004 (0.011)
Adj. Net Profits	-0.130 (0.351)	0.406 (0.632)	-0.129 (0.351)	0.006 (0.011)
Age	-0.383 (0.414)	-0.988 (0.744)	-0.383 (0.414)	-0.017 (0.012)
Board Size	0.803 (0.958)	1.017 (1.730)	0.789 (0.959)	0.023 (0.029)
Prop. of Independent Directors on Board	-0.002 (0.015)	0.030 (0.027)	-0.002 (0.015)	0.001 (0.000)
Prop. of WOB	0.043 (0.042)			
SIS		0.139 (0.138)		0.002 (0.002)
Blau’s Index			2.479 (2.537)	
N	185	185	185	185
R ²	0.351	0.067	0.351	0.070
Adjusted R ²	0.317	0.018	0.317	0.021
F - Statistic	10.238*	1.361	10.227*	1.427

* Statistically significant at 0.01 level

** Statistically significant at 0.05 level

*** Statistically significant at 0.10 level

Table 5.8 report the results of 2SLS regression for testing H0₈ to evaluate if there is any relationship between presence of women on boards and the social involvement scores of companies. The null hypothesis assumes that there is no significant relationship between these variables. Models 7(a) and 8(a) show results of regression with Social Involvement Scores (SIS) as the dependent variable, where as models 7(b) and 8(b) show results with proportion of women on boards and Blau’s index respectively as the dependent variables. In models 7a and 8a, where SIS was regressed against the two gender diversity measures, the

estimated equations explained 31% of the variation of the observations with the F value of 10.23 significant at 0.01 level. This indicated that not all relationships between variables were due to chance. The estimated coefficients for only Market capitalization and Net Sales (both proxies of company size) were found to be statistically significant in both the SIS models. The positive relationship suggests that big companies are more socially involved or have better performance on the social responsibility dimension as compared to small companies.

The coefficient estimates of proportion of women on board (0.043; $p=0.315$) and of Blau's Index (2.479; $p=0.330$) in the SIS equations, although show a positive relationship between gender diversity and SIS, the results are not statistically significant. Even in the gender diversity equations (Models 7b and 8b), no significant results for any of the variables except sector classification were seen. Similar to regression results with the three variables of economic performance, a negative relationship between the representation of WOB and sector classification was reported.

The results of regression models failed to provide evidence of existence of a significant association between SIS and either of the measures of presence of women directors on boards leading to the acceptance of the null hypothesis H_{0g} .

Table 5.9: 2SLS estimates of relationship between gender diversity on boards of directors and environmental concern

Variables	Dep. V – ECS (9a)	Dep. V – Prop. of WOB (9b)	Dep. V – ECS (10a)	Dep. V – Blau's Index (10b)
Sector Dummy	4.373* (1.266)	-1.844*** (1.045)	4.386* (1.266)	-0.031*** (0.017)
Total Assets	3.383* (0.570)	0.437 (0.503)	3.379* (0.570)	0.007 (0.008)
Market Capitalization	2.598* (0.749)	0.102 (0.624)	2.598* (0.749)	0.002 (0.010)
Net Sales	-1.477*** (0.796)	-0.213 (0.647)	-1.475*** (0.796)	-0.003 (0.011)
Adj. Net Profits	-2.779* (0.788)	0.355 (0.657)	-2.781* (0.788)	0.006 (0.011)
Age	-0.267 (0.929)	-1.051 (0.744)	-0.260 (0.929)	-0.018 (0.012)

Variables	Dep. V – ECS (9a)	Dep. V – Prop. of WOB (9b)	Dep. V – ECS (10a)	Dep. V – Blau’s Index (10b)
Board Size	0.471 (2.152)	1.140 (1.723)	0.468 (2.155)	0.025 (0.029)
Prop. of Independent Directors on Board	-0.058*** (0.034)	0.029 (0.028)	-0.058*** (0.034)	0.001 (0.000)
Prop. of WOB	-0.019 (0.095)			
ECS		-0.012 (0.062)		0.000 (0.001)
Blau’s Index			-0.745 (5.698)	
N	185	185	185	185
R ²	0.390	0.062	0.390	0.065
Adjusted R ²	0.357	0.012	0.357	0.016
F - Statistic	12.060*	1.246	12.055*	1.316

* Statistically significant at 0.01 level

** Statistically significant at 0.05 level

*** Statistically significant at 0.10 level

Table 5.9 shows the results of ECS equations in models 9(a) and 10(a). The proportion of WOB is used as dependent variable in Model 9(b) and Blau’s Index is used as dependent variable in equation 10(b). The estimated equations in models 9(a) and 10(a) explained almost 36% of the variation of observations in variables with the F value of 12.1 significant at 0.01 levels. ECS was reported to have significant relationships, attributed beyond chance, with six out of the nine variables defined in models 9(a) and 10(a). Results of both these models were found to be similar / almost identical. In both the models ECS was found to be significantly associated with all the three proxies of company size. The estimated coefficients for Net Sales were negative with the parameter estimate of -1.48 and a p value of 0.07 in both models, suggesting an inverse relationship between this proxy of company size and ECS at 10% level of significance. In both models 9(a) and 10(a), Total assets and Market capitalization coefficients were positive and significant at 0.01 levels. This evidence suggests that environmental performance measured by ECS is significantly linked with the size of a company. ECS increases with increase in Market capitalization and Total Assets but tends to decline with an increase in the company’s Net Sales.

Interesting findings in terms of association of ECS and surplus resources were made. ECS was found to have negative coefficients with respect to adjusted net profits used as a measure of surplus resources. The negative relationship between ECS and surplus resources was statistically significant in both 9(a) and 10(a) models with the parameter estimate value of -2.78 and a p value of 0.01. It can be concluded that companies with higher amount of surplus resources have a lower ECS.

Another interesting result was reported by the two ECS models which were not evidenced to be significant in the earlier models of ROA, ROE and SIS. An inverse relationship between board's independence, measured as a percentage of independent directors on board, and ECS was evidenced. It can be inferred that companies with more independent boards suffer in their environmental performance and lack in environmental concern. However, the parameter estimate of -0.058 ($p= 0.09$) for board independence indicated that this inverse association is statistically significant only at 0.10 levels.

The coefficient estimates of relationship between ECS and the two measures of gender diversity came out to be negative but statistically insignificant indicating that gender diversity has no relationship with ECS leading to the acceptance of the null hypothesis H_0 . This finding was found consistent with finding of Galbreath (2011).

The models using proportion of WOB and Blau's index as dependent variables (9b and 10b) produced no significant results for any of the variables except sector classification. Similar to Economic and social performance model results, a negative relationship between the representation of WOB and sector classification was reported.

Hence, it can be concluded that the results of regression models provided no evidence of existence of a significant association between ECS and either of the measures of presence of women directors on boards.

Conclusion

After controlling for sector classification, size, age, surplus resources, board size and board independence, no statistically significant relationship between the representation of women on boards of companies and their economic, social and environmental performance was found. All the three null hypotheses $H_{07} - H_{09}$ are accepted which indicates that gender diversity on boards, in its current status in the sample companies, does not contribute towards prediction of the corporate sustainability performance dimensions. The statistically insignificant estimates of gender diversity in the models may point towards a general lack of value addition by women on boards towards a company's performance, but at the same time can be taken as an indication of the prevalence of 'tokenism' in the appointment of women directors on boards of directors of companies (Carter et al., 2003; Rhode & Packel, 2010; Rosener, 1995).

Various control variables were found to be linked with the three dimensions of corporate sustainability performance. Except for social involvement of a company (SIS), total assets were found to be significant at 0.01 level. This variable contributed negatively in prediction of all measures of economic performance, but contributed positively to prediction of environmental concern (ECS) exhibited by a company. Market Capitalization was positive and significantly associated with all dependent variables except ROA. Net Sales, the third proxy measure for company size, was not associated with any measure of economic performance, but was a positive and significant contributor to prediction of SIS at 0.05 level. This indicates that companies primarily commit a part of their revenues for engaging in social responsibility activities. This is also supported by some examples of companies committing a part of their revenue per unit of sale of a product towards philanthropic and socially relevant activities. Surplus resources, measured by adjusted Net Profits, were positively associated with only ROA suggesting that surplus resources help in improving returns, a finding supported by previous studies like Galbreath (2011). However, surplus resources were negatively associated with ECS indicating towards the possibility that companies may not be committing or using surplus resources for improving and mitigating the environmental impacts of their operations. Proportion of independent directors on

boards was found to contribute negatively to the prediction of MBV and ECS, significant only at a 0.10 level. Contrary to findings of earlier studies like Galbreath (2011) no significant association was found between board independence and SIS. Age of a company was only found to negatively impact the MBV, at 0.10 level of significance. It was not associated with any other variable in the study. Board size was also found to be insignificant in prediction of all the dependent variables.

A negative association between sector (dummy variable using 1 for high profile and 0 for low profile sectors) and gender diversity on boards of directors, significant at 0.10 level, was found. This was supported by the findings of earlier studies that some type of companies are finding difficulty in ensuring appropriate representation of women on their boards.

CHAPTER 6

PERCEPTIONS OF DIRECTORS

A survey was undertaken to understand the perceptions of directors on boards of Indian listed companies regarding some aspects of corporate sustainability on the one hand and on the status and need of gender diversity on corporate boards, on the other. One of the objectives of the survey was to see whether any linkages between gender diversity and corporate sustainability were recognized or acknowledged by the respondent directors or more specifically, whether the importance of the presence of women on boards was generally accepted. It looked to specifically assess the perceptions on three important aspects in any debate on gender diversity, the benefits in terms of qualification, skills or competence that women might bring on board, the opportunities available to them and the prevalence of stereotypes against women inhibiting their representation in leadership positions.

This survey also attempted to understand how business was conducted inside a boardroom. This was specifically aimed at ascertaining whether the environment inside the boardroom and its conduct was supportive of women being a part or not. The survey also aimed at evaluating, though in small measure, the extent of involvement of the respondent directors in strategic decision making at the board level, thereby trying to deduce the type of sustainability issues they are most likely to influence in the context of creating a sustainability culture in the organizations.

Since the survey included both men and women directors as respondents, the analysis on all the above dimensions provided interesting results and conclusions when linked with gender.

To understand the perception of directors, men and women, about sustainability and the representation of women on boards, following hypotheses were tested:

H₀₁₀ There is no significant difference in men and women directors' awareness of the concept of Triple Bottom Line (TBL) and their identification of key drivers of Corporate Sustainability.

- HO₁₁ There is no significant difference between men and women directors' views on the importance and frequency on which the key sustainability issues feature on the boardroom agenda.
- HO₁₂ There is no significant difference in the perception of men and women directors regarding the diversity on boards of directors.
- HO₁₃ There is no significant difference in the perception of men and women directors regarding the qualifications, skills and competence that women bring on board.
- HO₁₄ There is no significant difference in the perception of men and women directors regarding the opportunities for women's appointment on the Boards.
- HO₁₅ There is no significant difference in the perception of men and women directors regarding the existence of stereotypes against women.
- HO₁₆ There is no significant difference in the perception of men and women directors regarding the professional conduct of the Board's activities.

The subsequent part of this chapter presents in detail the results and analysis of the Directors' Perception Survey (Annexure II). For better understanding, this chapter has been divided into three parts:

1. **Distribution of the respondents** – This includes presentation and analysis of gender, age, qualification, experience, income, type of directorship held by the respondent directors and the principles or values they hold dear.
2. **Corporate Sustainability Dimensions** – This section presents the findings on the level of awareness about the concept, the drivers, the important sustainability issues and the extent of involvement in strategic decisions on the board.
3. **Gender Diversity Dimensions** – This part of the chapter focuses on presenting the results and key findings on the perceptions of respondents on the aspects related to gender diversity on boards of directors. The analysis involves addressing questions as to whether women are adequately represented on the boards, whether women have the requisite

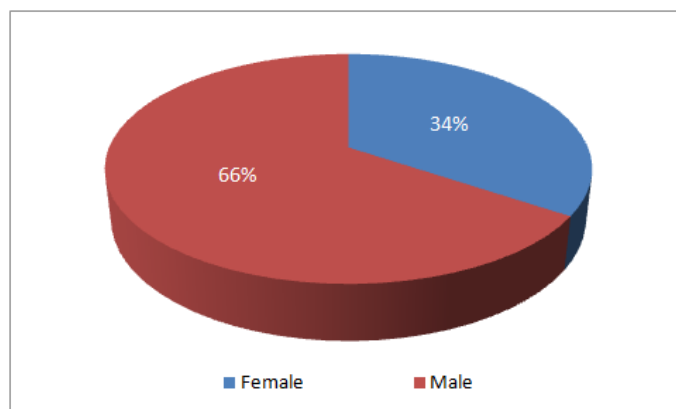
competence, qualifications and skills to add value to the organization in intangible or tangible terms and whether women interested for board service get enough opportunities to present their candidature for a board position. It also discusses the analysis on perceptions of both men and women directors about the existence of stereotypes and gender biases and whether they impede or inhibit the representation of women on corporate boards. This section also provides insights into the professionalism of board's conduct as well as adequacies of processes that create opportunities, attract and retain women on boards. The analysis presents suggestions on measures like quotas, training programmes and other methods that can be adopted for increasing the representation of women on boards of directors.

1. DISTRIBUTION OF THE RESPONDENTS

A total of 96 directors responded to the survey making the response rate 32%. A response rate of 30% - 32% has been considered acceptable in literature for surveys involving such corporate elites (Sheridan, 2001; Sheridan & Milgate, 2005; Cycyota & Harison, 2006; Huse et al., 2009; Nielsen & Huse, 2010a, 2010b). The distribution of the respondents with reference to different aspects has been presented below:

- (a) **Gender:** Approximately 34% of the total respondents were women (Figure 6.1). The response rate of men (42%) was found to be better than the 22% response rate of women directors.

Figure 6.1: Gender wise distribution of respondents



(b) Type of Directorships: 74% directors responded to this question, made up of 35% response from women and 65% from men. Of the 33 women respondents, 76% responded to this question which is equally comparable to 73% response of the total 63 men.

Figure 6.2: Type of Directorships

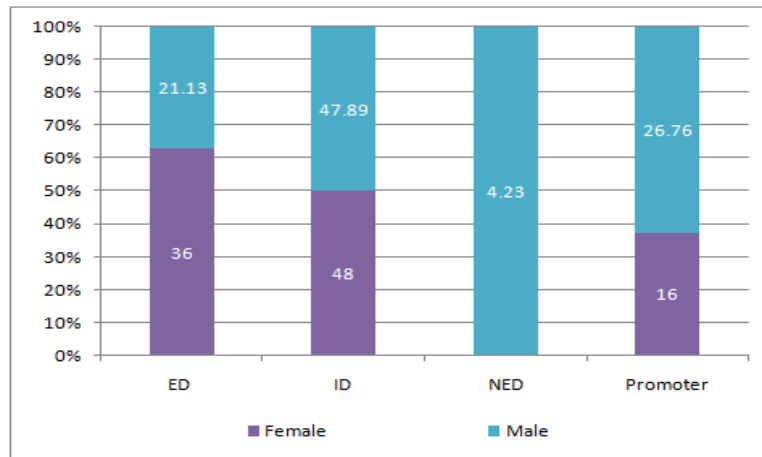


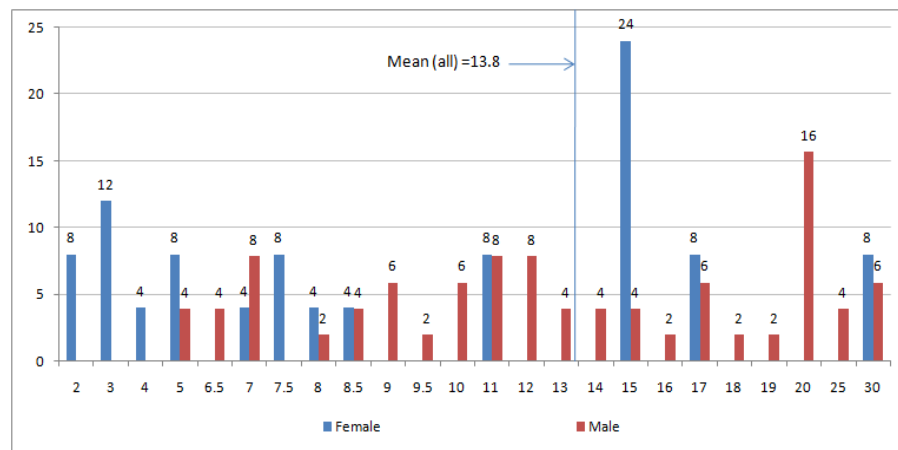
Figure 6.2 shows that almost half (48%) of the total directors who responded to this question were ‘Independent’ Directors, which was also true for both genders. The analysis found 48% of men as well as 48% of women respondents to this question were Independent directors. It was also noted that there were no women ‘Non-Executive’ directors. Although the percentage of women executive directors was higher as compared to their male counterparts, there were lesser women promoter directors - a most common perception or assumption made in studies relevant to women directors on boards.

(c) Experience: A response of 79% was received on this question, with 33% response from women and 67% from men. It was also found that a higher 81% of total 63 men were willing to share this information as compared to 76% of total 33 women respondents. Figure 6.3 presents the experience distribution of men and women directors who participated in the survey.

The majority of respondents had an experience of 15 and 20 years, but these represented only approximately 17% of the total 96 respondents and

approximately 22% of the 76 directors who responded to this question. It was interesting to note that a majority 24% of women who responded to this question possessed an experience of 15 years, whereas all 8 directors (among the 76) who had an experience of 20 years were found to be male.

Figure 6.3: Experience and percentage of respondent directors



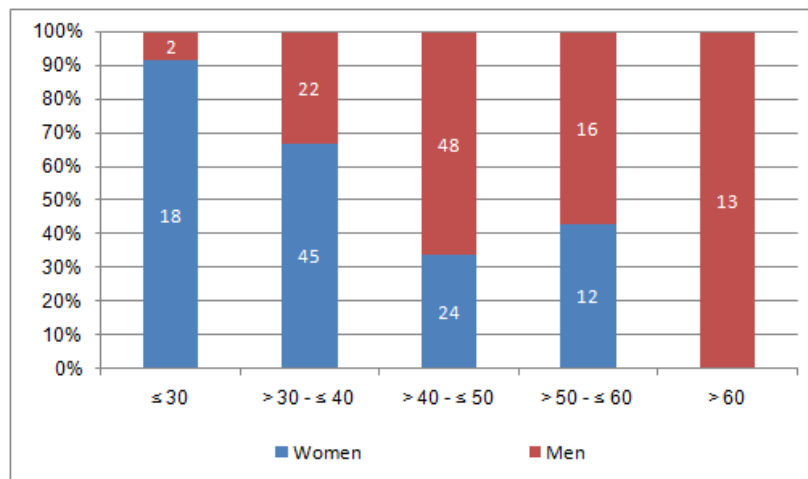
Men directors tend to have higher experience than women directors. It was found that 52% of Women had experience of less than 10 years as compared to only 29% of men falling in this category. The mean experience of the male directors was found to be 14.17 years, even higher than the average experience of 13.8 years of all directors (men as well as women taken together) who responded to this question. In comparison to this, the average experience of the women was a low 10.86 years.

- (d) **Age:** Table 6.1 shows that 40% of the total 96 respondents lay in the age bracket of > 40 to ≤ 50 , with a majority 48% of them being male. 45% women were within the age group of 30 to 40 years, followed by 24% in the age bracket of 40 to 50 years. There were no women respondents above the age of 60 years. Figure 6.4 presents the age distribution of the sample graphically.

Table 6.1: Distribution of respondents by age and gender

Years	Female	Male	Total	% Total	% Women	% Men
≤ 30	6	1	7	7.3	18.18	1.59
> 30 - ≤ 40	15	14	29	30.2	45.45	22.22
> 40 - ≤ 50	8	30	38	39.6	24.24	47.62
> 50 - ≤ 60	4	10	14	14.6	12.12	15.87
> 60	0	8	8	8.3	0.00	12.70
Total	33	63	96	100	100.00	100.00

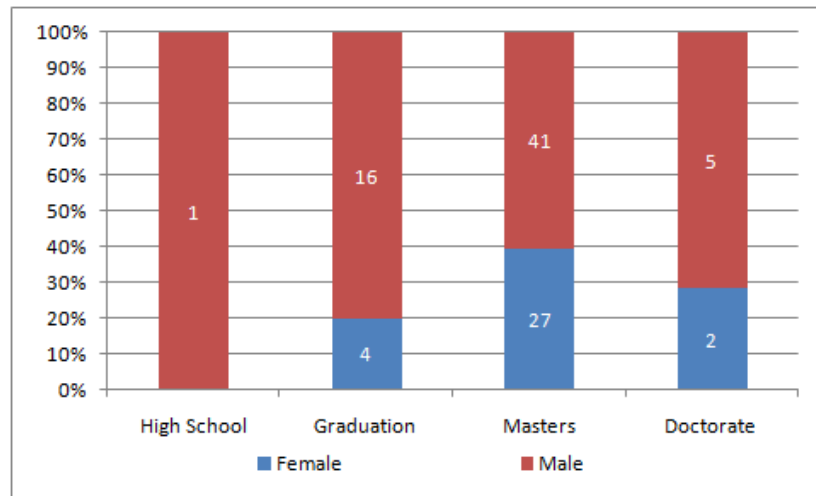
Figure 6.4: Age Distribution - percentage respondents



The mean age of the total 96 respondents is 44 years, with the mean age of men equal to 47 years and that of women equal to 39 years. Men in the sample are relatively older than the women directors.

- (e) **Education and Qualification background of respondents:** 71% of the total respondents held Master's Degrees of which 27 (40%) were women as seen in Figure 6.5 showing the education and qualification background of men and women respondents. On closer look, 82% of the women respondents as compared to 65% of men respondents were post graduates.

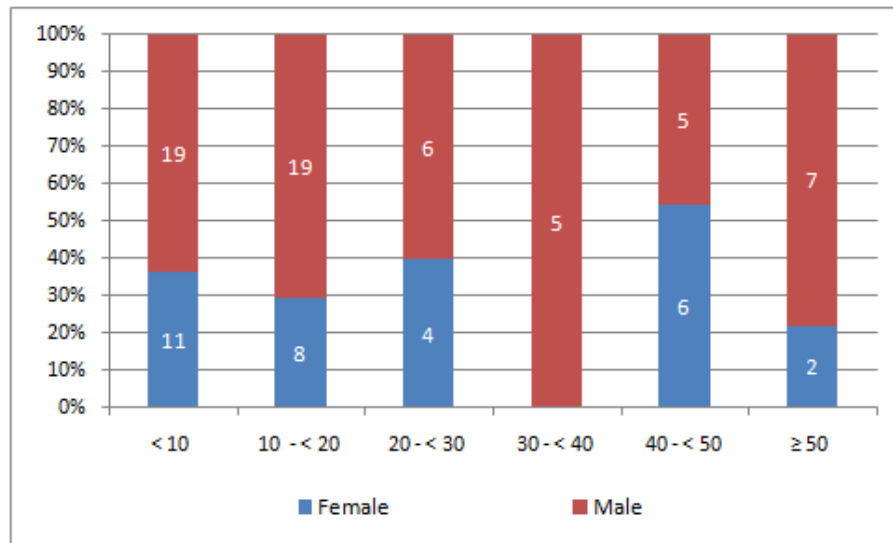
Figure 6.5: Qualification - Number of Men & Women



All respondents were at least graduates, barring a negligible 1% (all men) who had only completed high school. Men surpassed the women in terms of possessing the graduation as well as doctoral degrees. 25% of total men, as compared to 12% of women, were graduates and 8% of total men compared to 6% of women were doctorates. So overall, it appears from this preliminary analysis that more women were inclined to pursue/complete masters' degrees as compared to men, with men fairing only marginally better in holding higher PhD degrees.

- (f) **Annual Income:** A response rate of 96 % was received on this question, with 94% of total women and 97% of total men providing information of their annual income. Analysis showed that 33% of the respondents who answered this question showed their income below 10 lakhs per annum with only 10% (9 directors) showing their annual income exceeding 50 lakhs. Of this high income group, 78% were male directors as shown in Figure 6.6. The average annual income of the total 92 respondents was calculated to be 22 lakhs, which was the same for men as well as women respondents taken separately as well.

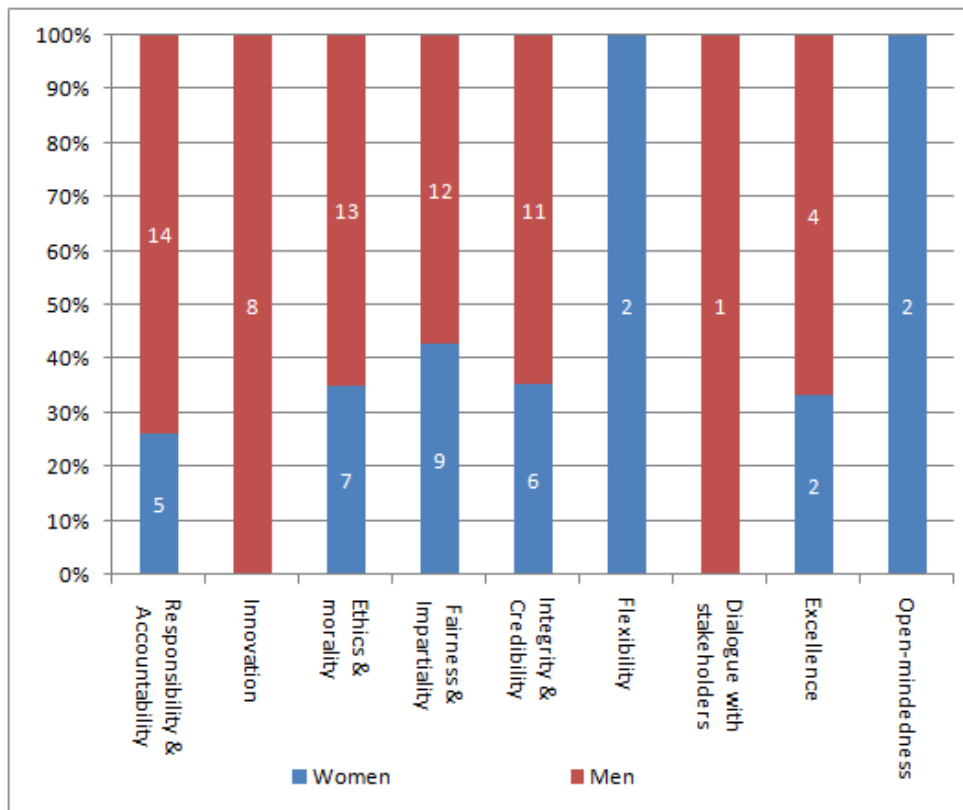
Figure 6.6: Annual Income distribution shown as number of respondents in each category



(g) **Principles or values of directors:** The question on principles was designed as a multiple option single response question which required the respondents to tick the one principle (out of a list of 12) they valued most. The analysis of the results is shown in Figure 6.7. Fairness & Impartiality emerged as the most valued selected by the highest number (22%) of respondents closely followed by Ethics & Morality (21%) and Responsibility & Accountability (20%). Highest percentage of women respondents (27%) also chose Fairness & Impartiality as their core value as compared to Responsibility & Accountability chosen by the highest number of men (22%). On further analysis it was observed that Fairness & Impartiality, Ethics & Morality, Responsibility & Accountability and Integrity & Credibility account for a total 77% of the responses, each principle being chosen by more than 15% respondents.

It was interesting to note that none of the women directors chose Innovation and Dialogue with stakeholders as their values. A similar trend was seen amongst the men directors who did not choose Flexibility and Open-mindedness as their values. This points at some difference, although very small, in the principles most valued by the men and women directors.

Figure 6.7: Principles that Directors hold dear



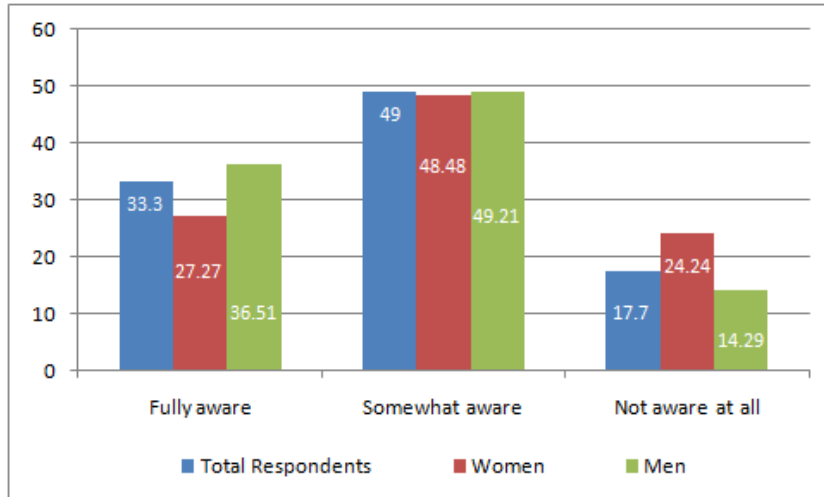
2. CORPORATE SUSTAINABILITY DIMENSIONS

Respondents' awareness about concepts such as 'Triple Bottom Line' and Corporate Sustainability was evaluated through the responses on questions 3, 4, 5 and 6, and information on certain basic aspects of sustainability practices of their companies were evaluated through questions 7, 8 and 9. The frequency with which the board discusses the sustainability issues was analyzed through question 13 and the extent of involvement of the elite respondents in different strategic decisions was evaluated through responses to question 14.

Figure 6.8 shows the percentage of responses of directors on their level of awareness of Triple Bottom Line (TBL). 33.3% of total 96 respondents were fully aware where as 17.7% were not aware of TBL at all. Comparison with regard to gender suggests that 37% of total male and 27% of total female respondents are fully aware of TBL. However, it is noteworthy that an almost equal percentage of

women directors (24%) were ‘not aware’ of the concept at all. There were fewer men directors in this category.

Figure 6.8: Level of awareness of the concept of Triple Bottom Line (TBL)



The analysis and the Figure 6.8 recommend that the level of awareness of TBL does not seem to differ for men and women. To further test whether there is a significant difference in awareness of men and women directors, Chi-Square Test was conducted. Chi-Square was selected as the nature of the variables involved was either categorical or ordinal and it did not permit use of parametric tests. Table 6.2 reports Chi-Square statistic of 1.769 and a ‘p’ value of 0.413, rendering whatever differences between the awareness of TBL between men and women statistically insignificant. We can conclude that a majority of men as well as women directors are only somewhat aware of the concept of TBL. This finding was further expected to have implications on their understanding of other sustainability issues and aspects.

Table 6.2: Chi-Square Test for Awareness of TBL and Gender

Chi-Square Test	Value	df	Asymp. Sig. (2-sided)
Awareness of TBL and Gender			
Pearson Chi-Square	1.769*	2	0.413
Likelihood Ratio	1.734	2	0.42
N of Valid Cases	96		

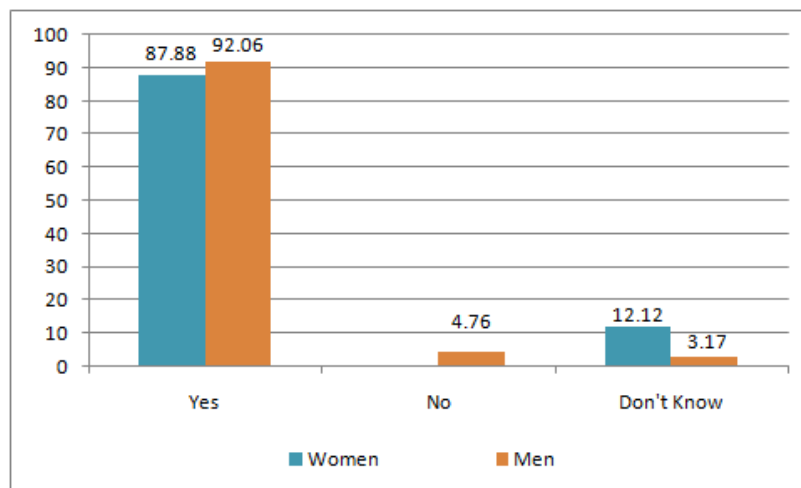
**0 cells (.0%) have expected count less than 5. The minimum expected count is 5.84.*

Question 4 related to the respondents opinion on whether by engaging in sustainable activities companies can better position themselves in the eyes of their

stakeholders. 91% felt that it will achieve that, with only 3% thinking otherwise. Figure 6.9 presents the findings.

No woman director was of the opinion that engaging in sustainable activities will not help the organization as compared to a small percentage of men (4.76% of a total of 63) who thought so.

Figure 6.9: Engaging in sustainable activities help companies better position themselves in the eyes of the stakeholders



As Figure 6.9 shows, both men and women are in agreement on the issue and feel companies can position themselves better in the eyes of the stakeholders by undertaking sustainable activities. The insignificant difference between perceptions of men and women in this regard is statistically supported by Fisher’s Exact tests in Table 6.3 with a p value of greater than 0.05. Fisher’s exact test was used since on the initial run of the Chi-square test, its basic assumption that all expected counts should be greater than or equal to five was compromised and so the Chi-Square statistic could not be considered valid.

Table 6.3: Chi-Square and Fisher’s Exact test Q4 with gender

Chi-square	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point probability
Pearson Chi-Square	4.387	2	0.112*			
Likelihood Ratio	5.159	2	0.076			
Fisher’s Exact Test	3.779			0.299	0.164	0.078
*4 cells (66.7%) have expected count less than 5. The minimum expected count is 1.03.						

Due to the conceptual link between questions 3 and 4, it was imperative to test the association of responses to these two questions. The responses to the two questions were cross tabulated as shown in Table 6.4.

Table 6.4: Cross tabulation of Awareness of TBL – Better positioning due to CS (counts)

		Better positioning due to CS			
		Yes	No	Don't Know	Total
Awareness of TBL	Fully aware	30	2	0	32
	Somewhat aware	45	0	2	47
	Not aware at all	12	1	4	17
	Total	87	3	6	96

It was found that, out of the total respondents, 86% were either fully or somewhat aware of the concept of TBL and thought that engaging in sustainable activities results in better positioning of companies in the eyes of the stakeholders. This finding of possible association was further tested statistically using Pearson's Chi-square / Fisher's test. The p value of 0.004 in Table 6.5 led to the rejection of the null hypothesis that there is no association between responses to these two questions thereby substantiating the above findings that a significant association between the respondents' awareness of TBL and their opinion that engaging in CS activities better positions a company in the eyes of the stakeholders indeed exists. Respondents with high awareness of TBL in question 3 tend to agree more to the statement in question 4.

Table 6.5: Chi-Square & Fisher's Tests for association between Awareness of TBL – Better positioning due to CS

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	14.226*	4	.007	.007
Likelihood Ratio	14.089	4	.007	.006
Fisher's Exact Test	11.732			.004
* 6 cells (66.7%) have expected count less than 5. The minimum expected count is .53.				

To further address the objectives of this survey and study, this association was further tested for gender effects, by introducing a layer of 'Gender' in the

analysis. The resulting gender wise cross tabulation and Chi-Square Tests / Fisher's Test results are reported in Table 6.6 and Table 6.7 respectively.

Table 6.6: Gender wise Cross tabulation of Awareness of TBL – Better positioning due to CS (counts)

			Better positioning due to CS			
			Yes	No	Don't Know	Total
Female	Awareness of TBL	Fully aware	9	0	0	9
		Somewhat aware	16	0	0	16
		Not aware at all	4	0	4	8
		Total	29	0	4	33
Male	Awareness of TBL	Fully aware	21	2	0	23
		Somewhat aware	29	0	2	31
		Not aware at all	8	1	0	9
		Total	58	3	2	63

Table 6.7: Chi – Square tests for Association between Gender, Awareness of TBL and Better Positioning due to CS

		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Female	Pearson Chi-Square	14.224*	2	.001	.002
	Fisher's Exact Test	9.992			.002
	N of Valid Cases	33			
Male	Pearson Chi-Square	5.069**	4	.280	.267
	Fisher's Exact Test	4.947			.185
	N of Valid Cases	63			

* 3 cells (50.0%) have expected count less than 5. The minimum expected count is .97.

** 6 cells (66.7%) have expected count less than 5. The minimum expected count is .29.

Although, as seen in Table 6.7, in case of women, statistically significant association (p value of 0.002) between awareness of TBL and their opinion that engaging in CS activities better positions a company in the eyes of the stakeholders was found, no such association could be found in the responses to these two questions given by the men respondents (p = 0.185).

The respondents were also asked, in question 5, to mention who, according to them was the most important ‘driver’ of corporate sustainability. They were required to choose one out of the ten stakeholders who have been identified in previous researches to influence the organizations to integrate sustainability issues in their core business operations.

The result of this multiple choice single response question is presented in Table 6.8.

Table 6.8: Drivers of Sustainability

Drivers of Corporate Sustainability	Women	Men	Total	Women (%)	Men (%)
Public and Media	9	12	21	27.27	19.05
Consumers	6	4	10	18.18	6.35
Suppliers	0	0	0	0	0
Trade Unions	0	0	0	0	0
Management of the Company	8	42	50	24.24	66.67
Non-Government Organizations (NGOs)	2	0	2	6.06	0
Competitors	0	0	0	0	0
Insurance Companies	0	0	0	0	0
Banks	0	0	0	0	0
Regulators / Law agencies	8	5	13	24.24	7.94
Total	33	63	96	100	100

As is evident from Table 6.8, none of the respondents have identified Suppliers, Trade Unions, Competitors, Insurance companies and Banks as influencing or driving a company to adopt sustainable practices. 52% of respondents have identified Management of the company as the main driver of corporate sustainability activities, 84% of these being men. On the other hand Public & Media was considered as the main driver of sustainability by a majority of women (27%) respondents.

A strong association between the respondents’ awareness of TBL and their choice of the most important driver of sustainability was found for the entire sample. Further investigations were made in this regard with respect to gender. The results of cross tabulation of responses to questions 3 and 5 across genders are shown in Table 6.9.

Table 6.9: Gender wise Cross tabulation of Awareness of TBL and Drivers of CS (Counts)

			Awareness of TBL			
			Fully aware	Somewhat aware	Not aware at all	Total
Female	Drivers of CS	Public and Media	3	6	0	9
		Consumers	0	4	2	6
		Management of Co.	4	2	2	8
		Non-Gov. org.	0	0	2	2
		Regulators	2	4	2	8
		Total	9	16	8	33
Male	Drivers of CS	Public and Media	9	3	0	12
		Consumers	3	1	0	4
		Management of Co.	11	22	9	42
		Regulators	0	5	0	5
		Total	23	31	9	63

The null hypothesis H_{010} : *There is no significant difference in men and women directors' awareness of the concept of Triple Bottom Line (TBL) and their identification of key drivers of Corporate Sustainability* was tested using Chi-Square and Fisher's Exact tests. Table 6.10 shows the results of these tests. The association between awareness of TBL and the identification of the Drivers of Corporate Sustainability was found to be statistically significant in the case of men respondents with a 'p' value of 0.005 and significant for women at 0.10 level ($p = 0.093$).

Table 6.10: Chi-Square Tests for Association between Gender, Awareness of TBL and Drivers of CS

		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Female	Pearson Chi-Square	13.865*	8	.085	.077
	Likelihood Ratio	16.859	8	.032	.066
	Fisher's Exact Test	11.883			.093
Male	Pearson Chi-Square	18.656**	6	.005	.005
	Likelihood Ratio	21.696	6	.001	.001
	Fisher's Exact Test	15.275			.005

* 15 cells (100.0%) have expected count less than 5. The minimum expected count is .48.

