A Content Analysis of Sustainability Dimensions in Annual Reports

Sayed MR. Afjei
safje001@fiu.edu

DOI: 10.25148/etd.FI15032103
Follow this and additional works at: https://digitalcommons.fiu.edu/etd

Part of the Business Administration, Management, and Operations Commons, Business and Corporate Communications Commons, Business Law, Public Responsibility, and Ethics Commons, and the Management Sciences and Quantitative Methods Commons

Recommended Citation
https://digitalcommons.fiu.edu/etd/1926

This work is brought to you for free and open access by the University Graduate School at FIU Digital Commons. It has been accepted for inclusion in FIU Electronic Theses and Dissertations by an authorized administrator of FIU Digital Commons. For more information, please contact dcc@fiu.edu.
A CONTENT ANALYSIS OF SUSTAINABILITY DIMENSIONS IN ANNUAL REPORTS

A dissertation submitted in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

BUSINESS ADMINISTRATION

by

Sayed Mohammad Reza Afjei

2015
To: Dean David R. Klock  
College of Business

This dissertation, written by Sayed Mohammad Reza Afjei, and entitled A Content Analysis of Sustainability Dimensions in Annual Reports, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

_______________________________________
Sumit Kundu

_______________________________________
Aya Chacar

_______________________________________
Florence George

_______________________________________
Karen Paul, Major Professor

Date of Defense: Feb 20, 2015

The dissertation of Sayed Mohammad Reza Afjei is approved.

_______________________________________
Dean David R. Klock  
College of Business Administration

_______________________________________
Dean Lakshmi N. Reddi  
University Graduate School

Florida International University, 2015
ACKNOWLEDGMENTS

I would like to express my deepest and heartfelt gratitude to my fabulous parents and also to all my teachers, mentors, professors, and friends who helped me and made this journey possible for me.

I would like to express my appreciation to my great advisor Dr. Karen Paul. She went an extra mile and continuously helped me with a full heart and dedication to guide me through this dissertation. I am sure that without her help this dissertation would not have been possible. I am sincerely thankful to her from the bottom of my heart for all she did for me. It was an honor to have her as my advisor. Thank you Dr. Paul!

I would like to extend my deepest gratitude to every single member of the committee as well. I would like to thank Dr. Sumit Kundu especially for his full support and giving me motivation and guidance during these years. I also would like to express my thanks to Dr. Aya Chacar for being extremely kind and helpful and for giving very insightful feedbacks and significant contribution to this study. I am very much thankful for Dr. Florence George for giving me advice on statistical matters and for always having her office open to me with kindness. I would like to thank Dr. Sonia Dickinson for giving significant help and guidance for this dissertation. I extend my gratitude to Dr. Sungu Armagan for her advices as well.

I would also like to thank the University Graduate School, especially the dean, Dr. Lakshmi Reddi for their guidance and full support. I am thankful for Beatriz Sigler as well for her advice and help. I would like to express my sincere thanks to the Associate dean of the Business School, Dr. Christos Koulamas, for his support.
ABSTRACT OF THE DISSERTATION

A CONTENT ANALYSIS OF SUSTAINABILITY DIMENSIONS IN ANNUAL REPORTS

by

Sayed Mohammad Reza Afjei

Florida International University, 2015

Miami, Florida

Professor Karen Paul, Major Professor

This study examines the triple bottom line of sustainability, in the context of both profit-oriented and non-profit oriented organizations. Sustainability is a compound result of interaction between economic, environmental, and social dimensions. Sustainability cannot be achieved without balance between all three dimensions, which has implications for measuring sustainability and prioritizing goals. This study demonstrates a method for measuring organizational sustainability achievement in these three dimensions of sustainability.

Content analysis of the annual reports of corporations from the United States, Continental Europe (and Scandinavia), and Asia reveals that the economic dimension remains the preeminent aspect, and corporations still have a long way to go to reach comprehensive sustainability by maintaining a balance between the three dimensions of sustainability. The analysis also shows a high level of isomorphism in the sustainability practices of corporations, suggesting that even the most sustainable corporations are taking a somewhat passive role in prioritizing sustainability goals.
A list of 25 terms for each dimension of sustainability (economic, environmental, and social) has been developed which can be used by corporations to develop and communicate their sustainability practices most effectively to the maximum number of their stakeholders. In contrast, botanical gardens demonstrate more balance among the three dimensions of sustainability.
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHAPTER I</td>
<td></td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>CHAPTER II</td>
<td>7</td>
</tr>
<tr>
<td>LITERATURE REVIEW</td>
<td></td>
</tr>
<tr>
<td>SUSTAINABILITY</td>
<td>7</td>
</tr>
<tr>
<td>Sustainable Development</td>
<td>7</td>
</tr>
<tr>
<td>Dimensions of Sustainable Development (Triple Bottom Line)</td>
<td>18</td>
</tr>
<tr>
<td>INSTITUTIONAL THEORY</td>
<td>21</td>
</tr>
<tr>
<td>The Economic Origin of Institutional Theory</td>
<td>22</td>
</tr>
<tr>
<td>The Sociological Origin of Institutional Theory</td>
<td>28</td>
</tr>
<tr>
<td>STAKEHOLDER THEORY</td>
<td>35</td>
</tr>
<tr>
<td>Stakeholder Theory and Its Evolution</td>
<td>35</td>
</tr>
<tr>
<td>Stakeholder Theory, Ethics, and Corporate Social Responsibility</td>
<td>43</td>
</tr>
<tr>
<td>CORPORATE SOCIAL RESPONSIBILITY (CSR)</td>
<td>46</td>
</tr>
<tr>
<td>Business Ethics</td>
<td>52</td>
</tr>
<tr>
<td>SIGNALING THEORY</td>
<td>55</td>
</tr>
<tr>
<td>CORPORATE GOVERNANCE IN THE USA, CONTINENTAL EUROPE (AND SCANDINAVIA), AND ASIA</td>
<td>56</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>56</td>
</tr>
<tr>
<td>Separation between Ownership and Control</td>
<td>59</td>
</tr>
<tr>
<td>Corporate Governance in the USA</td>
<td>62</td>
</tr>
<tr>
<td>Corporate Governance in Continental Europe vs. the USA</td>
<td>64</td>
</tr>
<tr>
<td>Corporate Governance in Germany</td>
<td>67</td>
</tr>
<tr>
<td>Corporate Governance in Sweden and Norway</td>
<td>69</td>
</tr>
<tr>
<td>Corporate Governance in France</td>
<td>70</td>
</tr>
<tr>
<td>Corporate Governance in Italy</td>
<td>71</td>
</tr>
<tr>
<td>Corporate Governance in Japan</td>
<td>73</td>
</tr>
<tr>
<td>CONTENT ANALYSIS</td>
<td>77</td>
</tr>
<tr>
<td>History</td>
<td>77</td>
</tr>
<tr>
<td>Definition</td>
<td>78</td>
</tr>
<tr>
<td>Popularity, Usage, and Applications</td>
<td>79</td>
</tr>
<tr>
<td>Classifications and Categorizations</td>
<td>82</td>
</tr>
<tr>
<td>CHAPTER III</td>
<td>85</td>
</tr>
<tr>
<td>THEORY AND HYPOTHESES DEVELOPMENT</td>
<td></td>
</tr>
<tr>
<td>Balancing Sustainability in Three Dimensions</td>
<td>87</td>
</tr>
<tr>
<td>Sustainability and Endowments, Resources, Institutions, and Location</td>
<td>89</td>
</tr>
<tr>
<td>Sustainability and Culture, Attitudes, and Perceptions</td>
<td>90</td>
</tr>
<tr>
<td>Sustainability and Corporate Governance</td>
<td>92</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>DESCRIPTION</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TABLE 1: Comparison of corporate governance in USA, Japan, and Germany</td>
<td>67</td>
<td></td>
</tr>
<tr>
<td>TABLE 2: Indicators used by Corporate Knights to evaluate corporations in terms of sustainability</td>
<td>104</td>
<td></td>
</tr>
<tr>
<td>TABLE 3: Stems of the keywords for corporations and botanical gardens</td>
<td>115</td>
<td></td>
</tr>
<tr>
<td>TABLE 4: Descriptive statistics: Corporations in the USA, Europe, and Asia, and botanical gardens</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>TABLE 5: Inter-correlations matrix</td>
<td>121</td>
<td></td>
</tr>
<tr>
<td>TABLE 6: T-tests between sustainability dimensions of botanical gardens and corporations</td>
<td>121</td>
<td></td>
</tr>
<tr>
<td>TABLE 7: T-tests between sustainability dimensions of corporations</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>TABLE 8: Sample- American, European, and Asian most sustainable corporations</td>
<td>155</td>
<td></td>
</tr>
<tr>
<td>TABLE 9: Sample- List of botanical gardens</td>
<td>157</td>
<td></td>
</tr>
<tr>
<td>TABLE 10: Global Reporting Initiative (GRI) dimensions</td>
<td>158</td>
<td></td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIGURE 1: Triple Bottom Line</td>
<td>20</td>
</tr>
<tr>
<td>FIGURE 2: Internal and external changes</td>
<td>37</td>
</tr>
<tr>
<td>FIGURE 3: Stakeholders of the company</td>
<td>40</td>
</tr>
<tr>
<td>FIGURE 4: Primary and secondary stakeholders</td>
<td>40</td>
</tr>
<tr>
<td>FIGURE 5: Specific standard disclosures of GRI</td>
<td>110</td>
</tr>
<tr>
<td>FIGURE 6: Entropy measures for corporations from the USA, Continental Europe, and Asia, and botanical gardens</td>
<td>123</td>
</tr>
<tr>
<td>FIGURE 7: Coefficients of variation for corporations from the USA, Continental Europe, and Asia, and botanical gardens across the three dimensions of sustainability</td>
<td>128</td>
</tr>
<tr>
<td>FIGURE 8: The box-plot diagram of the data</td>
<td>159</td>
</tr>
</tbody>
</table>
CHAPTER I
INTRODUCTION

Sustainability and corporate social responsibility (CSR) have emerged as central themes in the activities of corporations. The traditional model of profit seeking is no longer sufficient, consequently corporations are under increasing pressure to respond to social expectations. This phenomenon can be explained by stakeholder theory (Freeman, 1984) which relates the success of modern corporations to their ability to respond to the demands of their various stakeholders.