** 8 cells (66.7%) have expected count less than 5. The minimum expected count is .57.

In furtherance of understanding the level of awareness about sustainability, the respondents were asked to identify the sustainability issues that, according to them, the companies were most committed to. Question 6 for this purpose was designed as a multiple response question where the respondents were allowed the freedom to choose as many options as they deemed relevant. 427 responses were received on this question from a total of 96 respondents or cases. Table 6.11 shows the total responses along with percentage as well as percentage cases for each one of the 16 options in the question.

Table 6.11: Sustainability issues companies are most committed to
(Multiple response summary data table)

Sustainability Issues	Women	Men	Total responses	Response (in %)	Cases (in %)
Energy use	21	29	50	11.7	52.1
Material use	10	19	29	6.8	30.2
Biodiversity	3	6	9	2.1	9.4
Emissions	17	23	40	9.4	41.7
Governance	15	39	54	12.6	56.2
Stakeholder Engagement	2	6	8	1.9	8.3
Environmental Quality	17	29	46	10.8	47.9
Corruption & anti-competitive behaviour	5	8	13	3.0	13.5
Employee training & development	13	28	41	9.6	42.7
Water use & efficiency	4	3	7	1.6	7.3
Human rights	6	7	13	3.0	13.5
Customer Health, Safety & Privacy	11	11	22	5.2	22.9
Recycling	5	19	24	5.6	25.0
Community involvement	11	26	37	8.7	38.5
Workforce diversity & equal opportunity	2	5	7	1.6	7.3
Occupational Health & Safety, Employee welfare	12	15	27	6.3	28.1
TOTAL	33	63	427	100.0	

Governance emerged as the most important and widely recognized sustainability issue confronting an organization. 54 out of 96 respondents (56% of cases) chose Governance. This is understandable as many mandatory as well as voluntary initiatives have been taken in India for improving corporate governance. 62% of men as compared 45% of women identified Governance as one of the key sustainability issues facing corporations. This was followed by Energy use (52% of cases) where 64% of women as compared to 46% of men identified it as a sustainability issue. Environmental quality was next in line accounting for approximately 11% of the total responses. Workforce diversity & equal opportunity and Water use & efficiency were chosen by the least number of respondents as a sustainability issue.

Question 7, 8 and question 9 provided basic but vital information on a few aspects of sustainability practices employed in the respondent's companies. While question 7 dealt with the existence of a separate Corporate Social Responsibility (CSR) Committee, question 8 explored whether their organizations had a widely communicated Code of Conduct covering all stakeholders which strictly and clearly specifies that non-adherence to the code of conduct would jeopardize their association with the company.

Figure 6.10: Separate CSR committee in companies on which the respondents were serving as directors

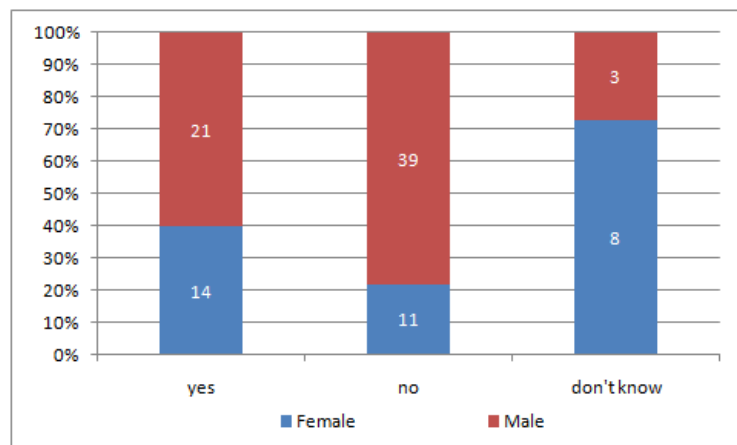


Figure 6.10 shows that 42% of women directors were on the boards of companies which had a separate CSR committee where as a high 62% men directors said their companies had no such committee. However, a relatively high 24% of women were not aware about such committee in their organization which may

either point towards the lack of awareness or involvement of women directors or such committees not actually existing in their organizations. Even if this is accounted for and added to the response of ‘NO’ (33+24=57%), the equivalent overall percentage of men (62+5=67%) who are serving on boards with no separate CSR committee remains higher. The aspect of whether there is some association between the respondent’s gender and the existence of a separate CSR committee was put through further investigation. The results of the Chi-square statistic with a p value of less than 0.05 as shown in Table 6.12 clearly leads to the rejection of the null hypothesis that there is no association between the existence of CSR committee and gender. It can be concluded that the companies on which female respondents were serving as directors were more likely to have separate CSR committees as compared to companies on which male respondents were serving as directors.

Table 6.12: Chi-Square Tests for Association between Gender and Existence of separate CSR committee

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.058*	2	0.004
Likelihood Ratio	10.858	2	0.004
N of Valid Cases	96		

*1 cell (16.7%) have expected count less than 5. The minimum expected count is 3.78.

With reference to existence of a separate code of conduct covering all stakeholders (Question 8a), 49% of the total respondents said ‘No’. Of these 60% are men.

Table 6.13: Existence of a separate CSR committee and Code of Conduct

	8a - Code of conduct		8b - Clearly stated for all stakeholders	
	Female	Male	Female	Male
Yes	8	27	8	24
No	19	28	0	3
Don't Know	6	8	NA	NA
Total	33	63	8	27

Table 6.13 reports the results of question 8(a) and (b) related to code of conduct and its communication to stakeholders. It was observed that 32 of the 35 respondents who said ‘Yes’ to their companies having a code of conduct, also said ‘Yes’ to it being clearly communicated to all stakeholders for strict adherence and compliance (question 8b). Where this positive response was given by 100% women, 11% of men said that although the code of conduct existed in their companies but was not very clearly stated for all stakeholders.

A strong statistically significant association was found between the responses to Question 7 and Question 8 as reported in Table 6.15.

Table 6.14: Cross tabulation of responses on Separate CSR committee and Code of conduct (count)

		Code of conduct			
		Yes	No	Don't know	Total
Separate CSR committee	Yes	20	7	8	35
	No	15	34	1	50
	Don't know	0	6	5	11
	Total	35	47	14	96

Table 6.15: Chi-Square Tests for Association between Separate CSR committee and Code of conduct

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	32.718*	4	.000	.000
Likelihood Ratio	37.815	4	.000	.000
Fisher's Exact Test	34.234			.000
N of Valid Cases	96			

* 2 cells (22.2%) have expected count less than 5. The minimum expected count is 1.60.

A strong association between the existence of a separate CSR committee and communication and enforcement of a code of conduct evident in Table 6.15 are indicative and suggestive of the importance and need of commissioning a separate CSR committee to enforce code of conduct for all stakeholders and to create a long term sustainability culture in an organization.

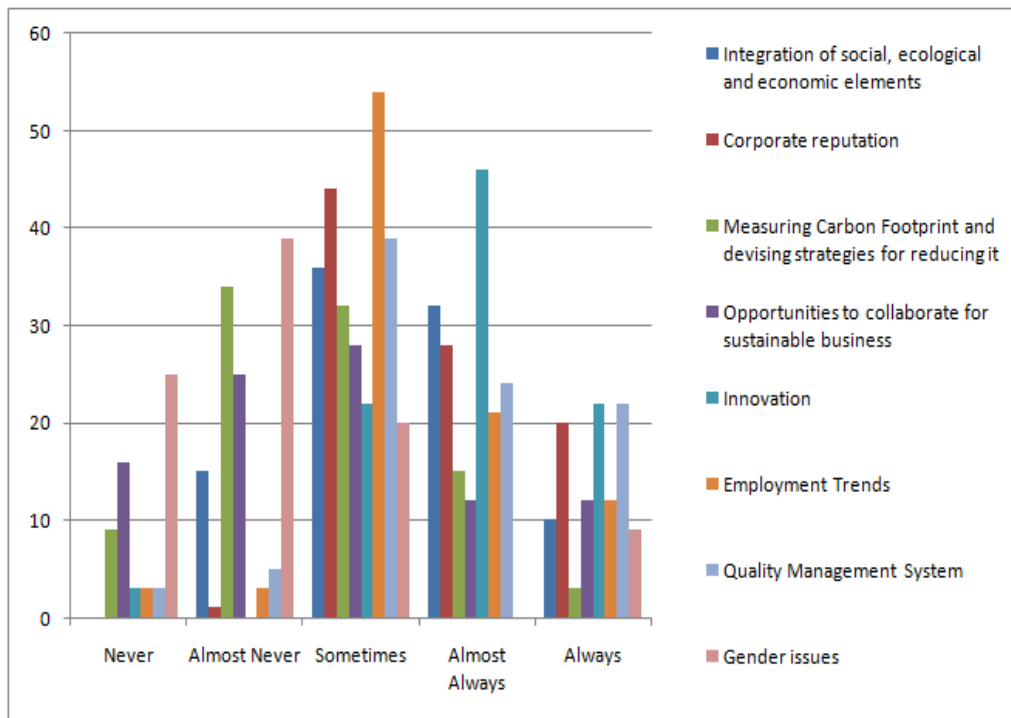
Question 9 was related to the frequency of sustainability training organized in the respondents' companies. 54% of the respondents said that sustainability training had never been organized in their companies compared to 8% of respondents who served on companies that conducted sustainability trainings more than twice a year. Rest of the responses were equally distributed between the two categories of trainings held once a year and held twice a year. This hints at the lack of awareness on the part of directors as well as lack of importance being given to sustainability trainings on the part of the companies. However, this assumption may need to be further investigated and provides a future prospect for research.

Another important aspect of the Corporate Sustainability dimension of the survey involved the understanding on the frequency on which sustainability agenda gets discussed in boardroom meetings. Question 13 listed eight probable and the most widely accepted sustainability agendas and required the directors to specify the frequency on a five point Likert scale with 'Always – 5 points' to 'Never -1 point' options.

Analysis was conducted to test the null hypothesis H_{011} : *There is no significant difference between men and women directors' views on the importance and frequency on which the key sustainability issues feature on the boardroom agenda.*

Two female and one male director did not respond to this question, making the overall response rate as 97%. As can be seen from Figure 6.11 and Table 6.16 , on all the eight options, except the 'Measuring Carbon Footprint' and 'Gender Issues' categories, a majority of respondents have remained somewhat neutral by choosing the 'Sometimes' as the frequency of these items forming the agenda of board meetings.

Figure 6.11: Frequency on which sustainability agenda gets discussed in boardroom



The analysis of responses of men and women in the eight categories shown in Table 6.16 is discussed below-

1. While 77% of women said that social, ecological and economic elements are integrated in the board room agenda only sometimes, 47% men considered this integration to feature ‘Almost Always’. The average score on this item was higher for men (3.61) as compared to women (2.97). The responses were found to be significantly different among men and women.
2. On the item of Corporate Reputation, 47% respondents chose ‘Sometimes’ as an option, with majority of both men and women doing the same. However a high 45% percentage of female directors felt that ‘Corporate Reputation’ almost always features on their boards’ agenda. The average score on this item for women was 3.42 and for men was 3.87.
3. Measuring the company’s carbon footprint almost never features on the agenda of boards of most of the respondents. 61% of women tend to

support this as compared to 24% men. The means for this item were a low 2.26 for women and 2.87 for men.

4. A similar response was found for 'Opportunities to collaborate' item with a majority of respondents choosing 'Sometimes' and 39% women considering this as almost never on the agenda. The mean scores of 2.55 for women and 2.89 for men were obtained.
5. Innovation had the highest means for both men (3.97) and women (3.77), with a majority of them both, considering it as being almost always on the agenda.
6. Employment trends and Quality Management Systems were only considered as being sometimes on the agenda.
7. Gender issues were the worst performer item in the question, with a majority of both male and female respondents considering this almost never on the agenda from the perspective of sustainability. The percentage of women doing this was higher as compared to men. This category had the lowest mean scores for both categories of respondents – 2.23 for women and 2.24 for men.

From this it can be concluded that Innovation, Corporate Reputation, Quality Management Systems and Employment trends, in that order, tend to feature more as parts of board agenda, while Gender issues is the most ignored / neglected sustainability issued. Focusing on the organization's Carbon Footprint was only marginally better to gender issues.

Except for Opportunities to collaborate for sustainable business and Innovation, responses on all the other statements / options varied significantly between men and women. The results of Chi-square in Table 6.16 support the result and lead to rejection of H_{011} .

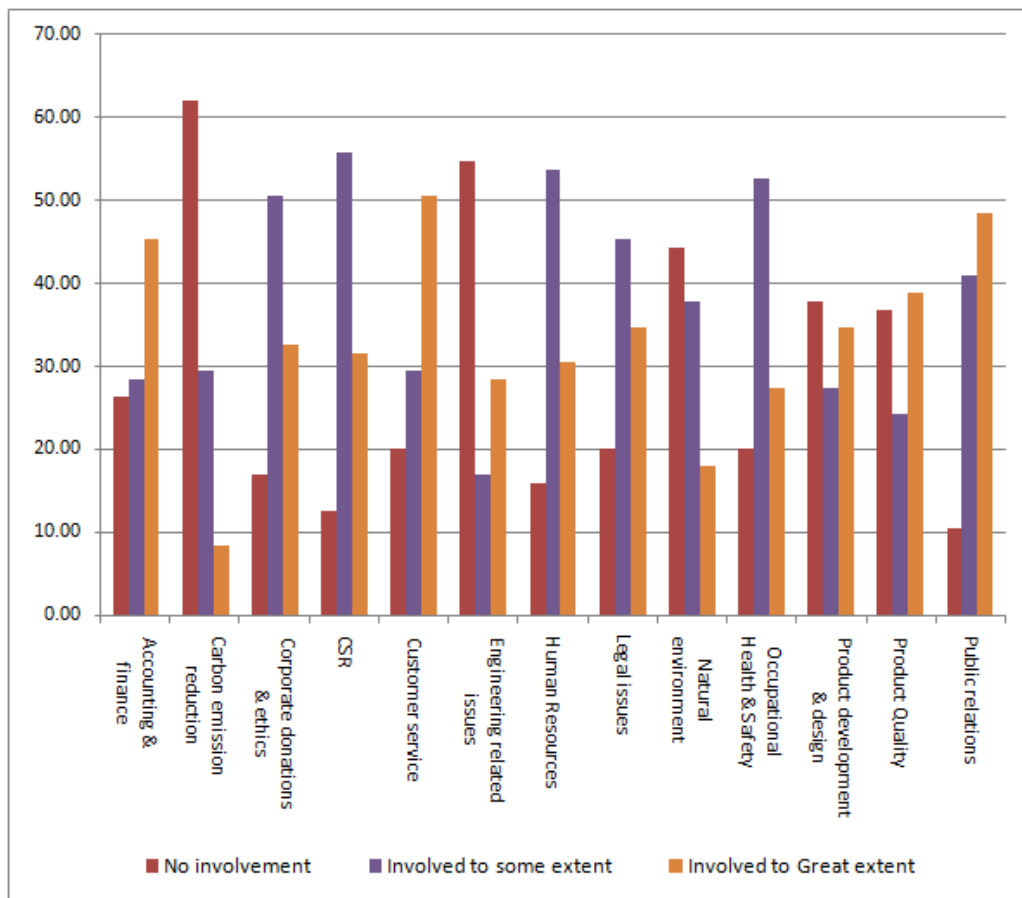
Table 6.16: Frequency on which sustainability agenda gets discussed in boardroom

		Never		Almost Never		Sometimes		Almost Always		Always		Total		Chi Sq.	p	Fisher's Exact test	Exact sig. (2 sided)
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%				
Integration of social, ecological and economic elements	Female	0	0	4	13	24	77	3	10	0	0	31	100	31.566	0.000	31.639	0.000
	Male	0	0	11	18	12	19	29	47	10	16	62	100				
	Total	0	0	15	16	36	39	32	34	10	11	93	100				
Corporate reputation	Female	0	0	1	3	16	52	14	45	0	0	31	100	15.682	0.001	18.412	0.000
	Male	0	0	0	0	28	45	14	23	20	32	62	100				
	Total	0	0	1	1	44	47	28	30	20	22	93	100				
Measuring Carbon Footprint and devising strategies for reducing it	Female	2	6	19	61	10	32	0	0	0	0	31	100	17.342	0.002	17.905	0.001
	Male	7	11	15	24	22	35	15	24	3	5	62	100				
	Total	9	10	34	37	32	34	15	16	3	3	93	100				
Opportunities to collaborate for sustainable business	Female	3	10	12	39	12	39	4	13	0	0	31	100	11.094	0.026	11.968	0.150
	Male	13	21	13	21	16	26	8	13	12	19	62	100				
	Total	16	17	25	27	28	30	12	13	12	13	93	100				
Innovation	Female	0	0	0	0	11	35	16	52	4	13	31	100	6.566	0.087	5.967	0.103
	Male	3	5	0	0	11	18	30	48	18	29	62	100				
	Total	3	3	0	0	22	24	46	49	22	24	93	100				
Employment Trends	Female	0	0	0	0	24	77	6	19	1	3	31	100	9.589	0.048	8.473	0.052
	Male	3	5	3	5	30	48	15	24	11	18	62	100				
	Total	3	3	3	3	54	58	21	23	12	13	93	100				
Quality Management System	Female	0	0	4	13	14	45	13	42	0	0	31	100	22.203	0.000	24.522	0.000
	Male	3	5	1	2	25	40	11	18	22	35	62	100				
	Total	3	3	5	5	39	42	24	26	22	24	93	100				
Gender issues	Female	4	13	16	52	11	35	0	0	0	0	31	100	13.143	0.004	13.315	0.003
	Male	21	34	23	37	9	15	0	0	9	15	62	100				
	Total	25	27	39	42	20	22	0	0	9	10	93	100				

As the last part of the analysis in this section, the extent of involvement of the respondents in crucial decisions concerning the organization's strategy and long term sustainability was evaluated. For this the responses to the thirteen types of decisions in Question 14 were coded and analyzed. The involvement of respondents in each type of decision was recorded on a three point Likert Scale of 'No Involvement' with 1 point, 'Some Involvement' with 2 points and 'Involvement to a Great extent' given 3 points.

99% response was received on question 14, with one male respondent choosing not to participate in this question. The overall percentage response in each decision is shown in Figure 6.12.

Figure 6.12: Extent of Involvement in Strategic Decisions



The detailed results and analysis have been organized and presented in the form of Table 6.17.

Based on the responses, some key findings for every type of decision are enumerated below:

1. A majority of the total respondents were observed to have a high level of involvement in decisions such as Accounting & Finance (45.26%), Customer Service (50.53%), Product Quality (38.95%) and Public Relations (48.42%). A moderate level of involvement was seen in Corporate Donations & Ethics (50.53%), CSR (55.79%), Human Resources (53.68%), Legal Issues (45.26%) and Occupational Health & Safety (52.63%). 62% of respondents felt they were not involved at all in decisions relating to Carbon Emission Reduction, followed by Engineering related issues (54.74%), issues related to Natural Environment (44.21%) and Product Development & Design (37.89%).

2. Further closer observation and analysis of data, highlights some distinct difference between men and women in the level of their involvement in certain types of decisions. A high level of involvement amongst women was found in decisions relating to CSR whereas the men felt highly involved in Accounting & Finance, Engineering related, Legal issues, Product Development & Design and Product Quality. Men respondents exhibited higher involvement in more type of decisions as compared to women. Also, women fared badly by exhibiting 'no involvement' in six of the thirteen decisions listed in the question, as compared to their male counterparts lack of involvement of any level in only three of these decisions.
3. Both women and men had moderate involvement in Corporate Donations & Ethics, Human Resources, and both had great degree of involvement in decision related to Customer Service and Public Relations.
4. There was also a need to evaluate if these responses differed by gender. The significance of the difference between men and women's different levels of involvements in different types of decisions needed to be evaluated. Since the end products of this question were 'counts' that fell into different categories for each one of the thirteen types of decision, the Chi-Square statistic was used. Table 6.17 shows that the p values of a majority of decisions are less than 0.05, thereby leading to the conclusion that the difference between men and women's level of involvement was statistically significant for decisions such as Accounting & Finance (p=0.032), CSR (p=0.028), Engineering related issues (p=0.00), Legal issues (0.00), Natural environment (p=0.001), Occupational Health & safety (p=0.038), Product Development & Design (p=0.042) and Product Quality (p=0.018). On the other hand it can be said that the men and women directors have a similar level of involvement in decisions regarding Corporate Donations & Ethics, Customer Service, Human Resources and Public Relations.

Table 6.17: Extent of Involvement in Strategic Decisions – Percentages and association with gender

Type of Decision		No involvement		Involved to some extent		Involved to Great extent		Total		Chi Sq.	p	Fisher's Exact test	Exact sig. (2 sided)
		Number	%	Number	%	Number	%	Number	%				
Accounting and finance	Female	13	39.39	9	27.27	11	33.33	33	100	4.900	0.086	4.765	0.032
	Male	12	19.35	18	29.03	32	51.61	62	100				
	Total	25	26.32	27	28.42	43	45.26	95	100				
Carbon emission reduction	Female	23	69.70	10	30.30	0	0.00	33	100	4.739	0.094	4.951	0.092
	Male	36	58.06	18	29.03	8	12.90	62	100				
	Total	59	62.11	28	29.47	8	8.42	95	100				
Corporate donations and ethics	Female	4	12.12	19	57.58	10	30.30	33	100	1.250	0.535	1.175	0.876
	Male	12	19.35	29	46.77	21	33.87	62	100				
	Total	16	16.84	48	50.53	31	32.63	95	100				
CSR	Female	2	6.06	16	48.48	15	45.45	33	100	5.295	0.071	5.023	0.028
	Male	10	16.13	37	59.68	15	24.19	62	100				
	Total	12	12.63	53	55.79	30	31.58	95	100				
Customer service	Female	1	3.03	16	48.48	16	48.48	33	100	13.523	0.001	14.249	0.218
	Male	18	29.03	12	19.35	32	51.61	62	100				
	Total	19	20.00	28	29.47	48	50.53	95	100				
Engineering related issues	Female	27	81.82	4	12.12	2	6.06	33	100	16.339	0	17.281	0
	Male	25	40.32	12	19.35	25	40.32	62	100				
	Total	52	54.74	16	16.84	27	28.42	95	100				
Human Resources	Female	6	18.18	18	54.55	9	27.27	33	100	.366	0.833	0.433	0.837
	Male	9	14.52	33	53.23	20	32.26	62	100				
	Total	15	15.79	51	53.68	29	30.53	95	100				
Legal issues	Female	13	39.39	18	54.55	2	6.06	33	100	22.442	0	24.21	0
	Male	6	9.68	25	40.32	31	50.00	62	100				
	Total	19	20.00	43	45.26	33	34.74	95	100				
Natural environment	Female	19	57.58	14	42.42	0	0.00	33	100	11.365	0.003	13.716	0.001
	Male	23	37.10	22	35.48	17	27.42	62	100				
	Total	42	44.21	36	37.89	17	17.89	95	100				
Occupational Health & Safety	Female	9	27.27	20	60.61	4	12.12	33	100	6.243	0.044	6.461	0.038
	Male	10	16.13	30	48.39	22	35.48	62	100				
	Total	19	20.00	50	52.63	26	27.37	95	100				
Product development & design	Female	18	54.55	8	24.24	7	21.21	33	100	6.543	0.038	6.381	0.042
	Male	18	29.03	18	29.03	26	41.94	62	100				
	Total	36	37.89	26	27.37	33	34.74	95	100				
Product Quality	Female	17	51.52	3	9.09	13	39.39	33	100	7.732	0.021	7.916	0.018
	Male	18	29.03	20	32.26	24	38.71	62	100				
	Total	35	36.84	23	24.21	37	38.95	95	100				
Public relations	Female	6	18.18	10	30.30	17	51.52	33	100	4.338	0.114	4.225	0.118
	Male	4	6.45	29	46.77	29	46.77	62	100				
	Total	10	10.53	39	41.05	46	48.42	95	100				

To conclude this section on analysis on perceptions, awareness and understanding of men and women respondents with respect to the corporate sustainability dimension of the Directors' Perception Survey, some key findings are discussed in the following sections.

There is evidence of only partial awareness of the concept of Triple Bottom Line (TBL) in case of men as well as women respondents, with differences between them only attributed to chance. They are both equally in agreement that companies can position themselves better in the eyes of the stakeholders by undertaking sustainable activities. Significant statistical differences were observed

between men and women, in the identification of key drivers of corporate sustainability. Management of the company was clearly identified as the key driver by men, whereas Public and Media closely followed by the Management of the company and Regulators or law agencies emerged as women's key drivers of sustainability with only minor variations in scores of these three. Governance was commonly perceived as the most important sustainability issue that companies were committed to. This was followed by Energy use and Environmental quality. Water use & efficiency and Workforce diversity & equal opportunity were perceived by the respondent directors as being the least significant issues for corporations. Statistical tests failed to find any significant differences between men and women on their perceptions and understanding of the important corporate sustainability issues.

As compared to men, a higher percentage of women were part of organizations that had commissioned a separate CSR committee. However, a higher percentage of women also lacked awareness of existence of such committee in their organization. Strong evidence was found that companies on which female respondents were serving as directors were more likely to have separate CSR committees as compared to companies which male respondents were serving. Significant difference was also witnessed among the men and women regarding the code of conduct on sustainability and its clear communication to all stakeholders, with men having a higher awareness as compared to women. There was a strong association between the presence of separate CSR committee and laying down of code of conduct. So higher number of separate CSR committees will lead to probably having a well defined code of conduct.

A not so positive finding about the frequency of sustainability training organized by the companies states that a majority of them had never organized such training. Even in terms of taking sustainability issues into the board rooms where strategic decisions are made, a mixed and moderate response was received from the directors. Crucial agendas like the need for integration of social, ecological and economic elements for a balanced decision, corporate reputation, employment trends, etc. were taken up only 'Sometimes' as board agendas. Innovation being given a high priority as 'almost always' on the agenda of the board was a positive outcome of the analysis of the responses of both men and women. Gender issues

were the least priority agenda for the board with active discussion on gender issues happening ‘almost never’. Both these findings, about the frequency of sustainability training and the frequency of putting sustainability issues on the boards’ agenda, present a strong case for the need to sensitize both the companies and the directors as the strategic decision makers to take steps towards integrating sustainability into their core operations.

A high level of involvement of women directors in Customer service and Public Relations as compared to men directors’ high involvement in decisions pertaining to Accounting & Finance, Engineering related issues, Legal issues, Product Development & Design and Product Quality, in addition to Customer service and Public Relations, supports the similar findings in previous researches on the subject (Klassen & Whybark, 1999; Mann et al., 1998; Hillman et al., 2002). Women as generally given soft assignments and positions or their involvement is limited to such decisions (Rhode & Packel, 2010). However, it is easier to dismiss this as being stereotypical; it has not been scientifically established in this section. Further investigations in the next section will help in this direction.

3. GENDER DIVERSITY DIMENSIONS

This part of the chapter presents the analysis of the perceptions of respondents on the current status and other aspects related to gender diversity on boards of directors of Indian listed companies.

Question 10 specifically evaluates whether, in the opinions of the respondents, there is adequate diversity, including gender diversity, on corporate boards. Figure 6.13 shows the percentage of responses to the statement ‘There is a favorable combination / blend of professional backgrounds & experience in the current composition of the board of directors’.

Figure 6.13: Adequacy of diversity of experience and backgrounds on corporate Boards

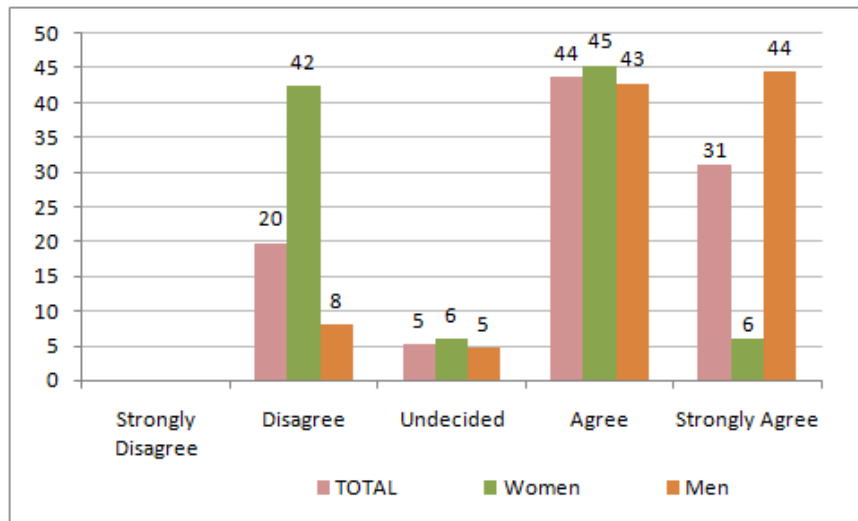


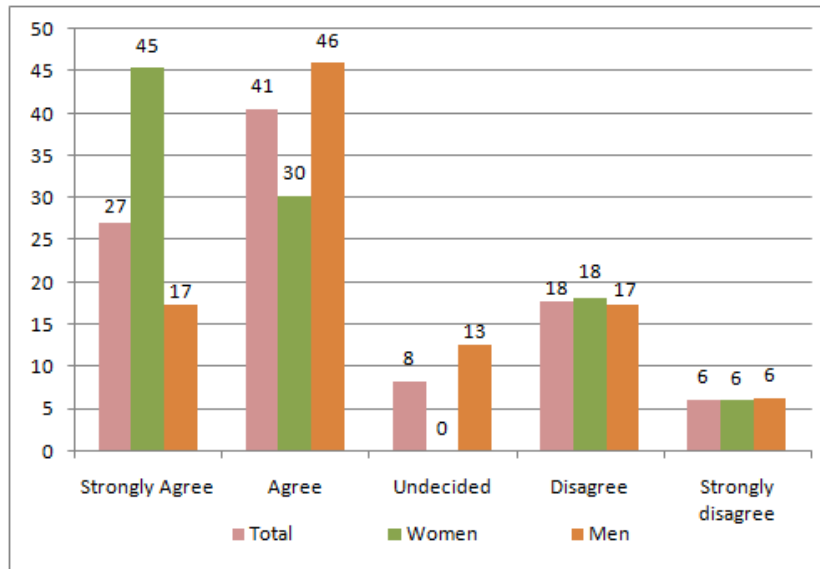
Figure 6.13 shows that 44% of the total respondents ‘Agree’ to the statement, with 64% of these being men and 36% being women. This general agreement on the adequacy of the mix or diversity in terms of experience and backgrounds was supported by 45% of total women and 43% of total men. None of the respondents ‘Strongly Disagreed’ with the statement and there were a very small proportion of both men and women who were not sure. However, it was interesting to note that a high percentage of total women (42%) did not feel that there was adequate diversity on boards, which was in total contrast of the men’s perceptions with a high 44% of total men strongly feeling that diversity on boards in terms of experience and backgrounds was adequately represented. The significance of these differences between perceptions of men and women was statistically evaluated by using Chi-Square test. Results are reported in Table 6.18.

For further investigating the adequacy of, specifically, gender diversity on boards the responses on the statement ‘Women are not adequately represented on boards of directors’ were analyzed. The results in terms of percentage responses are depicted graphically in Figure 6.14.

As shown in Figure 6.14, 41% of the total respondents agreed to this statement, which supports the status quo of under-representation of women on boards in Indian listed companies. Higher 75% women were in general agreement to this statement, with 45% expressing their ‘Strong Agreement’ towards this, as

compared to 63% of men agreeing to the underrepresentation of women, with only 17% ‘Strongly Agreeing’ to it.

Figure 6.14: Adequacy of Gender diversity on corporate boards



The Chi-Square tests were performed to determine whether the differences in perceptions of men and women about the adequacy of gender diversity on boards, as explained by the preliminary descriptive analysis were significant or not.

The results of tests for null hypotheses H_{012} : *There is no significant difference in the perception of men and women directors regarding the diversity on boards of directors* are produced in Table 6.18.

Table 6.18: Chi-Square Result table for Board Diversity statements with Gender

		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Combination of professional experience & backgrounds is adequate	Pearson Chi-Sq.	23.328*	3	.000	.000
	Likelihood Ratio	25.476	3	.000	.000
	Fisher's Exact Test	24.348			.000
Women are not adequately represented on boards of directors	Pearson Chi-Sq.	11.785**	4	.019	.016
	Likelihood Ratio	14.009	4	.007	.011
	Fisher's Exact Test	11.650			.015

* 2 cells (25.0%) have expected count less than 5. The minimum expected count is 1.72.

** 3 cells (30.0%) have expected count less than 5. The minimum expected count is 2.06.

In Table 6.18, the p value of less than 0.05 indicates the rejection of the null hypothesis H_{012} . So, it can be concluded that women generally perceived that there is lack of diversity on boards where as men generally agreed that the combination or blend of professional backgrounds and experience on boards was favourable. Also, the perception of men and women regarding the representation of women on boards was found to be significantly different with a higher percentage of women as compared to men feeling women were underrepresented. To further assess the overall perception of status of diversity on boards, both in general, in terms of experience and background and specifically in terms of gender, the responses to the two statements were cross tabulated. The test results are depicted in Table 6.19.

Table 6.19: Cross tabulation of responses (counts) on Mix of professionals is adequate and Women are not adequately represented on Boards

		Women are not adequately represented on boards					Total
		SA	A	U	D	SD	
There is favourable a combination / blend of professional backgrounds and experience in the current composition of the board of directors.	D	11	5	3	0	0	19
	U	4	1	0	0	0	5
	A	6	17	2	11	6	42
	SA	5	16	3	6	0	30
	Total	26	39	8	17	6	96

An Inference table (Table 6.20) was prepared by ignoring the ‘undecided’ responses and analyzing the results of cross tabulation in Table 6.19.

Table 6.20: Perceptions about Adequacy of Diversity on Corporate Boards

		Gender Diversity	
		Adequate	Inadequate
Diversity of Experience & Background	Adequate	24%	46%
	Inadequate	Zero	17%

Table 6.20 shows that a majority (46%) of respondents agreed or strongly agreed that although there is adequate diversity on boards in terms of experience and

background, Boards still lacked in gender diversity. 24% felt that there is adequate representation of experience, background as well as gender on the Boards and 17% felt that there is inadequate representation of diversity (including gender) on boards. There were no respondents who felt that there was adequate gender diversity but inadequate diversity of experiences and backgrounds.

Further, to control the element of chance in these results and to test the significance of this association a chi square test was run on the two statements together. Since the second statement on women representation on boards was a negatively worded statement, reverse coding was done before putting the data through statistical tests. In the initial Chi-square test, 60% of the cells had an expected count of less than five which compromised the basic assumption of this test. So, the Fisher's Exact Test was used, the results are which are produced in Table 6.21.

Table 6.21: Chi-Square Tests for association between adequacy of diversity of experiences & backgrounds and gender diversity on corporate boards

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	34.432*	12	.001	
Fisher's Exact Test	29.396			.000
N of Valid Cases	96			

* 12 cells (60.0%) have expected count less than 5. The minimum expected count is .31.

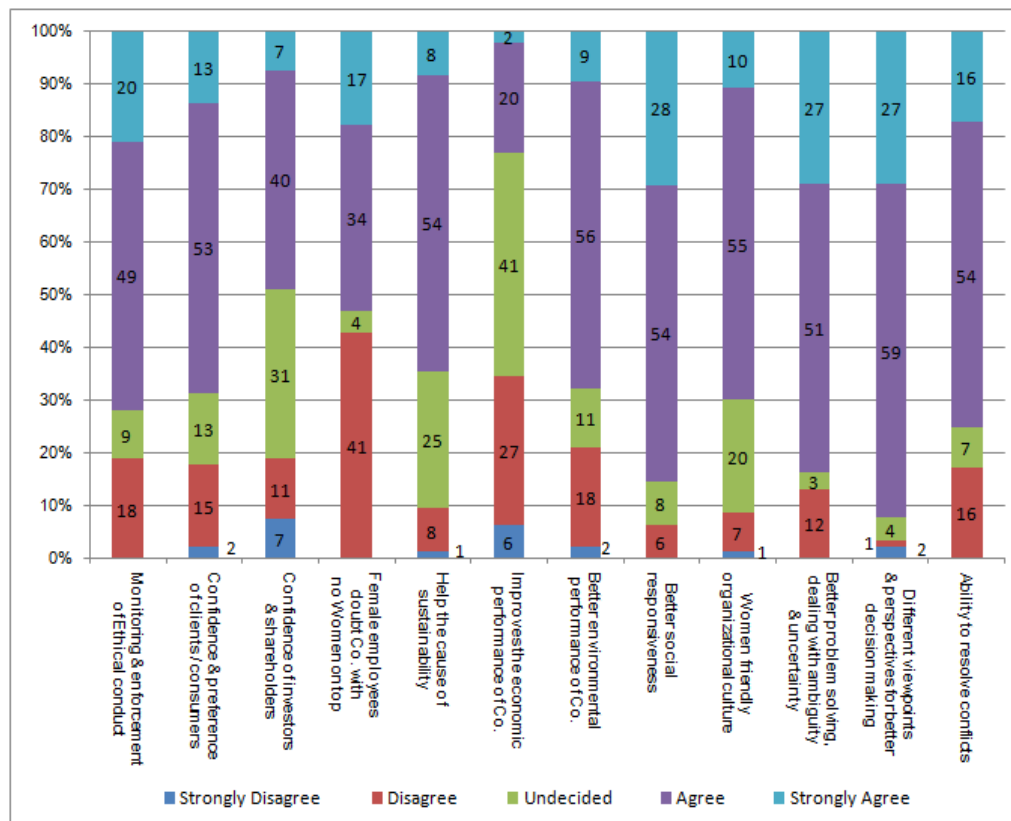
The test yielded a p value of less than 0.05, as reported in Table 6.21, which suggests that there is a significant association between the perceptions on board's general diversity and its gender diversity. Thus, the conclusion that the respondents who consider that boards to have an adequate diversity of experience and backgrounds generally consider them to have inadequate representation of women directors.

Questions 11 and 12 provide insights into the attitude towards the women's presence on the boards by critical analysis and inference of the responses of directors on a 5 point Likert Scale for the 35 items or statements. Four sub-scales were created by combining related statements such that each one represented and measured one factor or aspect that influenced and explained the status of

representation of women on boards of directors. These sub scales were named as – Qualifications, Skills & Competence, Opportunities, Stereotypes and Board Conduct. The findings with respect to the factors that promote and inhibit women from attaining board positions are discussed below.

The Qualifications, Skill & Competence scale (QSC) consisted of 12 items/statements. All statements were positively worded. The responses on each of these statements were coded as ‘5 for Strongly Agree’, ‘4 for Agree’, ‘3 for Undecided’, ‘2 for Disagree’ and ‘1 for Strongly Disagree’. Each of these items related to the knowledge, skills and competencies - benefits that women bring onto boards, by which they add value and contribute towards improvement in decision making and performance. Figure 6.15 presents a graphic representation of the responses on QSC.

Figure 6.15: Responses on QSC subscale regarding Contribution of Women's Qualifications, Skills & Competencies / Benefits of Gender Diversity on Boards



Analysis of the responses on the individual items on the QSC sub scale, Figure 6.15, show that there was an overall agreement amongst men and women on the ability of women to resolve conflicts through their diplomacy and tact as well as

their problem solving skills. However, a higher percentage of women (93%) felt that they had better abilities of dealing with ambiguity and uncertainty as compared to men (78%), consistent with the findings of Rosener (1995). Interestingly, a higher percentage of men (72%) as compared to women respondents felt that women bring different viewpoints and perspectives enriching decision making and are better monitors of ethical conduct of business operations. These findings are consistent with earlier studies such as Adams & Ferreira (2009) and Nielsen & Huse (2010a, 2010b). There was a general agreement between men and women on the ability of women presence on boards and top leadership positions to boost confidence of clients, consumers as well as investors. This supports the argument that women have a better understanding of consumer behaviour and needs of customers (Kang et al., 2007; Brennan & McCafferty, 1997). Also, women possess a strong moral overtone (Arfken et al., 2004) and believe in nurturing relationships and focus on the needs of others. This makes women better at representing and safeguarding the interests of different stakeholders and keeping them connected to the organization (Biggins, 1999; Hisrich & Brush, 1984; Rosener, 1995 and Hillman et al., 2007). Women presence on the boards also contributes by bringing women friendly policies and culture in organizations, a finding supported by Burke (1994) who also argues that women on boards indirectly serve as role models for other women in the organization. However, a majority of men respondents, unlike their female counterparts, did not feel that the lack of presence of women on top reduces the company's image in the eyes of its female employees.

With specific reference to sustainability, both men and women acknowledged that women on boards would lead to better social responsiveness of a company. By virtue of their qualifications and skills, their temperament and relational abilities, women contribute more effectively on qualitative, human and ethical issues like managing social impacts of their company (Huse et al., 2009; Huse & Solberg, 2006; Rosener, 1990; Bear et al., 2010; Ibrahim & Angelidis, 2011). Increased participation of women on boards leads to stronger controls and enforcement, thereby leading to better social governance (Grosser & Moon, 2005; Schnake et al. (2006). However, with respect to the impact of gender diversity on boards on the economic performance, where a majority of women respondents remained

neutral or undecided on the issue, the men generally disagreed with women presence having any positive effect on the financial performance of a company. Overall, a higher percentage of men felt that gender diversity on boards would help the cause of sustainability as compared to women.

The Opportunities (O) available for women to attain board positions was identified as the second sub-scale. It consisted of 6 items/statements of which only one was positively worded, which was coded as explained above. Negatively worded statements were reverse coded as ‘1 for Strongly Agree’, ‘2 for Agree’, ‘3 for Undecided’, ‘4 for Disagree’ and ‘5 for Strongly Disagree’. Each of the items on this sub-scale related to the opportunities available to women interested in board service, including their visibility in the job market and corporate circles. Table 6.22 reports the perceptions and responses of directors on Opportunities available for women for acquiring board positions.

Table 6.22: Responses on Opportunities available for women for acquiring board positions

Statements		SA	A	U	D	SD
Companies are fearful of appointing women directors who lack prior experience of serving on board of directors of companies	Female	11	14	2	6	0
	Male	3	24	16	16	4
	Total	14	38	18	22	4
Companies lack in information on women qualified for board service.	Female	14	8	6	5	0
	Male	18	20	9	14	2
	Total	32	28	15	19	2
For women to be considered for board positions the company has to be looking for a woman in particular for that specific job.	Female	12	6	11	4	0
	Male	12	43	5	3	0
	Total	24	49	16	7	0
Women aspiring to be directors have less opportunities and support	Female	16	17	0	0	0
	Male	20	26	6	11	0
	Total	36	43	6	11	0
Qualified women interested for board positions lose opportunities as they are not a part of the informal ‘Old Boy’s’ networks	Female	12	13	8	0	0
	Male	8	24	19	12	0
	Total	20	37	27	12	0
The growing global trend of appointing more women on boards is an opportunity for women directors	Female	11	17	5	0	0
	Male	28	28	3	4	0
	Total	39	45	8	4	0

The responses on individual items on the Opportunities for women sub scale (Table 6.22) point towards lack of ample opportunities available, in general, for women aspirants of directorship positions. The results show that companies lack in information on women qualified for board service and do not appoint women unless they are already on boards of other companies. There was also a general consensus on the low visibility of women as they are not part of the informal networks. The process of appointment of directors on boards, which traditionally relies on accessing the existing network and pool of experienced and high profile chief executives, chief operating officers, or retired executive officers of large corporations, tends to exclude the female talent pool as women generally do not follow these traditional career paths (Hillman et al., 2002). Male directors tend to have more experience as directors of companies holding key positions such as CEO/COO whereas female directors are generally found to have experience of being on boards of smaller companies (Singh et al., 2008). It was interesting to find that a higher (68%) of men as compared to 36% women, believed that women get appointed on boards only if a company is specifically looking for a woman director. These entry barriers tend to drastically cut down the opportunities available for qualified women interested for board service. So although there is a growing global trend of appointing women on boards, the opportunities and support available for women directorship aspirants are indeed very limited.

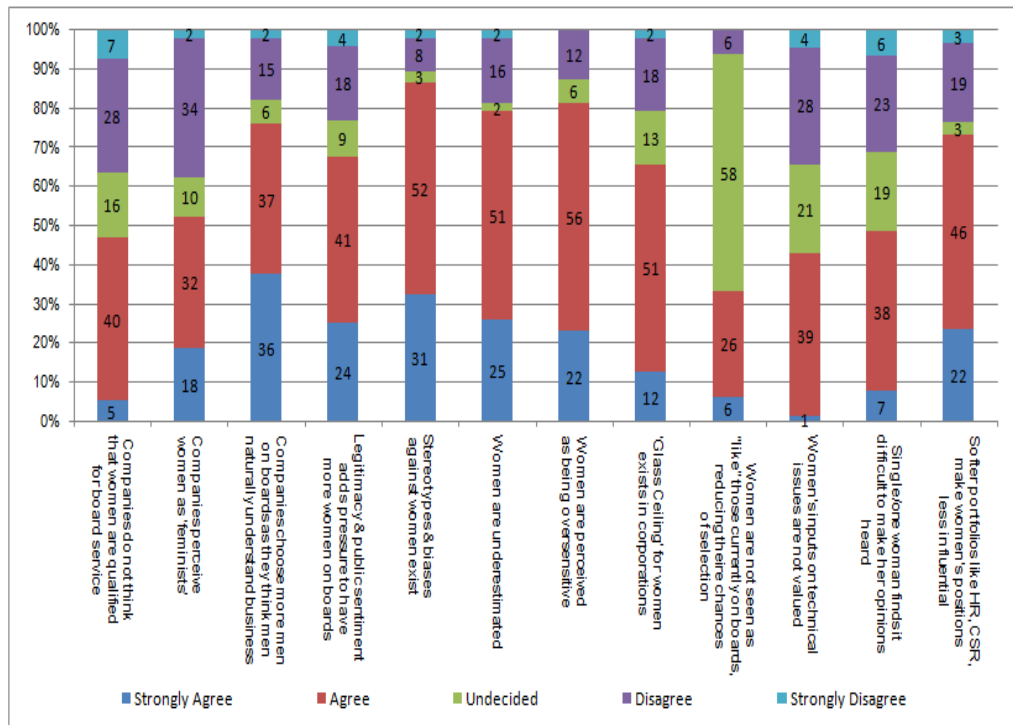
The third sub-scale was a combination of 12 items or statements which collectively measured the prevalence or the level of Stereotypes against women (S), even at high levels, in companies. All items on this scale were negatively worded and were reverse coded as '1 for Strongly Agree', '2 for Agree', '3 for Undecided', '4 for Disagree' and '5 for Strongly Disagree'. Figure 6.16 presents the responses to the statements on this scale.

Analysis of the responses on the individual items on the Stereotypes sub scale (Figure 6.16) show that stereotypes and biases against women exist in the corporate world. Women are put on boards and leadership positions as part of the legitimacy argument and public sentiment rather than their qualification and competence. This is supported by the findings that a majority of respondents,

higher percentage of men (47%) as compared to (30%) of women, felt that companies do not think that women have adequate competence for board service or senior management positions and that companies prefer men over women for board service as they think men naturally understand business (a higher percentage of women – 48%, feeling this as compared to men). Martha Frase-Blunt's (2010) "Mini-Me" syndrome got a neutral response, with a majority of respondents remaining undecided on this aspect. This could also point towards a general lack of understanding of the concept by the respondents. More women felt that women's inputs on technical issues such as the environment and production are overlooked by their male counterparts and that women's contribution is limited as they are assigned less influential portfolios such as HR and CSR (EOWA, 2008; Klassen & Whybark, 1999; Mann et al., 1998; Hillman et al., 2002; Galbreath, 2011). In response to the statement 'a single woman on board finds it difficult to make her opinions heard', 54% of women expressed their strong agreement with this in contrast to 33% men disagreeing with this statement. This is supported by Kanter's (1977) explanation of 'Token' women directors. She finds that women found in minority are treated as representative or symbols of their category, are highly visible and are easily stereotyped leading to performance pressures. This makes it more difficult for them to contribute on merit and as equal members (Rhode & Packel, 2010). This was a particularly important finding as most of the companies in India have only a single women director on their boards.

There was a general consensus among men and women on women being underestimated and being perceived as oversensitive. 82% of women directors as compared to only 38% men believed that a 'Glass Ceiling' still existed for women in business. This supports the findings of Hillman et al. (2002) and Arfken et al. (2004). Another interesting finding was the generally men did not feel that companies perceive women as 'feminists' who would push 'women's agenda'. This was in total contrast to 42% of women respondents' perception on this issue.

Figure 6.16: Responses on subscale regarding existence of Stereotypes against women



The fourth scale was a combination of statements that measured professionalism in the way the board conducts (BC) its business/functions and meetings. The composite results of the 5 items in this sub-scale were used to analyze whether the conduct of the board, provided a conducive environment for women to participate and contribute. One of the five items, which was negatively worded, was reverse coded as '1 for Strongly Agree', '2 for Agree', '3 for Undecided', '4 for Disagree' and '5 for Strongly Disagree'. Table 6.23 presents the responses to the statements on this scale.

Analysis of the responses on the individual items on the Board Conduct sub scale (Table 6.23) show a general agreement on the professional conduct of board proceedings with a higher percentage of men as compared to women, feeling that meeting are formally conducted with open discussions on opposing views from women. Participation of women is valued and gender neutral language is used to make women feel more comfortable. However, 67.74% of women respondents felt that 'sexist jokes' do sometimes find a way into boardroom proceedings.

Table 6.23: Responses on Board Conduct

Statements		SD	D	U	A	SA
Different & opposite views of women directors are openly discussed and encouraged	Female	0	10	2	19	0
	Male	0	7	4	41	10
	Total	0	17	6	60	10
Meetings are formally conducted	Female	0	1	4	23	3
	Male	1	1	0	50	10
	Total	1	2	4	73	13
Gender neutral language is used in communications	Female	0	3	0	26	2
	Male	0	7	8	40	7
	Total	0	10	8	66	9
Participation of women is valued	Female	0	3	2	24	2
	Male	0	1	1	53	7
	Total	0	4	3	77	9
Sexist jokes sometimes find a way into the meeting proceedings	Female	0	8	2	21	0
	Male	6	35	7	14	0
	Total	6	43	9	35	0

For further analysis of the all statements on each of the four scales collectively, Table 6.24 shows the summary of the descriptive statistics for all the four sub-scales and the overall scale.

Table 6.24: Descriptive Statistics of the four Sub-scales and the Overall Scale

		Mean	Std. Deviation
Qualification, Skills & Competence Women bring on Board (QSC)	Female	3.8561	.44489
	Male	3.5198	.45242
	Total	3.6354	.47542
Opportunities for Women's appointment on Board (O)	Female	2.3232	.51529
	Male	2.7063	.58177
	Total	2.5747	.58633
Existence of Stereotypes against Women (S)	Female	2.1473	.38774
	Male	2.6041	.54947
	Total	2.4470	.54336
Board Conduct is professional & inclusive (BC)	Female	3.4903	.44971
	Male	3.8613	.42786
	Total	3.7376	.46716

The analysis of the overall means support the results on individual items discussed earlier and provide some evidence that boards generally conduct their business professionally (mean score of 3.7), making it reasonably conducive for women directors. There is also evidence that respondents agree (mean score of 3.6) that women do add value to the board as well as the organization through their knowledge and skills. The low mean score of 2.4 on a scale with negatively worded items signifies that respondents agree to the prevalence of stereotypes against women in the organizations. Similarly, a low score of 2.5 indicates that respondents overall feel and agree that ample opportunities for women do not exist.

These results were further investigated with specific reference to gender. Table 6.24 also presents the mean scores for each of the sub-scales and overall scale for men and women respondents separately. Female respondents tend to agree more strongly (mean = 3.8) that women presence on board adds value to the organization as compared to male respondents. Also with respect to existence of opportunities as well as stereotypes women have a lower mean as compared to men, which suggests that comparatively men feel more opportunities for women exist and that there is not much existence of stereotypes for women. Men also felt relatively little strongly (mean score = 3.8) than women (mean score = 3.4) that board meetings are professionally conducted which make women feel comfortable and contribute. In case of overall representation of women on boards male respondents had a higher mean (3.1) but tend to be more neutral.

One way ANOVA was conducted to evaluate whether the differences between the perceptions of men and women on the aspects grouped under QSC, O, S and BC sub-scales and the overall representation of women on boards are significant. Table 6.25 presents the results of tests for the following null hypotheses:

H₀₁₃ There is no significant difference in the perception of men and women directors regarding the qualifications, skills and competence that women bring on board.

H₀₁₄ There is no significant difference in the perception of men and women directors regarding the opportunities for women's appointment on Boards.

H0₁₅ There is no significant difference in the perception of men and women directors regarding the existence of stereotypes against women.

H0₁₆ There is no significant difference in the perception of men and women directors regarding the professional conduct of Board's activities.

Table 6.25: ANOVA results for H0₁₃-H0₁₆

		Sum of Squares	df	Mean Square	F	Sig.
Qualification, Skills & Competencies Women bring on Board (QSC)	Between Groups	2.448	1	2.448	12.096	.001
	Within Groups	19.024	94	.202		
	Total	21.472	95			
Opportunities for Women's appointment on Board (O)	Between Groups	3.179	1	3.179	10.135	.002
	Within Groups	29.481	94	.314		
	Total	32.659	95			
Stereotypes against Women (S)	Between Groups	4.518	1	4.518	18.049	.000
	Within Groups	23.530	94	.250		
	Total	28.048	95			
Board Conduct (BC) is professional & inclusive	Between Groups	2.844	1	2.844	15.017	.000
	Within Groups	17.234	91	.189		
	Total	20.078	92			

The ANOVA result Table 6.25 explains that p values for the four factors or aspects are less than 0.05, thus all the null hypotheses are rejected. This signifies that there are statistically significant differences between perceptions of men and women on the qualifications, skills & competencies that women bring on boards, the opportunities for women's appointment on boards, existence of stereotypes against women, board conduct and the overall representation of women on boards.

Further, the difference in the level of satisfaction, between men and women respondents, regarding the power and discretion they enjoy as board members was

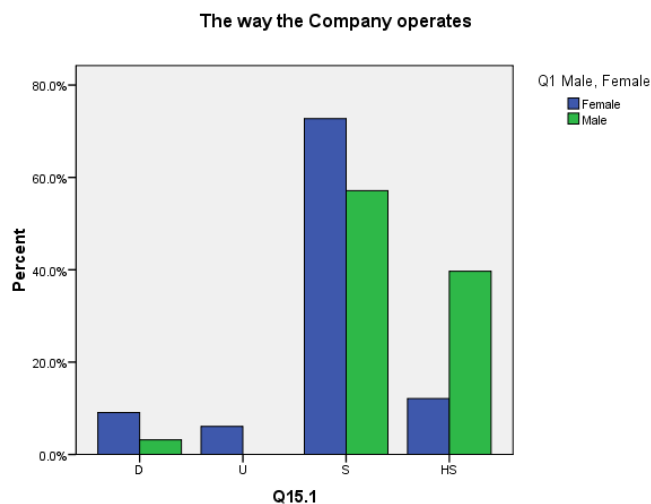
analyzed through question 15. The summary of responses on the three statements in this question is presented in Table 6.26.

Table 6.26: Satisfaction on the way Companies operate, Discretion to deal with problems & opportunities to do creative work

		HS	S	U	DS	HD
The way the Company operates	Female	4	24	2	3	0
	Male	25	36	0	2	0
	Total	29	60	2	5	0
Discretion to deal with problems in own way	Female	10	15	0	8	0
	Male	21	37	3	2	0
	Total	31	52	3	10	0
Opportunities to do creative work	Female	6	12	0	15	0
	Male	19	32	2	10	0
	Total	25	44	2	25	0

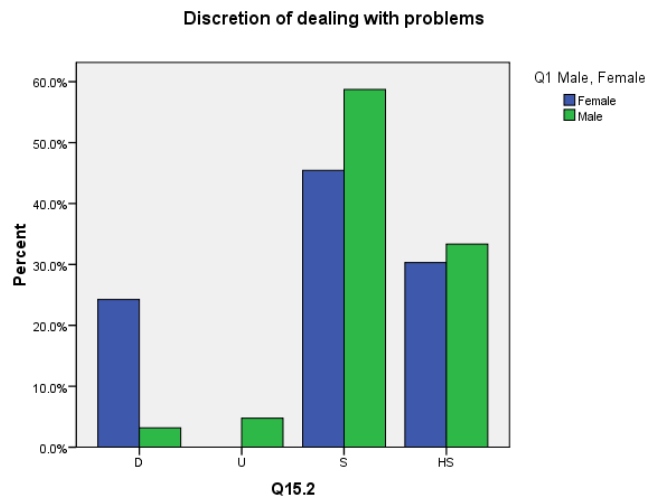
Table 6.26 and Figure 6.17 show that 62% of the respondents, 40% of them being women and 60% being men, were satisfied with the way their Company operates. 40% of men were highly satisfied with the way their company operates, as compared to only 12% of women. The total satisfaction of men (97% of total men were either satisfied or highly satisfied) was generally found to be higher than satisfaction level of women (85% of total women were either satisfied or highly satisfied).

Figure 6.17: Satisfaction on the way company operates



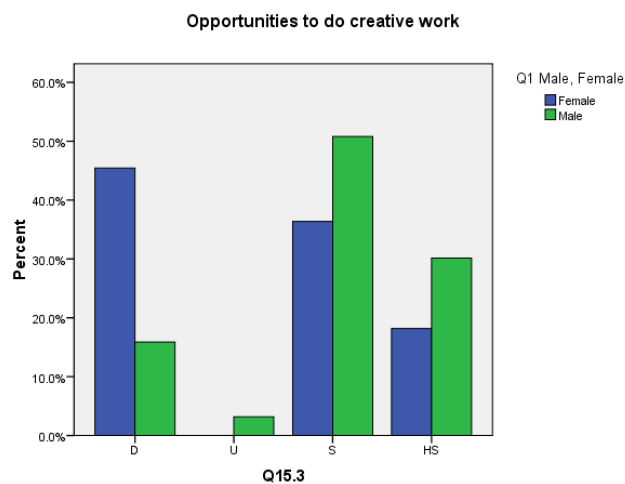
A majority of both men (59%) and women (45%) were satisfied with the discretion they had in dealing with problems (Figure 6.18). Table 6.26, however shows, 24% of women as compared to only 3% of men were ‘Dissatisfied’ with the discretion they enjoy.

Figure 6.18: Satisfaction on the Discretion to deal with problems



Although, as shown in Figure 6.19, there was again an overall satisfaction expressed by all respondents when it came to opportunities to do creative work, a majority of women (45%) felt dissatisfied on this count too.

Figure 6.19: Satisfaction on the Opportunities to do creative work



Significance of differences in level of satisfaction of men and women on each of the three statements was tested using Chi-Square. The results are produced in Table 6.27.

Table 6.27: Chi-Square Tests of Association of Q15 (i-iii) with Gender

		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
The way the Company operates	Pearson Chi-Square	11.561*	3	.009	.005
	Fisher's Exact Test	11.381			.004
Discretion to deal with problems in own way	Pearson Chi-Square	11.565**	3	.009	.007
	Fisher's Exact Test	10.272			.010
Opportunities to do creative work	Pearson Chi-Square	10.501***	3	.015	.010
	Fisher's Exact Test	9.521			.014

* 4 cells (50.0%) have expected count less than 5. The minimum expected count is 0.69.

** 3 cells (37.5%) have expected count less than 5. The minimum expected count is 1.03.

*** 2 cells (25.0%) have expected count less than 5. The minimum expected count is .69.

The test results in Table 6.27 show the p values to be less than 0.05 thereby suggesting rejection of the null hypothesis that there is no significant difference in the level of satisfaction of men and women on the three statements. It can be concluded that men are more satisfied on the way their companies operate, the discretion they enjoy and the opportunities they get to do creative work, as compared to women.

Questions 16 through 18 of the perception survey focused on whether enough opportunities were being created to retain and attract women in higher positions in the organizations.

Figure 6.20 presents the responses to the question on whether the respondents' companies had processes to promote career advancement opportunities for women. 64% of total respondents highlighted that their companies did not have such processes, 70% of them were men and 55% were women respondents. Interestingly, of those 26% of respondents who said their companies did have internal processes and provided opportunities for women, as shown in Figure 6.20, women made a larger share of 36% as compared to 21% men. This highlights that there is a need for companies to make structural and procedural changes so as to create more opportunities for deserving and performing women. This is supportive of the general trends observed in corporations around the

world. Although some efforts in this direction are being made, even in India, by providing flexible working hours, maternity benefits, ‘School hours shifts’ etc. to accommodate the needs of women employees, the companies to which the respondents belong may not have adopted such measures.

Figure 6.20: Company has processes to promote career advancement opportunities for women

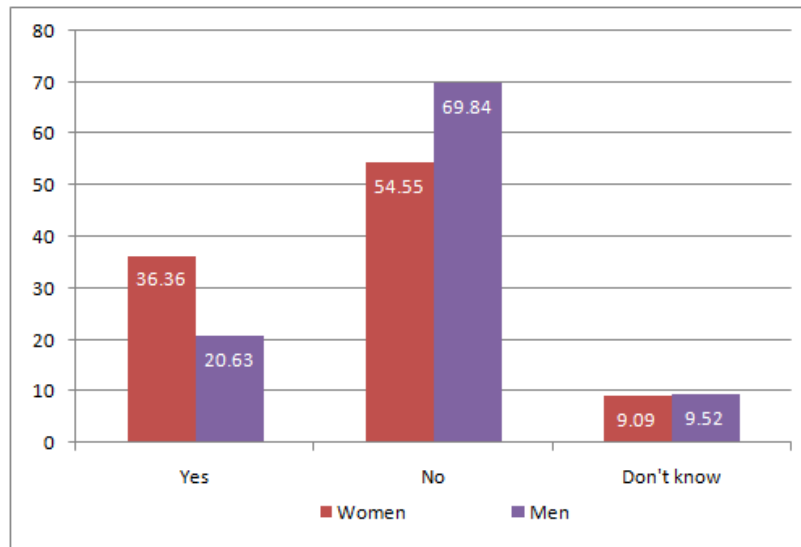
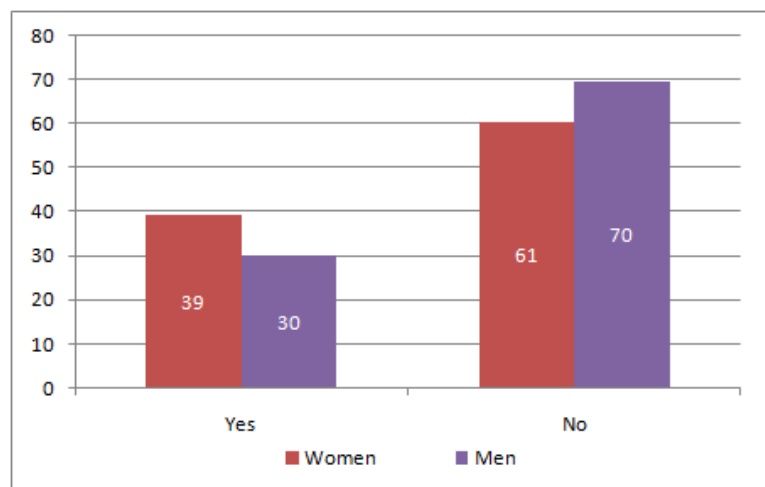


Figure 6.21 shows the directors’ responses on whether they believed enough was being done to attract and retain women. It was found that 68% of total respondents said ‘No’.

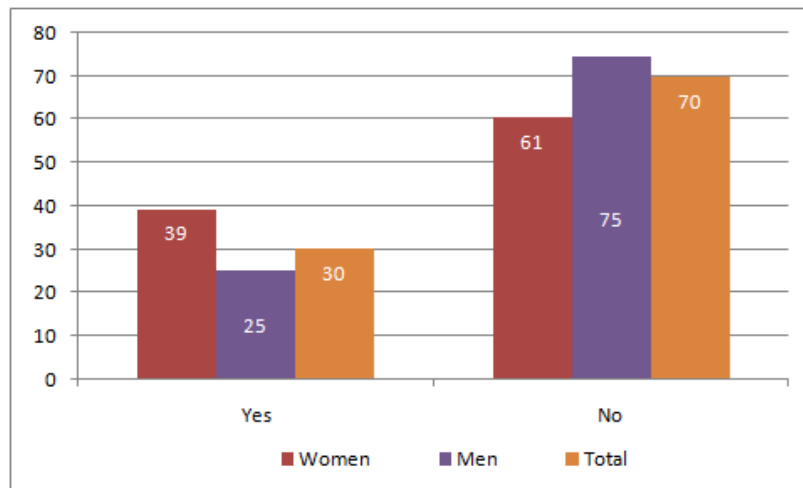
Figure 6.21: Enough is being done to attract and retain women on boards



Question 18 was specifically aimed at understanding the perception of directors on whether quotas or reservations for women on boards will help in improving

their representation on corporate boards. As shown in Figure 6.22, 70% of the total respondents did not support quotas or reservations for women. This lack of support for quotas and reservation was equally voiced by both men (75%) and women (61%). However, in the category of respondents who did support such quotas and reservations, women formed a higher percentage as compared to men.

Figure 6.22: Responses to ‘Should there by quotas or reservations for women on boards?’



In addition to the categorical ‘Yes’ or ‘No’ response to this question, the respondents were also given an option to give their subjective comments in support of their answer. 52% directors (38 male and 12 female) exercised this option. Of these a total of 17 respondents (7 women and 10 men) gave their responses in favour of quotas for women while the rest were against any type of reservation based on gender. Some of the reasons cited by the respondents against having quotas for women are listed below:

1. “Merit must prevail”; “Merit = Profits”.
2. “Quotas may be harmful for companies as women themselves may not be interested for board positions and for devoting too much time”.
3. “There should be equality, no discrimination”.
4. “Quotas will only lead to ornamental appointments of women”.
5. “Quotas will not increase the appointment of women on boards”.
6. “Need to change the minds of management and promoters of companies”.
7. “Talented souls will create a chance on their own”.

8. “Women can compete, but a level playing field needs to be created first, till then quotas can be fixed but should be phased out later”.

The few respondents who supported the quotas and reservations for women gave the following arguments to support their answer –

1. “Women will add value”.
2. “Quotas for qualified women, because of lack of opportunities available to them”.
3. “Quotas, to cross the first hurdle, but appointment should still be on merit”.
4. “Gender biases exist...., quotas can provide fair opportunities to deserving competent women”.
5. “Women bring a different approach, can help companies to succeed”.
6. “Intangible benefits of women on boards, but only those who are qualified”.

The most generally given remark against such quotas was ‘merit must prevail’. ‘Equality’, ‘Need a push at the entry level’ and ‘Discrimination’ was quoted by some of the respondents as reasons for support of such quotas.

To see if there was any association between responses to question 17 – ‘enough is being done to attract and retain women’ and those to question 18 – ‘quotas or reservations for women’, cross tabulation of responses, as shown in Table 6.28 were analyzed.

Table 6.28: Cross tabulation of responses (counts) on whether Enough is being done for women and whether there should be Quotas for Women

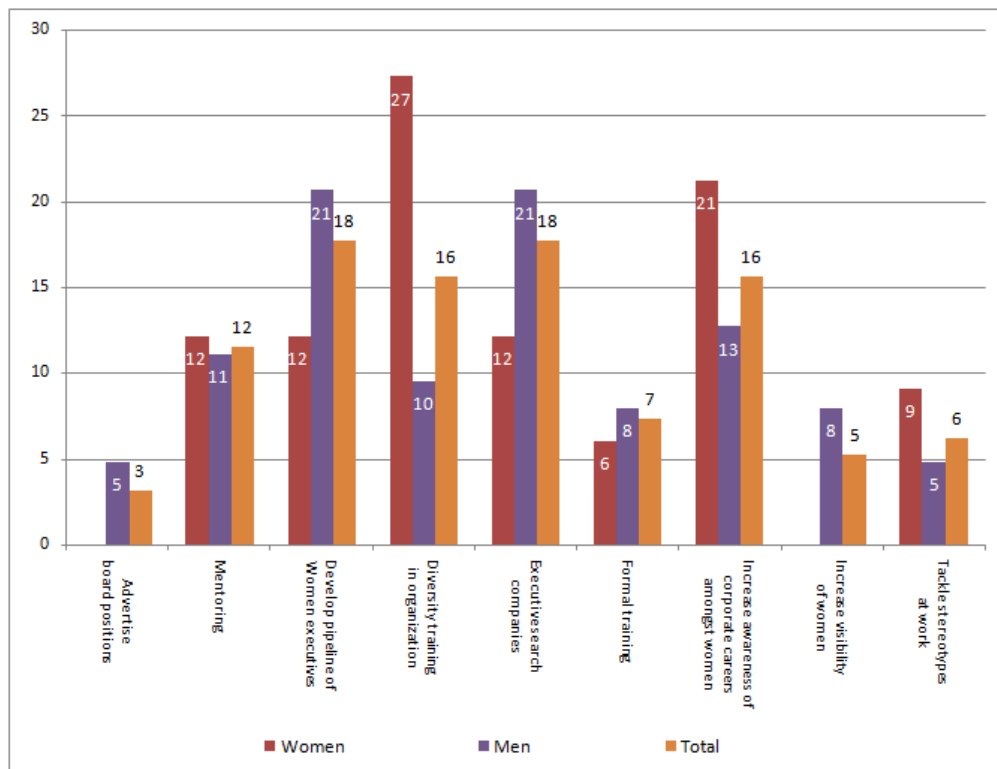
		Quotas for Women		Total
		Yes	No	
Enough is being done for women	Yes	6	26	32
	No	23	41	64
	Total	29	67	96

Table 6.28 shows 24% of respondents felt that although enough is not being done to attract and retain women, quotas or reservations should not be there. It was rather interesting to note that 6% of the respondents supported having quotas or reservations for women even though they felt that enough was already being done to attract and retain women.

Chi-Square tests were also conducted on the cross tabulated results of Question 17 and 18 to evaluate the association further. The p value of 0.084 indicated rejection of the null hypothesis at 10% level of significance, indicating that the link between responses to these two questions is significant. There was a relationship between the respondents' views on the adequacy of measures to attract and retain women and their opinions on having quotas for women.

Other than the quotas, responses on different methods of increasing the representation of women on boards as listed in Question 19 were also analyzed. Figure 6.23 shows the comparison of percentage responses of women and men respondents to this question.

Figure 6.23: Percentage responses on the most important method for increasing the representation of Women on Boards of Directors



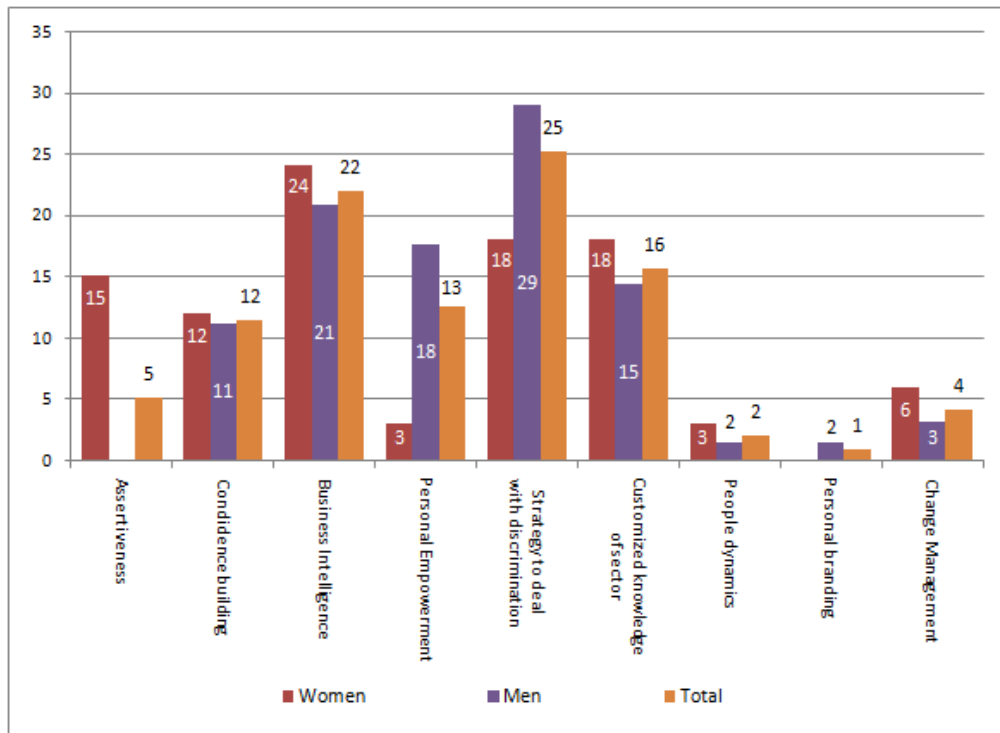
The analysis of the multiple choice single response question – Q19 as presented in Figure 6.23 shows that a majority of the respondents consider developing a pipeline of qualified and competent women executives as well as engaging executive search companies for recruiting directors on boards the most important methods for increasing the representation of women on boards. Although most of the men supported these two methods as being the most important for them, a majority of women respondents (27.27%) felt that conducting regular diversity trainings in the companies followed by increasing the awareness of corporate careers amongst women would help them in acquiring board positions in the future. Women did not feel that advertising board positions or increasing their visibility would improve their position and numbers on the boards. However, both men and women felt that mentoring and formal training, although marked low on priority by both could also help in getting the women ready for board service. A higher percentage of women (9%) as compared to men (6%) thought the position of women on boards would improve if stereotypes at work are tackled. None of the respondents thought that incentivising CEOs to appoint more women on boards as a viable or useful method to increase gender diversity on boards.

Question 20 was also designed as a single response question to multiple topics, training on which would improve women appointment to boards. A response rate of 99% was achieved for this question, with one male respondent not giving his opinion on what kind of training women required. Figure 6.24 presents the findings.

Training on devising strategies for dealing with discrimination was chosen by the respondents as being the most important area for training the women (Figure 6.24). However, a majority (24%) of women felt that they would benefit from training in the area of business analytics. Training in sector specific aspects and knowledge was the third most important area identified by the respondents. Almost 12% of respondents (both male and female) thought women need to work on building their confidence too. Some stark contrasts were seen in identification of some areas of trainings perceived to be required by women. Although 15% of female respondents felt that women definitively need training in ‘Assertiveness’,

none of the male respondents identified it as an area in which women were lacking and required training. On the other hand 18% of men thought women needed to be trained in ‘Personal empowerment’ strategies as compared to only 3% of total women. Personal branding was also thought as an area for women to work upon, although by a small (2%) of men respondents with no women feeling the need for this.

Figure 6.24: Percentage responses on the kind of training that would help women acquire board positions



As depicted in Figure 6.24, few respondents also identified understanding and managing people dynamics and Change management as areas of training for women, whereas none of the respondents considered that women required any kind of training in ‘Risk management’. This was an expected outcome as women are generally perceived to be more risk averse as to men.

To better understand if there was any difference in identification of training needs of women by male and female respondents, Chi-square test was conducted. The results in Table 6.29 shows that different responses to this question were statistically significant across gender i.e. both male and females identified different areas for training of women.

Table 6.29: Chi-Square and Fisher’s Exact test results for training programmes for women across gender of respondents

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	15.537*	8	.050	.035
Fisher's Exact Test	15.369			.028

* 10 cells (55.6%) have expected count less than 5. The minimum expected count is .35.

To conclude this section, a majority of respondents felt that although there is adequate diversity on boards in terms of experience and background, there are not enough women on corporate boards, the Boards still lacked in gender diversity. A significant association between the perceptions of directors on board’s general diversity and its gender diversity was found with the conclusion that the respondents who considered the boards to have an adequate diversity of experience and backgrounds generally consider them to have inadequate representation of women directors.

Valuable findings were made with respect to the factors that promote and inhibit women from attaining board positions such as their qualifications, skills and competence, opportunities for their growth, stereotypes and the way in which the board conducts its affairs. Evidence was found that boards generally conduct their business professionally making it reasonably conducive for women directors. There is also evidence that respondents perceive women do add value to the board as well as the organization through their knowledge, skills and competence (Hillman et al., 2002; Adams & Ferreira, 2009; Singh et al., 2008; Rosener, 1995). At the same time, directors acknowledged lack of ample opportunities for women and the prevalence of stereotypes against women in the organizations which are inhibiting their representation on boards (Hillman et al., 2002; Nielsen & Huse, 2010a & 2010b; Bilimoria & Piderit, 1994). Statistically significant differences between perceptions of men and women on these factors/aspects were found. Female respondents had a tendency to agree more strongly that women presence on board adds value to the organizations as compared to male respondents. Also with respect to existence of opportunities as well as stereotypes, men

comparatively felt that opportunities for women exist and that there is not much existence of stereotypes against women. Men also felt relatively more strongly than women that board meetings were professionally conducted which make women feel comfortable and contribute.

With respect to the satisfaction of the respondents with the way their companies function/perform, their discretion in dealing with problems and opportunities to do creative work, a majority were satisfied on all three. However, it was noteworthy, that a higher percentage of women felt dissatisfied with the discretion they enjoy and opportunities they get to do creative work. These differences between the level of satisfaction of men and women were found to be significant with the men being more satisfied on the way their companies operate, the discretion they enjoy and the opportunities they get to do creative work, as compared to women.

It was interesting to find that majority of respondents highlighted that their companies did not have internal processes that create opportunities for women and felt that enough is not being done to attract and retain the talented women. This highlights the need for companies to make major changes in order to create more opportunities for qualified women. This is supportive of the general trends observed in corporations around the world. Although some efforts in this direction are being made, even in India, by providing flexible working hours, maternity benefits, 'School hours shifts' etc. to accommodate the needs of women employees, the companies to which the respondents belong seem not to have adopted such measures. Another interesting finding was that of respondents who said their companies did have internal processes to create opportunities for women, women made a larger share as compared to men.

In the context of the current corporate regulatory environment and specifically the enactment of the new Companies Act 2013 which mandates the appointment of at least one woman director on boards of specific companies, it was particularly interesting to evaluate the responses of the directors to the question whether there should be quotas / reservations for women on boards. A majority of the respondents did not support quotas and reservations as measures to promote appointment of women on boards. The most generally given remarks against such

quotas were ‘merit must prevail’ and ‘quotas will lead to ornamental appointments only’. However, amongst a small segment of respondents who were in favour of quotas for women, female respondents formed a higher percentage as compared to their male counterparts. ‘Equality’, ‘Need a push at the entry level’ and ‘Discrimination’ was quoted by some of the respondents as reasons for support of such quotas. Overall, majority of respondents felt that although enough is not being done to attract and retain women, quotas or reservations are still not the answer/solution.

In place of quotas, respondents stressed on the need to develop a pipeline of women talent and to get the women ready for board positions. They also felt that companies need to employ ‘head hunters’ to fill board positions. This supports the concerns raised in this and previous research about women not getting equal opportunities for presenting themselves for board service primarily due to the informal process of recruitment adopted by companies. Women, in particular, felt that companies need to be sensitized to the need, importance and the ways of tackling diversity. A higher percentage of women also felt that by tackling stereotypes the organizations could improve gender diversity on boards.