The corporate’s environment and its affiliate stakeholders provide necessary resources to the organization (Pfeffer & Salancik, 1978). However, the same parties can hinder the operations of the company in an adversarial manner as well. When a corporation responds to the expectations of stakeholders, devising corporate strategy in ways which address their interests, it motivates stakeholders to continue providing resources to the company. Conforming to CSR expectations and communicating sustainability practices can result in acquiring support from stakeholders, whereas neglecting CSR and sustainability can be costly for the organization and endanger its future (Porter & Kramer, 2007). In order to gain legitimacy and increase the prospect of their survival, corporations need to address all three dimensions of sustainability (economic, social, and environmental). Since each of these three dimensions is related to a somewhat discreet set of stakeholders, the activities of the corporation should balance all dimensions.

This helps the corporation to improve its legitimacy as well. Legitimacy is the integrative product and the result of all the interactions of the corporation with its
stakeholders, rather than something that originates from a single source or only a few sources. This is why Suchman (1995) defines legitimacy as “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (p. 574). Since stakeholders are important sources of legitimacy perception, measuring and communicating the corporation’s responsiveness to stakeholder expectations enables the corporation to gain more comprehensive legitimacy and build a positive reputation. The important point here is that the legitimacy perceptions of the corporation by a specific stakeholder can moderate the legitimacy perceptions of the corporation by other stakeholders as well.

If a company is determined to actively follow CSR practices and attempts to engage in activities which contribute to its chance of survival, and has the strategy to be perceived by society as a company that values sustainability, then this company should take three sets of measures. First, it is necessary for a company to proactively address all three pillars of sustainability (economic, environmental, and social). Second, it is important that the stakeholders notice that each of these three dimensions of sustainability are important for the company, that the company has strategy and planning for each dimension, and that the company is not ignoring or giving inadequate importance to any dimension. If, for instance, one dimension is neglected by the corporation, then the stakeholders interested in that dimension will perceive the corporation as a less legitimate entity, and this perception can damage the perception of other stakeholders as well. Therefore, the company needs to keep a balance between the three dimensions and give adequate attention to each one.
I draw attention to this quote from Moody-Stuart, the ex-chairman of Royal Dutch Shell, as a part of “Business Principles” for Shell company: “We all need to assess the impact our business makes on society and ensure that we balance the economic, environmental and social aspects of everything we do” (cited in Wu & Pheng, 2013, p. 19; Moir, 2001, p. 18).

Third, drawing on signaling theory (Spence, 1974), in order to reap the benefits of its sustainability measures, the company must clearly signal and communicate its practices along all three sustainability dimensions with its stakeholders. Signaling of sustainability measures in the company’s annual report is important since it conveys to stakeholders the impression of how responsible the focal company is compared to others. Those organizations which have sustainability at the core of their business need to convey this value by addressing all their stakeholders. They signal that they have been able to give sufficient importance and attention to a maximum number of stakeholders by balancing all the dimensions of sustainability.

In this research I compare sustainability practices of two different types of organizations which both argue they give high priority to sustainability practices. I am studying the sustainability practices of two types of organizations. I compare corporations who may be new to the topic but claim to implement sustainability practices very well with another type of organization which has less emphasis on the profit aspects of the business and which sees sustainability, historically, as a core value, botanical gardens. I expect to observe differences between the sustainability practices of corporations and botanical gardens.
 Corporations, even the most sustainable ones, need to balance the profit motive with sustainability. This accommodation of profit and sustainability has emerged in recent years for these corporations, but is not in their longstanding tradition and culture, in contrast to botanical gardens. The profit motivation may conflict with sustainability practices which the most sustainable corporations claim to be practicing.

Botanical gardens, by definition, have long been recognized for their commitment to sustainability. They have a longstanding historical commitment and culture which affirm sustainability as a core value for the organization. Even though botanical gardens, similar to profit-oriented corporations, need to align the interests of a variety of stakeholders, it seems that botanical gardens might be able to manage sustainability better than fully profit-oriented corporations. It can be insightful to study how botanical garden with sustainability an essential part of their core mission, have been able to handle stakeholder management and to balance the economic, environmental, and social dimensions of sustainability, perhaps more successfully than profit-oriented organizations.

Botanical gardens, similar to profit oriented organizations, have recently become very interested in revenue generation and stakeholder management. The revenue generation is partly performed through establishing restaurants, cafes, gift-shops, and other initiatives to encourage community involvement, purchases of annual membership, and donations. Botanical gardens are engaged in stakeholder management as well. It is difficult to meet the interests of stakeholders due to the wide variety of stakeholders which botanical gardens deal with. Stakeholders include researchers, horticultural experts, visitors, staff, and local communities. Even though botanical gardens have
sustainability measures as a core value, it is not easy to satisfy environmental aspects due to the fact that botanical gardens are users of electricity, a high volume of water, and pesticides. Also, they generate different types of pollution and waste in horticulture efforts, restaurant operations, seminars, parties, and wedding ceremonies. Both botanical gardens and corporations have challenges in practicing sustainability, but there might be more difficulties for profit-oriented corporations. Looking at how botanical gardens practice sustainability might be instructive for the profit-oriented corporations.

Sustainability as a corporate value is relatively new, and there is much yet to be discovered in this topic. There is a big gap in the literature as to the long-term, interactive, and cumulative impact of managerial decision-making in sustainability practices. Research on sustainability is still new, and most researchers have looked at sustainability as a global concept rather than attempting to look at specific indicators for each dimension of sustainability in a separate way using specific and unambiguous measures as I have used in this research. Probably the Global Reporting Initiative (GRI) comes closest to a comprehensive system for measuring and reporting, but even the GRI contains ambiguity and overlaps.

One methodological deficiency in sustainability research is that most researchers, rather than using annual reports, have been focusing on CSR reports, which give a more global measurement rather specifying particular dimensions of sustainability. CSR reports are mainly focused only on the environmental dimension of sustainability and generally do not give a measure of environmental practices relative to the economic and social dimensions. In contrast, the annual reports of organizations are the main tools that organizations use to communicate their true commitments and main priorities (Adams &
Harte, 1998). The annual report is the document which is most easily available, and it is most frequently (Tilt, 1994) accessed by various stakeholders to obtain different types of information, financial and non-financial (Neu, Warsame, & Pedwell, 1998).

Consequently, in this study I use annual reports to study the sustainability behavior of organizations.

In this research I am interested to know to what extent organizations value all three dimensions of sustainability, as they claim to be doing. I compare the emphasis given by corporation to the emphasis given by botanical gardens, and I examine differences among American, Continental European (and Scandinavian), and Asian firms.
Sustainable Development

Sustainable development, a term often used interchangeably with sustainability, has recently been a topic of hot debate. Sustainable development addresses the question of whether human beings are able to continue the present rate of economic development over time maintaining their current practices, especially business practices and economic growth. Resources of the earth are limited, but current economic systems are oriented toward continuing economic growth, largely based on non-renewable energy resources. Continuing growth based on finite resources cannot be sustained indefinitely. Even before resources are depleted, the consequences of current economic practices are having significant consequences for the environment and the quality of life, especially in the most vulnerable societies. Hence, business practices are changing to accommodate current concepts of sustainability and responsible growth. Several different systems of measuring sustainability have been put forth, with the most widely used being the Global Reporting Initiative (GRI). The GRI is based on the idea of sustainability, represented by three elements—the environmental, social, and economic dimensions. Pursuing all of these dimensions simultaneously, and taking into account the long-term, cumulative, and interactive effects of economic and business decisions, requires accountability by new metrics (Munro, 1995; Trzyna, 1995). For some time the main purpose of economic development has been to achieve economic growth at any cost, ignoring the results of economic activities on the environment. Schumacher (1973), who was among the first
economists to warn of the dangers of unimpeded economic growth in his book “Small Is Beautiful,” writes that that modern man has been using natural resources carelessly:

“Modern man does not experience himself as part of nature but as an outside force destined to dominate and conquer it. He even talks of a battle with nature, forgetting that, if he ever won the battle, he would find himself on the losing side” (Schumacher, 1973, p. 13).

Schumacher (1973) argues that the main problem is that modern man views natural resources and the environment as an “income item” rather than a “capital item.” This perception has encouraged society, especially modern societies, to irresponsibly maximize their usage of environment resources in valuing the maximum mass production of the goods and products (Schumacher, 1973). However, if society were to view nature as a “capital item,” there would be more of an attempt to preserve and conserve the environment by reducing consumption and by using more renewable resources (Schumacher, 1973).

This mentality, ignoring and neglecting the environment and the increasing rate of usage of natural resources, ultimately endangers the future of human beings and the planet as we know it. The concept of using resources in responsible ways, and caring about the natural environment, and considering how human actions affect our well-being and the well-being of future generations, has been emphasized in various religions (Mebratu, 1998), but what is new is an organizational, collective, international initiative to promote sustainability. Scientists, celebrities, academics, journalists, and some politicians have spoken out to warn mankind about the consequences of overuse of natural resources. Business leaders have not been in the vanguard of the environmental
movement, but in recent years even some business organizations and business leaders have spoken out on this issue and have attempted to develop strategies for doing business in a responsible, sustainable way. Here I explain and review some of the international efforts and initiatives in the last few decades which have promoted the topic of sustainability and brought it to the attention of individuals, corporations, and governments.