Respondents considered training to handle discrimination as being one of the most important areas that women require to raise to the top leadership positions, however, women felt that they need more training in business analytics and sector specific knowledge. None of the respondents considered that women required any kind of training in ‘Risk management’, an expected outcome as women are generally perceived to be more risk averse as to men. While women thought there is a need to improve their ‘Assertiveness’, men did not identify this as a weak area of women. On the other hand, where men thought women need to work on their personal branding; women did not see this as an area that needs improvement. The differences in perceptions of men and women directors on what are the potential weak areas of women directors, which need to be improved through training programmes were found to be statistically significant.

Overall conclusions from analysis of the Directors' perception survey

Some basic information about men and women directors was highlighted in the first section of this chapter. Men were found to have a higher response rate to this survey as compared to women, but majority of both gender respondents were 'Independent' directors. Women were relatively younger and less experienced than their male counterparts. There was a similarity and a likeness between men and women respondents in terms of their educational backgrounds, annual incomes and their value systems.

With respect to the analysis on Corporate Sustainability dimensions, only a moderate awareness of the concept of Triple Bottom Line (TBL) was found amongst the respondents. The association between the awareness of TBL and the importance of Corporate Sustainability in better positioning the organization in the eyes of its stakeholders was found to be significant only for women respondents. 'Management of the Company' emerged overall as the most important driver of corporate sustainability, with the women giving higher importance to 'Public and Media'. 'Governance' was widely accepted as the major sustainability issue confronting organizations followed by 'Energy use' and 'Environmental Quality'. It was also interesting to find that the companies on which female respondents were serving as directors were more likely to have separate CSR committees as compared to companies on which male respondents were serving as directors. Although prior literature produces evidence that women generally tend to be more ethical and conscious to the needs of all stakeholders and are more involved in CSR and similar activities, the analysis of the respondents' involvement in crucial decisions on the board produces different results. No significant difference was found between men and women directors' involvement in decisions regarding Corporate Donations & Ethics, Customer Service, Human Resources and Public Relations. Towards the goal of Corporate Sustainability, Innovation, Corporate Reputation, Quality Management Systems and Employment trends, tend to feature more frequently as parts of board agenda, while Gender issues is the most ignored and neglected sustainability issue.

Section three of this chapter provides valuable conclusions with regard to directors' perceptions about gender diversity on boards of Indian companies.

Perceptions of men and women regarding the representation of women on boards were found to vary significantly with a higher percentage of women as compared to men feeling women are underrepresented. Qualification, skills and competence that women bring on board was recognized as a factor promoting the case of gender diversity as women add value to the boards' proceedings as well as performance of the organization. On the other hand the prevalence of stereotypes against women in the organizations was perceived as an inhibitor to women's representation on boards. The women respondents exhibited a higher level of 'Dissatisfaction' with the opportunities and the discretion they have to do creative work. Although most of the respondents felt their companies lacked processes to attract and retain women talent, there was not much support for quotas or reservations for women directors. This is of particular significance in the current corporate regulatory environment where the new Companies Act 2013 has mandated the appointment of at least one woman director on boards of specific companies. The results of this perception survey and the sentiments of the directors, both men and women, do not support this move. The effects of this mandate would, however, surface only in time, which definitely has the potential of further research in the future.

CHAPTER 7

SUMMARY AND CONCLUSIONS

This study titled ‘Corporate Sustainability and Gender Diversity: A Study of Women on Board of Directors of Indian Companies’, has critically examined the corporate sustainability disclosure practices and the status of representation of women directors on boards of 185 sample companies over a period of six years. This study has also explored the existence of any relationship between gender diversity and the financial and non financial performance of companies. The Directors’ Perception Survey conducted as part of this study has provided important insights into the minds and opinions of men and women directors on the importance of having women on boards and barriers that confront them.

This chapter focuses on the consolidation of the results and findings presented in chapters 4 to 6, drawing inferences and presenting conclusions. It also discusses the limitations of the study and presents the agenda for future research on board diversity in the context of corporate sustainability.

Objectives

This study was undertaken with the following objectives in mind:

1. To study the corporate sustainability practices followed by Indian Companies.
2. To examine the status of gender diversity on corporate boards in Indian companies.
3. To examine the relationship, if any, between women presence on BOD and the three dimensions of sustainability i.e. economic performance, sensitivity towards societal issues and quality of environmental disclosures of a company.
4. To understand the perception of directors, men and women, about sustainability and the representation of women on boards.

Methodology

Given the long term nature of sustainability, a longitudinal study over a period of six financial years i.e. from 2006-2007 to 2011-2012 was undertaken for a useful and complete analysis. The study made use of both – Primary and Secondary data for the purpose of accomplishing its objectives. Structured questionnaire was used to gather primary data from the sample directors. A corporate Sustainability Index (CSI) was developed for examining the extent and quality of sustainability disclosure practices of the sample companies. Secondary data was collected from audited Annual Reports filed with the Stock Exchanges, Sustainability Reports, company and stock exchange websites, Capital Market database ‘Capitaline Plus’, Directors Database, Ministry of Corporate Affairs and Registrar of Companies.

To achieve the first three objectives of the study, a sample of companies listed on the BSE500 index were originally selected. The final sample of 185 companies belonging to 19 sectors was derived after eliminating companies that were acquired or merged, delisted, liquidated or naturally replaced by the end of financial year 2011-12 and for which annual reports were not available. The Finance sector (17 per cent) makes up the largest group of companies, followed closely by industries such as Healthcare (10 per cent), Capital Goods (9 per cent) and Transport equipments (8 per cent). All sample companies were later classified under two broad categories of ‘High Profile’ (HP) and ‘Low profile’ (LP) industries (Hackston & Milne, 1996). A total of 66.49 per cent (123 companies) companies in the sample represented ‘Low Profile’ sectors.

Content analysis of annual reports was used to analyze the sustainability disclosure practices. A Corporate Sustainability Index (CSI) along with decision rules was developed to measure the extent and quality of a company’s sensitivity towards societal issues, its environmental concern and the overall corporate sustainability disclosures. The CSI comprised 80 items or indicators and used a system of variable scores for different items to overcome the drawback of superficial and forced definition of a score on any item of the index. The CSI produced robust results on inter – rater reliability and internal consistency tests.

To achieve the fourth objective of the study, a census of all the women on boards of BSE500 companies was taken followed by a randomly drawn sample of an

equal number of male directors. A final sample of 300 respondents was selected for the Directors' Perception survey. A six page questionnaire with 20 questions was finalized after pretesting. Most of the questions were treated as categorical (nominal) and ordinal and were put to test using simple statistical tools. The same questionnaire was used for soliciting responses of men as well as women directors primarily on two aspects/categories: i) their understanding of corporate sustainability and ii) their perceptions about representation of women on boards. As part of analysis of gender diversity on boards, four sub-scales were created such that each one represented and measured one factor/aspect that influenced and explained the status of representation of women on boards of directors. These sub scales were named as – Qualifications, Skills & Competence, Opportunities, Stereotypes and Board Conduct. Each of the four sub-scales produced robust results on internal consistency test - Cronbach's alpha.

The survey was kept 'anonymous' not requiring the respondents to disclose their identity or that of their company. This was done with an expectation of improving the response rate which was generally found to range between 30-40% in similar studies in the past. A postcard follow-up was mailed after one month of the date of initial mailing (Burke, 1995, Sheridan 2001, Sheridan & Milgate 2005) and again after three months from the date of initial mailing. Of the total 300 final questionnaires mailed, 96 responses were received making the response rate of 32%. 22% responses were received from women and 42% from men. This was considered reasonable and adequate considering the elite class of respondents involved.

Analysis Techniques

Multiple analytical techniques were used to find answers to the research questions. Specific to the type of data and the hypothesis to be tested, appropriate techniques were employed. Information collected or calculated was presented in the form of tables and charts for better understanding and inference. Descriptive statistics such as frequency distribution tables and percentage, mean, cross tabulation etc. were used for preliminary and basic level analysis of responses to the survey.

Comparisons of means were done between companies with High Corporate Sustainability Score (CSS) and those with Low CSS. Comparisons of means were also done between companies with no women on boards and those with more than one woman on their boards. Student's t-test was used for this purpose. ANOVA was also used to evaluate the differences in the perceptions of men and women directors regarding the factors that promote and inhibit the representation of women on boards. Chi-Square and the Fisher's Exact tests were used to analyze responses on multiple questions using categorical and ordinal scales, in the perception survey to see if there was a significant difference between men and women directors.

Time Series Linear Trend analysis was used for forecasting the future women on boards of directors. Correlation and 2-Stage Least Square (2SLS) method regressions models were used to test the relationship between various identified variables.

Summary of findings

1. Towards the accomplishment of objective one, the corporate sustainability disclosure practices of companies were analyzed through the Corporate Sustainability (CS) Index scores of the sample companies over the period of the study and testing whether there was significant difference in CS disclosure practices of companies and their sector classification, size and age.
 - i. The preliminary analysis showed that only 41 per cent of total sample companies had average Corporate Sustainability Scores (CSS), higher than the sample average. With respect to two specific constituents of the composite CS index, only 45% and 44% of companies exhibited an above average performance in Social Involvement and Environmental Concern dimensions respectively.
 - ii. It was further analyzed that only 15 per cent and 6 per cent of sample companies participated in voluntary sustainability disclosure initiatives of UNGC and GRI respectively. This supported the assumption about the unsatisfactory performance of the companies on the sustainability disclosures in their annual reports.

- iii. It was found that CS scores significantly varied across sectors and size of the companies. However, the variations in CS Scores between old and young companies were statistically insignificant.
 - iv. Additionally, it was also found that the High CSS companies exhibited a much better performance in Environmental concern as well as in Social involvement as compared to Low CSS companies. In terms of financial performance, High CSS companies were found to perform better only in one of the three proxies used to measure financial performance – ROE, ROA and Market-to-Book Value. These companies had a higher ROE as compared to that of Low CSS companies; however this was found significant only at 10% level of significance.
2. Objective two of the study was accomplished by analyzing the data of women on boards of directors of sample companies over the period of the study and testing whether there was significant difference in gender diversity on boards of companies and their sector classification, size and age.
- i. The preliminary analysis of the data gathered from annual reports showed that women made up just 5% of all directors on the sample and as many as 112 (60.6%) companies had no representation of women at all on their boards. Only half a percent (0.59%) companies had more than three women on their boards.
 - ii. The results of projections for status of women on boards in future highlighted that, *ceteris paribus*, at the current rate of growth in number of women on corporate boards, it will take Indian companies 130 more years to reach where Norway is today with 40% women on boards and almost one and a half century (166years) to achieve gender equity on boards of its listed companies.
 - iii. It was further found that approximately 50% of women on boards of the 185 sample companies were independent directors chosen on board for their expertise and experience rather than the prevalent notion and assumption of women directors gaining entry into boardrooms by virtue of their family ties (Ruigrok et al., 2007).
 - iv. A majority 84% of women directors held single directorships. This presents an opportunity for appointing more women on boards of Indian

companies from amongst this available pool of female talent and experience.

- v. A reasonably good percentage of women directors were active contributors as Board or Committee Chairs (23%) and members (47%). Also, out of all the women members of some committees, a majority were members of the audit committee, followed by the Investors' grievance committee and of all the women who were chairpersons of some committees, a majority held the chair of the 'Remuneration and Nomination committee' followed again by 'Investors' Grievance Committee'. Although women on boards of the sample companies were found to contribute as members as well as chairpersons on some important committees, this cannot be taken as being adequate considering the overall representation of women on boards to be just 5%. This finding, therefore, cannot be seen as being in contrast to the findings of Rhode & Packel (2010) that highlighted the underrepresentation of women as chairs of some of the most influential compensation, audit, and nominating committees.
- vi. Preliminary analysis showed that of the total companies with at least one woman on board during the period of study, a majority belonged to Finance sector. Healthcare and Capital Goods sectors were ranked second and third respectively whereas Power sector was ranked last in terms of companies with women on boards. It was also observed that there are more companies in the Low Profile sector with women on their boards as compared to companies in High Profile sector. However, results of ANOVA suggested that the differences in gender diversity on boards of companies and their sector classification are not significant.
- vii. Comparison of means of two groups of companies was conducted - those that had no woman on their boards and those companies that had more than one woman on the board. The results showed that the companies with two or more women on their boards were significantly bigger in terms of total assets, market capitalization and net sales as well as had higher profits as compared to companies with no women on their boards whereas no significant differences were found between the two groups of companies with respect to the age of company.

- viii. No significant differences were found in the financial performance of companies with no women on boards and those with two or more women on boards in terms of all the three proxy measures of financial performance, – ROE, ROA and Market-to-Book Value. However, companies with two or more women on their boards exhibited better social involvement as compared to companies with no women on boards. This finding of a positive association between presence of women on boards and the social performance is consistent with previous studies like Bear et al. (2010), Galbreath (2011) and Ibrahim & Angelidis (2011). The results also showed that such companies had a higher average board size and proportion of independent directors as compared to companies with no women on board.
 - ix. A further comparison between companies which had at least one woman on their boards for all six years of the study and those that had no women on boards in all years of study revealed that companies with women presence on boards had a higher Market-to-Book Value (mean of 4.2842) as compared to companies with no women on board (mean of 2.9736). The t statistic of 2.251 was found to be significant at 0.05 level with a p value of 0.027. This lent some support to results of previous studies (Bonn, 2004; Galbreath, 2011) which highlight the positive link between women presence on boards and the financial performance of the company.
 - x. It was also interesting to find that although as an initial observation, the High CSS score companies had a higher representation of women on their boards both in terms of proportions as well as Blau's Index, and the Low CSS companies had a higher proportion of independent directors on their boards, these differences were not found to be statistically significant.
3. The results of comparison of means performed between two subgroups of the sample were tested further by using the complete sample and performing regression analysis. With respect to objective three, the analysis provided no

evidence of gender diversity on board of directors of Indian companies influencing a company's performance.

- i. Consistent with findings of previous studies like Shrader et al. (1997), Carter et al. (2003), Lückerath-Rovers (2010), Dobbin & Jung (2010), Galbreath (2011) and Dezso & Ross (2012) gender diversity on boards of directors was not found to have any significant impact on the financial performance of a company measured in terms of ROA. No evidence of significant association between ROE and either of the two measures of presence of women directors on boards was found, results consistent with Shrader et al. (1997), Bonn (2004) and Dezso & Ross (2012). Similar to ROA and ROE results, no significant association between MBV, the third proxy measure for economic performance, and gender diversity measured as proportion of women on boards as well as Blau's Index could be established.
- ii. In contrast to most studies examining impact of gender diversity on boards on only economic performance measures of companies, this study also explored the relationship of women representation on corporate boards and the social involvement of companies as well as their environmental concern. Consistent with Galbreath (2011), gender diversity on boards of directors was not found to have any impact on the environmental performance or concern exhibited by a company. Similar results of absence of any significant relationship between social performance or social involvement of a company and the representation of women on board were evidenced.

Hence, all the three null hypotheses $H_{07} - H_{09}$ pertaining to objective three of the study were accepted which indicates that gender diversity on boards, in its current state in the sample Indian companies, does not contribute towards prediction of any of the corporate sustainability performance dimensions – economic, social and environmental.

- iii. Although the study produced non confirmatory results on association between gender diversity and performance measures, various control

variables were found to be significantly linked with the three dimensions of corporate sustainability performance.

- a. Except for social involvement of a company (SIS), total assets were found to be significant at 0.01 level for all other performance variables – ROE, ROA, MBV and ECS. This variable contributed negatively in prediction of all measures of economic performance (Waddock & Graves, 1997), but contributed positively to prediction of environmental concern (ECS) exhibited by a company, a finding supported by Clarkson et al. (2008) and Cormier et al. (2005). Bansal (2005) also found a positive association between company size measured as natural log value of total assets with the sustainability performance.
- b. Market Capitalization was positive and significantly associated with all dependent variables except ROA.
- c. Net Sales, the third proxy measure for company size, was not associated with any measure of economic performance, but was a positive and significant contributor to prediction of SIS at 0.05 level, a finding supported by Patten (1992). This indicates that large companies disclose information about their social involvement as compared to small companies. This indicates that companies primarily commit a part of their revenues for engaging in social responsibility activities. This is also supported by some examples of companies committing a part of their revenue per unit of sale of a product towards philanthropic and socially relevant activities.
- d. Surplus resources, measured by adjusted Net Profits, were positively associated with only ROA suggesting that surplus resources help in improving returns, a finding supported by previous studies like Galbreath (2011). However, surplus resources were negatively associated with ECS indicating towards the possibility that companies may not be committing or using surplus resources for improving and mitigating the environmental impacts of their operations.

- e. Proportion of independent directors on boards was found to contribute negatively to the prediction of MBV and ECS, significant at a 0.10 level. Contrary to findings of earlier studies such as Galbreath (2011), no significant association was found between board independence and SIS.
 - f. Age of a company was found to negatively impact the MBV at 0.10 level of significance. It was not associated with any other variable in the study.
 - g. Board size was also found to be insignificant in prediction of all the dependent variables.
 - h. A negative association between sector (dummy variable using 1 for high profile and 0 for low profile sectors) and gender diversity on boards of directors, significant at 0.10 level, was found. This was supported by the findings of earlier studies that some type of companies are finding difficulty in ensuring appropriate representation of women on their boards.
4. Towards the accomplishment of the fourth objective of this study the perceptions of men and women directors on corporate sustainability and gender diversity on boards of directors were analyzed.
- A. Analysis on perceptions, awareness and understanding of men and women respondents with respect to the corporate sustainability dimension of the Directors' Perception Survey, reports:
- i. There is evidence of only partial awareness of the concept of Triple Bottom Line (TBL) in case of men as well as women respondents, with differences between them only attributed to chance.
 - ii. Men and women directors are both equally in agreement that companies can position themselves better in the eyes of the stakeholders by undertaking sustainable activities.
 - iii. Significant statistical differences were observed between men and women, in the identification of key drivers of corporate sustainability. Management of the company was clearly identified as the key driver by men, where as Public and Media closely followed by the Management of

the company and Regulators and law agencies emerged as women's key drivers of sustainability.

- iv. Governance was commonly perceived as the most important sustainability issue that companies were committed to. Governance was followed by Energy use and Environmental quality. Water use & efficiency and Workforce diversity & equal opportunity were perceived by the respondent directors as being the least significant issues for corporations.
- v. As compared to men, a higher percentage of women were part of organizations that had commissioned a separate CSR committee. Strong evidence was found that companies on which female respondents were serving as directors were more likely to have separate CSR committees as compared to companies on which male respondents were serving.
- vi. A strong association was also found between the existence of separate CSR committee and laying down of the code of conduct with higher number of CSR committees leading to a higher probability of having a well laid out code of conduct.
- vii. A not so positive finding about the frequency of sustainability training organized by companies was observed with a majority of companies having never organized such training.
- viii. Even in terms of taking sustainability issues into the board rooms where strategic decisions are made, a mixed and moderate response was received from the directors. Crucial agendas like the need of integration of social, ecological and economic elements for a balance decision, corporate reputation, employment trends etc. were taken up only 'Sometimes' as board agendas. Innovation being given a high priority as 'almost always' on the agenda of the board was a positive outcome of the analysis of responses of both men and women. Gender issues were the least priority agenda for the board with active discussion on gender issues happening 'almost never'.

Both these findings, about the frequency of sustainability training and the frequency of putting sustainability issues on the boards' agenda, present a strong case for the need to sensitize both the companies and the

directors as the strategic decision makers to take steps towards integrating sustainability in their core operations.

- ix. A high level of involvement of women directors in Customer service and Public Relations as compared to men directors' high involvement in decisions pertaining to Accounting & Finance, Engineering related issues, Legal issues, Product Development & Design and Product Quality, in addition to Customer service and Public Relations, supports the similar findings in previous researches on the subject (Klassen & Whybark, 1999; Mann et al., 1998; Hillman et al., 2002). This finding is also supportive of the earlier finding of this study that presence of women on boards does not significantly influence a company's financial performance. The respondents consider women are generally given soft assignments and positions or their involvement is limited to such decisions (Rhode & Packel, 2010) as compared to crucial financial decisions. This clearly hints towards the existence of stereotypes against women which was statistically tested and proved by the results.

B. Analysis on perceptions, awareness and understanding of men and women respondents with respect to the gender diversity dimension of the Directors' Perception Survey, reports:

- i. A majority of respondents felt that although there is adequate diversity on boards in terms of experience and background, there are not enough women on corporate boards, the Boards still lacked in gender diversity. A significant association between the perceptions of directors on board's general diversity and its gender diversity was found with the conclusion that the respondents who considered the boards to have adequate diversity of experience and backgrounds generally consider them to have inadequate representation of women directors. This supports the findings on objective two of this research relating to the current 'token' status of women representation on boards of directors of Indian companies with women being only 5% of the total directors on boards.

- ii. Analysis of the responses on the statements pertaining to the qualifications, skills and competence that women bring on board shows that:
 - a. There is an overall agreement amongst men and women on the ability of women to resolve conflicts through their diplomacy and tact as well as their problem solving skills.
 - b. However, a higher percentage of women (93%) felt that they had better abilities of dealing with ambiguity and uncertainty as compared to men (78%), consistent with the findings of Rosener (1995).
 - c. Interestingly, a higher percentage of men (72%) as compared to women respondents felt that women bring different viewpoints and perspectives enriching decision making and are better monitors of ethical conduct of business operations. These findings are consistent with earlier studies such as Adams & Ferreira (2009) and Nielsen & Huse (2010).
 - d. There was a general agreement between men and women on the ability of women presence on boards and top leadership positions to boost confidence of clients, consumers as well as investors. This supports the argument that women have a better understanding of consumer behaviour and needs of customers (Kang et al., 2007; Brennan & McCafferty, 1997).
 - e. Also women possess a strong moral overtone (Arfken et al., 2004) and believe in nurturing relationships and focus on needs of others. This makes women better at representing and safeguarding the interests of different stakeholders and keeping them connected to the organization (Biggins, 1999; Hisrich & Brush, 1984; Rosener, 1995; Hillman et al., 2007).
 - f. Women presence on boards also contributes by bringing women friendly policies and culture in organizations, a finding supported by Burke (1994) who also argues that women on boards indirectly serve as role models for other women in the organization.

- g. However, a majority of men respondents, unlike their female counterparts, did not feel that the lack of presence of women on top reduces the company's image in the eyes of its female employees.
 - h. With specific reference to sustainability, both men and women acknowledged that women on boards would lead to better social responsiveness of a company. By virtue of their qualifications and skills, their temperament and relational abilities, women contribute more effectively on qualitative, human and ethical issues like managing social impacts of their company (Huse et al., 2009; Huse & Solberg, 2006; Rosener, 1990; Bear et al., 2010; Ibrahim & Angelidis, 2011). Increased participation of women on boards leads to stronger controls and enforcement thereby leading to better social governance (Grosser & Moon, 2005; Schnake et al. (2006).
 - i. However, with respect to impact of gender diversity on boards on the economic performance, where a majority of women respondents remained neutral or undecided on the issue, the men generally disagreed with women presence having any positive effect on the financial performance of a company. However, overall, higher percentage of men felt that gender diversity on boards would help the cause of sustainability as compared to women.
- iii. Analysis of responses on statements relating to opportunities available for women point towards:
- a. Lack of ample opportunities available, in general, for women aspirants of directorship positions. The results show that companies do not generally know where to look for qualified women and do not appoint women unless they are already on boards of other companies.
 - b. There was also a general consensus on the low visibility of women as they are not part of the informal networks. The process of appointment of directors on boards, which traditionally relies on accessing the existing network and pool of experienced and high profile chief executives, chief operating officers, or retired executive officers of large corporations, tends to exclude the

female talent pool as women generally do not follow these traditional career paths (Hillman et al., 2002). Male directors are significantly more likely to have corporate board experience, including CEO/COO roles, while new female directors are significantly more likely to have experience as directors on boards of smaller firms (Singh et al., 2008).

- c. It was interesting to find that a higher (68%) of men as compared to 36% women, believed that women get appointed on boards only if a company is specifically looking for a woman director.

These entry barriers tend to drastically cut down the opportunities available for qualified women interested for board service. So although there is a growing global trend of appointing women on boards, the opportunities and support available for women directorship aspirants are indeed very limited.

- iv. Responses on statements designed to assess the prevalence of stereotypes show that:
 - a. Stereotypes and biases against women exist in the corporate world.
 - b. Women are put on boards and leadership positions as part of the legitimacy argument and public sentiment rather than their qualification and competence. This is supported by the findings that a majority of respondents, higher percentage of men (47%) as compared to (30%) of women, felt that companies do not think women are qualified for senior management positions.
 - c. A higher percentage of women (48%) as compared to men, felt that companies prefer men over women for board service as they think men naturally understand business.
 - d. More women felt that women's inputs on technical issues such as environment and production are overlooked by their male counterparts and that women's contribution is limited as they are assigned less influential portfolios such as HR and CSR (EOWA, 2008; Klassen & Whybark, 1999; Mann et al., 1998; Hillman et al., 2002; Galbreath 2011).

- e. In response to the statement ‘a single woman on board finds it difficult to make her opinions heard’, 54% of women expressed their strong agreement to this in contrast to 33% men disagreeing to this statement. This is supported by Kanter’s (1977) explanation of ‘Token’ women directors. She finds that women found in minority are treated as representative or symbols of their category, are highly visible and are easily stereotyped leading to performance pressures. This makes it more difficult for them to contribute on merit and as equal members (Rhode & Packel, 2010). This was a particularly important finding as most of the companies in India have only a single women director on their boards.
 - f. There was a general consensus between men and women on women being underestimated and being perceived as oversensitive.
 - g. 82% of women directors as compared to only 38% men believed that a ‘Glass Ceiling’ still existed for women in business. This supports the findings of earlier studies by Hillman et al. (2002) and Arfken et al. (2004).
 - h. Another interesting finding was that men, generally, did not feel that companies perceive women as ‘feminists’ who would push ‘women’s agenda’. This was in total contrast to 42% of women respondents’ perception on this issue.
- v. Analysis of the responses of directors on statements relation to the Board Conduct emphasize:
- a. A general agreement on the professional conduct of board proceedings with higher percentage of men as compared to women, feeling that meeting are formally conducted with open discussions on opposing views from women.
 - b. Participation of women is valued and gender neutral language is used to make women feel more comfortable.
 - c. However, 62% of women respondents felt that ‘sexist jokes’ do sometimes find a way into boardroom proceedings.
- vi. With respect to the satisfaction of the respondents with the way their companies function or perform, their discretion in dealing with problems

and opportunities to do creative work, a majority were satisfied on all three. However, it was noteworthy, that a higher percentage of women felt dissatisfied with the discretion they enjoy and opportunities they get to do creative work, a potential reason for their lack of impact on the company's performance. These differences between the level of satisfaction of men and women were found to be significant with the men being more satisfied on the way their companies operate, the discretion they enjoy and the opportunities they get to do creative work, as compared to women.

- vii. It was interesting to find that majority of respondents highlighted that their companies did not have internal processes that create opportunities for women and felt that enough is not being done to attract and retain the talented women. Another interesting finding was that of respondents who said their companies did have internal processes to create opportunities for women, women made a larger share as compared to men.
- viii. In the context of the current corporate regulatory environment and specifically the enactment of the new Companies Act 2013 which mandates appointment of at least one woman director on boards of specific companies, it was particularly interesting to evaluate the responses of the directors to the question whether there should be quotas or reservations for women on boards. A majority of the respondents did not support quotas and reservations as measures to promote appointment of women on boards. The most generally given remarks against such quotas were 'merit must prevail' and 'quotas will lead to ornamental appointments only'. However, amongst a small segment of respondents who were in favour of quotas for women, female respondents formed a higher percentage as compared to their male counterparts. 'Equality', 'Need a push at the entry level' and 'Discrimination' was quoted by some of the respondents as reasons for support of such quotas. Overall, majority of respondents felt that although enough is not being done to attract and retain women, quotas or reservations are still not the answer/solution.
- ix. In place of quotas, respondents stressed on the need to develop a pipeline of women talent and to get the women ready for board positions. They

also felt that companies need to employ ‘head hunters’ to fill board positions. This supports the concerns raised in this and previous research like Hillman et al. (2002) about women not getting equal opportunities for presenting themselves for board service primarily due to the informal process of recruitment adopted by companies. Women, in particular, felt that companies need to be sensitized to the need, importance and the ways of tackling diversity. A higher percentage of women also felt that by tackling stereotypes the organizations could improve gender diversity on boards.

- x. Significant differences were found in the perceptions of men and women directors on what are the potential weak areas of women directors which need to be improved through training programmes. Respondents considered training to handle discrimination as being one of the most important areas that women require to raise to the top leadership positions, however, women felt that they need more training in business analytics and sector specific knowledge. None of the respondents considered that women required any kind of training in ‘Risk management’, an expected outcome as women are generally perceived to be more risk averse as to men. While women thought there is a need to improve their ‘Assertiveness’, men thought women need to work on their personal branding.

Conclusions

An overall unsatisfactory status and performance on corporate sustainability disclosures and representation of women on boards of directors of sample Indian companies is observed. Gender diversity on boards, in its current state in the sample Indian companies, does not contribute towards prediction of any of the corporate sustainability performance dimensions – economic, social and environmental. The statistically insignificant estimates of gender diversity in the models may point towards a general lack of value addition by women on boards towards performance, but at the same time it can be taken as an indication of the prevalence of ‘tokenism’ in appointment of women directors on boards of

directors of companies (Carter et al., 2003; Rhode & Packel, 2010; Rosener, 1995) indicated by a mere 5% presence of women on boards of sample Indian companies during the period of study and as many as 112 (60.6%) companies with no representation of women at all on their boards. This is also supported by a majority of respondent directors, both men and women, who felt that although there is adequate diversity on boards in terms of experience and background, there are not enough women on corporate boards to make a difference and that the Boards still lacked adequate and effective gender diversity. As Kanter (1997) explains too few women on boards simply act as ‘tokens’ that are highly visible and under pressure to perform. Tokenism impairs performance of women on boards and makes it more difficult for them to contribute on merit and as equal members (Kanter, 1997; Carter et al., 2003; Rhode & Packel, 2010). Also, a significantly higher percentage of women directors felt dissatisfied with the discretion they enjoyed as well as with the opportunities they got to do creative work, another potential reason for their lack of impact on the company’s performance. It is also likely that women have not been on the board long enough to make an impact on the company’s performance (Shrader et al., 1997).

Another plausible reason explaining the lack of significant association between gender diversity and a company’s performance, is the unsatisfactory performance of the companies especially on the dimensions of social responsiveness and environmental concern measured by the proxies SIS and ECS. Only 45% and 44% companies’ average SIS and ECS scores respectively were higher than the sample average. Further investigations into the sample companies’ social and environmental performance also showed that only 15 per cent of sample companies were participants in the UNGC initiative and an even lower 6 per cent of sample companies were participating in voluntary sustainability disclosure initiative of GRI. This supports the conclusion of this research about the unsatisfactory performance of the companies on the sustainability disclosures in their annual reports and also considers it a vital contributing factor in explaining the results of lack of significant association between gender diversity and the social and environmental performance. The unsatisfactory performance in terms of corporate sustainability disclosures can be attributed to a general lack of awareness of what constitutes sustainability as also the lack of integration of

sustainability in the organizational culture. This is also evident from the findings of the directors' perception survey indicating only partial awareness about the concept, considering management as the key driver and governance as the key corporate sustainability issue.

Valuable findings were made with respect to the factors that promote and inhibit women from attaining board positions such as their qualifications, skills and competence, opportunities for their growth, stereotypes and the way in which the board conducts its affairs. Evidence was found that boards generally conduct their business professionally making it reasonably conducive for women directors. There is also evidence that respondents perceive women do add value to the board as well as the organization through their knowledge, skills and competence (Hillman et al., 2002; Adams & Ferreira, 2009; Singh et al., 2008; Rosener, 1995). At the same time, directors acknowledged the lack of adequate/ample opportunities for women and the prevalence of stereotypes and bias against women in the organizations which are inhibiting their representation on boards (Hillman et al., 2002; Nielsen & Huse, 2010; Bilimoria & Piderit, 1994). Statistically significant differences between perceptions of men and women on these factors or aspects were found. Female respondents had a tendency to agree more strongly that women presence on boards adds value to the organizations as compared to male respondents. Also with respect to existence of opportunities as well as stereotypes, men comparatively feel the ample opportunities exist for women and that there is not much existence of stereotypes against women. Men also felt relatively little strongly than women that board meetings were professionally conducted which make women feel comfortable and contribute.

Although the results of the survey in this study and substantial amount of prior empirical data and evidence suggests that corporations can benefit by appointing more women on boards, still the companies were found to lack in internal processes that create opportunities for women and help attract and retain women. Many organizations find themselves with regard to a continuing loss of high potential and high performing female population which results in lost growth opportunities, high replacement costs and a potential for cultural obsolescence (PwC, 2008). Of the respondents who felt their companies did have internal processes to create opportunities for women, women made a larger share as

compared to men which leads to the conclusion that the culture of companies that have women on their boards tend to be more conducive to women employees.

A majority of the respondents did not support quotas and reservations as measures to promote appointment of women on boards. The most generally given remarks against such quotas were ‘merit must prevail’ and ‘quotas will lead to ornamental appointments only’. However, amongst a small segment of respondents who were in favour of quotas for women, female respondents formed a higher percentage as compared to their male counterparts. ‘Equality’, ‘Need a push at the entry level’ and ‘Discrimination’ was quoted by some of the respondents as reasons for support of such quotas highlighting a lack of level playing field in director appointment. Women, in particular, felt that companies need to be sensitized to the need, importance and the ways of tackling diversity with a higher percentage of women feeling that stereotypes exist and by tackling them organizations could improve gender diversity on boards.

Concerted efforts and intervention by the regulators and voluntary associations would be constantly required to improve the sustainability performance and disclosure practices adopted by Indian companies at a faster pace as also to improve the representation of women on boards of directors of Indian companies.

Implications of research and recommendations

Literature suggests that board of directors play a vital role in determining a company’s commitment to sustainability issues. In this context the role of diversity on board of directors is an area of interest for many researchers. This research has attempted to link two of the most important and contemporary business paradigms – Corporate Sustainability and Gender Diversity. Most of the prior empirical research on board diversity has been mainly restricted to data from Norway and other Scandinavian countries, Australia, US and UK, this study has presented the Indian perspective on these issues. It has provided insight into the corporate sustainability disclosure practices adopted by Indian companies and presented the current status of women on boards and how this is perceived by the corporate elites. This study has comprehensively and simultaneously examined

performance of a company on all the dimensions of sustainability – economic, environmental and social, and has attempted to investigate their potential association with the degree of gender diversity on a sample of Indian listed companies.

Through its Directors' Perception Survey, with both men and women directors as its respondents, the study has provided insights into the minds of the strategic decision makers. The perceptions of directors on what sustainability issues confront organizations and the role women can play in tackling such issues has provided vital information for policy makers as well as corporates to further the cause of sustainability and promoting gender diversity.

The findings of this study can be valuable to the policy makers and regulators both in emerging and developed markets, for defining policies and standards applicable to the disclosures of governance, environmental impacts and social involvement information by companies and for advocating, even through mandates, the appointment of women on boards. The findings of this research can be useful for companies to assess whether a sustainability culture is prevalent in their organization.

Another important outcome of this research has been a validated Corporate Sustainability Index (CSI) – an instrument devised to measure the level of sustainability disclosures in quantitative as well as qualitative terms rather than a mere box ticking approach. This index can be used by investors, financial institutions and other stakeholders for assessing and evaluating the companies on their sustainability performance. The index can also be used by companies for self assessment of their practices by carrying out longitudinal and inter-firm comparisons.

Recommendations

Based on the results and key findings of this study, the following recommendations are proposed:

1. In India, there is a need to generate more awareness about the concept of Corporate Sustainability and more importantly a need to sensitize both the

companies and the directors as the strategic decision makers to take steps towards integrating sustainability in their core operations. The goal of 'sustainable development' needs to be widely communicated amongst all stakeholders and ingrained in the culture of an organization. More frequent sustainability trainings in organizations as well as making sustainability an integral part of the boardroom agenda and strategic discussions would help to achieve this objective. Frequency of such trainings may be regulated just like mandatory governance requirements of number of board meetings in a year.

2. Interventions such as making sustainability disclosures mandatory spelling out the minimum requirements sector wise, like GRI, would improve the disclosure practices of Indian Companies.
3. Appointment of separate sustainability officers and a separate CSR committee would give the required impetus and focus to corporate sustainability issues. It is apt that the new Companies Act 2013 has already mandated establishment of a separate CSR committee for specific companies. This should improve companies CSR performance and commitment as well as increase representation of women on boards.
4. There is a need to recognize the many ways in which presence of women on boards can contribute towards improving the performance of a company. But despite these benefits the current status of gender diversity (5%) on boards of Indian companies does not compare favourably with other countries like Canada (10.3%), USA (16.1%) and UK (15.0) as also Hong Kong (9.0%) and Australia (8.43%) (Catalyst, 2012b). Norway with its 40.1% representation of women on boards may be considered simply 'out of the league' for any comparison.
5. Concerted efforts are required to put more women on boards. Although the Companies Act 2013 has mandated at least one WOB for specific companies, the process of selection as well as whether the women on boards should be independent directors need to be further clarified.
6. Companies need to make major changes in order to create more opportunities for qualified women. Some efforts in this direction can be by providing flexible working hours, maternity benefits, 'School hours shifts' etc. to accommodate the needs of women employees.

7. Companies need to employ ‘head hunters’ to fill board positions. This supports the concerns raised in this and previous research about women not getting equal opportunities for presenting themselves for board service primarily due to the informal process of recruitment adopted by companies.
8. Gender audits can be made mandatory for organizations to ensure a conducive environment for women in the organizations.
9. Other interventions like diversity trainings in organizations to help members identify and overcome gender biases and stereotypes and specific skill trainings to develop a pipeline of women talent and to get the women ready for board positions are required. Some topics identified by this research include training to handle discrimination, business analytics and sector specific knowledge, assertiveness and personal branding.
10. Organizations should also develop mentoring programmes for qualified women executives.

Limitations of research

This study is not free from limitations. It has been planned with only a few specific objectives in mind. The research design and the selection of the methodology as well as the sample would greatly impact the results and findings. Some of these assumptions and limitations have been discussed below in all earnestness.

The results of this study were based on a small sample of 185 companies listed on the BSE. Ownership structure of the sample companies with respect to subsidiary or holding or stand alone companies was not accounted for in the study.

Collection of data was not an easy task. Some annual reports were difficult to obtain. This in itself may be taken as a reflection of the transparency of disclosure practices of those companies. More efforts were required for getting an acceptable number of respondents to participate in the Directors’ Perception Survey. Reminder and follow up letters were mailed after the initial mailing of the questionnaires to increase the response rate.

This research looks specifically only at gender diversity on boards in the context of corporate sustainability. It does not take into consideration the impact of other demographic characteristics such as age, educational background and experience of the directors in the analysis.

Agenda for future research

For logical and consistent generalization, this study can be further replicated on a larger and global scale through an inter-country analysis.

Further detailed and concentrated research into the board processes in Indian companies may be undertaken to understand board dynamics and behaviour. Qualitative case studies may be appropriate to provide insights into interpersonal relationships amongst board members and the decision making processes. This would help in further understanding how women directors can effectively contribute to strategic decisions at board level. The study can be repeated on a larger sample of directors and use of personal interviews may be evaluated.

Annexure I - Sample Companies

Code	Name	Sector	HP / LP	Board Size*	Prop. of Ind. Dir.*	Prop. of WOB*	Co. Age	Total Assets*	Market Capitalization*	Net Sales*	Adj. Net Profits*
512599	Adani Enterprises Ltd.	Diversified	LP	8	50.00	0.00	19	816.70	13515.50	93324.80	1182.80
500303	Aditya Birla Nuvo Ltd.	Diversified	LP	15	40.00	13.33	56	24618.10	44487.80	26311.50	1881.40
532480	Allahabad Bank	Finance	LP	12	50.00	0.00	147	4642.00	35267.00	37672.40	6965.30
521070	Alok Industries Ltd.	Textile	LP	12	66.67	0.00	26	14034.20	11613.40	14001.50	1077.30
532309	Alstom Projects India Ltd.	Capital Goods	LP	9	33.33	11.11	24	2775.40	24740.40	9456.00	480.00
532418	Andhra Bank	Finance	LP	11	81.82	9.09	89	5048.50	39188.00	21283.80	4851.00
508869	Apollo Hospitals Enterprises Ltd.	Healthcare	LP	15	66.67	20.00	33	8058.10	0.00	7696.00	520.00
500877	Apollo Tyres Ltd.	Transport Equipments	HP	13	61.54	0.00	40	13073.00	11074.50	26135.80	740.70
515030	Asahi India Glass Ltd.	Transport Equipments	HP	11	45.45	0.00	28	9202.60	15646.20	5850.10	969.90
500477	Ashok Leyland Ltd.	Transport Equipments	HP	12	41.67	0.00	64	21145.60	49169.40	53298.10	3024.70
500820	Asian Paints (India) Ltd.	Chemical & Petrochemical	HP	12	50.00	8.33	67	7361.40	61777.30	24414.60	2076.00
524804	Aurobindo Pharma Ltd.	Healthcare	LP	10	60.00	0.00	26	9178.50	36376.90	13698.70	672.90
532215	Axis Bank Ltd.	Finance	LP	12	58.33	8.33	19	8986.80	99311.20	28887.90	4860.90
532134	Bank of Baroda	Finance	LP	11	63.64	9.09	104	18731.70	84520.10	70499.50	8271.60
532149	Bank of India	Finance	LP	13	61.54	7.69	106	15166.40	64492.60	70287.00	7012.30
532525	Bank of Maharashtra	Finance	LP	10	80.00	20.00	77	4659.60	13195.40	24744.50	508.60
500042	BASF India Ltd.	Chemical & Petrochemical	HP	8	50.00	0.00	69	2813.50	6213.10	6829.70	435.50
500048	BEML Ltd.	Capital Goods	LP	11	27.27	0.00	48	5651.20	54391.70	20587.00	1868.20
509480	Berger Paints India Ltd.	Chemical & Petrochemical	HP	8	50.00	0.00	89	2247.40	17030.20	9787.70	704.90
500049	Bharat Electronics Ltd.	Capital Goods	LP	18	50.00	0.00	58	12403.10	105736.00	35008.10	5827.70
500493	Bharat Forge Ltd.	Transport Equipments	HP	11	63.64	0.00	51	12651.20	98867.90	15305.20	2061.60
500103	Bharat Heavy Electricals Ltd.	Capital Goods	LP	16	50.00	0.00	48	38220.60	549963.50	134425.80	16771.70
500547	Bharat Petroleum Corpn. Ltd.	Oil & Gas	HP	10	30.00	10.00	60	173768.40	127815.00	755332.90	2897.30

500055	Bhushan Steel Ltd.	Metal, Metal Products & Mining	HP	12	33.33	0.00	13	31169.40	2155.70	20871.40	1542.30
532523	Biocon Ltd.	Healthcare	LP	7	57.14	14.29	34	3148.30	44610.00	6885.70	1333.10
500335	Birla Corporation Ltd.	Housing Related	LP	9	66.67	11.11	93	10885.50	24573.90	12165.00	1229.60
500067	Blue Star Ltd.	Consumer Durables	LP	8	50.00	0.00	63	1977.30	12749.50	11706.70	491.80
500020	Bombay Dyeing & Mfg. Co. Ltd.	Textile	LP	12	41.67	0.00	133	6371.40	22967.00	10039.80	648.70
500825	Britannia Industries Ltd.	FMCG	LP	12	33.33	0.00	94	3153.70	42606.60	17133.20	1367.20
532321	Cadila Healthcare Ltd.	Healthcare	LP	7	71.43	0.00	17	10151.00	42415.10	12460.00	1753.60
532483	Canara Bank	Finance	LP	12	75.00	0.00	106	16052.20	109429.00	87115.10	13428.80
513375	Carborundum Universal Ltd.	Capital Goods	LP	9	44.44	0.00	58	2645.40	14436.60	3719.10	521.60
500040	Century Textiles & Industries Ltd.	Diversified	LP	7	42.86	0.00	115	30461.80	41319.10	25910.10	833.00
500084	CESC Ltd.	Power	HP	10	40.00	0.00	34	62227.10	28264.60	25551.30	2042.50
500085	Chambal Fertilisers & Chemicals Ltd.	Agriculture	HP	10	50.00	0.00	27	28277.20	16273.80	27416.20	1793.80
500110	Chennai Petroleum Corporation Ltd.	Oil & Gas	HP	16	31.25	0.00	47	48226.10	32839.60	211558.40	4783.30
500087	Cipla Ltd.	Healthcare	LP	9	66.67	0.00	77	13573.50	198485.70	28913.60	6157.30
532210	City Union Bank Ltd.	Finance	LP	12	0.00	0.00	108	646.70	2688.00	3263.90	563.20
517326	CMC Ltd.	Information Technology	LP	7	57.14	0.00	37	1292.70	8185.50	8287.90	253.70
500830	Colgate-Palmolive (India) Ltd.	FMCG	LP	9	44.44	0.00	75	4035.40	58754.50	11275.50	1324.30
531344	Container Corporation of India Ltd.	Transport Services	HP	10	30.00	0.00	24	17936.10	93995.00	24393.50	5237.40
506395	Coromandel International Ltd.	Agriculture	HP	8	50.00	0.00	48	6828.90	12177.70	18517.90	953.80
532179	Corporation Bank	Finance	LP	12	50.00	0.00	106	6183.50	54751.00	26264.70	4444.90
500093	Crompton Greaves Ltd.	Capital Goods	LP	7	57.14	0.00	75	8321.60	54957.10	25416.10	1678.70
500480	Cummins India Ltd.	Transport Equipments	HP	10	50.00	0.00	50	4927.80	46995.30	14785.90	1741.70
500096	Dabur India Ltd.	FMCG	LP	11	45.45	0.00	37	3282.30	71060.50	13427.90	1871.40
500645	Deepak Fertilizers & Petrochemicals	Agriculture	HP	9	66.67	11.11	33	6774.10	8753.90	5631.40	643.90
532121	Dena Bank	Finance	LP	8	75.00	0.00	74	5084.80	10440.20	17601.30	285.70
532488	Divi's Laboratories Ltd.	Healthcare	LP	10	50.00	0.00	22	3018.60	23995.20	3814.60	704.70
500124	Dr. Reddy's Laboratories Ltd.	Healthcare	LP	9	66.67	0.00	28	10528.90	108937.00	20058.50	1859.10
500125	E.I.D. Parry (India) Ltd.	Agriculture	HP	10	70.00	0.00	37	5378.30	25503.20	9261.80	943.20
500840	EIH Ltd.	Tourism	LP	8	50.00	0.00	63	12316.60	37385.50	7563.90	1215.40

500128	Electrosteel Castings Ltd.	Metal, Metal Products & Mining	HP	10	40.00	0.00	57	4829.50	7644.90	9533.40	684.30
532178	Engineers India Ltd.	Miscellaneous	LP	10	40.00	0.00	47	1376.40	48300.40	7908.90	1562.10
500086	Exide Industries Ltd.	Transport Equipments	HP	14	42.86	0.00	65	8334.30	19691.30	15347.10	1008.00
500469	Federal Bank Ltd.	Finance	LP	8	87.50	0.00	81	3237.00	17261.20	14365.30	2232.50
526881	Financial Technologies (India) Ltd.	Information Technology	LP	6	50.00	0.00	24	128.60	75198.20	899.20	472.20
500940	Finolex Industries Ltd.	Chemical & Petrochemical	HP	11	45.45	0.00	31	10500.90	8681.40	7363.50	274.30
509550	Gammon India Ltd.	Capital Goods	LP	10	50.00	0.00	90	4746.60	47354.20	14679.40	1043.00
532296	Glenmark Pharmaceuticals Ltd.	Healthcare	LP	11	45.45	0.00	35	3189.60	37317.20	5629.40	673.70
532424	Godrej Consumer Products Ltd.	FMCG	LP	8	50.00	0.00	12	1592.10	40971.40	6556.20	1195.00
500164	Godrej Industries Ltd.	Chemical & Petrochemical	HP	13	38.46	7.69	24	5134.90	29100.00	7370.90	162.70
509488	Graphite India Ltd.	Capital Goods	LP	10	80.00	0.00	38	6596.40	8652.40	5851.70	620.70
500300	Grasim Industries Ltd.	Textile	LP	11	63.64	9.09	65	61226.00	188652.30	66728.10	8146.90
500620	Great Eastern Shipping Co. Ltd.	Transport Services	HP	11	54.55	9.09	64	43432.30	49735.80	19347.70	5219.60
501455	Greaves Cotton Ltd.	Capital Goods	LP	8	50.00	0.00	90	2162.20	15982.90	8335.90	762.90
500160	GTL Ltd.	Telecom	LP	6	0.00	0.00	25	3017.80	12805.60	6497.40	766.00
530001	Gujarat Alkalis & Chemicals Ltd.	Chemical & Petrochemical	HP	7	57.14	0.00	39	16847.60	11243.70	9432.10	1980.30
500173	Gujarat Fluorochemicals Ltd.	Oil & Gas	HP	6	33.33	0.00	25	1478.90	27433.00	1812.00	345.00
532181	Gujarat Mineral Development Corporation Ltd.	Metal, Metal Products & Mining	HP	5	80.00	20.00	49	17135.80	14920.60	4324.80	351.80
500670	Gujarat Narmada Valley Fertilizers Company Ltd.	Agriculture	HP	10	80.00	10.00	36	21340.90	16859.80	21475.70	2947.10
512579	Gujarat NRE Coke Ltd.	Metal, Metal Products & Mining	HP	7	57.14	0.00	26	3924.60	9793.00	5499.70	1236.10
500690	Gujarat State Fertilizers & Chemicals Ltd.	Agriculture	HP	9	44.44	22.22	50	30313.20	13400.10	28326.60	2939.40
517354	Havells India Ltd.	Capital Goods	LP	10	50.00	10.00	29	1688.80	13543.10	104.20	635.60
500180	HDFC Bank Ltd.	Finance	LP	9	44.44	11.11	18	15894.70	242213.80	44753.40	8705.90
509631	HEG Ltd.	Capital Goods	LP	10	40.00	0.00	40	8491.80	6852.70	5242.70	384.60
500182	Hero Motocorp Ltd.	Transport Equipments	HP	16	50.00	6.25	28	14719.70	177393.50	87112.60	8965.50

500440	Hindalco Industries Ltd.	Metal,Metal Products & Mining	HP	10	50.00	10.00	54	104182.50	211514.30	111196.40	16062.20
500185	Hindustan Construction Co. Ltd.	Housing Related	LP	13	61.54	0.00	86	7728.10	44361.00	19869.80	832.40
500186	Hindustan Oil Exploration Co. Ltd.	Oil & Gas	HP	6	33.33	0.00	29	214.20	8813.90	942.40	175.90
500188	Hindustan Zinc Ltd.	Metal,Metal Products & Mining	HP	11	45.45	9.09	46	29899.60	221067.70	38777.30	14609.20
500193	Hotel Leela Venture Ltd.	Tourism	LP	11	54.55	18.18	31	14262.20	25606.60	3363.90	741.40
500010	Housing Development Finance Corporation Ltd.	Finance	LP	13	69.23	7.69	35	5153.70	333424.60	42103.90	12112.90
532174	ICICI Bank Ltd.	Finance	LP	17	70.59	17.65	18	59685.60	524355.90	143061.30	25344.70
500106	IFCI Ltd.	Finance	LP	7	85.71	0.00	19	5983.70	6918.30	15849.60	-2664.80
532466	Oracle Financial Services Software Ltd.	Information Technology	LP	6	66.67	16.67	23	3966.80	100861.00	11538.20	2380.10
530005	India Cements Ltd.	Housing Related	LP	11	54.55	0.00	66	21457.30	31469.20	15417.50	362.70
532544	Indiabulls Financial Services Ltd.	Finance	LP	8	50.00	0.00	12	163.30	40975.90	2114.90	742.60
500850	Indian Hotels Co. Ltd.	Tourism	LP	11	54.55	0.00	110	13083.40	76895.50	11161.50	1820.30
530965	Indian Oil Corporation Ltd.	Oil & Gas	HP	14	35.71	0.00	53	436949.60	682293.00	1741582.90	45940.80
532388	Indian Overseas Bank	Finance	LP	12	83.33	0.00	75	7428.70	52818.40	44062.80	7485.50
532514	Indraprastha Gas Ltd.	Oil & Gas	HP	7	42.86	0.00	14	5557.60	20370.00	5303.20	1061.90
532187	IndusInd Bank Ltd.	Finance	LP	10	80.00	10.00	18	6178.90	13601.50	11882.80	395.10
500209	Infosys Ltd.	Information Technology	LP	15	53.33	0.00	31	29830.00	818302.90	95210.00	24580.00
532175	Infotech Enterprises Ltd.	Information Technology	LP	8	50.00	12.50	21	1633.90	8009.60	2136.90	284.50
531807	ING Vysya Bank Ltd.	Finance	LP	12	33.33	0.00	82	5386.10	12954.80	12224.30	66.70
500210	Ingersoll-Rand (India) Ltd.	Capital Goods	LP	4	50.00	0.00	91	943.30	12658.00	4751.70	313.90
524494	Ipca Laboratories Ltd.	Healthcare	LP	8	50.00	0.00	63	4531.30	8728.80	7698.70	642.80
500875	ITC Ltd.	FMCG	LP	12	50.00	0.00	102	61680.00	732056.70	97863.40	22757.90
500219	Jain Irrigation Systems Ltd.	Agriculture	HP	11	36.36	9.09	26	6293.00	14631.30	10372.50	586.00
532532	Jaiprakash Associates Ltd.	Housing Related	LP	19	36.84	0.00	17	31272.90	89508.20	31630.20	3499.30
532209	Jammu and Kashmir Bank Ltd.	Finance	LP	8	75.00	0.00	74	4122.30	21883.90	17062.50	1768.40
532617	Jet Airways (India) Ltd.	Transport Services	HP	12	33.33	0.00	20	42100.40	85937.20	56665.50	2453.00
532286	Jindal Steel & Power Ltd.	Metal,Metal Products & Mining	HP	11	36.36	9.09	33	32430.50	58432.20	25645.50	5737.70
502937	Kesoram Industries Ltd.	Diversified	LP	10	60.00	20.00	93	12075.30	9692.30	16141.20	424.60
500247	Kotak Mahindra Bank Ltd.	Finance	LP	9	55.56	0.00	27	2052.70	85982.60	7188.90	1180.60

532400	KPIT Infosystems Ltd.	Information Technology	LP	12	75.00	8.33	22	863.00	5704.60	3182.10	325.60
500252	Lakshmi Machine Works Ltd.	Capital Goods	LP	11	72.73	0.00	50	8015.70	26948.00	13020.60	1393.70
500510	Larsen & Toubro Ltd.	Capital Goods	LP	16	50.00	0.00	66	22714.10	334239.20	147409.30	8455.30
500253	LIC Housing Finance Ltd.	Finance	LP	8	75.00	0.00	23	411.50	16102.70	12728.70	2086.20
500257	Lupin Ltd.	Healthcare	LP	11	63.64	18.18	29	8350.60	40886.60	15965.40	1850.40
500260	Madras Cements Ltd.	Housing Related	LP	9	44.44	0.00	55	16405.30	26167.70	10091.00	794.90
500108	Mahanagar Telephone Nigam Ltd.	Telecom	LP	7	42.86	28.57	26	148541.50	115794.00	55629.90	5878.40
500265	Maharashtra Seamless Ltd.	Metal,Metal Products & Mining	HP	6	50.00	0.00	24	3367.20	19501.10	9661.80	1380.20
500520	Mahindra & Mahindra Ltd.	Transport Equipments	HP	12	66.67	0.00	67	28721.90	151068.40	81052.30	6822.30
500109	Mangalore Refinery & Petrochemicals Ltd.	Oil & Gas	HP	11	45.45	0.00	24	67793.60	74498.30	249975.20	3720.00
531642	Marico Ltd.	FMCG	LP	8	75.00	12.50	24	4021.40	31305.50	10449.10	1115.10
532500	Maruti Suzuki India Ltd.	Transport Equipments	HP	11	27.27	9.09	31	49546.00	252617.20	121979.00	11891.00
500271	Max India Ltd.	Diversified	LP	10	60.00	0.00	24	1033.80	30939.00	1244.50	16.30
524084	Monsanto India Ltd.	Agriculture	HP	6	33.33	16.67	63	1009.90	16198.10	3299.80	718.50
517334	Motherson Sumi Systems Ltd.	Transport Equipments	HP	8	37.50	0.00	26	4487.70	24958.10	7134.30	812.50
500294	NCC Ltd.	Housing Related	LP	15	33.33	6.67	34	2570.10	37327.50	18404.40	1033.50
532234	National Aluminium Co. Ltd.	Metal,Metal Products & Mining	HP	6	66.67	0.00	31	89620.20	188976.10	48460.70	15394.60
532555	NTPC Ltd.	Power	HP	12	33.33	0.00	37	460396.00	1104891.60	269049.00	65001.00
513023	Nava Bharat Ventures Ltd.	Metal,Metal Products & Mining	HP	10	50.00	0.00	40	4691.00	5052.20	4685.80	593.00
500304	NIIT Ltd.	Information Technology	LP	7	57.14	0.00	31	2006.20	5726.40	3377.70	260.60
532541	NIIT Technologies Ltd.	Information Technology	LP	6	50.00	0.00	20	1607.70	8891.40	2200.90	586.60
500672	Novartis India Ltd.	Healthcare	LP	7	42.86	14.29	65	224.20	18813.30	5253.00	945.90
500312	Oil and Natural Gas Corporation Ltd.	Oil & Gas	HP	16	25.00	0.00	19	478823.50	1867255.30	479757.00	140031.10
532391	Opto Circuits (India) Ltd.	Healthcare	LP	8	50.00	12.50	20	260.40	7555.10	1160.40	353.50

524372	Orchid Chemicals & Pharmaceuticals Ltd.	Healthcare	LP	11	36.36	0.00	20	12576.40	24041.90	8734.60	825.30
500315	Oriental Bank of Commerce	Finance	LP	11	72.73	0.00	69	8482.80	59089.90	41189.20	7127.50
531349	Panacea Biotech Ltd.	Healthcare	LP	13	53.85	0.00	28	2080.80	22019.10	5355.40	609.60
532522	Petronet LNG Ltd.	Oil & Gas	HP	13	46.15	0.00	14	19420.90	41250.00	38371.70	1918.20
500331	Pidilite Industries Ltd.	Chemical & Petrochemical	HP	13	38.46	0.00	43	4553.30	26514.60	9062.20	880.70
500302	Piramal Healthcare Ltd.	Healthcare	LP	14	50.00	7.14	65	12600.60	54298.20	15824.90	1206.50
522205	Praj Industries Ltd.	Capital Goods	LP	9	55.56	0.00	27	389.80	11970.40	2599.10	243.30
500338	Prism Cement Ltd.	Housing Related	LP	6	50.00	0.00	20	6028.60	8336.10	5716.40	622.00
532461	Punjab National Bank	Finance	LP	10	80.00	0.00	117	18557.40	148569.40	95841.50	14374.20
524230	Rashtriya Chemicals & Fertilizers Ltd.	Agriculture	HP	5	0.00	0.00	34	24564.90	20329.80	30449.90	1424.00
500330	Raymond Ltd.	Textile	LP	9	44.44	0.00	87	13667.30	31776.40	13201.30	977.10
500325	Reliance Industries Ltd.	Oil & Gas	HP	12	58.33	0.00	39	803199.40	1109582.30	808777.90	89944.30
500368	Ruchi Soya Industries Ltd.	FMCG	LP	8	50.00	0.00	26	11889.50	10550.30	74758.80	846.20
500295	Sesa Goa Ltd.	Metal, Metal Products & Mining	HP	12	66.67	0.00	47	4716.90	50569.70	17717.70	5392.90
523598	Shipping Corporation of India Ltd.	Transport Services	HP	12	41.67	0.00	62	68188.80	47807.50	35310.20	10306.20
500387	Shree Cements Ltd.	Housing Related	LP	9	66.67	0.00	33	12384.90	31129.50	6948.30	181.00
511218	Shriram Transport Finance Co. Ltd.	Finance	LP	10	30.00	10.00	33	1836.60	19660.50	8945.00	1418.60
502742	Sintex Industries Ltd.	Housing Related	LP	12	50.00	8.33	81	6771.80	22151.90	8550.00	792.10
532218	South Indian Bank Ltd.	Finance	LP	9	88.89	0.00	83	1568.90	4340.80	7613.20	505.90
503806	SRF Ltd.	Textile	LP	10	60.00	0.00	42	13576.80	21372.30	12922.70	1047.70
500112	State Bank of India	Finance	LP	13	84.62	7.69	57	75189.60	509484.70	359795.70	44053.00
500900	Sterlite Industries (India) Ltd.	Metal, Metal Products & Mining	HP	9	33.33	0.00	37	25969.60	195483.50	73121.00	5043.20
532348	Subex Ltd.	Information Technology	LP	9	77.78	0.00	18	974.70	9462.30	1812.20	369.40
524715	Sun Pharmaceutical Industries Ltd.	Healthcare	LP	7	57.14	0.00	19	7442.60	160925.10	16803.40	4509.40
500403	Sundram Fasteners Ltd.	Transport Equipments	HP	8	50.00	12.50	50	5546.00	17830.20	10621.80	621.20
532276	Syndicate Bank	Finance	LP	9	55.56	0.00	87	4829.20	46638.00	40504.20	6180.90

531426	Tamil Nadu Newsprint and Papers Ltd.	Miscellaneous	LP	11	54.55	0.00	33	14323.50	8066.40	8018.20	839.20
500770	Tata Chemicals Ltd.	Diversified	LP	10	50.00	0.00	73	31422.20	56754.10	34979.30	3534.20
532540	Tata Consultancy Services Ltd.	Information Technology	LP	6	66.67	0.00	17	16951.30	936593.60	112360.10	27138.90
500408	Tata Elxsi Ltd.	Information Technology	LP	12	75.00	0.00	23	776.90	6052.10	2356.30	343.30
500800	Tata Global Beverages Ltd.	FMCG	LP	13	38.46	7.69	50	4018.20	48796.10	9682.00	1662.10
501301	Tata Investment Corporation Ltd.	Finance	LP	9	44.44	0.00	75	14.40	14750.60	1702.40	1631.40
500570	Tata Motors Ltd.	Transport Equipments	HP	12	33.33	0.00	67	79451.60	357073.90	202933.00	13834.60
500400	Tata Power Co. Ltd.	Power	HP	9	44.44	0.00	93	59247.40	114673.20	45686.70	4649.40
500470	Tata Steel Ltd.	Metal, Metal Products & Mining	HP	13	53.85	0.00	105	154071.70	296881.30	151354.10	35076.10
532371	Tata Teleservices (Maharashtra) Ltd.	Telecom	LP	7	42.86	0.00	17	36461.70	36113.80	10951.30	-4938.60
500411	Thermax Ltd.	Capital Goods	LP	9	55.56	22.22	32	2432.40	37103.30	14881.60	1260.70
500114	Titan Industries Ltd.	Consumer Durables	LP	9	33.33	0.00	28	4204.30	37063.40	14417.20	955.40
500420	Torrent Pharmaceuticals Ltd.	Healthcare	LP	10	60.00	10.00	40	4647.40	18413.30	6872.90	718.90
500251	Trent Ltd. [Lakme Ltd.]	Miscellaneous	LP	8	50.00	12.50	60	915.40	13073.60	3464.40	236.90
504973	Tube Investments of India Ltd.	Transport Equipments	HP	9	77.78	0.00	63	6260.10	21795.00	14609.40	980.70
532343	TVS Motor Company Ltd.	Transport Equipments	HP	9	55.56	0.00	20	13784.10	33261.90	32349.60	1037.40
532505	UCO Bank	Finance	LP	13	53.85	7.69	69	5119.50	21223.00	43545.90	1943.00
532538	Ultratech Cement Ltd.	Housing Related	LP	11	36.36	9.09	12	46053.80	85145.60	33028.30	2295.30
506690	Unichem Laboratories Ltd.	Healthcare	LP	7	71.43	0.00	50	2436.70	10432.80	4531.50	712.00
532477	Union Bank of India	Finance	LP				93	9382.10	61548.90	58637.10	6744.90
507878	Unitech Ltd.	Housing Related	LP	10	50.00	10.00	41	831.70	34790.30	6533.00	697.10
532478	United Breweries Ltd.	FMCG	LP	9	33.33	11.11	13	2596.60	32297.40	6797.10	299.80
512070	United Phosphorus Ltd.	Agriculture	HP	10	60.00	20.00	27	11006.30	48911.70	12768.50	1137.40
532432	United Spirits Ltd.	FMCG	LP				13	5637.20	49939.10	20232.40	321.10
517146	Usha Martin Ltd.	Capital Goods	LP	10	50.00	0.00	26	14914.60	8253.00	11892.20	635.50
532401	Vijaya Bank	Finance	LP	10	80.00	0.00	81	5054.90	22781.50	23118.00	1269.20
500575	Voltas Ltd.	Diversified	LP	8	37.50	0.00	58	2697.60	33247.20	18531.40	903.70

507685	Wipro Ltd.	Information Technology	LP	6	83.33	0.00	67	23645.20	796492.30	102640.90	19988.20
500780	Zuari Industries Ltd.	Agriculture	HP	10	50.00	0.00	45	14732.10	6581.30	35862.50	443.50

HP - High Profile Sector; LP - Low Profile Sector

* Values in base year 2005-06

Company age calculated in 2012

Total Assets, Market Capitalization, Net Sales and Adj. Net Profits are in Rupees in millions

Please *tick* '√' at the appropriate place.

1. **Gender:** Female Male

2. **What principle or value do you hold dear the most?** Please *tick* '√' **one** that is the **most important** for you.

Responsibility/ Accountability	<input type="checkbox"/>	Adaptability	<input type="checkbox"/>
Innovation	<input type="checkbox"/>	Flexibility	<input type="checkbox"/>
Ethics and Morality	<input type="checkbox"/>	Dialogue with stakeholders	<input type="checkbox"/>
Diversity	<input type="checkbox"/>	Excellence	<input type="checkbox"/>
Fairness and Impartiality	<input type="checkbox"/>	Open-mindedness	<input type="checkbox"/>
Integrity / Credibility	<input type="checkbox"/>	Rationality	<input type="checkbox"/>

Any other (please specify) _____

3. **Are you aware of the concept of 'Triple Bottom Line'¹?**

Fully aware Somewhat aware Not aware at all

4. **In your opinion, by engaging in sustainable² activities, can companies better position themselves in the eyes of their stakeholders?**

Yes No Don't know

5. **Who, according to you, is the most important driver for the commitment of a company to sustainability?** Please *tick* '√' **one**.

Public & Media	<input type="checkbox"/>	Non-government organizations	<input type="checkbox"/>
Consumers	<input type="checkbox"/>	Competitors	<input type="checkbox"/>
Suppliers	<input type="checkbox"/>	Insurance companies	<input type="checkbox"/>
Trade unions	<input type="checkbox"/>	Banks	<input type="checkbox"/>
Management of the Company	<input type="checkbox"/>	Regulators/Law Agencies	<input type="checkbox"/>

Any other (please specify) _____

6. **In your view, which sustainability issues are companies most committed to?**

Please *tick* '√' *whichever is relevant*.

Energy use and efficiency	<input type="checkbox"/>	Employee training & development	<input type="checkbox"/>
Material use	<input type="checkbox"/>	Water use and efficiency	<input type="checkbox"/>
Biodiversity	<input type="checkbox"/>	Human rights	<input type="checkbox"/>
Emissions, Effluents and Waste	<input type="checkbox"/>	Customer Health, Safety and Privacy	<input type="checkbox"/>
Governance	<input type="checkbox"/>	Recycling	<input type="checkbox"/>
Stakeholder engagement	<input type="checkbox"/>	Community involvement	<input type="checkbox"/>
Environmental quality	<input type="checkbox"/>	Workforce Diversity and Equal Opportunity	<input type="checkbox"/>
Corruption and anti-competitive behavior	<input type="checkbox"/>	Occupational Health and Safety and Employee Welfare	<input type="checkbox"/>

Any other (please specify) _____

¹ **Triple Bottom Line (TBL)** phrase was first created by John Elkington in 1994. This concept lays emphasis on the three 'Ps' - People, Planet and Profits as being instrumental in a corporation's success. Human rights, fairness and equal opportunity, environmental concern and engagement with all stakeholders are some key factors in the TBL.

² **Sustainable activities** are activities that "meet present needs without compromising the ability of future generations to meet their own needs". This definition from the Brundtland Report (1987) was the first organized global attempt to address the issue of sustainability.

7. **In your company, is there a separate Corporate Social Responsibility (CSR) Committee** devoted to considering, reviewing, evaluating and supervising integrated environmental, social and ethical issues and advising the board of directors on such sustainability issues?

Yes No Don't know

If 'No', how or by which body are these purposes fulfilled? _____

8. **Is there an established sustainability 'Code of Conduct' covering all stakeholders in your company?**

Yes No Don't know

If 'Yes', does this code of conduct clearly affirm that non-compliance with this code by anyone would jeopardize their association with the company

Yes No

9. **How frequently is sustainability training organized in your company?**

Never once a year twice a year more than twice a year

10. **Would you agree with the following statements?**

Use the following scale:

SA - Strongly Agree; **A** - Agree; **U** - Undecided / Neither Agree Nor Disagree;
D - Disagree; **SD** - Strongly Disagree

Please tick '✓' in the appropriate column.

S. No.	Statements	SA	A	U	D	SD
1	There is favorable combination / blend of professional backgrounds & experience in the current composition of the board of directors.					
2	Women are not adequately represented on Board of Directors.					

11. **Express your agreement / disagreement on the following statements regarding the current status of representation of women on Boards of Directors / Senior Management.**

Use the following scale:

SA - Strongly Agree; **A** - Agree; **U** - Undecided / Neither Agree Nor Disagree;
D - Disagree; **SD** - Strongly Disagree

For every statement, please tick '✓' in the appropriate cell.

S. No.	Statements	SA	A	U	D	SD
1	Companies that have a strong compliment of gender diversity on its board of directors have more effective monitoring and more stringent enforcement of ethical conduct.					
2	Companies are fearful of appointing women directors who lack prior experience of serving on board of directors of companies.					
3	Companies lack in information on women qualified for board service.					
4	Companies with women on its board enjoy higher confidence and preference of their clients / consumers.					
5	Companies do not think that women have adequate competence for board service.					
6	Companies perceive women as 'feminists' and are anxious that they would bring "women's issues" into the boardroom discussions.					

S. No.	Statements	SA	A	U	D	SD
7	Companies with women on their boards enjoy higher confidence of investors & shareholders, and they feel more positive about investing in those companies.					
8	Companies tend to choose more men on their board of directors because they think men naturally understand business.					
9	Companies with no women on their boards lack a positive image in the eyes of female employees and face problems in recruiting women.					
10	For women to be considered for board positions the company has to be looking for a woman in particular for that specific job.					
11	Having Women on Board of Directors helps the cause of sustainability.					
12	There are limited opportunities and less support for women aspiring to become directors of companies.					
13	Legitimacy and public sentiment calls for organizations to reflect the population that it serves, so there is pressure to add more women on boards and promote employment equity.					
14	Having women on boards improves the economic performance of the company.					
15	Stereotypes and biases against women exist in the corporate world.					
16	There is an inadequate pool of female talent who are capable and experienced for board service.					
17	Presence of women on boards will lead to better environmental performance / quality of the company.					
18	Women are generally underestimated.					
19	Women qualified and interested for board positions have a low visibility as they are not a part of the informal "Old boys' network" ³ .					
20	Companies with women on boards exhibit better social responsiveness.					
21	Women are perceived as being oversensitive.					
22	Qualified women are interested in board service.					
23	There still exists a 'Glass Ceiling' for women in corporations.					
24	There is a growing global trend of appointing more women directors on corporate boards.					
25	There exists a 'Mini-Me' syndrome ⁴ -where women are not seen as "like" those already on boards and this reduces their chances of selection.					

Manifest

³ **Old boys' Network** - The way in which men, with similarities like having been to the same expensive school/university or in the same profession/company, use their positions of influence to help each other find good jobs. (Definition from the Cambridge Advanced Learner's Dictionary & Thesaurus © Cambridge University Press)

⁴ **'Mini-me' syndrome**, by Martha Frase-Blunt (2010) describes this as a phenomenon where people feel more at ease when important and influential positions are occupied by people similar to them. This similarity may be apparent in age, experience, educational background, leadership style, race, region and gender.

12. Based on your experience, please express your agreement / disagreement with the following statements on the impact, if any, presence of women on board / on senior management positions has / is expected to have.

Use the following scale:

SA - Strongly Agree; **A** – Agree; **U** – Undecided / Neither Agree Nor Disagree;
D – Disagree; **SD** - Strongly Disagree

For every statement, please tick '√' in the appropriate cell.

S. No.	Statements	SA	A	U	D	SD
1	There is openness to discuss professionally opposing views coming from women directors.					
2	Meetings are formally conducted.					
3	Companies with women on its board of directors have more women friendly organizational culture – policies and practices					
4	Gender neutral language is used in communications.					
5	Men discount inputs from women on technical issues such as issues relating to environmental quality etc.					
6	Participation of women is valued.					
7	Sexist jokes sometimes find a way into the meeting proceedings.					
8	Single/one woman finds it difficult to make her opinions heard and make others listen.					
9	Softer portfolios like HR, marketing and CSR are given to women making their positions less influential.					
10	Women are more adept to problem solving and have strong skills to deal with ambiguity and uncertainty.					
11	Women bring different viewpoints, insights, information and perspectives into the workplace.					
12	Women have a better ability to handle and resolve conflicts through diplomacy and tact.					

13. Express how frequently does your company examine its operations from a sustainability perspective and make these a part of the agenda of meetings.

Use the following scale:

A - 'Always' i.e. in all meetings
AA - 'Almost Always' i.e. in more than 50% of meetings
S - 'Sometimes' i.e. in 50% of meetings
AN - 'Almost Never' i.e. in less than 50% of meetings
N - 'Never' i.e. in no meeting

For every item, please tick '√' in the appropriate cell.

Items	A	AA	S	AN	N
Methods to integrate social, ecological and economic elements					
Corporate Reputation					
Measuring the company's 'Carbon Footprint' and devising strategies for reducing it					
Opportunities to collaborate and join networks to promote sustainable business					
Innovation					
Employment trends					
Quality management system					
Gender issues and mechanism for redressing gender issues					

14. What is the extent of your involvement in different decisions concerning company strategy?

Please tick '√' in the appropriate cell for each type of decision.

Type of	NO Involvement	Involved to SOME extent	Involved to a GREAT extent
Accounting and			
Carbon emission reduction			
Corporate donations and ethics			
CSR			
Customer service			
Engineering related issues			
Human Resources			
Legal issues			
Natural environment			
Occupational Health and Safety			
Product development			
Product Quality			
Public relations			

Any other (please specify) _____

15. State your satisfaction / dissatisfaction on the following.

Use the following scale:

HS - Highly Satisfied; **S** – Satisfied; **U** – Undecided / Neither Satisfied, Nor Dissatisfied;
D – Dissatisfied; **HD** - Highly Dissatisfied

For each area, please **tick** '√' in the appropriate cell.

Areas	HS	S	U	D	HD
The way your company operates					
The discretion you have to deal with problems in your own way					
The opportunities you have to do creative work in terms of management and structure					

16. Does your company have internal processes to promote career advancement opportunities for women?

Yes No Don't know

17. Do you believe enough is being done with regard to attracting and retaining women on company boards / senior management? Yes No **18. Should there be a quota or reservation for women on boards of directors / senior management positions?**

Yes No

Reasons for your answer: _____

19. What according to you would be the most important method that can be used to increase women representation on boards / senior management?

Please tick '√' **one** - the most appropriate method (according to you).

Advertise board / senior positions and let candidates apply just like other jobs	<input type="checkbox"/>
Coaching and mentoring of women executives.	<input type="checkbox"/>
Develop pipeline of women executives	<input type="checkbox"/>
Diversity training in the organization	<input type="checkbox"/>
Executive search companies to assist companies with identifying, assessing, training and recommending women directors	<input type="checkbox"/>
Formal training	<input type="checkbox"/>
Incentivize CEOs and Chairpersons of boards to source women	<input type="checkbox"/>
Increase awareness of corporate careers amongst women	<input type="checkbox"/>
Increase visibility of businesswomen	<input type="checkbox"/>
Tackle stereotypes in the workplace	<input type="checkbox"/>

Any other (please specify) _____

20. If you were to design a training programme to get more women onto boards / senior management, what would it consist of?

Please tick '√' **one** - the area in which, according to you, women need training the most.

Assertiveness	<input type="checkbox"/>	Risk management	<input type="checkbox"/>
Confidence building	<input type="checkbox"/>	Customized knowledge of the sector	<input type="checkbox"/>
Business Intelligence	<input type="checkbox"/>	People dynamics	<input type="checkbox"/>
Personal empowerment	<input type="checkbox"/>	Personal branding	<input type="checkbox"/>
Strategy to deal with discrimination	<input type="checkbox"/>	Change management	<input type="checkbox"/>

Any other (please specify) _____

Please also provide the following information:

i. **Designation/Type of Directorship held:** _____ **Experience:** _____ years

ii. **Age (in years):**

30 or under > 30 to ≤ 40 > 40 to ≤ 50 > 50 to ≤ 60 over 60

iii. **Level of Education:**

High School Graduation Masters Doctorate

If any other Professional qualification, please mention _____

iv. **Annual Income:**

Less than ₹10 Lac	<input type="checkbox"/>	₹10 Lac – Less than ₹20 Lac	<input type="checkbox"/>
₹20 Lac - Less than ₹30 Lac	<input type="checkbox"/>	₹30 Lac – Less than ₹40 Lac	<input type="checkbox"/>
₹40 Lac - Less than ₹50 Lac	<input type="checkbox"/>	Over ₹50 Lac	<input type="checkbox"/>

Thank you for your time and participation.