The irresponsible usage of natural resources, the extent of resources required, and the waste produced in existing economic and business systems started to attract the concern of both thought leaders and popular culture in the 1970s. The United Nations Conference on Human Environment held in Stockholm, Sweden, in 1972 was the first conference at the global level specifically related to the environment. Known as the Stockholm Conference, it is viewed as the starting point for sustainability in the modern era (“History of Sustainability,” n.d.). This conference was a breakthrough in raising awareness regarding the environment, the conservation of resources, the responsible disposal of waste, the importance of behavioral changes, and the necessity of developing a new attitude toward nature. This conference had several important outcomes, including the most widely used definition of sustainability. The declaration of the conference put forth 26 principles that retain relevance today. Some of highlights of the conference are shown in the following statements:

“Man is both creature and moulder of his environment, which gives him physical sustenance and affords him the opportunity for intellectual, moral, social and spiritual growth. In the long and tortuous evolution of the human race on this planet a stage
has been reached when, through the rapid acceleration of science and technology, man has acquired the power to transform his environment in countless ways and on an unprecedented scale. Both aspects of man's environment, the natural and the man-made, are essential to his well-being and to the enjoyment of basic human rights- even the right to life itself.

The protection and improvement of the human environment is a major issue which affects the well-being of peoples and economic development throughout the world; it is the urgent desire of the peoples of the whole world and the duty of all Governments. Local and national governments will bear the greatest burden for large-scale environmental policy and action within their jurisdictions. International cooperation is also needed in order to raise resources to support the developing countries in carrying out their responsibilities in this field….

The Conference calls upon Governments and peoples to exert common efforts for the preservation and improvement of the human environment, for the benefit of all the people and for their posterity” (United Nations, 1972, p. 3).

The responses to the Stockholm Conference were varied. While concrete data to support the main points of the conference report were only beginning to show the true extent of environmental problems, and proposals for solutions were even less developed, still it was very effective in raising awareness (Handl, 2013). The Stockholm Conference
resulted in the 1972 establishment of the United Nations Environment Programme (UNEP), a section of the United Nations. Its responsibility is to observe and assess the environment around the world, to develop solutions, guidelines, and strategies for environmental protection, and to assist organizations around the world, especially in the developing countries which have limited resources to manage the environment in better ways (UNEP, n.d.).

Another organization that had an important role in raising awareness regarding sustainability was “the Club of Rome” (Mebratu, 1998). The Club of Rome is a non-profit organization founded in 1968, based in Italy. It consists of “independent leading personalities from politics, business and science” (Club of Rome-a, n.d.). The main goal of these personalities is to analyze the current conditions of mankind, to evaluate the future of the world, and, by investigating the opportunities, to collectively offer suggestions for improving the quality of life in the world in the future (Club of Rome-a, n.d.).

The Club of Rome published its first influential report, “The Limits to Growth,” in 1972. This report, translated into 37 languages, was distributed around the world and influenced many activists (Club of Rome-a, n.d.). The main reason that this report had a great influence on people was that scholars preparing the report had used computer and mathematical models to mathematically forecast the future of the world and its environment. Dire consequences were predicted if current trends in economic development were continued and if the usage of the limited resources on the earth were to continue at the same rate (Club of Rome-b, n.d.). The conclusion of the report follows:
“Unless special action is taken, human resource use and emissions will continue to increase as a consequence of growth in population [and] in human activity. Importantly, this "human footprint" - if unchecked - will grow beyond the carrying capacity of the globe, that is beyond what the globe can provide on a sustainable basis. If such expansion into unsustainable territory is allowed to happen, decline - or collapse - in human resource use and emissions become unavoidable” (Club of Rome-b, n.d.)

Up to this point both the Stockholm Conference and the initiatives taken by the Club of Rome were very successful in raising awareness regarding the fact that the mankind was irresponsible, using excessive natural resources to achieve economic development. The problem which arose out of these campaigns was that a mentality was formed that economic development and the usage of natural resources in any manner were negative and certainly harmful to the environment and for the future of the man (McCormick, 1986). A neglected point was that society could come up with solutions in ways which could promote both sustainability and economic development at the same time (McCormick, 1986). This is what nowadays is known as “sustainable development.” The concept of sustainable development assumes that economic development can be conducted in ways which support sustainability and at the same time enhance economic development (McCormick, 1986).

The term “sustainable development,” which emphasizes the possible compatibility between sustainability and development, emerged in 1980 when the International Union for the Conservation of Nature (IUCN) published its guidelines
regarding strategies for sustainable development entitled “The World Conservation
Strategy, Living Resource Conservation for Sustainable Development” (McCormick,
1986). Other contributing organizations to “The World Conservation Strategy” were the
World Wildlife Fund (WWF), The United Nations Environment Programme (UNEP),
The Food and Agriculture Organization of the United Nations (FAO), and The United
Nations Educational, Scientific and Cultural Organization (UNESCO). The purpose of
the World Conservation Strategy was to suggest applicable strategies and solutions “to
help advance the achievement of sustainable development through the conservation of
living resources” (IUCN, 1980, cited in McCormick, 1986).

In 1983 the United Nations started a new agency, the World Commission on
Environment and Development (WCED), known as the Brundtland Commission after Dr.
Gro Harlem Brundtland, at the time Prime Minister of Norway, was appointed as its first
chair. Consisting of both developing and developed countries, the role of WCED was to
consult and engage both groups according to their capabilities to have effective roles in
sustainable development (Drexhage & Murphy, 2010; WCED, 1987). Developing and
developed countries were at different stages of development and technology, with
different resources and infrastructure, and different levels of dependency on production.
Hence, the consequences of measures of sustainable development were different for each
group. The role of WCED was to give appropriate advice to each group and to devise
environmental policies accordingly on the basis of the characteristics of member
countries at all levels of economic development (Drexhage & Murphy, 2010; WCED,
1987).
In 1987 the groundbreaking report of WCED entitled “Our Common Future” was published. This report, known also as the Brundtland Report, was the first major report specifically regarding “sustainable development,” and covered a wide range of issues related to the topic. The report released the most popular and widely used definition for “sustainable development” as well (Drexhage & Murphy, 2010). The report defined “sustainable development” in its principle #27 by arguing that, “Humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, p. 16). The important point that this report emphasized was that sustainable development was not only related to environmental issues, but was also affected by the interconnections between environment, economy, and society (WCED, 1987). The Brundtland report forecast the deterioration of the environment and the depletion of natural resources, anticipating trends that would hinder the economic development of the mankind in the near future and eventually endanger all of humankind (Burton, 1987). The report criticized macroeconomic policies around the word set by governments, the International Monetary Fund, and the World Bank, and offered suggestions for managing international economic and environmental problems (Burton, 1987).

Several important principles mentioned in the Brundtland Report are as follows (WCED, 1987, p. 286-287):

“- All human beings have the fundamental right to an environment adequate for their health and well being.

- States shall conserve and use the environment and natural resources for the benefit of present and future generations.
- States shall maintain ecosystems and ecological processes essential for the functioning of the biosphere, shall preserve biological diversity, and shall observe the principle of optimum sustainable yield in the use of living natural resources and ecosystems.

- States shall establish adequate environmental protection standards and monitor changes in and publish relevant data on environmental quality and resource use.

- States shall use transboundary natural resources in a reasonable and equitable manner”

The Brundtland Report by WCED prepared the various international communities for the United Nations Conference on Environment and Development (UNCED) in Rio, Brazil in 1992, now known as the Rio Summit, or Earth Summit. The Earth Summit was “the largest environmental conference ever organized, bringing together over 30,000 participants, including more than one hundred heads of state” (United Nations Commission on Sustainable Development, 2007, p. 1). The Rio Summit was especially successful with regard to raising awareness about climate change. As the United Nations Commission on Sustainable Development (2007, p. 1) reported, this conference “represented a major step forward, with international agreements made on climate change, forests and biodiversity.” The important role of the Rio Summit was that it further emphasized the connection between the concepts of development and environment and came up with a declaration consisting of 27 principles which further encouraged the states to take effective measures toward environmental management (Kubiszewski & Cleveland, 2012). Most important was the expectation that the Rio
Summit mandated countries and states to “draw up a national strategy of sustainable

Several main agencies emerged as the result of Rio Summit. Due to the important
role of biodiversity in the environment, the United Nations Convention on Biological
Diversity (CBD) was established to develop strategies regarding the preservation of
biodiversity and ecosystems around the world (CBD, n.d.)

The United Nations Commission on Sustainable Development (CSD) was
established by the U.N. to effectively follow-up with the Rio Summit participating
countries to watch their progress and to ensure the successful implementation of the
principles of the Rio Summit (Commission on Sustainable Development, n.d.)

The United Nations Framework Convention on Climate Change (UNFCCC) was
established to study the effect of greenhouse emissions in the planet, to provide advice
and strategies to countries for reducing emissions of greenhouse gases, and to provide
financial assistance for developing countries for such measures (UNFCCC, n.d.). As an
extension to UNFCCC, the Kyoto Protocol was signed in Kyoto, Japan in 1997 by 55
countries. The Kyoto Protocol required nations to take effective measures for alleviating
the global warming problem resulting from greenhouse and CO2 emissions. The
participating countries were required to report on their emissions, to come up with
innovative technologies, to design national programs for reducing such emissions, and to
share their experiences with other industrial nations to reduce global warming (UNFCCC
and the Kyoto Protocol, n.d.).
During the Rio Conference the countries agreed on Agenda 21, an agenda designed to address the sustainability problems of 21st century. Meakin (1992) explains the summary and the main goals of Agenda 21:

“The primary goal of Agenda 21 is to ensure that development proceeds in a sustainable manner: … Another goal is ultimately to eliminate poverty throughout the world through better management of energy and natural resources and improvement of the quality of life by ensuring access to shelter and clean water, sewage and solid waste treatment. Agenda 21 also attempts to achieve the sustainable use of global and regional resources such as atmosphere, oceans, seas and freshwater, and marine organisms. The final goal is for improved management of chemicals and wastes.”