		Scoring scheme			
	Disclosure Categories, Aspects, Items / Indicators	0	1	2	3
Part A	Governance and Engagement (GE)				
GE1.0	Governance				
GE1.1	Governance structure of the organization	Does not disclose any information	Describes the composition of BOD	Also lists the committees under the BOD	Describes all the committees under the BOD in detail including their composition, category and number (IND, EXE, etc.), meetings held etc.
GE1.2	Process or method of selection of directors on board	Does not disclose any information	mentions in general terms or only superficial disclosure	Existence of a separate Nomination Committee which looks out for directors	Provides complete details of Nomination Committee and how it defines the requisite skill set of a director as it engages in Succession Planning.
GE1.3	Corporate Governance Manual	Does not disclose any information	Only as a reference to another section or website	Detailed CG policy/manual with clearly defined responsibilities of the directors towards various stakeholders. Effective communication and distribution of policy to the employees, after it is approved by the board.	X
GE1.4	Educational backgrounds, expertise and experience of the members of the BODs	Does not disclose any information	Details such as name, gender, position / type of directorship, education, experience, Directors holding memberships / chairmanships of other committees etc. is limited to only a few items or a few directors who are eligible for reappointment	Full Coverage of Information / Details such as name, gender, position / type of directorship, education, experience, Directors holding memberships / chairmanships of other committees etc.for ALL directors. Diversity of the BOD can be gauged from the extent of disclosure.	Composition / structure of the Board is adapted to address sustainability issues; some board member has expertise or experience in the area of sustainability; <i>(there is a mix of experience & expertise in technical engineering area, finance/economics, governance/public service etc.)</i>

Corporate Sustainability Index (CSI)

Annexure III

GE1.5	Evaluating Board performance	Does not disclose any information or no process or formal criteria for evaluating board performance	Only superficial disclosure, in general terms e.g. a sentence which states that the board has a formal criteria but it is not elaborated or clearly stated.	The board conducts an annual self assessment of its own performance. It also conducts a performance assessment of the CEO/President	X
GE1.6	Remuneration Committee	Does not disclose any information or no information of existence of a separate Remuneration Committee	Board has a separate Compensation / Remuneration Committee which decides the directors' remuneration but details of composition of committee and role of committee not given	Board has a separate Compensation / Remuneration Committee which decides the directors' remuneration and details of membership, roles and responsibilities of this committee mentioned	X
GE1.7	Details of Directors' remuneration	Does not disclose any information	Only superficial disclosure, Mentions in general terms e.g. <i>explicitly discloses that (as required by Clause 49) the decision on the Directors' remuneration is approved by the shareholders annually;</i> or only an aggregate amount of BODs remuneration is disclosed	Shows compensation for every director by type - sitting fee, commission; by positions & by duties performed. Details of stock option to Directors also disclosed.	X
GE1.8	Corporate vision / mission / values	Does not disclose any information	In general terms or Only as a reference to another section or website	Clearly defined and stated mission and principles and effectively communicated to all.	Explicitly mentions environmental quality and social responsiveness; Terms like Triple Bottom Line', 'sustainability' or 'engaging in sustainable activities' are included.
GE1.9	Externally developed governance standards, charters, codes, principles or other initiatives which the organization has adopted.	Does not disclose any information	Discussed in general terms only	Specifies and differentiates between voluntary initiatives and those mandated by various national and international laws	X
GE1.10	Commitments to External Initiatives (through memberships in other organizations)	No mention or no initiative	Membership(s) limited to Industry associations only.	Memberships go beyond industry associations through organizational representation in national / international bodies and participation in projects	Views membership as strategic. Also provides quantitative information such as monetary contributions over and above the membership fee.

Corporate Sustainability Index (CSI)

Annexure III

GE1.11	Risk Assessment and minimization procedures	Does not disclose any information	Only superficial disclosures	Discloses and explains the risk assessment and measurement procedure and also the steps taken to minimize it such as compliance to international codes.	X
GE1.12	Whistle Blower policy	Does not disclose any information	Only superficial, just a mention of such policy existing in the company	Explicit affirmation that no personnel have been denied access to the audit committee	X
GE2.0	Stakeholder Engagement				
GE2.1	Identification of stakeholder groups engaged by the organization.	Does not disclose any information	In general terms. Organization describes or identifies a few of the stakeholders only, e.g. shareholders, customers, employees, public / communities.	Identifies all the stakeholders (including suppliers / business partners, creditors) along with the company's obligations to each of its stakeholders.	X
GE2.2	Mechanisms or approaches to stakeholder engagement	Does not disclose any information	Only superficial coverage	Explains the process and mechanisms of stakeholder engagement such as formal meetings, focus groups, feedback surveys, panel discussions involving community, employee feedback surveys, shareholder interactions and feedbacks etc.	Discloses that frequency of interactions with different stakeholders by type and by stakeholder group. Explicitly mentioning that stakeholders are a part of decision making bodies e.g. representation of employees in the Board or other committees
GE2.3	Managing the outcomes of stakeholder engagement	Does not disclose any information	Only superficial coverage	Clearly discloses that the outcomes of such activities are used to improve the performance of the organization.	Company is also able to explain how it balances / responds to the diverse needs and expectations of its different stakeholders. Feedbacks are given to the stakeholders after taking decisions based on their suggestions received through various engagement mechanisms.

Corporate Sustainability Index (CSI)

Annexure III

Part B	Environmental Concern (EC)				
EQ1.0	Environmental Vision, Strategy and Management				
EQ1.1	Environmental Management System	No information	Only superficial coverage - as a general statement	A clear statement and details of the formal EMS created to assess environmental risks and improve environmental performance	Details of use of EMS, frequency and results; separate environment Management or pollution control department / office
EQ1.2	Preparedness through systems to tackle environmental accidents	No information disclosed	Only as a general statement	Discloses the details of mechanisms employed in the likelihood of environmental accidents through process improvements and the machinery to combat in case such accidents occur; e.g. Mock drills held etc.	X
EQ1.3	Environmental auditing	No information or no audit	Only superficial coverage - as a general statement on the periodic review of the organization's environmental impacts and performance	Audit only by Internal body / committee	External or Independent audit of the disclosed environmental information; details of external auditor provided
EQ1.4	Employee training for environmentally sustainable operations	No information or no training on environmental issues	Only superficial coverage - as a general statement <i>on environmental issues being a part of employee training</i>	Qualitative disclosure and details of employee training on aspects of environment, new technologies, environmental standards requirements, conservation of resources etc.	Identifies total hours, amount spent on training personnel - by employee category. Proportion of employees trained and trainings planned in future. Full details of inhouse and outsourced training held.
EQ1.5	Participation in voluntary environmental initiatives	No information or no participation	Superficial coverage; only discussed in general terms; no details provided	Voluntarily initiates projects / activities / campaigns or partners with Govt., industry or other organizations to improve environmental practice; e.g. <i>supporting anti-litter campaigns etc.</i>	Full disclosure - organization discloses the amount spent on such activities with split up of amount spent. Monitors and reports the financial data and measures / evaluates the performance in such activities
EQ1.6	Environmental impacts	Does not disclose any information	Only superficial coverage - as a general statement regarding impacts of operations, products and services on environment	Company undertakes environmental impact studies to monitor its direct and indirect impact on the environment. Reports and describes significant impacts	Also discloses about the effect of impacts in terms of time taken to reverse its effects. Including extent of impact mitigation

Corporate Sustainability Index (CSI)

Annexure III

EQ1.7	Risks and Implications due to climate change	Does not disclose any information	Only superficial coverage - as a general statement	Discusses implications and opportunities to address issues related to climate change; mentions international standards and discloses in quantitative terms	X
EQ1.8	Mechanisms or approaches to stakeholder engagement for environmental issues	Does not disclose any information	Only superficial coverage	Explains the process and mechanisms of stakeholder engagement such as formal meetings, focus groups, feedback surveys, panel discussions involving community, employee feedback surveys, shareholder interactions and feedbacks etc.	Stakeholders are a part of decision making bodies e.g. representation of employees or customers on different committees looking after environmental performance and impacts of the company. Discloses that frequency of interactions with different stakeholders by type and by stakeholder group.
EQ2.0	Environment Performance Indicators				
	Aspect: Materials				
EQ2.1	Materials used	No information	Disclosure in general terms only - such as <i>'the company actively contributes towards resource conservation and value addition by reducing material usage and wastage in its operations thereby reducing costs.'</i>	Disclosed by type - name/details - weight or volume and Rupee value. Includes - raw materials, other process materials like machine lubricants/oil etc., semi-finished products or parts, and Materials for packaging purposes.	Disclosure in analytical form; percentage, past years figures for better analysis of organization's contribution to reduction in the material usage and overall costs of production
EQ2.2	Recycling of Material	No information	Only superficial coverage - as a general statement	Reports the percentage of recycled input materials - as an aggregate figure (not according to type of material)	Reports in detail - in terms of weight or volume and by type / category - of materials that are recycled
	Aspect: Energy use and efficiency				
EQ2.3	Direct Energy consumption	Does not disclose any information	Only superficial coverage - as a general statement that the company uses energy efficiently.	discloses the amount of direct energy consumption in quantitative terms.	Discloses the Company's renewable and non-renewable energy sources and reports total energy consumption from each of these sources; discloses information on efforts of the organization to replace fossil fuel energy sources with renewable ones

Corporate Sustainability Index (CSI)

Annexure III

EQ2.4	Initiatives to reduce direct energy consumption	Does not disclose any information	Only as a general statement that the company takes / plans initiatives to reduce direct energy consumption and uses renewable energy for its operations.	Disclosures of initiatives like process redesigning and training of manpower etc. taken to conserve energy.	Discloses the past consumption; and the reduction achieved in quantitative terms - in joules or monetary terms; refers to and quotes available industry standards.
EQ2.5	Initiatives to reduce indirect energy consumption in specific areas	Does not disclose any information	Only superficial coverage - as a general statement	Reports initiatives to reduce indirect energy use such as <i>promotion of use of car pool/buses etc., use of CFL for lighting in offices along with natural lighting etc.</i>	Reports reduction in indirect energy consumption in quantitative terms.
EQ2.6	Production and use of alternative energy	Does not disclose any information	Only superficial coverage - as a general statement about use of renewable energy sources	Details of consumption of alternative energy such as solar, wind energy etc.	Quantitative disclosure on energy savings through recycling and production of intermediate energy e.g. electricity, steam, water etc.
	Aspect: Water use and efficiency				
EQ2.7	Total water withdrawal or usage	Does not disclose any information	Only superficial coverage - as a general statement about use of water resources	Quantitative disclosure as an aggregate figure - Reports the total volume of water withdrawn or used and cost in Rupees.	The company identifies the water sources significantly affected. Reports water use (in volumes) and/or water use efficiency by source e.g. surface water, ground water, rain water and water obtained from municipal or other water utilities.
EQ2.8	Recycling of Water and other initiatives to increase water efficiency	Does not disclose any information	Only superficial coverage - as a general statement about use of water resources efficiently <i>and initiatives such as rainwater harvesting etc.</i>	Discloses in aggregate quantitative terms (in volumes) the amount of water recycled.	Discloses in quantitative terms (in volumes) the amount of water recycled by categories - treated water and untreated water before reuse. Discloses the proportion of recycled water to the total water usage.

Corporate Sustainability Index (CSI)

Annexure III

Aspect: Biodiversity					
EQ2.9	Operations in protected areas and environmentally sensitive locations	Does not disclose any information	Only superficial coverage - as a general statement about operating in such locations but no details.	The Company reports the location of its sites in or near environmentally sensitive and protected areas (with high biodiversity value).	Clearly discloses that company does not operate in such locations or if it does operate / plans to operate in such locations it clearly reports the location, type of operation being done at such site and size of operational site e.g. in sq. km. Disclosure on eliminated or reduced operations in environmentally sensitive locations.
EQ2.10	Effects of organization's operations on biodiversity	Does not disclose any information	Only superficial coverage - as a general statement regarding impacts on environment	Discloses about the effect of impacts in terms of time taken to reverse its effects. Discloses the strategies for managing impacts on biodiversity and conservation of natural resources.	X
EQ2.11	Habitats protected or restored.	Does not disclose any information	Only superficial coverage - as a general statement <i>such as Information of partnerships to protect habitat</i> ; but no details provided	Reports the location of such habitat and details of partnerships (if any)	Reports the size (e.g. in hectares) of all habitats protected and/or restored by the organization.
Aspect: Emissions, Effluents, and Waste					
EQ2.12	Greenhouse and other gas emissions	Does not disclose any information	Only superficial coverage - as a general statement <i>e.g. Emissions are within the norms prescribed by regulatory bodies etc.</i>	Reports emissions of greenhouse gases as aggregate figure and not reporting by weight for every source individually	Reports emissions of greenhouse and ozone depleting gases (e.g. NOx, SOx) by weight for every source individually.
EQ2.13	Effluent discharges and Spills	Does not disclose any information	Only superficial coverage - as a general statement <i>e.g. Effluents discharged are within the norms prescribed by regulatory bodies etc.</i>	Reports aggregate data; Identifies total volume (e.g. in cubic meters per year) of discharge. Reports the total number and volume of spills by location.	Explicitly reports that there are no significant effluent discharges and/or spills; Reports volume of discharges by destinations and by quality (method of treatment); Reports volume of spills by Location and type / material e.g. oil, fuel, chemicals etc. Reports the impacts of discharges and significant spills.

Corporate Sustainability Index (CSI)

Annexure III

EQ2.14	Waste Management	Does not disclose any information	As a general statement (non quantified)	Discloses the amount of waste generated by the company's operations as a consolidated / aggregate figure. Discloses specific initiatives taken to manage and reduce waste produced by the company;	Reports in quantitative terms (e.g. in tonnes) the waste created by the organization's operations category wise - solid / liquid, Hazardous / non-hazardous etc. Quantitative disclosures of waste disposal (in tonnes and amount of money spent) by different methods e.g. incineration, landfills etc.
EQ2.15	Initiatives to reduce emissions, effluents and spills	Does not disclose any information	Only superficial coverage - as a general statement	Reports initiatives for reductions of harmful emissions, effluents and spills as a result of organization's activities.	Reports quantitatively and distinguishes between mandatory and voluntary reductions.
EQ2.16	Reclamation of the sold products and their packaging material	Does not disclose any information	Only superficial coverage - as a general statement	Reports volume and amount of reclaimed products only as an aggregate figure.	Reports the volume and amount of reclaimed products and their packaging materials by category.
EQ2.17	Noise and odours	Does not disclose any information	Only superficial coverage - as a general statement	Reports initiatives taken by the organization for reduction of noise and odours as a result of its activities.	Reports quantitatively and distinguishes between mandatory and voluntary reductions.
EQ3.0	Compliance and Recognition / awards				
EQ3.1	Compliance with environmental regulations and adoption of standards	No information disclosed	Only as a general statement or adoption of only those required by law	Discloses implementation of specific standards such as ISO14001, ISO14031 at the plant and/or firm level; also reports participation in elaboration of environmental standards; adoption of voluntary codes and standards	X
EQ3.2	Litigations, fines, incidents related to environment	No information disclosed	Reports incidents of non-conformance with environmental regulations in terms of aggregate numbers	Reports amount spent as penalty or fine for non-compliance with environmental laws.	Explicitly states that there were no litigations, fines, or incidents of non-conformance with environmental regulations applicable to the organization
EQ3.3	Environmental performance awards	No information disclosed or if no awards won	Details of internal (industry / sector) awards, audits and certifications won	Details of external (national / international) awards, audits and certifications won	X

Corporate Sustainability Index (CSI)

Annexure III

EQ4.0	Environmental spendings				
EQ4.1	Capital expenditures for pollution control or abatement.	No information disclosed	In general terms or Only as an aggregate figure for R&D	Disclosure of current capital expenditures for pollution control categorywise / projectwise	X
EQ4.2	Operating costs and savings from pollution control or abatement.	No information disclosed	In general terms or Only as an aggregate figure	Disclosure of current operating costs for pollution control categorywise / project wise; e.g. extra expenditure on green purchases etc.	Discloses savings (actual / expected) from pollution control and abatement
Part C	Social Involvement (SI)				
SR1.0	Labor Practices				
	Aspect: Employee profile				
SR1.1	Total workforce	No information disclosed	No information but provides reference to how information about the employees can be sought e.g. <i>A company states that anyone who requires information can contact the company and information will be provided.</i>	Disclosed only as an aggregate figure (not disclosed according to category, type, region, gender etc.)	Discloses total workforce by category - on contract / part-time / full time; by gender, by region. Number of permanent employees; length of service (including subsidiary cos.)
SR1.2	Employee turnover	No information disclosed	Disclosed only as an aggregate figure <i>or a percentage</i> (not disclosed according to category)	Quantitative information and statistics on employee turnover (in terms of numbers and rate) are provided category wise.	X
SR1.3	Employee benefits	No information disclosed	Only as a general statement or reference to another sections / website or regulation	Details or list of benefits such as insurance, medical, leaves etc. Provides quantitative information about the benefits for employees	X
SR1.4	Employee share purchase and other profit sharing schemes	No information disclosed	Only as a general statement about the offering Employee Stock Option schemes	Provides details in quantitative terms - amount / money value	X
SR1.5	Employee Remuneration	No information disclosed	Only as a general statement or reference to another sections / website or regulation	Provides an aggregate figure of company's expenditure on employee remuneration	Reports in quantitative terms - amount and/or percentage, remuneration by category i.e. amount of salaries, wages, superannuation

Corporate Sustainability Index (CSI)

Annexure III

SR1.6	Employee Code of Conduct	No information disclosed	Only as a general statement or reference to another section / website or regulation	Is separately available and clearly communicated	X
	Aspect: Diversity and Equal Opportunity				
SR1.7	Workforce diversity	No information disclosed	Only superficial coverage - as a general statement	Explicitly and quantitatively (in numbers and percentages) disclosing representation of minorities, women, handicapped etc. in the workforce at different levels.	X
	Aspect: Occupational Health and Safety and Employee Welfare				
SR1.8	Company's policies on employee health, safety and welfare	No information disclosed	Only as a general statement or reference to another section / website or regulation	Strategy or initiatives adopted for better occupational health, safety and employee welfare e.g. <i>establishing a separate safety department / committee / policy</i> ; Provides details of initiatives taken	Discloses investments made for health, safety and welfare of employees.
SR1.9	Workforce representation on committees	No information disclosed	Only superficial coverage - as a general statement on employee participation in health and safety committees	Reports in quantitative terms the representation of workers on health and safety committees.	Also reports the level of such committees determining their impact and relative importance. Key decisions or actions taken by the committee and reports communicated to the employees.
SR1.10	Provision of low cost health care for employees	No information disclosed	Only superficial coverage - as a general statement	Details of schemes / facilities available for the employees	Reports amount spent by company in providing these facilities.
SR1.11	Support for day-care, maternity and paternity leave	No information disclosed	Only superficial coverage - as a general statement	Details of schemes / facilities available for the employees	X
SR1.12	Staff accommodation/staff home ownership schemes	No information disclosed	Only superficial coverage - as a general statement	Details of schemes / facilities available for the employees	X
SR1.13	Recreational activities/facilities	No information disclosed	Only superficial coverage - as a general statement	Details of schemes / facilities available for the employees	Reports amount spent by company in providing these facilities.

Corporate Sustainability Index (CSI)

Annexure III

SR1.14	Work days lost - accidents, Injuries, absenteeism	No information disclosed	Only superficial coverage - as a general statement - only qualitative	Reports in quantitative terms (days or rate) the work days lost due to accidents, injuries and absenteeism.	Explicitly reports there were no injuries / diseases / fatalities during the reporting period; if there were such cases are reported an absolute number, not a rate. Also discloses the numbers in relation to the past figures or industry figures thereby deriving the reduction in such incidents
Aspect: Training and Education					
SR1.15	Human Resource training initiatives	No information or no training	Only superficial coverage - as a general statement	Provides details - as aggregate figures - of Total hours and amount spent on employee training, Education, counseling etc. on aspects of Health and safety, human rights, etc. Disclosures limited to details of only a few aspects (not covered all)	Disclosures on all areas of training; Identifies total hours and amount devoted to training personnel within each employee category and training type (inhouse or outsourced) Includes the number and percentage of employees trained; Trainings undertaken and planned in future.
SR1.16	Initiatives for promoting continued employability and career management of employees	No information disclosed	Only superficial coverage - as a general statement on programs for career management and upgradation of employees	Provides details / list of such programmes e.g. Inhouse trainings, sabbatical leaves etc.	X
SR1.17	Performance and career development reviews	No information disclosed	Only superficial coverage - as a general statement	Reports in quantitative terms (in number / percentage)	X
SR2.0	Human Rights Performance Indicators				
SR2.1	Discrimination in the workplace	No information disclosed	Only superficial coverage - as a general statement against discrimination on grounds of gender, caste or ethnicity, religion etc.	Specifically reports the existence of a formal process such as audits, to identify and resolve the incidents of discrimination; however numbers of incidents not disclosed	Specifically reports that there were no incidents of discrimination in the workplace; if such incidents occurred Company gives full disclosure of incidents of discrimination in terms of numbers. Also reports the actions taken e.g. remediation, resolved etc.

Corporate Sustainability Index (CSI)

Annexure III

SR2.2	Elimination of child and forced labor.	No information disclosed	Only superficial coverage - as a general statement e.g. <i>Adherence to all laws</i>	Specifically reports that there was no child and forced or compulsory labour employed by the company . Mentions specific relevant laws. Reports measures taken towards elimination of child and forced labor.	X
SR3.0	Contribution to Community				
	Aspect: Community involvement & Public policy				
SR3.1	Impacts of operations on communities	No information disclosed	Only superficial coverage - as a general statement e.g. The organization has systems to evaluate the impact of its operations on communities	Reports the description of significant direct and indirect impacts and the measures taken by the organization to manage the impacts on society	Discloses in details the mechanism of assessing the results of these initiatives of the organization to manage the impacts of operations on communities.
SR3.2	Donations and Sponsorships for community activities and Social Projects undertaken	No information disclosed	As general qualitative statement of making donations in cash or kind (through products and services), organizing events, promoting education and healthcare etc.	Reports in quantitative terms the total donations in cash or kind (through products and services), organizing events, promoting education and healthcare etc.	X
SR3.3	Funding scholarship programmes or activities	No information disclosed	As general qualitative statement	Discloses details and numbers and amount spent	X
SR3.4	Aiding medical research	No information disclosed	As general qualitative statement	Discloses details and numbers and amount spent	X
SR3.5	Supporting the development of local industries	No information disclosed	As general qualitative statement	Discloses details and numbers and amount spent	X
SR3.6	Summer or part-time employment of students	No information disclosed	As general qualitative statement	Discloses details and numbers	X
SR3.7	Contributions to political parties, and other institutions	No information disclosed	As general qualitative statement	Reports as an aggregate figure / monetary value of total contribution in cash and in-kind	X
	Aspect: Corruption and anti-competitive behaviour				
SR3.8	Analysis of risks related to corruption	No information disclosed	As a general statement	Details of existence of formal corruption risk assessment mechanisms and measures in place in the organization	X

Corporate Sustainability Index (CSI)

Annexure III

SR3.9	Response to incidents of corruption and monopolistic practices	No information disclosed	Reports number of such actions for corruption including insider-trading.	Explicit statement that there were no cases/incidents of corruption, insider trading, monopoly practices or other malpractices on part of the company / directors /employees	X
SR4.0	Product Quality & Customer satisfaction				
	Aspect: Customer Health, Safety and Privacy Indicators				
SR4.1	Product quality: impacts on customer health and safety	No information disclosed	Only superficial coverage - as a general statement	Reports the impacts of its products on health and safety of customers, in the various stages in the products' life cycles	Reports quantitatively the proportion of products/services with such impacts; Also reports adoption of quality standards e.g. ISO9000 etc.
SR4.2	Product Development	No information disclosed	Only superficial coverage - as a general statement	Discloses information on any R&D carried out by the company for improvement of its products and the benefits from such developments	X
SR4.3	Practices related to customer participation and satisfaction	No information disclosed	Only superficial coverage - as a general statement	Reports mechanisms adopted for obtaining customer feedback e.g. surveys, focus groups etc. Describes the key areas for which such feedbacks taken e.g. Product / service quality, features, packaging, pricing, ease of use etc.	Customers are a part of decision making bodies e.g. representation of customers in some committees etc. Frequency of engagement with customer groups and results or key conclusions of surveys conducted in the reporting period are disclosed.
SR4.4	Customer privacy	No information disclosed	Only superficial coverage - as a general statement on existence of systems for protection of customer privacy.	Reports in quantitative terms (total no.) complaints and incidents where customer privacy was compromised. Also reports measures taken to prevent this.	Explicitly reports that there were no loss of customer data or compromise of customer privacy at the hands of the company.
SR5.0	Compliance and Recognition / awards for HR Practices and Social Involvement				

Corporate Sustainability Index (CSI)

Annexure III

SR5.1	Compliance with various regulations and adoption of standards	No information disclosed	Only superficial coverage - as a general statement; limited to mandatory regulations only.	Discloses implementation of specific regulations / laws / code / standards relevant to minimum payment of wages, health and safety, welfare, anti-trust etc.; implementation of voluntary codes and standards / guidelines as well.	X
SR5.2	Litigations, fines, incidents related to Labour practices, Human Rights, Product quality etc.	No information disclosed	Reports incidents of non-conformance with regulations relating to various HR and social practices in terms of numbers	Reports amount spent as penalty or fine for non-compliance with such laws or regulations or codes.	Explicitly states that there were no litigations, fines, or incidents of non-conformance with regulations for HR, product safety, Human rights and other social issues as applicable to the organization
SR5.3	Awards for HR Practices and social responsiveness	No information disclosed or if no awards won	Details of internal (industry / sector) safety awards, Best HR practices award, best employer award, etc. quality products / services won	Details of external (national / international) safety awards, Best HR practices award, best employer award, etc. quality products / services won	X

Scoring system:

- 0 Lowest information level, does not disclose any information, No mention at all
- 1 Low information level, Item discussed in general terms, non-quantitative ; disclosure rates low on completeness, clarity and comparability
- 2 Medium information level, Item described specifically but information disclosed only in an aggregate manner; disclosure rates high on completeness, clarity but low on comparability
- 3 Wide information level, Information disclosed in an analytical manner, Item described in monetary or quantitative terms; information has more precision and amplitude - past figures and future estimates / targets specified; disclosure rates high on completeness, clarity and comparability; comparisons - quantitative or qualitative.

Comparison of Corporate Sustainability Index (CSI) with other Sustainability Frameworks

Annexure IV

Mapping of disclosure Categories, Aspects, Items / Indicators:

	CSI	GRI- G3 guidelines	UNGC	MDG	IFC
Part A	Governance and Engagement (GE)				
GE1.0	Governance				
GE1.1	Governance structure of the organization	4.1, 4.3	Principle 1 - 10		
GE1.2	Process or method of selection of directors on board				
GE1.3	Corporate Governance Manual	4.9	Principle 1 - 10		
GE1.4	Educational backgrounds, expertise and experience of the members of the BODs	4.7	Principle 1 - 10		
GE1.5	Evaluating Board performance	4.10	Principle 1 - 10		
GE1.6	Remuneration Committee				
GE1.7	Details of Directors' remuneration	4.5	Principle 1 - 10		
GE1.8	Corporate vision / mission / values	4.8	Principle 1 - 10		
GE1.9	Externally developed governance standards, charters, codes or principles or other initiatives which the organization has adopted	4.12	Principle 1 - 10		
GE1.10	Commitments to External Initiatives (through memberships in other organizations)	4.13	Principle 1 - 10	Goal 1-8	
GE1.11	Risk Assessment and minimization procedures	4.11	Principle 7		PS1
GE1.12	Whistle Blower policy				
GE2.0	Stakeholder Engagement				
GE2.1	Identification of stakeholder groups engaged by the organization.	4.14, 4.15	Sharing of Communication of Progress (COP) with Stakeholders		
GE2.2	Mechanisms or approaches to stakeholder engagement	4.16	Sharing of Communication of Progress (COP) with Stakeholders		
GE2.3	Managing the outcomes of stakeholder engagement	4.17	Sharing of Communication of Progress (COP) with Stakeholders		
Part B	Environmental Quality (EQ)				
EQ1.0	Environmental Vision, Strategy and Management				
EQ1.1	Environmental Management System		Principle 7, 8 and 9	Goal 7	PS1
EQ1.2	Preparedness through systems to tackle environmental accidents			Goal 7	PS3
EQ1.3	Environmental auditing				PS1
EQ1.4	Employee training in environmentally sustainable operations			Goal 7	PS3
EQ1.5	Participation in voluntary environmental initiatives			Goal 7	
EQ1.6	Environmental impacts			Goal 7	PS1

Comparison of Corporate Sustainability Index (CSI) with other Sustainability Frameworks

Annexure IV

EQ1.7	Risks and Implications due to climate change			Goal 7	
EQ1.8	Mechanisms or approaches to stakeholder engagement for environmental issues				PS1
EQ2.0	Environment Performance Indicators				
	Aspect: Materials				
EQ2.1	Materials used	EN1	Principle 8		PS1
EQ2.2	Recycling of Material	EN2	Principle 8 and 9		PS3
	Aspect: Energy use and efficiency				
EQ2.3	Direct Energy consumption	EN3, 4	Principle 8		PS1
EQ2.4	Initiatives to reduce direct energy consumption	EN5, 6, 7	Principle 8 and 9		
EQ2.5	Initiatives to reduce indirect energy consumption in specific areas	EN5, 6, 7	Principle 8 and 9		
EQ2.6	Production and use of alternative energy		Principle 8 and 9		
	Aspect: Water use and efficiency				
EQ2.7	Total water withdrawal or usage	EN8, 9	Principle 8		PS1
EQ2.8	Recycling of Water and other initiatives to increase water efficiency	EN10	Principle 8 and 9	Goal 7	
	Aspect: Biodiversity				
EQ2.9	Operations in protected areas and environmentally sensitive locations	EN11	Principle 8		
EQ2.10	Effects of organization's operations on biodiversity	EN12, EN14	Principle 8	Goal 7	PS1, 5, 6, 7 and 8
EQ2.11	Habitats protected or restored.	EN13	Principle 8		PS6
	Aspect: Emissions, Effluents, and Waste				
EQ2.12	Greenhouse and other gas emissions	EN16, 17, 19, 20	Principle 8		PS3
EQ2.13	Effluent discharges and Spills	EN21, 22, 23	Principle 8		PS3
EQ2.14	Waste Management	EN24	Principle 8		PS3
EQ2.15	Initiatives to reduce emissions, effluents and spills	EN18	Principle 7, 8 and 9		PS3
EQ2.16	Reclamation of the sold products and their packaging material	EN27	Principle 8 and 9		
EQ2.17	Noise and odours				
EQ3.0	Compliance and Recognition / awards				
EQ3.1	Compliance with environmental regulations and adoption of standards				PS3
EQ3.2	Litigations, fines, incidents related to environment	EN28	Principle 8		
EQ3.3	Environmental performance awards				
EQ4.0	Environmental spendings				
EQ4.1	Capital expenditures for pollution control or abatement.	EN30	Principle 7, 8 and 9	Goal 7	
EQ4.2	Operating costs and savings from pollution control or abatement.	EN30	Principle 7, 8 and 9	Goal 7	
Part C	Social Involvement (SI)				

Comparison of Corporate Sustainability Index (CSI) with other Sustainability Frameworks

Annexure IV

SR1.0	Labor Practices				
	Aspect: Employee profile				
SR1.1	Total workforce	LA1		Goal 3	PS2
SR1.2	Employee turnover	LA2	Principle 6		
SR1.3	Employee benefits	LA3			PS2, 3
SR1.4	Employee share purchase and other profit sharing schemes	LA4	Principle 1 and 3		
SR1.5	Employee Remuneration			Goal 3	PS2, 3
SR1.6	Employee Code of Conduct				
	Aspect: Diversity and Equal Opportunity				
SR1.7	Workforce diversity	LA13	Principle 1 and 6	Goal 3	PS2
	Aspect: Occupational Health and Safety and Employee Welfare				
SR1.8	Company's policies on employee health, safety and welfare			Goal 3, 5	PS2
SR1.9	Workforce representation on committees	LA6	Principle 1		PS1
SR1.10	Provision of low cost health care for employees			Goal 5 and 8	PS2
SR1.11	Support for day-care, maternity and paternity leave			Goal 2, 3	
SR1.12	Staff accommodation/staff home ownership schemes				
SR1.13	Recreational activities/facilities				
SR1.14	Work days lost - accidents, Injuries, absenteeism	LA7	Principle 1		PS2
	Aspect: Training and Education				
SR1.15	Human Resource training initiatives	LA8, LA10, HR3, HR8, SO3	Principle 1 - 6 and 10		PS1
SR1.16	Initiatives for promoting continued employability and career management of employees	LA11		Goal 3	
SR1.17	Performance and career development reviews	LA12			
SR2.0	Human Rights Performance Indicators				
SR2.1	Discrimination in the workplace	HR4	Principle 1, 2 and 6	Goal 1, 3, 5	PS2
SR2.2	Elimination of child and forced labour	HR6, HR7	Principle 1, 2, 4 and 5	Goal 2, 4	PS2
SR3.0	Contribution to Community				
	Aspect: Community involvement and Public policy				
SR3.1	Impacts of operations on communities	SO1			PS1, 3
SR3.2	Donations and Sponsorships for community activities and Social Projects undertaken			Goal 1, 4, 6, 7 and 8	PS3 and 8
SR3.3	Funding scholarship programmes or activities			Goal 2	
SR3.4	Aiding medical research			Goal 4, 5, 6	
SR3.5	Supporting the development of local industries			Goal 1	PS3
SR3.6	Summer or part-time employment of students			Goal 1, 2	
SR3.7	Contributions to political parties and other institutions	SO6	Principle 10		
	Aspect: Corruption and anti-competitive behaviour				

Comparison of Corporate Sustainability Index (CSI) with other Sustainability Frameworks

Annexure IV

SR3.8	Analysis of business risks related to corruption	SO2	Principle 10		
SR3.9	Response to incidents of corruption and monopolistic practices	SO4, SO8	Principle 10		
SR4.0	Product Quality & Customer satisfaction				
	Aspect: Customer Health, Safety and Privacy Indicators				
SR4.1	Product quality: impacts on customer health and safety	PR1	Principle 1	Goal 1, 4, 5	
SR4.2	Product Development			Goal 1, 4, 5, 7 and 8	
SR4.3	Practices related to customer participation and satisfaction	PR5			
SR4.4	Customer privacy	PR8			
SR5.0	Compliance and Recognition / awards for HR Practices and Social Involvement				
SR5.1	Compliance with various regulations and adoption of standards				
SR5.2	Litigations, fines, incidents related to Labour practices, Human Rights, Product quality etc.	PR2, PR8, PR9	Principle 1		
SR5.3	Awards for HR Practices and social responsiveness				

GRI - Global Reporting Initiative's - G3 guidelines

UNGC - United Nations Global Compact (10 Principles)

MDG - Millennium Development Goals (8 Goals)

IFC - International Finance Corporation's performance standards on Social & Environmental Sustainability (8 performance standards)

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GENDER DIVERSITY ON CORPORATE BOARDS: A CASE OF INDIA

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ABSTRACT

The study examined gender diversity on boards of a sample of 185 companies listed on BSE500 index over a period of six years. It presented a status quo and forecasted future representation of women on corporate boards. The paper also examined gender diversity with specific reference to the type and number of directorships held by women and the women's share of Board / Committee chairs and memberships. An extensive literature review on how women directors contribute or can contribute towards the success of the organization was also undertaken in order to present a strong case for having a higher representation of women on boards. The relationship between gender diversity on boards and various characteristics of companies such as the sector, size, profits and age was also established.

The study found that on an average 40% of the companies had at least one woman on their board, but in all, women on an average accounted for only 5% of the total number of directorships. It also estimated, *ceteris paribus*, a 30% and 61% increase in women on boards in the next five and ten years respectively.

Key words: Corporate Sustainability, Board of Directors, Board Composition, Corporate Governance.

INTRODUCTION

Lately there's been a lot of debate on gender inequity in society as well as the workplace. The society and regulators are identifying the factors contributing towards this inequity and introducing various steps to eradicate it. In the workplace too debate on

empowering women is heating up. To appreciate what changes need to be made, an assessment of the current status of women in our society and workplace is imperative. This paper presents the status quo of gender diversity on boards of listed companies and forecasts future representation of women on boards. It also aims to create awareness about the dearth of women on board and articulate a strong case for increasing their presence for the much needed talent and strategic and financial benefits that they bring to companies.

According to a Catalyst Report (2012a), women constitute 48.5% of the general population of India. The gender gap at birth is 100 girls for every 112 boys born. This gap is even wider in some states and regions. The gender gap, for all ages, is 100 females for every 108 males. Of the population with ages of 15 years and above, just 47.8% of females were literate compared to 73.4% of males. There is male dominance in enrolment in higher educational degrees with women enrolment lying at a low 38.3%.

In March 2012, as per the achieve database of the Inter-Parliamentary Union, India – one of the largest democracies in the world ranked a low 106 out of 189 countries on the percentage of women in the Lower House of Parliament. In 2011, India also ranked a low 113 amongst 135 countries on the Global Gender Gap Index measured by the World Economic Forum (2011). This index ranks countries on the size of their gender gap between women and men in four areas: economic participation and opportunity, educational attainment, political empowerment, and health and survival. Although India ranked 113 out of 135 countries on the Global Gender Gap index 2011, it performed more badly on Economic Participation and Opportunity sub index where it was ranked 131 out of 135 countries. Out of the four sub indexes, India showed a slight improvement in rank over the years only in Political Empowerment. The rank in this sub index improved from 25 out of 130 in 2008 to 19 out of 135 in 2011 (World Economic Forum, 2011).

Gender Diversity Benchmark for Asia (2011) report stated that India had the lowest national female labour force of 29% in 2011 in comparison to China (46%), Japan (42%) and Singapore (42%) (Francesco and Mahtani, 2011). This was not a significant improvement from the 2009 figure of 28.1%. The report further elaborates that in 2011, at the workplace, there were 28.72% women at the junior level, 14.91% at the middle level and only 9.32% at the senior level which suggests that India has a high 'leaking pipeline' for junior to middle level position women. The 'leaking pipeline' is a term commonly used to explain the drop out or decline in number of women from lower to upper levels in an organisation (Francesco and Mahtani, 2011). The report shows that India has the greater decrease in female representation between the junior and middle levels with a drop of 48.07% as compared to China (20.65%), Japan (42.45%) and Singapore (26.26%). Hong Kong has the lowest leaking pipeline in Asia of 13.79% change from junior to middle level. From the middle to senior level, India has one of the lowest decreases of 37.49% as compared to China (52.88%), Japan (70.24%) and Singapore (45.90%). Malaysia has the lowest leaking pipeline in Asia of 32.89% change from middle to senior level. This leaking of the pipeline at an earlier stage suggests that women in India are giving up their careers at a younger age than in other markets thereby diminishing the overall talent pool available for higher levels. This would lead to a dearth of women in leadership positions in business including the representation of women on corporate boards.

Gender diversity on boards – Why it matters?

The debate here is not only about having more women on boards for gender equity or for promoting equal opportunities for women, but because they add value. It is not just a number game but a strong business case.

Previous scholarly research on board composition and diversity has developed and documented strong arguments in favour of the gender heterogeneous and balanced boards.

Board composition that includes gender diversity has been one of the most significant governance issues facing modern corporations (Singh et al., 2008). One reason for this is that gender diversity has been advocated as a means of improving organizational value and performance by inculcating boards with new insights, new information and new perspectives (Carter et al., 2003; Miller and Triana, 2009). Galbreath (2011) argues that there is a link between women on boards of directors and corporate sustainability. The difference between males and females in general and specifically in the differences in behavior, attitude, competence and skill sets of male and female directors on Boards of companies may contribute towards this. In the case of meeting the sustainability challenge, new insights and fresh perspectives at the board level are likely to be important.

Female directors bring more resources than the additional perspectives provided by their gender. They also bring a variety of occupational expertise and knowledge, advanced education, and accelerated ties to other organizations (Hillman et al., 2002). Evidence suggests that women are particularly adept at problem-solving, which affords them strong skills to deal effectively with ambiguity, conflict, and uncertainty (Rosener, 1995). Further, given their orientation towards supporting and maintaining relationships, the work of Biggins (1999), Hisrich and Brush (1984) and Rosener (1995) suggest that women better represent the needs of all stakeholders than men. Evidence also suggests that women may have a better understanding of consumer behavior, the needs of customers, and opportunities for companies in meeting those needs (Brennan and McCafferty, 1997).

Another diversity argument for women on corporate boards is that they exert a positive impact on tasks of qualitative nature, such as strategic and CSR controls (Rosener, 1990; Bear et al., 2010). One criticism of men is that they focus on money and quantifiable issues and less on the human and social aspects of business (Huse and Solberg, 2006). Women board members may contribute to board effectiveness and may have particular contributions to CSR controls and strategic controls (Huse et al 2009).

Public sentiment calls for organizations to reflect the population served, a call that has put pressure on corporations to add women to their boards. Although, legitimacy provides one theoretical rationale for having women directors, if legitimacy was the only benefit, firms could hastily add any female in order to gain legitimacy. Findings of Kesner (1988), assert that women are not just token board members, but are commonly placed on important board committees, indicating that while legitimacy may be an important issue, it is not the only rationale behind the selection of women directors.

A small but growing stream of research has examined links between women on boards and firm economic performance (e.g., Bonn, 2004; Carter et al., 2003; Rose 2007). In arguing for greater gender diversity on boards, some have suggested that women appointees would raise the confidence of investors, who expect increasing accountability, transparency, and moral duty from firms' directors (Arfken et al., 2004; Flynn and Adams, 2004). For many shareholders, there is a perception that boards who have more women appointees do a better job of ensuring that their investments are not in conflict with managerial misappropriation, while at the same time believe that more women representation on boards leads to stronger

enforcement of ethical conduct (Flynn and Adams, 2004; Galbreath, 2011). Where ethical conduct is present, this may reduce transaction costs because fewer protective devices are needed if the firm has trustworthy agents and less time is spent in negotiation if initial claims are truthful (Hosmer, 1995; Galbreath, 2011). Thus, the costs of ethical conduct are less, which impacts positively on economic growth as profits are diverted from writing and enforcing contracts. Some studies report positive relations between women board members and company performance. Daily and Dalton (2003) reported a positive impact of women on boards on company performance. Erhardt et al. (2003) report a positive association with both financial indicators – ROA and ROI, suggesting that diversity impacts overall firm performance. Galbreath (2011) has reported a positive link between women on boards and economic growth. Bear et al. (2010) have found that a positive relationship exists between women on boards and the ratings for CSR and firm reputation. Compared to firms with all-male directors, firms with at least two women on board performed better on Tobin's Q and ROA (Carter et al., 2003). According to a study of top Canadian companies, the presence of female directors was found to be associated with higher revenues (Burke, 2000).

Although the body of evidence strongly backing the benefits associated with increase in the representation of women on corporate boards is growing and governance codes are being reformed, the world's boardrooms still remain predominantly male. Even as representation of women on boards has been shown in some surveys to be on the rise, much of the increase in women directors over the last decade may reflect the same individuals sitting on more boards rather than the appointment of new individuals as directors. This study specifically takes care of this dimension by analyzing the number of directorships held by women at a single point of time.

It is also feared that women are put on boards as mere 'token' sans any influence or power of decision making. This study evaluates this aspect by looking at the status of women as board / committee chairs and memberships.

MATERIALS AND METHODS

To achieve the objectives of the study companies listed on the BSE500 index were originally selected as the sample. BSE500 index was chosen as it represents nearly 93% of the total market capitalization on Bombay Stock Exchange and it covers all 20 major industries of the economy. Past studies on the topic were carried out in a single time period thereby rendering a forecast of future impossible / infeasible. To overcome this limitation and to achieve one of the objectives of forecasting the future representation of women on corporate boards a longitudinal study over a period of 6 years i.e. from 2006-2007 to 2011-2012 was undertaken. The year 2006-07 was chosen as the initial year for the study as in January 2006 the recommendations of the Narayan Murthy Committee (2004) constituted to assess the adequacy of corporate governance practices came into effect. The committee's recommendations led to the revision of the Clause 49 of Listing requirements of SEBI (SEBI Circulars) which included specific guidelines on board composition.

From the original sample of BSE500 companies, 245 companies were eliminated which were acquired / merged, delisted, liquidated or naturally replaced by the end of financial year 2011-12. 25 companies were further excluded as they had a reporting period other than the financial year (Bettman and Weitz 1983). After extensive efforts of collecting the 6 year data on board composition and representation of women on boards through annual reports, Capitaline Plus corporate database, Directors' database and company websites, 45

companies, with missing data of one or more years, were further eliminated to derive the final sample which consisted of 185 companies.

The final sample of companies originally represented **19** sectors. All sample companies were later classified under two broad categories of ‘High Profile’ and ‘Low profile’ industries on the basis of the industry classifications rather than individual companies to avoid any replication (Hackston and Milne, 1996). Industries with high consumer visibility, a high level of political risk, or concentrated intense competition were classified as ‘High Profile’ e.g. Chemical & Petrochemical, Metals and Mining, Agriculture etc. whereas sectors such as Finance, FMCG, Healthcare, Textiles etc. were classified as ‘Low Profile’ (Hackston and Milne, 1996).

In the sample, the Finance sector (17%) makes up the largest group of companies, followed closely by industries such as Healthcare (10%), Capital Goods (9%) and Transport equipments (8%). 33.51 percent (62 companies) of the sample represented ‘High Profile’ sectors and 66.49 percent (123 companies) represented ‘Low Profile’ sectors. The first three sectors with the highest number of companies in the sample as mentioned above formed a part of the ‘Low profile’ group. Transport equipments and Agriculture sectors classified under ‘High profile’ jointly contributed 14% of total companies in the sample.

TECHNIQUES

Time Series Linear Trend analysis was used for forecasting the future women on boards of directors and ANOVA was used to examine if there was a significant variance between the size, profits and age of companies which had no women on boards and those that had more than one woman on board. Descriptive statistics were used for basic level analysis of the status of women on corporate boards of the sample companies.

RESULTS AND DISCUSSION

In examining the representation of women on the boards of the 185 companies in the sample over a period of 6 years, a number of key observations were made: On an average, out of a total of 1905 directorships in the sample companies over 6 years, only 93 directorships were held by women. This represented just 5% of all directorships. These directorships were held by 80 different women. This result/percentage did not compare favourably with 2012 figures of other countries like Canada (10.3%), USA (16.1%) and UK (15.0) as also Hong Kong (9.0%) and Australia (8.43%) (Catalyst, 2012b). Norway with its 40.1% representation of women on boards may be considered simply ‘out of the league’ for any comparison.

Table: 1.1 Status of Directors

Year	Number of Directors (Board Size)	Number of Women on Board (WOB)	Number of Independent Directors (ID)
2005-06	1846	69	962
2006-07	1862	81	926
2007-08	1902	90	934
2008-09	1931	90	984
2009-10	1949	102	1006
2010-11	1922	105	1006
2011-12	1923	117	996

Table 1.1 shows the data of total number of directors, women directors and independent directors on boards of the sample companies over a series of years.

In 2006-07 only 36% of companies had women on their boards. There was a year on year improvement in this status finally leading to a figure of 46.49% companies with women on boards in 2011-12. Over the period of study, less than half of the companies, only 73 (approx. 40%), had at least one woman on their boards - which conversely meant that 60% companies had no female representation at all and had all male boards. Of the companies with women on board just 18 (24%) companies had more than one female director on their boards. This hinted towards prevalence of 'tokenism' on boards with 75% of these companies having only one woman director and just over half per cent (0.59%) having more than three women on board.

It was also observed that despite the Ministry of Corporate Affairs' (MCA) proposed mandate of at least one seat for women on boards of companies with five or more independent directors, the results showed an average compliance of 45% only. Which means that on an average out of the 115 (62%) such companies in the sample only 52 had at least one woman on their board.

Figure 1.1: Status of Women on Boards of Companies with Five or More Independent Directors

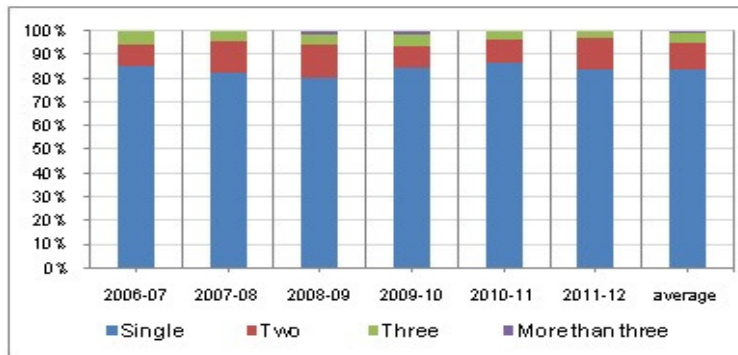


Figure 1.1 depicts the status of women on boards of companies with five or more independent directors. It was observed that in 2009-10 and 2010-11 almost 50% companies were in compliance and in 2011-12 this status became favourable with 56% of such companies (69 out of 124) having at least one women on board.

Multiple directorships:

Figure 1.2 shows that on an average during the period of study, 83.74% women were serving on the board of a single company in the sample. 11.58% and 4.24% held directorships in two and three companies respectively. Just less than half percent women held more than 3 directorships.

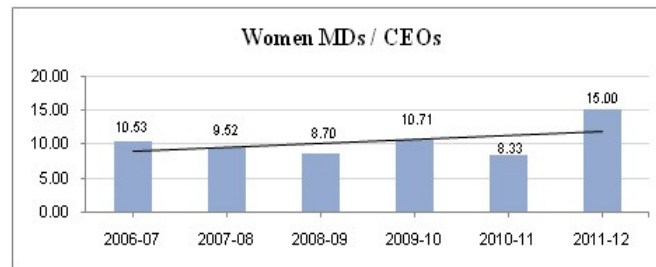
Figure 1.2: Number of Directorships Held By Women



Type of directorships and women as chairs of board/committees:

It was encouraging to find that of the total women on boards, 15% were executive directors. Almost 10% of women on boards were Managing Directors or CEOs of companies and there is an increasing trend in the future as shown in Figure 1.3.

Figure 1.3: Percentage of Women MDs /CEOs shows there is an increasing trend in the future



It was also observed that 29% of women on boards belonged to the 'promoter' category whether executive or non-executive, highlighting the existence of family connections between the female directors and their companies. Still a high 48% of women were neutral members on the boards under the category of 'independent' directors.

Figure 1.4: Status of Chairpersonship and Membership of Women Directors

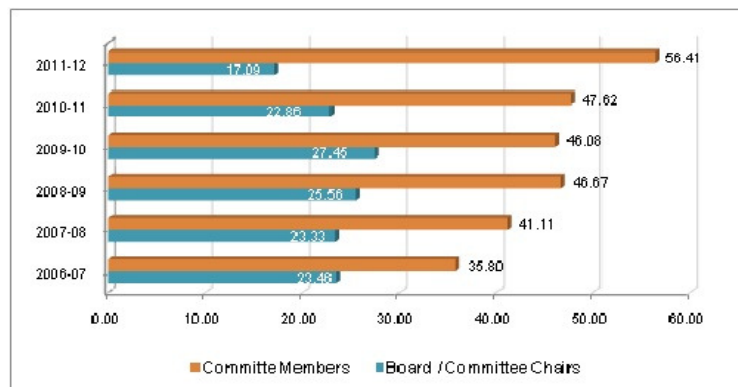
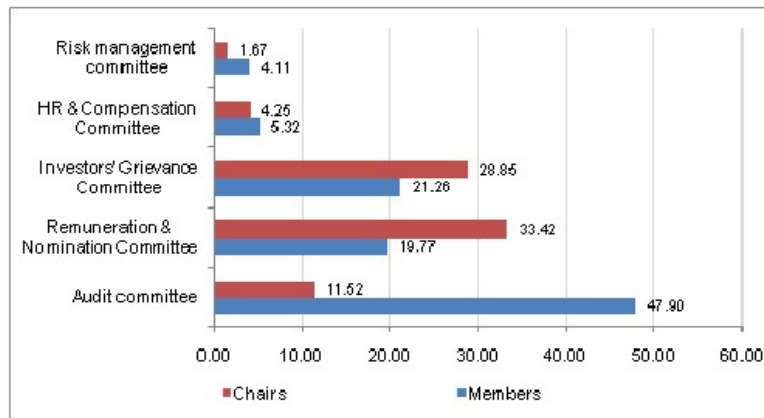


Figure 1.4 shows the Chairpersonship and Membership status of women directors. As can be seen in Figure 1.4, there was a rise in the committee membership status of women directors but a declining trend in their appointment as board/committee chairs.

Figure 1.5: Type of Committees in which women were the chairpersons



It was also worth noting in Figure 1.5, that out of all the women members of some committee, a majority (48%) were members of the audit committee, followed by the Investors' grievance committee (29%). Figure 1.5 also shows that out of all the women who were chairpersons of some committees, a majority (33.42%) held the chair of the 'Remuneration and Nomination committee' followed again by 'Investors' Grievance Committee'.

SECTOR COMPARISONS

The sample of 185 companies was initially divided into 19 different sectors and then each sector was categorized as either a 'High Profile' or a 'Low profile' sector as explained under methodology section of this paper. Table 1.2 shows how different sectors were ranked according to the percentage of women across all the boards in that sector along with the total number of companies in a particular sector.

Of the total companies with at least one woman on board during the period of study, 21.68% companies belonged to Finance sector also categorized as a low profile sector, making it the highest contributor to the total companies with women on board. 51.04% Finance companies had at least one woman on their boards. Healthcare and Capital Goods sectors were ranked second and third respectively. The Power sector (high profile) came in last place with just 5.56% companies in that sector with women on their boards.

It was observed that there are more companies in the Low profile sector with women on their boards as compared to companies in high profile sector. Over the period of study, only 28.04% companies with at least one woman on boards are High profile companies.

Table 1.2: Sector-wise percentage of companies with Women on Boards

Sector	No. of Companies	Percentage of companies with at least 1 WOB		Rank
		Within a sector	In total sample	
Agriculture	11	46.97	6.80	6
Capital Goods	17	37.25	8.30	3
Chemical & Petrochemical	7	47.62	4.43	10
Consumer Durables	2	50.00	1.33	16
Diversified	7	28.57	2.66	13
Finance	32	51.04	21.68	1
FMCG	10	48.33	6.41	7
Healthcare	18	40.74	9.74	2
Housing Related	11	48.48	7.08	5
Information Technology	12	45.83	7.32	4
Metal, Metal Products & Mining	13	37.18	6.37	8
Miscellaneous	3	11.11	0.47	18
Oil & Gas	10	23.33	3.02	12
Power	3	5.56	0.19	19
Telecom	3	33.33	1.33	16
Textile	5	50.00	3.28	11
Tourism	3	61.11	2.38	14
Transport Equipments	14	28.57	5.28	9
Transport Services	4	37.50	1.95	15

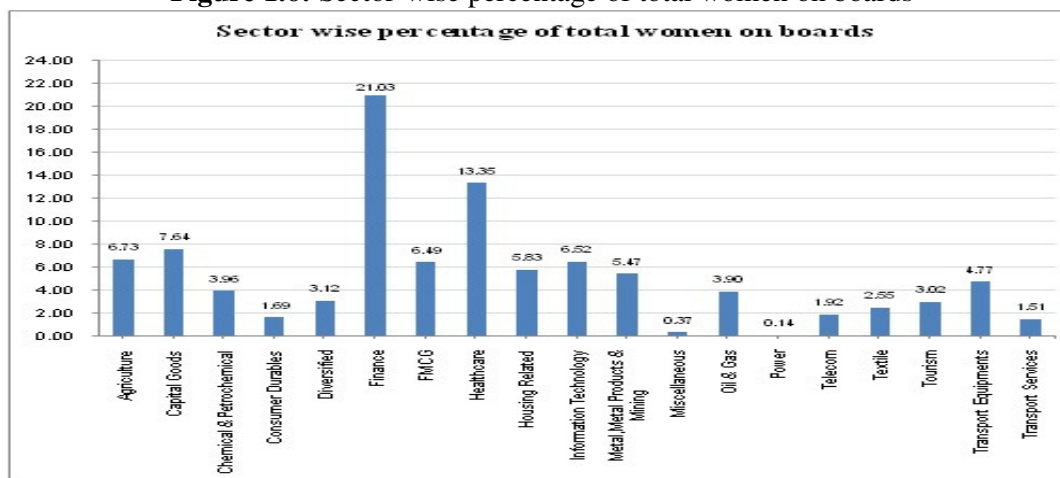
Figure 1.6: Sector-wise percentage of total women on boards

Figure 1.6 shows that of the total women on boards, 73.53% were on the boards of low profile sector companies and only 26.47% in high profile sector companies. Finance and Healthcare sectors led the way, with 21.03% and 13.35% of total women directors on their boards respectively. These were followed by the Capital Goods sector at 7.64% and then by FMCG sector at 6.49% of total women directors on their boards. Again Power sector (0.14%) along with Miscellaneous (0.37%) and Transport Services (1.51%) took the last three spots with the least number of women on their boards. Agriculture sector (6.73%) had the highest percentage of women on board amongst the high profile sector.

CHARACTERISTICS OF SAMPLE COMPANIES WITH FEMALE DIRECTORS

One of the aims of this study was to consider various characteristics of the sample companies and note any differences at an organisational level between those that had no woman on their boards and those companies that had more than one woman on the board. Companies with one woman were ignored to control for tokenism.

Table 1.3: Comparison of companies with no Women on Boards and with Women on Boards

Parameters	Companies with no WOB	Companies with > 1 WOB
Number of companies	81	26
Number of High Profile Companies	31	7
Average Board Size	9.40	11.54
Average number of Independent Directors	4.91	6.31
Average proportion of Independent directors	50.77	54.73
Size of Company - Average of Total Assets (Gross Block) (in Rs. Crore)	2512.36	5443.12
Size of Company - Average Market Capitalization (in Rs. Crore)	7777.31	19438.60
Size of Company - Average Net Sales (in Rs. Crore)	3628.90	12353.31
Average Net Profits (in Rs. Crore)	381.45	1256.56
Average age of companies	47.00	42.42

Table 1.4: Results of ANOVA

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Industry – High profile / Low profile	Between Groups	0.253	1	0.253	1.098	0.297
	Within Groups	24.251	105	0.231		
	Total	24.505	106			
Number of Independent Directors	Between Groups	38.08	1	38.08	9.522	0.003
	Within Groups	407.91	102	3.999		
	Total	445.99	103			
Total Assets (Gross block)	Between Groups	166500000	1	166500000	1.679	0.198
	Within Groups	10410000000	105	99170000		
	Total	10580000000	106			
Market capitalization	Between Groups	2598000000	1	2598000000	4.464	0.037
	Within Groups	60530000000	104	582000000		
	Total	63120000000	105			
Net sales	Between Groups	1498000000	1	1498000000	4.161	0.044
	Within Groups	37810000000	105	360000000		
	Total	39300000000	106			
Net Profits	Between Groups	171752.81	1	171752.81	4.864	0.03
	Within Groups	3707376.481	105	35308.347		
	Total	3879129.291	106			
Age of company	Between Groups	412.308	1	412.308	0.649	0.422
	Within Groups	66658.346	105	634.841		
	Total	67070.654	106			

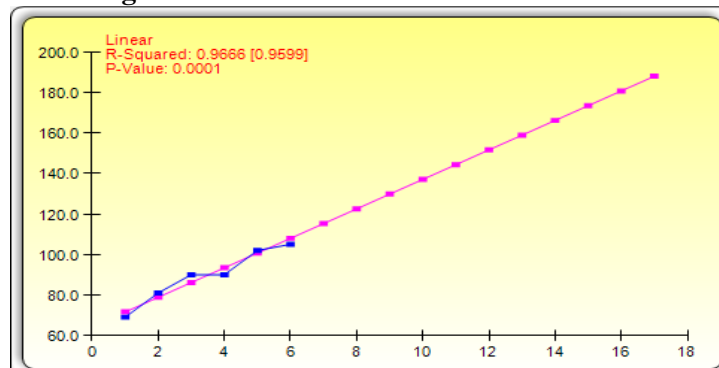
Results of ANOVA in Table 1.4 showed that the number of independent directors, market capitalization, net sales and net profits of companies with no women on board and those with more than one woman on board were significantly different. The conclusion is that big companies in terms of market capitalization and net sales have more women on board. Companies with higher net profits and more independent directors tend to have more women on their boards. No significant variation between the two samples was found with respect to age of company, hence it could not be said that older companies tend to have more women on their boards as compared to younger companies.

Table 1.5: Projections of Women on Boards till 2021-22 (in numbers)

Year	Actual Women on boards	Forecast of Women on Boards
2005-06	69.0000	71.5714
2006-07	81.0000	78.8571
2007-08	90.0000	86.1429
2008-09	90.0000	93.4286
2009-10	102.0000	100.7143
2010-11	105.0000	108.0000
2011-12	117.0000	115.2857
2012-13		122.5714
2013-14		129.8571
2014-15		137.1429
2015-16		144.4286
2016-17		151.7143
2017-18		159.0000
2018-19		166.2857
2019-20		173.5714
2020-21		180.8571
2021-22		188.1429

Using trend analysis, a 30% increase as compared to the number of women on board in 2011-12 was forecasted at the end of next five years i.e. in 2016-17. This percentage would increase to 61% at the end of next ten years i.e. in the number of women on board for the sample companies in 2021-22 it was estimated at 188.

Figure 1.7: Future Tend of Women on Board



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Ceteris paribus, the proportion of women on boards was estimated to increase from current 6% in 2011-12 to 6.94% in 2016-17 and 8.27% in 2021-22. At the current rate it will take Indian companies 130 more years to reach where Norway is today with 40% women on boards and almost one and a half century (166years) to achieve gender equity on boards of its listed companies. This presents a very discouraging scenario for women aspirants for board positions and a strong indication towards the need for some concrete steps to change the status quo.

CONCLUSION

This paper revealed critical data on women on the board of directors in India. Women made up just 5% of all directors on the sample and as many as 112 (60.6%) companies had no representation of women at all on their boards. Only half a percent (0.59%) companies had more than three women on their boards. This implies an existence of tokenism which can be further examined. The status quo on women on boards of directors of Indian companies does not put India in a favourable position vis a vis other countries of the world.

India's high 'leaking pipeline' for junior to middle level position women was an obvious contributing factor for such a status as the women in India are giving up their careers at a younger age than in other markets and hence reducing the overall talent pool available for higher positions. So despite having one of the lowest decreases of women from the middle to senior level in Asia, Indian companies didn't have enough women in leadership roles such as MDs/CEOs and as directors on boards.

Further examination of the status led to another conclusion that companies in the Low profile sectors such as Finance, Healthcare, FMCG etc. were more likely to have women on their boards as compared to the companies in high profile sectors such as Power, Oil and Gas, Chemical and Petrochemical, Agriculture etc. To add another dimension to the analysis it was found that family ties with the businesses was not a major qualification for putting more women on boards as only 28% of the women on boards were promoter directors. 48% of women were independent directors chosen on board for their expertise and experience. A majority 84% of women directors held single directorships. Reasonably good 23% and 47% women directors were active contributors as Board / Committee Chairs and members respectively.

Results of ANOVA showed significant variation between companies with no women on board and those with more than one woman on board with respect to company characteristics such as number of independent directors, size measured as market capitalization and net sales and with adjusted net profits. The conclusion is that big companies in terms of market capitalization and net sales have more women on board. Companies with higher net profits and more independent directors tend to have more women on their boards. No significant variation between the two samples was found with respect to age of company, hence it could not be said that older companies tend to have more women on their boards as compared to younger companies.

The study also forecasted that if other things remain constant, compared to the current period of 2011-12, there would be a 30% increase in number of women on boards by 2016-17 and an increase of 61% by 2021-22. At this pace it would take Indian companies more than half a century to achieve gender balanced boards with at least 50% women directors. Concerted efforts and intervention by the regulators and corporate sector would be required to make this happen at a faster pace. There is a need to recognise that diversity in the

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boardroom is good for business as it leads to better decision making, innovation, better governance and even higher economic benefits for the companies and its stakeholders. The Indian companies need to address the issue of gender diversity on corporate boards strategically and purely for its merits and propose steps to empower women in business.

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Corporate Sustainability Disclosure Practices of Indian Companies: An Empirical Analysis

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Abstract

This study endeavours to construct and validate an index capable of measuring the extent and quality of Corporate Sustainability disclosures. The eighty items on the index are broadly categorized under Governance and Engagement (GE), Environmental Concern (EC) and Social Involvement (SI) indicators. Six years data from companies listed on Bombay Stock Exchange is used for validating the index through pre-testing, inter-rater and internal consistency analysis. The index demonstrates robustness and corroborates reliability at all stages. The study also examines relationships between sustainability disclosures and company characteristics like sector classification, size and age. Results show that both size and sector are significantly associated with level of sustainability disclosures made by companies, while age is not. 'Low Profile' sectors demonstrate high GE and SI scores but low EC scores. Larger companies, in terms of market capitalization and total assets, have a propensity to make more and better sustainability disclosures as compared to smaller companies.

Keywords - Corporate Governance, Corporate Social Responsibility, Environmental disclosures, Sustainability Index

Introduction

The world is witnessing the adverse effects of environmental pollution and climate change. The growth of population is continuing to place unprecedented demands on the natural resources leading to competition for resources. The sheer scale and complexity of these challenges advocates a need to sensitize the society about sustainability. Although, a large number of governments and businesses have come together at global level to implement policies to control and offset these adversities, yet, a lot needs to be done. The ethical underpinnings of sustainability are also strongly grounded in the business' sensitivity towards a new model that integrates environmental and societal needs and concerns with its bottom-line. A company needs to realistically evaluate the nature and significance of the sustainability issues it faces. Although some research on Indian companies has been conducted in the past, to separately examine the status of Corporate Governance and Corporate Social Responsibility, the concept of corporate sustainability has still not been well researched. There is still a dearth of studies which comprehensively and simultaneously examine performance of a company on all the three dimensions of sustainability – governance, environment and social concern, and also on identifying the determinants of sustainability disclosures made by companies. This study responds to this gap.

To date, research has been particularly focused on understanding 'Who' drives corporate sustainability and 'Why' firms adopt sustainability, what are the advantages of aligning its products and processes with sustainability principles. This study focuses on the 'What' and 'How' of corporate sustainability. It aims at understanding 'what' an organization considers as being a dimension of sustainability and 'how' it records and reports sustainability information to its stakeholders. It also endeavours to devise an objective mechanism or instrument to measure the level of sustainability information disclosures in quantitative as well as qualitative terms. An instrument that can measure a company's impacts and contribution to the environment and society through its disclosures has undoubtedly become pertinent in recent times.

Genesis of the concept of sustainability

Interest and concern for sustainability has grown tremendously over the last quarter of a century. It has been a widely debated topic in the academic and corporate circles. Extensive research on corporate governance, corporate social responsibility and corporate sustainability has now established that the activities of an organization have an impact upon the external environment including the natural environment and society. Therefore organizations today are accountable to a much wider audience as against the notions of accountability only towards their shareholders. This was a major shift from what Milton Friedman described as "the only business of a business is to make profits" assuming the responsibility of business only towards the shareholders, to the idea of being responsible to all the stakeholders such as the employees, customers, creditors, society etc. All stakeholders are not only directly or indirectly affected by the operations of a business but may have some amount of direct or indirect control over them.

A whole new idea of social and environmental performance, responsibility and accountability of a business, as a part of the larger social order around the globe/world, has emerged. Many researchers have established that financial results and emphasis on the single bottom line of 'profits', is holding back even the large corporations from accepting their accountability towards the society and the environment. Gray et al. (1987) challenged the prevailing accounting practices as falling short of relevant and full disclosure and highlighted the need of a stakeholder approach to accounting which recognizes the wide stakeholder community. White (2007) emphasized the need to rewrite/redefine the 'contract' or relationship of commitment that exists between a company and its stakeholders which is based on the trust of ensuring a sustainable and better future. It defines the purpose of a corporation, in a generic but flexible statement as "to harness private interests to serve the public interest".

The term 'Sustainability' is not free from controversies or confusions as divergent view on its meaning and scope exist. Significant efforts have been made to decipher what sustainability means in general and for a business organization in particular. The Brundtland Report (WCED, 1987) may be taken as the first organized global attempt to address the issue of sustainability. The Commission was created by United Nations, with an objective of evaluating, creating awareness and addressing challenges posed by the rapid depletion of natural resources and degradation of the environment due to unabated and irresponsibly conducted commercial and economic activities. The Brundtland Report highlighted the harmful effects of such relentless activities on environment and social development and presented a global framework for drafting policies for sustainable development. It provides the most widely accepted definition of sustainability as "meeting present needs without compromising the ability of future generations to meet their own needs" (WCED, 1987). The underlying principle behind this definition of sustainability lies in the finiteness of the resources available in this world. So if any resource is relentlessly used in the present

without any effort being made for its replenishment or replacement or regeneration, it is bound to exhaust and become extinct / unavailable in future e.g. coal, oil etc. Alternatives will need to be adopted consciously and voluntarily in the present to preserve these resources or as a compulsion in the future when these resources become extinct, to fulfill a particular need. Sustainability advocates a limited and controlled use of resources depending upon their regenerative powers also defined as the carrying capacity of the ecosystem (Hawken, 1993). This principle is equally applicable to nations, societies as well as corporations and individuals.

Corporate Sustainability

Traditionally, the term sustainability, the origin of which can be traced back thirty years (Reed and DeFillippi, 1990), implies permanence and continuity (Marsden, 2000; Hart and Milstein, 2003; Aras and Crowther, 2008). Many researchers and organizations have viewed the terms sustainability and sustainable development as synonymous, an assumption also made for the purpose of this study.

In the organizational context, McElroy et al. (2007) define sustainability in terms of its impacts on all the stakeholders –present as well as future, including the natural environment and society. But, a mere recognition of environmental and social issues will not create sustainable organizations. Integration of these issues in the core strategy and operations is paramount (UNGC-Accenture, 2010). As a constituent part of the social and ecosystem, the effects of an organization's operations should not only be measured in cost-benefit terms in the present but also in terms of its potential impacts in future (Hart, 1997). Initiatives and strategies adopted by companies committed to sustainability like producing recycled paper, replanting trees, producing recyclable vehicles and electronic goods etc. not only help in accommodating for their unsustainable operations but also internalize the costs in the present rather than passing them to the future (Aras and Crowther, 2008).

In the context of corporate sustainability, Grayson et al. (2008) emphasize innovation as being imperative for modern businesses to expand their profits, and at the same time add value to the environment and society at large. An approach of conducting business activities that generates huge amounts of wastes, consumes large amounts of energy, ignores the community interests and pollutes the environment, need to be radically changed. Harnessing innovations in these areas would not only transform a business towards sustainability but also present a great untapped business opportunity. Corporations can create and sustain value for all stakeholders by adopting a long term approach in embracing these opportunities, mitigating risks and distributing the favorable and adverse effects in a way which pays attention to the future as well as the present (Aras and Crowther, 2010).

Dimensions of Corporate Sustainability

Several scholars and organizations, adopting the definition of World Commission for Economic Development, have conceptualized sustainability as having three mutually dependent dimensions - economic growth, environmental quality or concern and social equity or sensitivity (Elkington, 1997; Wilson and Lombardi, 2001; Bansal 2001, 2005 and Galbreath 2011). The success of any one of them is contingent to the success of the other two (Bansal, 2001)

Economic growth and prosperity involves the creation and distribution of goods and services that help raise the standard of living around the world (Bansal, 2005). According to Conner (1991), firms can create additional value for customers by lowering the cost of products and services they need through process/production innovations and efficiencies. However, these activities may lead to depletion of natural resources, environmental degradation, and the disruption of community, worker welfare and health. Thus, fundamentally economic growth cannot be isolated from a company's social responsibility and its environmental concern (Bansal, 2001, 2005; WCED, 1987) while conceptualizing corporate sustainability.

The environmental concern dimension of corporate sustainability aims to ensure that organizational activities do not erode the earth's land, air, and water resources (Bansal, 2005) beyond the limits of replenishment or regeneration and renewal. The adverse environmental impacts of organizational activities, cultures, products, processes and technology are easily visible in things such as generation and disposal of waste, emissions and effluents discharged, high energy consuming processes and technology, the lighting office facilities etc. Scholars have identified three main areas for development of strategies for sustainable environment. First, companies need to shift from pollution control through activities such as responsible waste disposal to pollution prevention through cleaner production processes with focus on minimizing or eliminating waste before it is created (Hart, 1997). Secondly, strategy of reducing greenhouse gas emissions (Klassen and Whybark, 1999) through innovation in production processes and investing in 'tomorrow's' technologies rather than relying on historical competencies (Hart, 1997). Lastly, by engaging in product stewardship, companies can mitigate cradle-to-grave impacts of their

products (Bansal, 2001), starting with using fewer materials in production to recycling or reuse at the end (Hart, 1997).

Today, organizations are increasingly being pushed by multiple actors e.g. employees, consumers, management, institutional investors, governments, non-governmental organizations (NGOs) etc. to respond to social issues (Aguilera et al., 2007). Social initiatives may include those internal to an organization like changing labor relationships, working conditions and those external to an organization such as making infrastructure investments in local communities or involvement in philanthropic activities (Aguilera et al., 2007).

Environmental concern and social involvement can/should no longer be considered 'adjuncts' of an organization's core activities (Bansal, 2001).

Drivers of Corporate Sustainability

Sustainability is perhaps one of the most challenging **subjects/issues** confronting the policy makers today. Bansal (2001) suggests that firms who fail to respond to sustainability will lose any opportunity of building competitive advantage and will eventually perish. This criticality attached to sustainability has led to extensive efforts being made towards understanding how firms respond to sustainability and integrate it in their strategy and operations.

Both, external as well as internal drivers of sustainability have been proposed with more stress being laid on external drivers. Population growth and climate change have compelled the society as well as corporations to recognize the need and respond to sustainability issues. Economic globalization has driven companies operating in multiple countries to meet the international expectations and environmental and social standards. Advances in connectivity and digital communication have ushered an era of transparency by making it easy for stakeholders to track a company's sustainability performance and also to share their opinions widely through the social networks. It has drastically reduced the time taken to build as well as destroy an organization's reputation (CERES Report, 2010).

Results of other studies in this area suggest that all stakeholders such as customers, employees, investors, suppliers, public, the government, law makers and regulatory agencies influence organizations to adopt sustainability practices. Bansal (2005) finds that both resource-based and institutional factors influence corporate sustainable development with media pressure being important only in the early periods. She also found a positive correlation between corporate sustainability and international experience, and mimicry.

A number of internal factors have also been found to impact or drive sustainability of a company include organizational culture, policies, management and board of directors.

Initiatives to assess and measure sustainability

Infusing sustainable practices in an organization and inculcating a sustainability culture requires a systematic long term approach and actual authentic data. Although many sustainability initiatives have been implemented around the world there is a need for a more planned, logical, fact and data based method with a high degree of transparency. Till this is achieved the actual sustainability performance of organizations can never be evaluated. As the old saying goes - 'What cannot be measured cannot be achieved or improved'.

Different methodologies have been adopted thus far to quantify sustainability. These can be broadly categorized into disclosure or reporting based and stock market based methods. New techniques of assessing the impacts of organizations on the environment and society and evaluating organizations' sustainability performance are continuously evolving.

Australia, Austria, Canada, Denmark, France and Japan are a few countries which had enforced mandatory sustainability reporting guidelines upto 2008. In India, Clause 49 of Listing agreement of Securities and Exchange Board of India (SEBI Circulars, 2000, 2004, 2006), aimed at ensuring compliance to principles of good governance, is mandatory for all listed companies. However, integration of environmental and social activities in company reports is purely voluntary. Mandatory regulatory frameworks, wherever existing, complement the principles and standards laid down by various global voluntary sustainability initiatives such as UN Global Compact, Millennium Development Goals, IFC led Equator Principles and GRI sustainability reporting guidelines. Some of the initiatives for sustainability reporting and assessment methodologies are discussed at length in the following pages.

The Global Reporting Initiative (GRI) framework for sustainability reporting is well established and widely accepted by businesses, academicians and researchers alike. GRI is a non-profit, multi-stakeholder, network based organization founded in Boston in 1997. The first version of the GRI Guidelines was launched in 2000. GRI reporting framework adequately enumerates both 'what' and 'how' to report. The identification of content of a sustainability report is based on the principle of materiality, stakeholder inclusiveness, sustainability context and completeness. The quality of a

sustainability report is determined by balance, clarity, accuracy, timeliness, comparability and reliability (GRI, 2006). GRI is continuously evolving and improving its comprehensive guidelines to enable all corporates to assess and disclose their economic, environmental, social and governance performance. In March 2011, GRI published the G3.1 version with additional guidance on reporting gender, community and human rights-related performance. The sector specific supplements make GRI guidelines applicable to organizations of all size, sector and location.

The GRI Guidelines are often juxtaposed with other international initiatives and sustainability frameworks. GRI has many global strategic partnerships, one of them being with the United Nations Global Compact (UNGC). GRI guidelines are the reference points of the UNGC principles. Its framework also enjoys synergies with the Environmental, Health, and Safety (EHS) Guidelines, Performance Standards on Environmental and Social Sustainability as well as the Equator Principles formulated by the International Finance Corporation (IFC). The UN Global Compact (UNGC) (unglobalcompact.org) is the largest voluntary corporate citizenship and sustainability initiative in the world that was launched in 2000. It encourages and supports companies around the world to align their strategies and operations with the ten universal principles in the areas of human rights, labour, environment, and anti-corruption.

Another initiative in this direction, reinforcing the above, is the declaration of the UN Millennium Development Goals in September, 2000. The eight goals focus on reducing poverty, improving the quality of life, ensuring environmental sustainability, and building partnerships (un.org/millenniumgoals). Specific targets have been set for each of the goals, to be achieved by 2015. Although the prime responsibility of achieving these targets rests with the governments, it would also make good business sense to contribute towards the same. Companies, especially the private sector, can contribute by providing safe and affordable products and services, creating jobs and developing human resources, valuing human rights and maintaining labour standards, engaging in responsible and ethical practices, generating income and investment and developing infrastructure. Efforts towards achievement of the MDGs would create a sound and safe environment, manage costs and risks, and create new opportunities for all.

International Finance Corporation's Equator Principles (equator-principles.com), launched in June, 2003, are widely accepted benchmark in finance sector and are used to evaluate the social and environmental risk in project financing. Its ten principles ensure that the projects financed by IFC are developed in a manner that is socially responsible and reflect sound environmental management practices. Till June 2013, 79 financial institutions in 35 countries have officially adopted the Equator Principles, covering over 70 per cent of international Project Finance debt in emerging markets (equator-principles.com). IDFC is the only Indian institution to adopt the equator principles. In addition to the equator principles, IFC, the private sector arm of the World Bank Group (IFC and Mercer, 2009) has also formulated Environmental, Health, and Safety (EHS) Guidelines and IFC Performance Standards on Environmental and Social Sustainability to identify risks and impacts in relation to project-level activities. All the above initiatives mutually emphasize the need for organizations to implement sustainability policies in their business practices. The close connection between investment potential and responsibility as established by prior studies in this domain has also led to the emergence of several inclusive market – based and investor-led sustainability initiatives / ratings such as the Dow Jones Sustainability Index (DJSI) and S&P BSE-GREENEX.

The Dow Jones Sustainability Indexes (DJSI) first launched in 1999, is the oldest global benchmark for sustainability assessment. It is a family of 16 indices each composed of sustainability leaders identified by using a comprehensive assessment process which employs multiple criteria such as energy consumption, climate change strategies, employee and stakeholder relations and corporate governance. Indices of Standard & Poor's, an American financial services company and Dow Jones Indexes merged in 2012 to form S&P Dow Jones Indices. The DJSI is managed cooperatively by S&P Dow Jones Indices and RobecoSAM (sustainability-indices.com). India has also joined the world by launching its own S&P BSE-GREENEX in February, 2012. It is the 25th dynamic index hosted on the Bombay Stock Exchange which assesses the 'carbon performance' of stocks based on purely quantitative performance based criteria using publicly disclosed energy and financial data (S&P BSE-GREENEX).