Ten years after the first Earth Summit, in 2002, the second Earth Summit was held in Johannesburg, South Africa (known also as Rio+10). The Johannesburg Conference further emphasized the implementation of Agenda 21 which had been signed in the Rio Summit. During the Rio Summit, even though countries had agreed to implement Agenda 21, there was no action plan or concrete strategy design for the efficient implementation of Agenda 21. The Johannesburg Conference suggested step-wise strategies to the heads of countries for better implementation of Agenda 21 (United Nations Department of Economic and Social Affairs, 2006). Ten years after the Johannesburg Conference (20 years after the first Earth Summit), in 2012, the United Nations Conference on Sustainable Development (UNCSD), which is known as Earth Summit 2012 or Rio+20, was held in Rio, Brazil. Earth Summit 2012 “resulted in a
focused political outcome document which contains clear and practical measures for implementing sustainable development” (United Nations Department of Economic and Social Affairs, n.d.).

**Dimensions of Sustainable Development (Triple Bottom Line)**

As discussed in the previous sections, sustainable development has become the mantra for this age (Dyllick, & Hockerts, 2002). Sustainable development is continuing and durable, and encompasses various dimensions of life. It is not related solely to the economic aspects of life, since there are limits to economic progress due to scarcity of resources and the externalities and consequences of economic development. Environmental and ecological consequences are affected by and affect economic development. The way that societies conduct their economic affairs, and the level of societal concerns about the consequences of economic actions, are also influenced by social, moral, and cultural factors. For humankind, to be able to observe sustainable development, different dimensions of sustainability have to be recognized and monitored.

Economic development cannot be implemented without considering the limits of environmental and other available resources. It is of great importance to observe the effect of our economic activities on the environment and on nature and to see if development can be continued long term. Clearly, irresponsible abuse of environmental factors creates shortages of natural resources, and therefore, hinders our economic progress in the future. A healthy and sustainable environment can positively affect our economic development, but a reasonable and solid economy can contribute to the preservation of resources and the environment.
The third factor which connects the economic and environmental aspects is the social element. How people intend to contribute to sustainable development and how society perceives and rewards or sanctions such measures is surely affecting the way people and business behave. Therefore, these three mutual reinforcing factors, economy, environment, and society are the three dimensions of sustainable development that go together. These three dimensions are usually referred to as the “Triple Bottom Line” (TBL) and are related to profit, planet, and people, known as three Ps (The Economist, 2009). The term “TBL” was coined by John Elkington in 1994 (Elkington, 2004). Its use became wide-spread with the publication of his book entitled “Cannibals with Forks: The Triple Bottom Line of 21st Century” (Norman, & MacDonald, 2004). TBL, in fact, was the result of Elkington’s effort to measure sustainability and has become one of the most popular frameworks for organizations (for-profit, non-profit, and governmental) to measure sustainability (Slaper, & Hall, 2011). This framework has been widely used by NGOs and consulting companies as well (Norman, & MacDonald, 2004). TBL has become a major framework for accounting and sustainability reporting (Vanclay, 2004).

The three dimensions of TBL are shown in Figure 1.

The foundation of Triple Bottom Line is stakeholder theory and emphasizes various aspects of responsibilities of the organization toward different groups of stakeholders (Hubbard, 2009). TBL is used as one of the frameworks for measuring the performance of corporations for the GRI. As Hubbard (2009) explains, the environmental dimension of TBL is used in the measurement of the performance of companies by the volume of resources that they use and also the byproducts generated as result of their activities. The social dimension focuses on how the activities of the organization impact
society and the community in general. The economic dimension addresses the financial performance related to the shareholders and other stakeholders of the corporations.

**Figure 1: Triple Bottom Line** (Figure based on Elkington, 1997)

TBL, by offering a distinction among the various dimensions of sustainability, has guided the development of systems for measuring and reporting corporate sustainability. Jamali (2006) highlights that TBL is used as a framework for corporations to report their wide sustainability responsibilities on environmental, economic, and social aspects in a systematic way and the GRI (Global Reporting Initiative) is based on TBL as well. TBL is about how well organizations are able to balance the three dimensions of sustainability (Jamali, 2006). Paying attention to only a specific dimension does not serve the purpose of sustainability since there is a link between the three dimensions and their goals (Elkington, 1997).
INSTITUTIONAL THEORY

Institutional theory suggests how valuing CSR and accepting sustainability practices enables organizations to obtain access to more resources. Nowadays, many organizations have started moving towards CSR initiatives. CSR practices are becoming more institutionalized and popular in the society, both formally and informally; by law and institutions; and by culture and norms. Institutional theory, in its different approaches and forms, has gained considerable popularity, and has been widely used in various areas of management scholarship. Institutional theory has developed with contributions of scholars from diverse disciplines. The interdisciplinary origins of institutional theory have resulted in the appearance of various and diverse approaches in this body of theory. Scholars in management, according to their needs and purposes, may prefer to use a specific or a combination of institutional approaches in their research. This seemingly confusing application of institutional methods is mainly due to the fact that each approach is different in its explanatory power, application, and aspects of concentration (Hotho & Pedersen, 2012). The different approaches to institutional theory can be complementary to each other since they deal with different aspects and dimensions of social life (Hotho & Pedersen, 2012).

Two of the main disciplines that have shaped institutional theory and have had significant influence on this theory are economics and sociology (Hotho & Pedersen, 2012). The institutional approaches derived from these two fields have been widely and heavily used by researchers in management research. Therefore, I look into the origins of institutional theory, its evolution, definitions, and applications to clarify the contribution of economics and sociology to institutional approaches.
The Economic Origin of Institutional Theory

To trace the evolution of institutional theory, one must become familiar with some of the principles of economics, neoclassical economics, and, finally, the new institutional economics. New institutional economics is the origin of the economic approach to institutional theory. New institutional economics results from initiatives taken by scholars to add to the validity and richness of neoclassical economics, to modify and extend that body of knowledge by adding the social/institutional element and the concept of cognitive limitations of human beings, a long missing factor, to neoclassical economics.

A major criticism of neoclassical economics has been about one of its main principles, the assumption of rationality. Neoclassical economics is based on rational choice theory and instrumental rationality (Hammond, 1997; Guth & Kliemt, 2004). As Cowen (2001, p.1) suggests, rationality “stands at the core of economic theory.” According to the economic view, all agents and individuals in an economic system are rational. This means that when it comes to any decision making, the agents are assumed to have perfect information about their environment and are able to make optimal, most efficient, and most beneficial choices (March & Simon, 1958). It assumes that the decisions of rational individuals are not affected or even influenced by their emotions and social environments. They have “self-interested behavior affected minimally by social relations” (Granovetter, 1985, p. 481). Economic transactions in such an environment are not defined “by social or kinship obligations of those transacting but by rational calculations of individual gain” (Granovetter, 1985, p. 482). Being able to make such
perfect decisions by rational agents in the situation of decision-making is due to the following elements argued by March and Simon (1958, p. 137):

“1. When we first encounter them in a decision-making situation, rational decision makers already have laid out before them the whole set of alternatives from which they will choose their actions. This set of alternatives is simply given; the theory does not tell them how this set of alternatives is obtained.

2. To each alternative is attached a set of consequences—the events that will ensue if that particular alternative is chosen. Existing theories related to consequences fall into three categories: a. Certainty: theories that assume the decision maker has complete and precise knowledge of the consequences that will follow on each alternative b. Risk: theories that assume accurate knowledge of a probability distribution of the consequences of each alternative c. Uncertainty: theories that assume that the consequences of each alternative belong to some subset of all possible consequences but that the decision maker cannot assign definite probabilities to the occurrence of particular consequences.

3. At the outset, the decision maker has a utility function or a preference ordering that ranks all sets of consequences from the most preferred to the least preferred.

4. The decision maker selects the alternative leading to the preferred set of consequences. In the case of certainty, the choice is unambiguous. In the case of risk, rationality is usually defined as the choice of that alternative
for which the expected utility is greatest. Expected utility is defined here as the average, weighted by the probabilities of occurrence, of the utilities attached to all possible consequences. In the case of uncertainty, the definition of rationality becomes problematic.”

As is clear from the above discussion, neoclassical economics views individuals as having perfect knowledge about their environment. This assumption is also one of the underlying features of the very influential economic theory of perfect competition. The theory of perfect competition is probably the most popular model in neoclassical economics. Many economic models of neoclassical economics assume perfect competition (Deligonul & Cavusgil, 1997; Kapeller & Pühringer, 2004). Under the conditions of perfect market, social welfare is maximized, because in such a market there are multitudes of companies (sellers and buyers) all acting rationally to reach the maximum level of profit (Kapeller & Pühringer, 2004). This intense competition results in a pricing equilibrium at which the marginal cost is equal to marginal revenue (Kapeller & Pühringer, 2004).

The main four characteristics for a market with perfect competition are as follows (Lynn, 1974; Davisson and Ranlett, 1965). First, the actors in the market have perfect knowledge about the market. Second, there are many sellers and buyers (e.g., small and large firms, and government agencies). Third, products are homogenized and standardized. Fourth, there is perfect mobility for market factors. Therefore, having perfect information by individuals is one of the necessary conditions for perfect competition among firms. In fact, it is the perfect information and rationality of individuals, as the underlying factor, which enables them to make perfect decisions in the
economic market, which in turn, results in the existence of a marketplace which is able to self-regulate without the need for the intervention of the government (Hahn, 1984), which Adam Smith (1776) metaphorically calls “the invisible hand.”

Scholars have started to realize that the rationality assumption and the market as the efficient control system of the economy, which have been the fundamental principle of classic and neoclassical economies, are not realistic assumptions (Coase, 1937; Fligstein, 2001; March & Simon, 1958; Simon, 1957; Williamson, 1975). Ronald Coase (1937) was among the first economists who challenged the idea that the market is able to efficiently regulate itself through the pricing mechanism because of perfect decisions by its rational agents and perfect competition (Fligstein, 2001). Classic and neoclassical economics have long ignored the particular qualities of firms and organizations. Instead, their main focus was on individuals. In his famous article “The Nature of the Firm” (1937), Coase sees the existence of organizations as evidence that the market is not able to regulate itself efficiently. There should be some advantage resulting from the emergence of organizations, and organizations should be better than the market in doing something. He argues that economic transactions are not without cost. In any economic transaction, individuals prior to the transaction do not have perfect and sufficient information.

There is a huge cost to collect information, do bargaining, find proper partners, write contracts, anticipate contingencies, and enforce contracts (Coase, 1937; Williamson, 1975). Coase (1937) argues that organizations and institutions, using their expertise and experience, taking advantage of collective works of employees, can generate synergies. We can compare this to the market system and see that organizations
are better able to handle and reduce these transaction costs. This is the main reason that organizations have come to exist. Organizations have been established to organize and coordinate individuals, split responsibilities, and encourage individuals to gain knowledge and expertise to fulfill their respective responsibilities (Coase, 1937).

“The main reason why it is profitable to establish a firm would seem to be that there is a cost of using the price mechanism. The most obvious cost of organizing production through the price mechanism is that of discovering what the relevant prices are. This cost may be reduced but it will not be eliminated by the emergence of specialists who will sell this information. The costs of negotiating and concluding a separate contract for each exchange transaction which takes place on a market must also be taken into account” (Coase, 1937, p. 390-391).

This work of Coase gained him the Noble Prize in 1991 and is the basis for the new institutional economics (Harriss, Hunter, & Lewis, 1995; North, 1995). The new institutional economics was further extended by the work of March & Simon (1958), and Williamson (1975). March and Simon (1958) contributed to the field by introducing the concept of bounded rationality. They argue that human beings not only lack complete and perfect information about the environment, but also are very limited in cognitive ability and in the ability to process large amounts of data and to deal with information overload. The financial crisis in 2008 has been used by scholars as evidence that we can make huge, unexpected mistakes in important decisions (Ariely, 2009; Herfeld, 2012; Schilirò, 2012).
Our decisions are biased based on our mental models, experience, scope of knowledge, environment, ideology, culture, and emotions (March and Simon, 1958; North, 1995). Organizations and their management teams were created to overcome, direct, organize, and control these factors and the limitations of individuals, and to channel and direct them in the most effective way. This makes organizations more efficient than markets (Fligstein, 2001). This will result in better outcomes, higher efficiency, and the reduction of transaction and information costs.

Oliver Williamson is another influential figure in the field of new institutional economics. Williamson (1975, 1979, 1981, 1985, 1989, 1991) extended the work of Coase and the theory of the firm by further elaboration of the theory, investigating the determinants of transaction costs and the forms of corporate governance. Based on these foundations and the modifications applied to neoclassical economics, institutional theory gradually took shape. However, clear definitions and elaboration regarding the role of institutions and their applicability in the environment of the economic life of human beings were still lacking. The concept of institutions was better elaborated by the contributions of economist Douglass North (1991, 1995). He argues that:

“Institutions are the humanly devised constraints that structure political, economic and social interaction. They consist of both informal constraints (sanctions, taboos, customs, traditions, and codes of conduct), and formal rules (constitutions, laws, property rights). Throughout history, institutions have been devised by human beings to create order and reduce uncertainty in exchange. Together with the standard constraints of economics they define the choice set and therefore determine transaction and production
costs and hence the profitability and feasibility of engaging in economic activity. They evolve incrementally, connecting the past with the present and the future” (North, 1991, p. 97).

North (1991), informed by the works of Coase (1937) and Williamson (1975), connects the theory of the firm, the determinants of transactions costs, and the social dimension of economic transactions, stating “institutions are the rules of the game in a society” (North, 1990, p. 3). He argues that in society and in an economic system the more effective the institutions are, the lower will be the transactions cost. Hence, marginal profit for economic transactions increases.

Since individuals are suffering from information asymmetries and the lack of full knowledge regarding their economic transactions, the role of institutions becomes important, especially in terms of the level of the power that the institutional environment has to enforce contracts and property laws. Effective institutions can affect economic transactions by reducing uncertainty, thus reducing risk and unexpected happenings, especially for individuals without perfect information.

**The Sociological Origin of Institutional Theory**

Sociological neo-institutionalism has been built on the field of sociology, and is influenced by insights from organization science as well. In spite of the economic approach to institutional theory with its focus on the “rules of the game,” the main focus of the sociological approach is on the forms, behavior, and practices of organizations (Hotho & Pedersen, 2012). The origins of sociologists’ institutional theory can be traced back to the works of Max Weber (translated in 1968- original work 1922). Weber studies
organizational structure and the foundations of legitimacy and authority in the organization.

According to Weber, the most effective way to control an economic organization is bureaucracy. He explains that, “Rationally regulated association within a structure of domination finds its typical expression in bureaucracy” (Weber, 1968, p. 954). Bureaucracy creates a hierarchical chain of commands and encourages subordinates to obey leaders. Bureaucracy enables a small number of people (“the ruling minority”) to generate domination in the organization to control “the mass.” As Weber explains, the most effective and practical way for the ruling minority to continue its dominance is to maintain its legitimacy within the organization. In other words, leaders need to have legitimacy in order to create and maintain obedience among their subordinates. They do this by creating “rational rules” corresponding to a system of “rational norms.”

By promoting these rules within the organization, leaders encourage subordinates to obey those rational norms. This is why Weber asserts that the “obedience is thus given to the norms rather than to the person” (Weber, 1968, p. 954). Subordinates obey minority leaders and accept the continuance of their leadership and dominance, because their authority has benefits and positive consequences for subordinates.

Such an organizational structure enables leaders to keep their subordinates interested in the continuation of their dominance, because of the “personal interest,” and beneficial outcomes that obedience brings to individuals. The result is that they follow the rules mandated by leaders (Weber, 1968). Bureaucracy is a very effective way of organization and regulation. According to Weber, this system of bureaucracy, rational rules, and institutions results in optimal “precision, speed, unambiguity, knowledge of the
files, continuity, discretion, unity, strict subordination, reduction of friction and of material and personal costs” (Weber, 1968, p. 973). According to Weber (1968), to keep the organization running in a well-organized way, and to have people obeying commands, it is the top priority of leaders to self-justify their dominance and power by following the principles of legitimacy. Consequently, it is important to know the definition of legitimacy.

One leading scholar who has worked in the area of legitimacy and significantly influenced institutional theory is Mark Suchman. His definition of legitimacy, one of the most cited definitions, defines legitimacy as, “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (Suchman, 1995, p. 574). Legitimacy brings some beneficial outcomes for the organization as well. Suchman (1995) argues that legitimacy in an organization leads to its continuity, credibility, stability, and support. He categorizes legitimacy into three types: pragmatic legitimacy, moral legitimacy, and cognitive legitimacy. Pragmatic legitimacy is based on “the self-interested calculations of an organization's most immediate audiences” (Suchman, 1995, p.578). Moral legitimacy “reflects a positive normative evaluation of the organization and its activities” (Suchman, 1995, p.579). Cognitive legitimacy “involves either affirmative backing for an organization or mere acceptance of the organization as necessary or inevitable based on some taken-for-granted cultural account” (Suchman, 1995, p.582).

The work of Weber informed Philip Selznick (1948), a leading sociologist who further developed organizational institutionalism and the theory of organization (Scott, 2001). The work of Selznick was influenced by the work of his advisor, Robert Merton,
and especially Merton’s work on bureaucracy (1940). Selznick’s viewpoint on the organization is to some extent similar to Weber’s in the sense that he believes that organizations are based on rationalism as well. As Selznick (1948, p. 25) phrases it, “organization is the structural expression of rational action.”

Selznick (1948) emphasizes two striking and important, although seemingly contradictory, facts regarding the organizations. He argues that organizations, on one hand, have “concrete social structure” due to the fact that they are comprised of individuals who have personalities, preferences, and emotions, and social relationships with each other. On the other hand, organizations are “subject to the pressure of an institutional environment” to which they have to conform. He argues that an organization should be an “adaptive social structure,” especially since “the individual personality is an adaptive structure.” Due to the above reasons, formal organizations begin to institutionalize by conforming to both contextual and environmental institutions and also according to the common and formal norms, values, and “unwritten laws” practiced by individuals in organizations (Selznick, 1948).

Organizations, by institutionalization and adoption of values, begin to have a type of personality and identity, just as their constituting individuals have personality, characteristics, and identity (Selznick, 1948; Scott, 2001). Scott (2001) clarifies the definition of Selznick on institutionalization. As he asserts, “to institutionalize is to infuse with value beyond the technical requirements of the task at hand” (Scott, 2001; p. 24). Therefore, the role of values in organizations is critical. This is the central reason why Scott (2001) argues that “organizations, to variable extent and over time, are transformed into institutions” (p. 23). According to Scott (2001), there are three pillars to institutions.
Regulative institutions are those enforced by law to regulate transactions and behaviors. Normative institutions are based on the morals, norms, and values of individuals. Cultural-cognitive institutions are based on the cultural factors of the society, and what is culturally supposed to be appropriate.

The field of sociological neo-institutionalism is greatly indebted to the major contributions of Meyer and Rowan (1977) and Dimaggio and Powell (1983). These scholars extend the work of Weber (1968) on bureaucracy, but they have some disagreements with Weber and suggest corrections to his point of view. According to Weber, bureaucracy is the best and optimal tool to govern the rational organization in a way which results in maximum efficiency for the organization. Dimaggio and Powell (1983) agree about the importance of bureaucracy and rationalization, but they argue that “the engine of organizational rationalizations has shifted” (p. 147). They assert that “the causes of bureaucratization and rationalization” now, compared to the time when Weber lived, have changed. During the era of Weber the main focus and the competitive purpose of organization was to reach higher levels of “efficiency,” whereas in the recent times efficiency no longer is the first priority of the organizations (Dimaggio & Powell, 1983).