Varieties of other sustainability metrics are evolving and being validated. New approaches for measuring sustainability impacts are emerging. Sustainability Balanced Scorecard is one such approach which helps in linking organization's strategic objectives and goals with measures and actions (Grayson et al., 2008). Grayson et al. (2008) also advocate a new approach to corporate sustainability called S²AVE - Shareholder and Social Added Value with Environment restoration, committed towards all stakeholders including society and environment.

Context-based measurement models like the Ecological Footprint (EF) tool (Rees, 1992) also exist for environmental reporting. However, they are rarely used in business context. The Social Footprint Method devised by McElroy et al. (2007) is a quantitative quotients-based method for measuring and reporting on the social sustainability of an organization. The concept and approach of 'sustainability quotients' in ecological and social contexts suggests that sustainability is best understood in terms of the impact organizations can have on the carrying capacity of non-financial capital, or what in the social case is called 'anthro' capital McElroy et al. (2007).

This study focuses on developing a disclosure or reporting based sustainability index.

Objectives

The main objectives are:

1. To study the corporate sustainability practices followed by Indian Companies.
2. To examine the relationship, if any, between sustainability disclosure practices and company characteristics.

Sample

To achieve the objectives and for studying the corporate sustainability practices followed by Indian companies, a sample of companies listed on the BSE500 index were originally selected. BSE500 index was chosen as it represents nearly 93 per cent of the total market capitalization on Bombay Stock Exchange and it covers all 20 major industries of the economy (Sikand et al., 2013; BSE website). Given the long term nature of sustainability, a longitudinal study over a period of 6 financial years i.e. from 2006-2007 to 2011-2012 was undertaken for a useful and complete analysis. The year 2006-07 was chosen as the initial year for the study as in January 2006 the recommendations of the Narayan Murthy Committee (2004) constituted to assess the adequacy of corporate governance practices came into effect. The committee's recommendations led to the revision of the Clause 49 of Listing requirements of SEBI (SEBI circulars, 2000, 2004 and 2006). So in choosing the period for this study starting from 2006-2007 it was deemed appropriate to assume that the sample companies would mostly comply with (atleast) all the mandatory requirements of Clause 49 (Kaur et al., 2009). This allowed the analysis of the reporting and disclosures made by the sample companies based on guidelines other than Clause 49.

From the original sample of BSE500 companies, 245 companies were eliminated as they were acquired / merged, delisted, liquidated or naturally replaced by the end of financial year 2011-12. 25 companies were further excluded as they had a reporting period other than the financial year (Bettman and Weitz, 1983; Sikand et al., 2013). By doing this same period of comparison and control of extraneous factors like economic and political environment etc. was ensured. After extensive efforts of collecting the 6 year data through annual reports, Capitaline Plus corporate database, Directors' database and company websites, 45 companies, with missing data of one or more years, were further eliminated to derive the final sample which consisted of 185 companies (Sikand et al., 2013). Reporting and disclosure practices of these 185 companies were studied over a period of 6 years.

The final sample of companies represented 19 sectors depicted in Figure 1. The Finance sector (17 per cent) makes up the largest group of companies, followed closely by industries such as Healthcare (10 per cent), Capital Goods (9 per cent) and Transport equipments (8 per cent).

The first three sectors with the highest number of companies in the sample as mentioned above can also be classified as 'Low Profile' sectors (Hackston and Milne, 1996) as they represented industries with low consumer visibility, a low level of political risk, or low degree/intensity of competition. Transport equipments and Agriculture sectors classified under 'High profile' (Hackston and Milne, 1996) jointly contributed 14 per cent of total companies in the sample. A total of 66.49 per cent (123 companies) companies in the sample represented 'Low Profile' sectors.

INSERT FIGURE 1 ABOUT HERE

The average capitalization of the sample companies over the six year period was 160770 million rupees. The companies in Finance, and Oil and Gas sectors constituted 20 per cent each of the total market capitalization of the sample. The companies in Agriculture, Textile, Tourism, Telecom, Consumer Durables, Transport Services and Miscellaneous sectors together constituted less than 5 per cent of the total market capitalization of the sample. Reliance Industries Ltd. belonging to Oil and Gas sector was the largest company in the sample in terms of market capitalization.

The average size of the sample companies, in terms of total assets measured in 2005 was 27960 million rupees and in 2011-12 were 62960 million rupees. The average total assets of sample companies over 6 years were 47190 million rupees. In terms of total assets over the 6 year period, the smallest company in the sample was Tata Investment Corporation Ltd. and the largest company again was Reliance Industries Ltd.

The average age of companies, calculated in 2011-12, was 48.7 years. Allahabad Bank (147 years) was the oldest company which belonged to Finance sector and the 12 years old Indiabulls Financial Services Ltd. (Finance), Godrej Consumer Products Ltd. (FMCG) and Ultratech Cemco Ltd. (Housing) were the youngest amongst the sample companies. 6 per cent companies were more than 100 years old, of these 58 per cent belonged to the Finance sector.

It was also interesting to observe that in March 2012, out of a total of 200 Indian institutional participants in United Nations Global Compact (UNGC), only 70 (35 per cent) were listed companies. The remaining were academic institutions or societies, business associations, cities and NGOs. Of these 70 companies 40 per cent are a part of the final sample used in this study. Only 26 Indian companies had filed a sustainability report under the GRI framework and presented it for assessment. 46 per cent of these companies are a part of the sample in this study. 2011 saw the highest number of Indian companies (52) since 2001, to have presented their sustainability reports to GRI for assessment. From this it can be analyzed that only 15 per cent and 6 per cent of sample companies participated in voluntary sustainability disclosure initiatives of UNGC and GRI respectively. This leads to an assumption that companies in the sample would not tend to perform too well on the sustainability disclosures in their annual reports. This assumption would be tested using the methodology discussed in the following pages of this article/paper.

Materials and Methods

This study made use of secondary data for the purpose of accomplishing its objectives. Data was collected from audited Annual Reports filed with the Stock Exchanges and available from company and stock exchange websites and Capital Market database 'Capitaline Plus'.

The type of secondary data that was used in the study included the information of companies listed on BSE and comprising BSE 500 companies, information of company date of incorporation and listing, mergers/acquisitions, liquidations, de-listing etc., financial information such as Market Capitalization, Total Assets, Sales etc.

Annual reports were chosen as the most appropriate data source in the absence of other reliable and authentic secondary sources to study the environmental and social aspects of sustainability. Annual reports have been successfully used, over other published documents, by many researchers in the past. Evidence was found regarding annual reports being used as a data source in studies of organizational behaviour and strategy (Arndt and Bigelow, 2000; Bettman and Weitz, 1983; Salancik, G. and Meindl, J., 1984). Annual reports provide data which can be compared over years (Bettman and Weitz, 1983; Arndt, M. and Bigelow, B., 2000) for a broad sample of companies. Annual reports have been consistently used in research exploring issues related to sustainability (Bansal, 2005), especially disclosures related to environmental and social quality and their correlation with performance (Clarkson et al., 2008; Cormier et al., 2005; Hackston and Milne, 1996; Maignan and Ralston, 2002; Patten, 2002). Annual reports are a significant communication tool for general public and an instrument of impression management (Arndt and Bigelow, 2000). One concern in using annual reports as a data source has been the probability of inflation in the contents. However, this may be dismissed on the grounds that the companies can be held accountable for their commitments in these reports (Krut and Munis, 1998). Therefore content of the annual reports can be assumed to be reasonably accurate and reliable.

Content analysis was used to analyze the sustainability practices. In content analysis a text or script is codified based on predefined criteria (Weber, 1988). Subsequently, based on the selected scoring system for quantification of disclosures, index or scales are developed and used for further analysis and inferences such that they capable of replication (Krippendorff, 1980). Content analysis has been widely used in previous studies on environmental and social responsibility disclosure such as by Abbott and Monsen, 1979; Bowman, 1984; Clarkson et al., 2008; Cormier et al., 2005; Guthrie and Mathews, 1985; Guthrie and Parker, 1990; Hackston and Milne, 1996; Maignan and Ralston, 2002; Patten, 2002 as well as in sustainability studies (Bansal 2005; Galbreath 2011).

A Corporate Sustainability Index (CSI) along with decision rules was developed. The Index was developed through a systematic approach by identifying, quantifying and analyzing the selected components that will constitute the index. This was strongly influenced by theory, practicality and simplicity in design and implementation (Bossel, 1999; Singh et al., 2009; Warhurst, 2002). The frameworks of World Business Council for Sustainable Development, the Global Reporting Initiative, the United Nations Global Compact Principles, Millennium Development Goals, the Equator Principles and International Finance Corporation's Performance Standards on Social and Environmental Sustainability as well as its Environmental, Health and Safety (EHS) Guidelines formed the foundation for development of a sustainability reporting and assessment index. All important aspects and indicators reflecting an organization's commitment, performance and quality of information disclosed with regards to sustainability were included in the index. Composite indicators or categories were also selected based on

the earlier researches and works of Abbott and Monsen (1979), Bansal (2005), Clarkson et al. (2008), Cormier et al. (2005), Davis-Walling and Batterman (1997), Dias-Sardinha and Reijnders (2001), Galbreath (2011), Gamble et al. (1995), Gray *et al.* (1995), Hackston and Milne (1996), ISO (1999), Kaur et al. (2009), Maignan and Ralston (2002), Morhardt (2001), Morhardt et al. (2002), Patten (2002), Waddock and Graves (1997), Westphal and Zajac (1998), Williams (1999) and Wiseman (1982). This resulted in a consolidation of different indicators in one composite index which encompassed all relevant aspects of sustainable development - governance, sensitivity towards societal issues and environmental integrity.

The CSI was designed to measure the extent and quality of sustainability disclosures of organizations—including both positive and negative contributions. The Index had three parts: (i) Governance and Engagement (GE) indicators, (ii) Environmental Concern (EC) indicators and (iii) Social involvement (SI) indicators.

The first part of the index was related to aspects of governance and stakeholder engagement. This part assessed the extent and completeness or details of information regarding the governance structure of the organization including the composition, qualifications and expertise of the Board of Directors and its committees as well as mechanisms for linking their compensation to the performance of the organization. This part also assessed an organization on the approaches it adopted for stakeholder engagement and how it responded to their recommendations and concerns.

The second part of the CSI was related to the second dimension of sustainability i.e. environmental concern. It measured an organization's impacts on natural systems, including ecosystems, land, water and air. This part consisted of four categories – Environmental vision, strategy and management, Environmental performance indicators, Compliance and recognitions / awards, and Environmental spending. Every category included different aspects and indicators which were scored based on the extent of disclosure in the annual reports. Environmental Indicators covered performance related to inputs (e.g., material, energy, water) and outputs (e.g., emissions, effluents, waste). In addition, they covered performance related to biodiversity, environmental compliance, and other relevant information such as environmental expenditure and the impacts of products and services.

The Social Involvement part of the index assessed the impacts of an organization on the society within which it operates. It concerned with the third dimension of sustainability and consisted of five categories – Labour practices & decent work performance indicators, Human Rights performance indicators, Society performance indicators, Product responsibility performance indicators and Compliance & recognitions / awards. It also included the measures taken by an organization to eradicate poverty, discrimination, child labour and corruption.

Each one of the categories included aspects and indicators which were scored based on the extent and quality of disclosure in the annual reports.

INSERT TABLE I ABOUT HERE

Scoring system:

The methodology of designing this index overcomes the shortcomings of many previous systems where the topics / items were scored more on what was actually reported in place of what should have been reported.

Different scoring systems to measure environmental concern and social involvement had been adopted by researchers in the past. Some studies used variable scores for different items or indicators e.g. scores of '0' and '1' for some topics, '0' to '2', '0' to '3' and even '0' to '4' for some topics (Davis-Walling and Batterman, 1997 and GRI, 2006). '0' signified no reporting/mention and score increased depending on the level and nature of detail of the narrative. The maximum score was representative of a comprehensive detail along with quantitative / monetary measure of a topic. Then there were studies by Bansal (2005), Galbreath (2011) and Westphal and Zajac (1998) which used a binary system of scoring using '0' and '1' where '0' represented no indication of the item and '1' represented some presence. Many similar studies in the past gave equal weightage to all items/topics and used a scoring system of '0' to '3' for all items/topics, the most prominent of such studies being by Wiseman (1982) and ISO (1999). Wiseman Index and scoring system (Wiseman 1982) had been used by many researchers for almost over two decades with minor modifications by some yielding satisfactory results. Patten's (2002) modified Wiseman index had scores of '0' to '8' for every item while, Cormier et al. (2005) used an index similar to Wiseman (1982) but scored each item on a scale of '1' to '3'.

Considering that all indicators or items on the index may not be capable of being treated or rated at the same levels of comprehensiveness by assigning points on a common fixed scale e.g. 0 or 1, 0 to 3, 1 to 3 etc., a system of variable scores for different indicators / items was adopted. This avoided any superficial and forced definition of a score on any item of the index. Out of a total of 80 items on the index, 45 items

use up to three points each (Scale of 0 – 3) depending on the comprehensiveness of coverage, and 35 items worth two points each (Scale of 0 – 2). For the determination of the quality of information, the composite score is obtained by summing up the scores of all indicators in each category of the CSI. An equal weightage and importance is attached to all items / indicators. Therefore, companies analyzed with the index can achieve a minimum of '0' points and a maximum of 205 points.

The scoring system treats the items more generically and comprehensively, therefore ensuring wider applicability amongst different kinds of companies and sectors. Explicitly laid out decision rules for scoring each item / indicator makes it less subjective and easy to replicate results.

Pre-test:

Since there was an element of subjectivity arising out of interpretation of the disclosures in annual reports and scoring each item on the index constructed for this study, pretesting of the initially constructed index was done for a small sample from the annual reports to be used for this study. A random sub-sample of twenty companies was selected for pretesting. Data was extracted from their annual reports, coded and scored on the index by the author and an additional academic expert separately (Hacksten and Milne, 1996). Two rounds of pretesting were performed. These pretesting rounds and multiple iterations of the index, progressively achieved consensus on what constituted a good sustainability disclosure, and led to the finalization of the decision rules. The final round scores were compared and tests were performed to ensure inter – rater reliability and internal consistency of the index.

The inter - rater reliability was tested using content analysis reliability measure Krippendorff's α (Krippendorff, 1980; Hacksten and Milne 1996) to assess the levels of inter-rater agreement occurring above chance. The reliability test indicated Krippendorff's $\alpha = 0.895$. In the absence of any defined standard for establishing reliability of environmental and social disclosures using content analysis, 0.80 (80 per cent agreement above chance) or better is found to be generally accepted level of inter-rater reliability (Guthrie and Mathews, 1985; Hackston and Milne, 1996). However, there are studies like by Wimmer and Dominick (1991) which suggest a Krippendorff's α of 0.75 or better as acceptable. As the inter-rater reliability score of $\alpha = 0.895$ was found to be satisfactory, the scores from the author were retained for the purpose of the study. Content analysis was later performed by a single rater– the author, using the final index and decision rules after modification resulting from the pretesting process.

For assessing the internal consistency of the items, Cronbach's alpha coefficient (Cronbach, 1951) was computed. The results obtained from the composite CS Index with Chronbach's alpha = 0.950 confirmed the reliability of the index. The Cronbach's alpha values for all the three component parts of the index were above 0.70 thus ensuring the construct's internal consistency and validity (Huang et al., 2012).

The score for every sample company based on the final index was computed for each year (2006 to 2011) separately and then a 6-year average was calculated.

The scores were normalized by converting them into their natural log figures for making them statistically comparable. Normalized scores were further adjusted by multiplying all scores by ten to obtain more visually manageable scores (Singh et al., 2009). These scores were used as dependent variables for further tests and accomplishing the objectives of the study.

Independent Variables:

1. Sector Classification

Several prior studies in this domain have found sector or industry classification as a factor influencing the disclosure practices of companies. Hackston and Milne (1996) established a positive association between high and low profile industries and the measures of social disclosures adopted by them. High-profile industry companies were found to disclose significantly more social and environmental information than low-profile industry companies. Studies conducted by Patten (1991) and Roberts (1992) produced similar findings. Patten (1991) attributes an industry's political visibility as a key influencer of the kind of disclosures made by a company. According to him a company's environmental and social disclosures are aimed at warding off unwarranted demands and criticism from advocates of social justice. Dierkes and Preston (1977) and Kelly (1981) argue that there is a higher probability of environmental disclosures by companies in the primary, secondary and specifically extractive sectors, whose activities visibly and negatively affect the environment. On the other hand consumer-oriented and companies engaged in tertiary sector reveal more about their social concern with an objective to boost sales and improve their corporate image (Cowen et al., 1987). Social disclosures appeared to be robustly associated with type of industry (Gray et al., 1995).

The sample companies in this study were categorized into 19 sectors / industry groups. These categories were used to test the hypothesis that the sector to which a company belongs influences the extent and quality of corporate sustainability disclosures.

2. Size of company

A number of past studies such as Kelly (1981), Trotman and Bradle (1981), Pang (1982), Belkaoui and Karpik (1989), Patten (1991, 1992) and Gray et al. (1995) have established a relationship between company size and the extent of disclosures especially about the environmental and social impacts of business operations.

Neu et al. (1998) and Scott (1994) found a positive association between company size and disclosure practices, a finding supported by more recent studies conducted by Cormier and Magnan (1999) and Cormier et al. (2005). This is strongly connected to the agency and legitimacy theory. Larger companies by virtue of their large scale of operations, make a greater impact on the environment and society (Cowen et al., 1987). They are also likely to have large number of shareholders expecting complete information on the company's impacts and steps to mitigate adversities. Large companies attract more stakeholder scrutiny (Fombrun, 1996; Suchman, 1995) and effectively use annual reports to communicate such information (Cowen et al., 1987). Hackston and Milne (1996) argue that a large 'High-profile' company, in terms of assets or sales, disclosed more information about its social and environmental impacts. However, for a 'low-profile' company, size-disclosure relationship did not hold true. Davey (1982), Ng (1985) and Roberts (1992) also failed to establish any significant impact of company size on disclosure practices.

This study attempts to evaluate the potential association of company size on the extent and quality of disclosure practices of Indian listed companies.

Different methods to measure company size have been employed in previous studies e.g. sales was used by Trotman and Bradley (1981) and Kimberly (1976) and log of sales was used by Belkaoui and Karpik (1989) and Patten (1991). Average revenue over the four years of the study period was used by Roberts (1992). Some researchers used multiple measures for size in their studies such as Trotman and Bradley (1981) who used total assets along with sales as proxies to measure company size. Patten (1991) also used *Fortune* 500 rankings along with log vale of sales.

Reasons for choice of certain measures of company size over the others were not documented in literature and could not be ascertained, so two measures of size – market capitalization and total assets were used in this study. The natural log of total assets (Bansal, 2005; Clarkson et al., 2008) and the natural log of Market Capitalization (Hackston and Milne, 1996) were used as proxies for company size. The total assets and market capitalization values were transformed into their log values to achieve normal distributions (Cox and Snell, 1981).

3. Age of organization

Age is calculated as the number of years since the establishment or incorporation of the company. The age of a company in the year 2012 was taken for the purpose of the study. Based on previous studies, company age is assumed to be positively related with the quantity and quality of disclosures. As Roberts (1992) puts it, as a mature firm is more concerned about its reputation, it is expected to make more social responsibility disclosures as compared to young companies.

Analysis

The main objective of the study was to ascertain the sustainability disclosure practices of Indian companies. This was achieved by constructing and validating a Corporate Sustainability Index. The details of this have been discussed in the earlier parts of this article. Another objective of this study focused on empirically testing the association between CS scores calculated by using the index and the three identified corporate characteristics which could be potential determinants of corporate sustainability disclosures i.e. the industry classification /sector, company size and age. Multiple techniques were used to examine their effects on the sustainability disclosures. The results have been discussed below.

Sustainability scores

The sustainability scores were calculated for all companies by using the CSI constructed and validated for this study. Table II depicts the summary statistics of sustainability scores obtained by the sample companies.

INSERT TABLE II ABOUT HERE

A company in the Healthcare sector scored the lowest on Governance & Engagement part of the index whereas a company in Information Technology sector scored the highest. Both were classified as 'Low Profile' companies. Two companies with the lowest ECS of 1 belonged to Finance and Telecom sectors whereas the highest ECS of 46.67 was attributed to a company in the sector named Miscellaneous. The

lowest individual scores in SIS (5) and CSS (20) were attributed to companies in the Finance sector whereas the highest were of companies in the Information Technology Sector. It is interesting to note that none of the companies in the 'High profile' sectors obtained either a minimum or a maximum score in any of the four scoring categories.

These results were subjected to further investigation by conducting a sector wise analysis of sustainability scores. Table III shows the results of comparison of sustainability scores across the 19 sectors whereas Table IV shows the results of comparison of sustainability scores across two broad categories of High and Low Profile sectors.

INSERT TABLE III ABOUT HERE

As illustrated in Table III, the Power sector had the highest mean Corporate Sustainability (CS) Score by obtaining either of the top two ranks in the remaining three categories of GES, ECS and SIS too. It was followed by Oil & Gas and Agriculture sectors obtaining the second and third rank respectively. All three of these are 'High Profile' sectors. Transport Services sector had the lowest mean CS Score followed by Finance sector. Although, most of the sectors had similar or very less variation in rankings in GES, ECS, SIS and CSS some exceptions were noteworthy. Information Technology sector had the highest mean Governance & Engagement score and was ranked fourth in SIS but was amongst the lowest four sectors in terms of the ECS. Similar trend was seen in Telecom sector. Both these are 'Low Profile' sectors thereby having high GES and SIS but low ECS. Transport and Finance sectors had some of the lowest scores in all four categories.

INSERT TABLE IV ABOUT HERE

It is interesting to note in Table IV, that on further clubbing of the nineteen sectors into two broad categories – High and Low profile, there is almost negligible difference in the mean GES, which is slightly higher for Low profile sectors, and in the mean SIS which is only marginally higher in High Profile sectors. In ECS and CSS, the High Profile sectors have higher mean scores.

ANOVA was applied to test whether there was any significant difference between sectors in terms of their sustainability disclosure scores (Huang et al., 2012). Results in Table V show that the assumption can be accepted only at 10 per cent level of significance. So, it can be concluded that population variances are the same for all the sectors.

INSERT TABLE V ABOUT HERE

INSERT TABLE VI ABOUT HERE

Table VI shows the F-Statistic of 2.087 with a corresponding p-value of 0.008 which is smaller than 0.05, suggesting that CS scores significantly vary across sectors. ANOVA results suggest that there is at least one sector with statistically significant difference from the other sectors in terms of the CS scores. To further investigate and find which two sectors are significantly different, Post Hoc tests were conducted. The Multiple Comparison Table (Table VII) reproduced below shows only the combinations/pairs of sectors with significant difference in the sustainability disclosure scores. Companies in Chemical & Petrochemical, Consumer Durables, Diversified, Miscellaneous, Telecom, Textile and Tourism sectors did not exhibit any significant difference in their CS scores and were omitted while preparing Table VII.

INSERT TABLE VII ABOUT HERE

The significance levels for the combination Metal, Metal Products & Mining sector and Transport Services is 0.036 which is less than 0.05 implying that companies from these two sectors are different in the CS disclosure practices. Similarly, the test suggests that there are significant differences between Oil & Gas sector and Finance, Healthcare, Housing Related and Transport Services sectors. CS scores of companies in Agriculture sector also significantly varied from those of the above mentioned five sectors and Capital Goods sector. Significant variation was also found in sustainability scores of companies in the Power sector and those belonging to Finance and Transport Services sectors.

ANOVA was also used to test whether there was any significant difference in the sustainability disclosure practices of large and small companies, and young and old companies. Table VIII illustrates the results of analysis of variances between CS scores of companies and their size and age.

INSERT TABLE VIII ABOUT HERE

Table VIII shows the F-Statistic of 1.724 for Market Capitalization with a corresponding p-value of 0.026 which is smaller than 0.05, suggesting that CS scores significantly vary with size. Similar results are seen for Total Assets. However, the p-value for Age is greater than 0.05 making the variations in CS Scores between older and young companies statistically insignificant. ANOVA results in Table VIII advocate that size, represented by both Market Capitalization and Total Assets, is significantly associated with sustainability disclosure practices.

Conclusion:

This study has proposed a Corporate Sustainability Index (CSI) capable of measuring the extent and quality of sustainability disclosures by Indian companies and examined their relationship with various company characteristics. The index demonstrated robustness in all stages of validation and reliability testing.

The study revealed critical data on corporate sustainability disclosure practices in India. The current position of sustainability disclosure practices of Indian companies does not put India in a favourable position vis a vis other countries of the world like Australia, Austria, Canada, Denmark, France and Japan. These are a few of the countries which have enforced mandatory sustainability reporting. In India, Clause 49 of Listing agreement of Securities and Exchange Board of India, aimed at ensuring compliance to principles of good governance is mandatory for all listed companies. However, integration of environmental and social activities in company reports is purely voluntary. This lack of regulation and mandate on environmental and social reporting is taken as the main and obvious contributing factor for such a status. It was further analyzed that only 15 per cent and 6 per cent of sample companies participated in voluntary sustainability disclosure initiatives of UNGC and GRI respectively. This supported the assumption about the unsatisfactory performance of the companies on the sustainability disclosures in their annual reports.

Only 41 per cent of total sample companies had average CS scores higher than the sample average. 53 per cent of these companies belonged to five High profile sectors.

In terms of 19 sector classification, 9 sectors had less than sample average CS score of 49.78. Surprisingly, Chemical & Petrochemicals and Transport Services, two of the seven High profile sectors, had more than 50 per cent of their constituent companies with CS scores of less than the sample average. The Power Sector, with the scores of all the three companies in that sector put together, had the highest sector average CS score of 65.44. The highest individual power company's CS score was 76.33 which was much lower than the sample highest CS score of 119.17 attributed to a company in the Information Technology Sector. It was further analyzed that the power sector obtained either of the top two ranks in the three constituent CSI categories of GES, ECS and SIS too thereby highlighting the consistency in its good performance on all the three dimensions of sustainability. It was followed by Oil & Gas and Agriculture sectors obtaining the second and third rank respectively. All three of these were categorized as 'High Profile' sectors. The Transport Services sector (with a total of 4 companies) had the lowest sector average CS score of 38.42. The lowest individual transport services' company CS score was 30.83. This was followed by the Finance sector which had the maximum representation in the sample and also a company with the lowest individual CS score of 20.

Information Technology sector had the highest mean Governance & Engagement score (GES) and was ranked fourth in SIS but was amongst the lowest four sectors in terms of the ECS. Similar trend was seen in Telecom sector. Both these were 'Low Profile' sectors thereby having high GES and SIS but low ECS. Empirical testing of the data clearly demonstrated a significant variation between sustainability scores of companies with respect to size measured as market capitalization and total assets. Big companies both in terms of market capitalization and total assets have higher CS scores. This finding is consistent with results of prior studies. No significant variation between the CS scores was found with respect to age of company, hence it could not be said that older companies tend to have better sustainability disclosures as compared to younger companies.

The outcome of this research – a validated Corporate Sustainability Index can be used by investors, financial institutions and other stakeholders for assessing and evaluating the companies. The findings of this study can be valuable to the policy makers and regulators in defining policies and standards applicable to the disclosure of governance, environmental impacts and social involvement information by companies, both in emerging and developed markets. The index can also be used by companies for self assessment of their practices by carrying out longitudinal and inter-firm comparisons. For logical and consistent generalization, this study can be further replicated on a larger and global scale through an inter-country analysis.

Concerted efforts and intervention by the regulators and voluntary associations would be required to improve the sustainability performance and disclosure practices adopted by Indian companies at a faster pace.

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Figure 1: Sector classification of sample companies

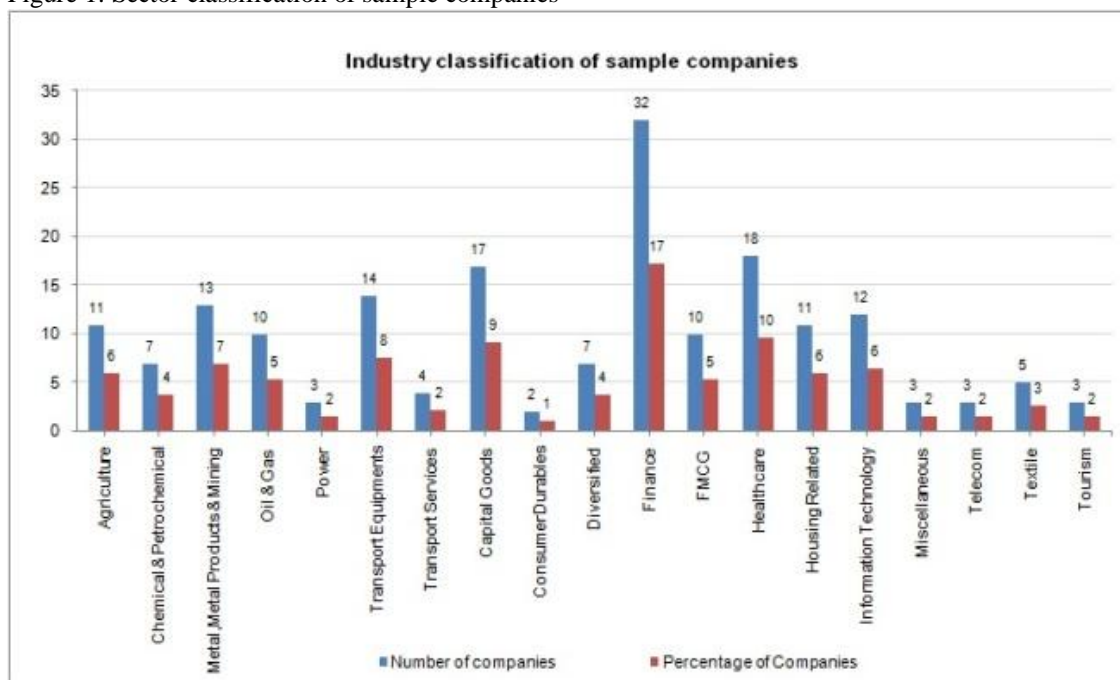


Table I: Structure of Corporate Sustainability Index (CSI)

Part	Category	Aspects	Indicators / Items
Governance & Engagement (GE)	Governance	1	12
	Stakeholder Engagement	1	3
	Total GE Score (GES)	2	15
Environmental Concern (EC)	Environmental vision, strategy and management	1	8
	Environmental performance indicators	5	17
	Compliance and recognitions / awards	1	3
	Environmental spending	1	2
	Total EC Score (ECS)	8	30
Social involvement (SI)	Labour Practices & Decent Work Performance Indicators	4	17
	Human Rights Performance Indicators	1	2
	Society Performance Indicators	2	9
	Product Responsibility Performance Indicators	1	4
	Compliance and Recognitions / awards	1	3
	Total SI Score (SIS)	9	35
Total Corporate Sustainability Score (CSS)		19	80

Table II: Summary statistics of Sustainability Scores

Scores	Minimum	Maximum	Mean	Std. Deviation
Governance & Engagement Score (GES)	7	28.17	15.55	3.74
Environmental concern Score (ECS)	1	46.67	14.13	9.51
Social Involvement Score (SIS)	5	51.5	20.10	7.23
Corporate Sustainability Score (CSS)	20	119.17	49.78	16.96

Table III: Comparison of Sustainability scores across 19 sectors

Sector		GES ¹ ($\alpha^*=0.752$)	ECS ² ($\alpha^*=0.906$)	SIS ³ ($\alpha^*=0.901$)	CSS ⁴ ($\alpha^*=0.950$)
Chemical & Petrochemical	Mean	14.0476	18.2381	17.4762	49.7614
	Std. Deviation	3.51546	8.08569	5.28925	16.3966
Metal, Metal Products & Mining	Mean	15.4231	21.641	20.9487	58.0131
	Std. Deviation	3.99688	9.07297	8.67558	20.1626
Oil & Gas	Mean	15.9	19.3	26.8333	62.033
	Std. Deviation	4.28405	9.80105	11.2891	23.3614
Agriculture	Mean	15.7121	22.8939	21.303	59.9091
	Std. Deviation	3.69767	9.50066	6.41561	16.3507
Capital Goods	Mean	15.1863	15.0196	17.0294	47.2365
	Std. Deviation	2.74677	5.90547	6.35911	13.4628
Consumer Durables	Mean	17.6667	19.1667	21.5	58.335
	Std. Deviation	7.07107	13.1993	6.12826	26.3963
Diversified	Mean	14.5476	15.3571	19.4286	49.3357
	Std. Deviation	2.6505	6.87954	5.83243	11.14
Finance	Mean	15.4062	3.3542	20.2604	39.02
	Std. Deviation	2.53857	1.94676	6.05041	7.82315
FMCG	Mean	16.8167	15.4167	19.7	51.932
	Std. Deviation	5.35093	8.40901	7.02676	19.5697
Healthcare	Mean	14.7037	13.6852	18.0648	46.4539
	Std. Deviation	3.6562	5.52442	5.64243	12.2112
Housing Related	Mean	14.0758	15.1364	16.8939	46.1064
	Std. Deviation	4.20011	8.23233	7.16716	18.1315
Information Technology	Mean	19.1389	10.3194	22.5694	52.0283
	Std. Deviation	4.78942	11.1741	11.3504	26.2538
Miscellaneous	Mean	16.1667	18.8889	20.9444	56
	Std. Deviation	2.02759	24.1139	6.92085	27.0716
Power	Mean	18.6667	23.5556	23.2222	65.4433
	Std. Deviation	5.65931	2.50185	5.45266	12.8085
Telecom	Mean	16.1667	7.5	22.8889	46.5567
	Std. Deviation	4.25245	7.6974	8.03522	18.9779
Textile	Mean	14.7333	18.7667	19.4333	52.934

	Std. Deviation	1.77404	8.31799	6.99464	15.4541
Tourism	Mean	15.9444	12.8333	14.7222	43.5
	Std. Deviation	4.57752	6.58492	2.41715	13.4532
Transport Equipments	Mean	15.0167	18.1643	22.1024	55.2836
	Std. Deviation	3.94476	5.75082	4.94151	11.3672
Transport Services	Mean	13.9583	5.9583	18.5	38.415
	Std. Deviation	2.83945	2.80005	5.20505	10.3079
Total	Mean	15.5508	14.1268	20.1023	49.7801
	Std. Deviation	3.74214	9.50738	7.23352	16.9585

¹ - Governance & Engagement Score² - Environmental Concern Score³ - Social Involvement Score⁴ - Corporate Sustainability Score

* Cronbach's alpha

Table IV: Comparison of Sustainability scores in Low and High profile sectors

Items	Sectors		High Profile Sectors (no. of Sectors = 7 no. of Cos. = 62)	
	Low Profile Sectors (no. of Sectors = 12 no. of Cos. = 123)		Mean	SD
Governance & Engagement Score (GES) (Chronbach's $\alpha = 0.752$)	15.6436	3.68484	15.3667	3.8772
Environmental Concern Score (ECS) (Chronbach's $\alpha = 0.906$)	11.4702	8.7886	19.3973	8.7011
Social Involvement Score (SIS) (Chronbach's $\alpha = 0.901$)	19.2561	6.91262	21.7812	7.61261
Corporate Sustainability Score (CSS) (Chronbach's $\alpha = 0.950$)	46.3701	15.6539	56.545	17.5339

Table V - Homogeneity of Variances

Test of Homogeneity of Variances			
Sustainability Score			
Levene Statistic	df1	df2	Sig.
1.501	18	166	0.095

Table VI - ANOVA - CSS and Sector classification

Corporate Sustainability Score					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.689	18	0.038	2.087	0.008
Within Groups	3.042	166	0.018		
Total	3.731	184			

Table VII: Multiple Comparisons

Dependent Variable: CSS						
LSD						
(I) Industry	(J) Industry	Mean Difference (I-J)	Std. Error	Sig.	95 per cent Confidence Interval	
					Lower Bound	Upper Bound
Agriculture	Capital Goods	.10462*	0.05239	0.047	0.0012	0.208
Agriculture	Finance	.18052*	0.04732	0	0.0871	0.2739
Agriculture	Healthcare	.10825*	0.05181	0.038	0.006	0.2105
Agriculture	Housing Related	.12401*	0.05773	0.033	0.01	0.238
Agriculture	Transport Services	.18785*	0.07905	0.019	0.0318	0.3439
FMCG	Finance	.10552*	0.04905	0.033	0.0087	0.2024
Information Technology	Finance	.09503*	0.04583	0.04	0.0046	0.1855
Metal, Metal Products & Mining	Finance	.15592*	0.04453	0.001	0.068	0.2438
Metal, Metal Products & Mining	Transport Services	.16326*	0.07741	0.036	0.0104	0.3161
Oil & Gas	Finance	.17774*	0.04905	0	0.0809	0.2746
Oil & Gas	Healthcare	.10548*	0.05339	0.05	0.0001	0.2109
Oil & Gas	Housing Related	.12123*	0.05915	0.042	0.0044	0.238
Oil & Gas	Transport Services	.18508*	0.08009	0.022	0.027	0.3432
Power	Finance	.22857*	0.08174	0.006	0.0672	0.39
Power	Transport Services	.23590*	0.1034	0.024	0.0318	0.4401
Transport Equipments	Finance	.15229*	0.04338	0.001	0.0666	0.2379
Transport Equipments	Transport Services	.15962*	0.07675	0.039	0.0081	0.3112

* The mean difference is significant at the 0.05 level.

Table VIII: ANOVA - CSS and company characteristics

		Sum of Squares	df	Mean Square	F	Sig.
Market Capitalization	Between Groups	52.851	144	0.367	1.724	0.026*
	Within Groups	8.09	38	0.213		
	Total	60.941	182			
Total Assets	Between Groups	72.153	145	0.498	2.698	0*
	Within Groups	7.193	39	0.184		
	Total	79.346	184			
Age	Between Groups	105456.384	145	727.285	0.692	0.938
	Within Groups	41011	39	1051.564		
	Total	146467.384	184			

* Significant at the 0.05 level.




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TO WHOMSOEVER IT MAY CONCERN

This is to certify that **MS PUNEET SIKAND, Ph.D Candidate,**
Lovely Professional University, Phagwara, Punjab had
participated in **AIMA's 6th National Conference on 'Developing
Women Business Leaders: Agenda for Action'** held on **20-21
January 2012 at Hotel Le-Meridien, New Delhi.**


ASEEM KUMAR
Dy Director (CMD)
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"NEW PARADIGMS IN MANAGEMENT THEORY AND PRACTICE"

(4th - 5th September, 2010)

PREM KUMAR

This is to Certify that Prof./Dr./Mr./Ms. **PREM KUMAR** participated in 7th International Conference of **Lovely Professional University Punjab** on "New Paradigms in Management Theory and Practice" held 4th-5th September, 2010 at School of Management Studies, Punjab University Patiala.

1. He/She also presented paper titled *Impact on Corporate governance on Corporate social responsibility disclosed by Indian Companies*
2. He/She also participated in the organization of the 7th International Conference and acted as.....

X

[Signature]
 (Dr. Prem Kumar)
 Conference Chair

[Signature]
 (Dr. A.S. Chawla)
 Head SMS
 & President PCMA

[Signature]
 (Dr. Ashwani Bhalla)
 Conference Secretary
 & Executive Vice-President PCMA

[Signature]
 (Dr. B.B. Singla)
 Conference Convener

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