During the time of Weber the organization’s main concern was to deal with the competitive marketplace, but in recent times organizations have to deal with environments which are “highly institutionalized” and institutions which are shaped, not only by the market forces, but by pressures from states, professions, values, norms, and cultures (Dimaggio & Powell, 1983). In the contemporary situation, efficiency does not seem to be as important as it used to be in Weber’s time. The factor which is at the center of focus for organizations nowadays, and will increase “their survival prospects” is
legitimacy (Meyer and Rowan, 1977), how well the organizations are perceived as legitimate by accommodating to institutional expectations and the demands imposed by their environment.

Legitimacy is expected and admired by stakeholders and other observers. The organization’s practices to gain legitimacy can contribute to the survival of the organization regardless of the efficacy and efficiency consequences (Meyer and Rowan, 1977). An important concept which Meyer and Rowan (1977) introduce is the concept of “loose coupling,” “decoupling,” or “buffering.”

Although practices to gain legitimacy, can significantly contradict efficiency, efficiency is still important for organizations to be competitive with rivals. This encourages organizations to engage only in ceremonial and symbolic conformity with the principles and factors of legitimacy. Meyer and Rowan (1977) explain this behavior of organizations as follows: “Organizations that reflect institutional rules tend to buffer their formal structures from the uncertainties of technical activities by becoming loosely coupled, building gaps between their formal structures and actual work activities” (p. 341). Decoupling happens often in corporations who intend to gain legitimacy by symbolically adapting certain practices. Westphal and Zejac (2001) investigated the adoption of stock repurchase programs among a sample of large American companies. They found that the announcements of stock repurchase programs, a measure to signal to the market that the management team has trust in the bright future of the company, is only symbolic and do not take place in reality, since the pressure exerted by the CEOs on boards prevents from implementing and exercising stock repurchases (Westphal and Zejac, 2001).
Another important concept that Meyer and Rowan (1977) bring to our attention is that the intense pressure from this highly institutional environment and the efforts of organizations to gain legitimacy (at least by ceremonial conformity with the institutional environment) leads to isomorphism among organizations, meaning that they become similar to one another. Dimaggio & Powell (1983) expand this concept to explain three main mechanisms which result in isomorphism among organizations.

Coercive isomorphism is conformity as a result of pressure exerted by external organizations, including states and governments, NGOs, laws, cultural pressures, and values (Dimaggio & Powell, 1983). Mimetic isomorphism occurs when the focal organization is relatively unaware of its environment and does not have clear and effective strategies. Under this condition of uncertainty and high risk, organizations tend to mimic, copy, or blindly follow the practices of other organizations, especially those perceived to be more legitimate, well-reputed, and successful (Dimaggio & Powell, 1983). Haunschild and Miner (1997) divide the imitation of organizations into three different categories: “frequency based imitation,” “trait-based imitation,” and “outcome-based imitation.” “Frequency based imitation” is the imitation of those practices which are implemented by majority or “a large number of other organizations” (Haunschild and Miner, 1997). “Trait-based imitation” is based on the characteristic of the organizations whose practices and actions are imitated by others. For instance, organizations which have good reputations, or are considered to be more successful and legitimate in the society, are more likely to be copied (Haunschild and Miner, 1997). “Outcome-based imitation” is based on the result of some specific measure (Haunschild and Miner, 1997).
If a measure has proved to have positive impact or to be successful, it is more likely to be imitated by other organizations.

Normative isomorphism is the result of “professionalism” (Dimaggio & Powell, 1983). Every profession has its specific standards, definitions, norms, and protocols devised by the experts in those professions. This requires all the organizations dealing with that profession to adhere to its standards and institutions. Professional networks and universities have a major role in establishing and maintaining institutions and therefore generating normative isomorphism with the professions (Dimaggio & Powell, 1983).

Institutional theory is extensively used in management research, especially with increased international trade and cooperation among the nations with different institutional and cultural environment.

**STAKEHOLDER THEORY**

**Stakeholder Theory and Its Evolution**

Stakeholder theory was introduced by Edward Freeman in his book, “Strategic Management: A Stakeholder Approach,” in 1984. This theory gained significant importance and popularity in the management field, both in research which resulted in many publications, and also basic concepts of management. The idea of “stakeholder” became “a standard element of Introduction to Management lectures” (Donaldson & Preston, 1995, p. 65-66). As Wood and Jones (1995) assert, stakeholder theory investigates and explains the configurations of relationships between the corporations and the society.

The theory was introduced based on developments in the business and economic context of the 1980s and changes in management practices. Especially with the rise of
principal-agent models, along with separation of control and ownership, the “production view of the firm” which was previously common and popular to model organizations was replaced with the “managerial view of the firm” (Freeman, 1984). The earlier model, the production view, was no longer capable of rendering valid analysis of the firm, because current firms need to deal with a greater number of interested parties. Therefore, there was a need for a new framework to explain the success factors for doing business in the new more complex environment. The environment of business has had considerable change and increased turbulence. Freeman, Harisson, Wicks, Parmar, and Colle (2010, p. 29) name the three main problems which the stakeholder framework addressed:

“(i) Understanding and managing a business in the world of the twenty-first century (the problem of value creation and trade); (ii) Putting together thinking about questions of ethics, responsibility, and sustainability with the usual economic view of capitalism (the problem of the ethics of capitalism); (iii) Understanding what to teach managers and students about what it takes to be successful in the current business world (the problem of managerial mindset).”

In order to be successful, the managers of organizations need to have effective models which take into account these changing factors, thereby suggesting guidance and strategic solutions through the unstable and dynamic environment. Freeman (1984) divides the changes into two groups: internal changes and external changes. Internal change is a change which “requires action, but it does not directly challenge out conceptual map of the world” (p. 8). Internal changes can be changes in owners, customers, suppliers, and
employees of the corporation. This change is at a level which can be handled with small adjustments by the organization and does not require a major strategic shift. Organization is already familiar with these factors and can handle and resolve most problems related to these factors (Freeman, 1984).

**Figure 2- Internal and external changes** (Source: Freeman, 1984, p. 12)

External change is “the emergence of new groups, events, and issues which cannot be readily understood within the framework of an existing model of theory” (p. 11). Therefore, to be able to understand and analyze external changes, managers need to have new models or frameworks which enable them to deal with a high level of uncertainty due to these changes (Freeman, 1984). The external changes can be the
appearance of, or major change in, governments, consumer advocates, competitors, special interest groups, environmentalists, and media (Freeman, 1984). These external and internal changes, when they are considered separately, are depicted in Figure 2. According to this figure, internal changes originate from those factor than are within the scope of the activities of organization and organization has familiarity with them, whereas external changes originate from the environment and are not in the control of organization (Freeman, 1984).

Freeman (1984) introduces the stakeholder approach. He argues that in order for companies to be successful, they need to consider and deal with all of their stakeholders. He defines stakeholder as “any group or individual who can affect or is affected by the achievement of the firm’s objectives” (p. 25). As opposed to the traditional economic view, which emphasized shareholders’ interests and profit seeking measures, stakeholder theory argues that an organization, to be successful, needs to pay attentions to the needs and interests of multiple stakeholders (Freeman, 1984).

Even though the interests of different stakeholders might seemingly be in contradiction, the organization should not deal with each specific stakeholder in isolation. Rather, it has to create value for many stakeholders and has to generate a balance in meeting and responding to the demands of each significant group (Freeman, 1984). The interests of diverse stakeholders are related, since “no stakeholder stands alone in the process of value creation. The stakes of each stakeholder group are multifaceted, and inherently connected to each other” (Freeman, Harisson, Wicks, Parmar, & Colle, 2010, p. 27). Acting towards the benefit of only one or only a few specific stakeholders will impose costs on the other stakeholders and reduce value for them.
The role of a successful organization is to make the interests of diverse stakeholders go in the same direction. If something is good for one stakeholder, it needs to be, at least to some extent, beneficial to others as well (Freeman, 1984). The text below clarifies this point.

“The primary responsibility of the executive is to create as much value as possible for stakeholders. Where stakeholders interest conflict, the executives must find a way to rethink the problems so that these interests can go together so that even more value can be created. If trade-offs have to be made, as often happens in the real world, then the executive must figure out how to make the tradeoffs, and immediately begin improving the tradeoffs for all sides. Managing for stakeholders is about creating as much value as possible for stakeholders, without resorting to tradeoffs” (Freeman, Harisson, Wicks, Parmar, & Colle, 2010, p. 28).

Figure 3 depicts the stakeholders of the company. As we can see in the figure, the internal and external categorization is no longer considered in this model, since all the stakeholders are important and somehow can affect the success of the company’s business.

In a different classification, shown in Figure 4, stakeholders can be divided into primary and secondary stakeholders (Freeman, Harrison, & Wicks, 2007). The primary (or definitional) stakeholders are those without which their existence the continuance of the company is not possible. The secondary (or instrumental) stakeholders are those which affect the primary stakeholders and the corporation as well (Freeman, Harrison, & Wicks, 2007).
Figure 3: Stakeholders of the company (Source: Freeman, 1984, p. 25)

![Figure 3: Stakeholders of the company](image)

Figure 4: Primary and secondary stakeholders, (Source: Freeman, Harrison, & Wicks, 2007, p. 7; SIG= Special Interest Group)

![Figure 4: Primary and secondary stakeholders](image)

According to Wood and Jones (1995) there are three diverse role for the stakeholders. First, stakeholders act as “the source of expectation about what constitutes
desirable and undesirable firm performance” (p. 231). Second, stakeholders are affected by the consequences of corporate performance and managerial decisions (Wood and Jones, 1995). Third, it is the role of the stakeholder to judge how efficiently and effectively the organization has been able to meet these expectations (Wood and Jones, 1995).

Donaldson and Preston (1995) argue that stakeholder theory is applied in these three different ways: normative, instrumental, and descriptive. Each of these three usages has different applications and addresses different aspects of the organization. Therefore, stakeholder theory, though recognized as a single theory, incorporates and represents three different theories (Donaldson and Preston, 1995).

The normative aspect, which is the major one, is based on the idea that “stakeholders are identified by their interest in the corporation … [and] the interest of all stakeholders are of intrinsic value” (Donaldson and Preston, 1995, p. 67). The normative aspect of stakeholder theory “is concerned with the moral propriety of the behavior of firms and/or their managers” (Jones, 1995, p. 406). Therefore, stakeholder theory is based on the normative aspect.

The instrumental application of stakeholder theory seeks to identify the possible relationships and “connections” between the management of stakeholders’ interests and organizational objectives and outcomes (Donaldson and Preston, 1995), and helps us to understand “what will happen if managers or firms behave in certain ways” (Jones, 1995, p. 406). Studies which research the relationship between adopting the stakeholder model and profitability (or other similar outcomes) are in this category (e.g., Margolis & Walsh, 2001).

One criticism regarding stakeholder theory is that stakeholder theory assumes multiple objectives for the organizations (Donaldson, 2002) and that it is not possible for organizations to maximize the value of all stakeholders since their interests may not be aligned or may be in contradiction (Jensen, 2002). Stakeholder theory does not clearly state how these tradeoffs should be made. On the other hand, the field of economics has traditionally advised organizations to implement their operations around the principal of value maximization (Jensen, 2002). Jensen (2002, 2010), confirming that corporations cannot survive or become successful unless they satisfy their important stakeholders, introduces the concept of “enlightened stakeholder theory” by combining value maximization principle and stakeholder theory (Wallace, 2003). Enlightened stakeholder theory argues that organizations should make the tradeoffs between the interests of different stakeholder based on “long-run value of the firm” and accepts that any stakeholder can have an effect on organizational long-run value (Donaldson, 2002; Jensen, 2002, 2010; Wallace, 2003).

Mitchell, Agle, and Wood (1997) suggest that the prioritization of stakeholders should be done based on their “salience,” and the factors which determine stakeholder salience are three: power, legitimacy and urgency. They define power as the extent to which a party “has or can gain access to coercive, utilitarian, or normative means, to
impose its will in the relationship” (p. 865). For legitimacy, they have used the definition by Suchman (1995, p. 574), who defines legitimacy as "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions." Regarding the urgency factor, Mitchell, Agle, and Wood (1997) define stakeholder urgency as “the degree to which stakeholder claims call for immediate attention” (p. 867).

**Stakeholder Theory, Ethics, and Corporate Social Responsibility**

Different theories are used in the evaluation of corporate social responsibility, including institutional theory, legitimacy theory, stakeholder theory, signaling theory, and social contract theory (Aguilera-Caracuel, 2012; Moir, 2001). Stakeholder theory is one of the theories most frequently used in corporate social responsibility and business ethics (McWilliams & Siegel, 2001). Wood and Jones (1995) argue that the stakeholder theory is “the most relevant theory” to investigate corporate social responsibility. Regarding the responsibility of business towards the society, there are two extreme ends (Chandler & Werther, 2006). On one end of the extreme there are the Japanese tradition and the West European tradition (especially the German model), in which the primary focus is on stakeholders and society, where businesses are supposed to serve and add value to society, and, on the other hand, the profit-oriented mentality of the economists (Chandler & Werther, 2006) which dominates the Anglo-American tradition.

Milton Friedman, the Noble prize winner in economics, is often quoted when it comes to the discussion at the intersection of economics and business ethics. Friedman is an extreme supporter of the classical economic view, the power of free markets. Like most classical economists, he believes that the purpose of economic transactions and
activities is profit maximization (Friedman, 1962; 1970). In spite of having a different interpretation of social responsibility, Friedman is still among the first economists who draws attention to social responsibility and introduces this term to economics. He argues that:

"There is one and only one social responsibility of business-to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud … Few trends could so thoroughly undermine the very foundations of our free society as the acceptance by corporate officials of a social responsibility other than to make as much money for their stockholders as possible” (Friedman, 1962, p. 133).

Thus, according to Friedman, the main objective of business is to make maximum profit. This profit making should be done in a socially responsible way. For the business to be socially responsible, it means it should increase the profit for the owners or stockholder as much as possible within the “rules of the game.” This notion was emphasized also in the paper that Friedman published in 1970 in the New York Times Magazine. The title of the paper, which is self-explanatory, is “The Social Responsibility of Business is to Increase its Profits.”

According to stakeholder theory, the role that other stakeholders play with respect to shareholders is so important as to be considered essential. Without the existence of other stakeholders, shareholders would not have existed in the first place. Second, without responding to the needs and interests of other stakeholders, it is not possible for
shareholders to maximize their profits (Werhane, 2000). This is an important contribution of stakeholder theory that has often been neglected by economists. There has been a line drawn between the economic aspect and the social aspect of business, but this seems not to be acceptable any more. This new, more integrative perspective is emphasized in this quote:

“Corporate social responsibility is often looked at as an "add on" to "business as usual," and the phrase often heard from executives is "corporate social responsibility is fine, if you can afford it."… Given the turbulence that business organizations are currently facing and the very nature of the external environment, as consisting of economic and socio-political forces, there is a need for conceptual schemata which analyze these forces in an integrative fashion. We need to understand the complex interconnections between economic and social forces. Isolating "social issues" as separate from the economic impact which they have, and conversely isolating economic issues as if they had no social effect, misses the mark both managerially and intellectually. Actions aimed at one side will not address the concerns of the other” (Freeman, 1984, p. 40).

Freeman (1984) challenges the idea that a “separation” and “isolation” is assumed between the economic and social aspects of the businesses. Rather, he considers them to be intertwined and mutually supporting each other. The main message is that the social aspects of any business are not separate from the economic dimension since they will affect and influence the economic aspects as well. It is also true that the economic
aspects of the businesses have social and societal consequences, for both the business and the society.

CORPORATE SOCIAL RESPONSIBILITY (CSR)

Corporate social responsibility (CSR) has recently been emerging and attracting the attention of scholars in the management field (Harrison & Freeman, 1999; Waldman et. al, 2006). Contrary to the traditional view, in which organizations were perceived to seek only the goal of profit maximization (Friedman, 1970), today social dynamics have forced organizations to think also about the social consequences and effects of their actions on various stakeholders (Freeman, 1984).

Increased public scrutiny, media, activist groups, government regulations, and public availability of assessments of ethical and social performance of corporations have pressured organizations to demonstrate and articulate CSR. Conforming with CSR expectations can render a multitude of benefits, and violation of CSR expectations can have serious, negative outcomes for the corporation (Porter & Kramer, 2007). One aspect of CSR deals with environmental performance, pollution management, and sustainability.

One reason that corporate social performance has attracted the attention of many management scholars is the fact that environmental performance can significantly affect corporate strategy. The importance of CSR goes to the level at which it can even be considered as a determinant of the organization’s competitive advantage (Adamik, 2011). For instance, the environmental performance of the corporation, which is only one aspect of CSR, can produce multiple benefits for the corporation. Christmann (2000) argues that organizations can reach competitive advantage by the implementation of “best practices
of environmental management.” Arora and Cason (1995) state that in contemporary times the main competition among organizations is on environmental quality. The environmental performance of the firm has effects on its financial performance (King & Lenox 2001), economicality and efficiency (Sharfman & Fernando, 2007), continued economic health (Khanna, Quimio, & Bojilova, 1998), and sustainability (Chen et al., 2009).

Corporate social responsibility (CSR) has attracted the attention of scholars as an important emerging topic in the last few decades. Companies are increasingly required to respond to pressures and expectations of stakeholders regarding corporate social responsibility and to invest their resources in CSR-related practices (McWilliams & Siegel, 2001). According to Davis (1960), in modern society the different aspects of culture (e.g., economic, social, and political) are under consistent and continuous change. This requires managers to reassess the effects of their activity and the roles they play to be consistent with the expectations of society (Davis, 1960, 1973).

There are diverse definitions for corporate social responsibility. Davis (1967) sees the origin and root of corporate social responsibility in ethics and argues that corporate social responsibility has come into existence “from concern for the ethical consequences of one's acts as they might affect the interests of others” (Davis, 1967, p. 46). Davis (1967) presents additional reasons for the rise of corporate social responsibility. Modern society is characterized by pluralism. Multiple groups and centers in society act in autonomous ways. They affect and are influenced by the focal firm in diverse ways (Davis, 1967).
Another reason is the tendency of society to protect its wealth (which is at higher levels in the current times than earlier) and to prevent it from being damaged by risks caused by irresponsible acts (Davis, 1967). The increase in the power of governments and their ability to control and punish the violating corporations is another factor (Davis, 1967). The separation between ownership and control has also contributed to the emergence of the field (Davis, 1967). Societal concerns over the actions of managers and their ignorance of social factors has been increasing. There are various definitions for corporate social responsibility, based on the literature and practice as well (Moir, 2001).

Corporate Social Responsibility (CSR) is a very broad term with many different definitions. There is not an agreement over, or a clear definition of CSR, and it incorporates a wide range of various concepts. Dahlsrud (2008) studies 37 different definitions of corporate social responsibility which exist in the literature. Corporate social responsibility is closely related to the similar concepts of business ethics, sustainability, human rights, environmental performance, corruption, and supplier and employee relations (Donaldson & Fafaliou, 2003; Moir, 2001; Holme & Watts, 1988).

There are different, overlapping, and mixed definitions for these topics. They are used, in many cases, interchangeably and even as synonyms (Wilson, 2003; Wartick & Cochran, 1985; Wood, 1991). There is debate and controversy regarding which of these terms is more general or specific, and which is a part of another. There is overlap between the constituents of each of these topics as well. Davis (1960) defines corporate social responsibility as:

“Businessman’s decision and actions taken for reasons at least partially beyond the firm’s direct economic or technical interest” (p. 70).
The World Business Council for Sustainable Development (WBCSD) published an article in 1988 by Lord Holme and Richard Watts, entitled “Making Good Business Sense” in which they define CSR as follows:

“Corporate social responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large.” (p. 8).

Frederick (1994) believes that CSR is “the capacity of a corporation to respond to social pressures”

According to McWilliams and Siegel (2001, p. 117) CSR is defined as: “Actions that appear to further some social good, beyond the interests of the firm and that which is required by law.”

The definition of CSR by Carroll (1979) is the most cited one (Montiel, 2008). In his definition of CSR he argues that: “The social responsibility of business encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time” (p. 500).

As the definition implies, CSR is based on the four elements of economic, legal, ethical, and discretionary responsibilities. Later, in 1991, Carroll changed the name of the fourth element from discretionary to philanthropic responsibilities, and called the combination of these four items “the pyramid of corporate social responsibility” (Carroll, 1991, p. 39). The economic responsibilities of the corporation and the need to generate
profits and meet the demand of customers is traditionally one of the main responsibilities of each company (Carroll, 1991, 1979).

The legal responsibility is due to fact that all corporations are required by law to conform to the local laws within the environment where they are operating (Carroll, 1991, 1979). The ethical responsibilities concern the norms, values, and standards held by individuals, communities, and society as a whole. It concerns what is considered to be appropriate, fair, and right within the ethical standards of the society. Corporations are expected to respect and accommodate these ethical exceptions (Carroll, 1991, 1979). Discretionary or philanthropic responsibilities are those practices where the actor is perceived to be a “good corporate citizen” by the society. These are actions which are not required by society, but are desired and much appreciated by society (e.g., actions and initiatives by corporations to reduce poverty) (Carroll, 1979). For companies to be socially responsible, it is necessary that they comply with all four of these elements at the same time (Carroll, 1979). According to Carroll (1979) corporate social responsibility is “the three dimensional integration of corporate social responsibility, corporate social responsiveness, and social issues (Wartick & Cochran, 1985).”

Wood (1991) asserts that in order for corporations to be socially responsible they have to perform well in the “principles, processes, and outcomes” of their social responsibilities. Therefore, she defines CSR as “a business organization's configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm's societal relationships” (Wood, 1991, p. 693). Wood (1991) introduces three levels to corporate social responsibility. The basis for this categorization is the source which places expectation on
the corporations (Wood, 1991). These three levels are: “institutional, organizational, and individual.” Institutional level CSR is related to those responsibilities that corporations have due to the fact that they are “economic institutions.” Legitimacy is the most important element at this level (Wood, 1991). By responding to CSR expectations of society, companies gain and strengthen their legitimacy.

The organizational level is related to the identity of the corporation and the responsibility that it has toward the consequence of their actions and practices (Wood, 1991). Corporations need to be careful about their “public responsibilities,” and how they conduct their activities (Wood, 1991). The individual level of CSR is concerned with the actions of the managers as individuals, and how they are expected by the community and the society to behave in moral ways and to comply with CSR expectations (Wood, 1991). It is vital that managers consider not only their self-interest or just the benefit of the corporation under their management. They need to manage the organization in ethical and moral ways.

Measurement of corporate social responsibility is accompanied by many difficulties and problems. Abbot and Monsen (1979) highlight two main problems. The first problem is that the social practices of corporations are not well represented in clear quantitative format, and to enable researchers to conduct statistical analysis on the social practices of the corporations, these practices should be measured consistently and for a fairly large number of corporations. The second problem is that the method which is going to be applied in the measurement of corporate social responsibility has to be strong enough to include the complete range of the social effects of the corporation’s practices on its environment (Abbot & Monsen (1979). Appurle, Carroll, and Hatfield (1985)
assert that there are methodological difficulties in researching the corporate social responsibility field, mainly because the concepts in this area “are value laden and susceptible to particular ideological and emotional interpretations” (p. 446).

Abbot and Monsen (1979) explain that there are three major methods which are used in the attempt to measure corporate social responsibility. “Social accounting” is the first type. As they explain, “the goal of social accounting is to add categories pertaining to the social impact of the firm into the firm's formalized accounting system” (Abbot & Monsen, 1979, p. 502).

The second method is the “reputational scale” which is “commonly used in social research to obtain the response of a public to a social phenomenon” (Abbot & Monsen, 1979, p. 503). The third method (which I am using in this study) is content analysis, which is applied on information sources such as “documents and reports of corporations intended for communication purposes. Such sources of information include annual reports, personnel handbooks, and employee newspapers. Media sources include advertising and news releases in papers, journals, radio, and television” (Abbot & Monsen, 1979, p. 504).

Business Ethics

Business ethics deals with the role of ethics in business and whether the only purpose of business is profit generation and the extent to which ethical behavior should be emphasized. Ethics is one of the oldest topics of concern to humankind and has roots in philosophy (Christensen et al., 2007). It is related to morality, integrity, values, and what is considered right or wrong (Joyner & Payne, 2002; Stodder, 1998). According to
Raiborn & Payne (1990), ethics “is a system of value principles or practices and a definition of right and wrong.”

Compared to CSR, business ethics is the academic field which includes a philosophical tradition of applied philosophy and has many applications to individual decision-making as well as issues of culture, values, etc., whereas CSR is the study of how corporations respond to the social and moral expectations of the environments in which they operate, and is more managerial in orientation.

Donaldson and Fafaliou, (2003) argue that the business ethics field was established as a response to business-related issues which occurred in the 1960s and 1970s. These pressures resulted in social pressure for businesses to pay more attention to the communities and to incorporate ethical values and codes of conducts in their businesses. Some of these issues are as follows (Donaldson & Fafaliou, 2003, p. 92-93).

- “rising costs of litigation involving architects, accountants and lawyers
- positive discrimination
- product safety
- the Watergate scandal
- public sector strikes
- environmental issues
- whistleblower issues
- corporate bribery of foreign officials
- transport disasters”

De George (1987) divides the evolution of the field of business ethics into five distinct stages. 1) Before the 1960s the main concern regarding morality and ethics in
business came from religious roots and churches. There was concern about poverty in society and whether businesses were paying enough wages to workers and were giving them equal rights. 2) During the 1960s, which was “the rise of social issues in business,” intrigued by the anger generated by the Vietnam war, youth developed ideas against corporations that manufactured military equipment, and questioned the morality and ethics of such businesses. 3) The 1970s were characterized by the entrance of applied philosophers who contributed by introducing ethical theory to the area, thereby building the field of business ethics.

During this period antibusiness ideas, which previously were held only by youth, spread in the general public. This resulted in companies’ concern and worry about their ethical practices, their image, and their reputation in society. 4) The period 1980-1985 is “the period of initial consolidation.” During this period business ethics became an academic field and many institutions showed interest in this area. Publications, much research, seminars, and conferences. 5) After 1985 the field of business ethics turned into a strong field of academic research. Universities started to have many courses on ethics at the undergraduate and MBA level. Researchers started to conduct more research on the positive side of ethics, for instance, the positive outcomes of ethical behavior for businesses (De George, 1987).
SIGNALING THEORY

The roots of signaling theory can be found in information economics, in a market situation where market actors (sellers and buyers) have asymmetric information regarding market interactions (Boulding & Kirmani, 1993). This theory was developed by Michael Spence (1973, 1974) in the context of labor markets and is applicable to every market in which there are information asymmetries.

Morris (1987) points out that in such markets sellers have more information and greater detail about their products (or services) than customers. Customers have just a general idea about a certain type of a product, but not about a specific product. Therefore, in such a situation there are asymmetries of information in the market. As a result of information asymmetries, the level of value that customers associate with each type of product is based on the weighted average of the general perception they hold for similar products available in the market. This causes the sellers of higher quality products to be at a disadvantage compared to sellers of lower quality products who might be in a better position if customers are indeed unaware or unable to recognize real quality differences among similar products (Morris, 1987).

If the sellers of superior quality products desire to reap the full benefits of their higher quality services, they have to inform the consumers about the superiority of their products and services to enable customers to distinguish sellers of high quality products from sellers of average or low quality products. This communication initiative that sellers of premium products take to inform the customers about the reality of the superior products is called signaling (Morris, 1987). In the absence of such a signaling communication, the customers will not be able to differentiate the qualities of products.
In such a situation, the producers of premium products will be at cost disadvantage compared to low-quality-product producers.

Implementing sustainability practices can be a source of differentiation and turn into a source of advantage for organizations, especially since such practices are still new and are not yet adopted by many organizations. To reap the benefits of such practices, it is essential that organizations signal their actions to their stakeholders to show how they are doing differently and better compared to their competitors. As a way of communication, the organizations need to explain about their sustainability measures, how they are addressing each of the three dimensions of sustainability, and their sustainability strategies in their annual reports which are, after all, for most stakeholders the main point of reference to gain information about the organization’s activities.

**CORPORATE GOVERNANCE in the USA, CONTINENTAL EUROPE (AND SCANDINAVIA), AND ASIA**

**Corporate Governance**

One fundamental characteristic of any corporation is the way it is governed (Macey, 1998), the rules and processes by which the decisions are made (De Jong, 1997). In any country the style of corporate governance and how the stakeholders of corporations are viewed affect the policies of corporations towards the practice of sustainability measures. Therefore, to study the origins of diverse sustainability and CSR strategies in various countries it is essential to become familiar with the characteristics of corporate governance in those countries. Different countries have different corporate governance systems. In general, the structure of corporate governance in each country
develops in an evolutionary process, “path-dependent” and is related to the culture, institutions, ownership structures, political factors, and informal rules practiced in that specific country (Bradley & Sundaram, 2003). Due to cultural and historical elements, political structures, and institutional differences among countries, different systems of corporate governance are practiced in various countries (Aguilera & Jackson, 2003, 2010; Boni 2009).

At the corporate level, every organization has its own specific mission and distinct set of goals. Organizations have various stakeholders with different, sometimes contradictory, interests and priorities. It is extremely complicated to govern such an organization in a way that the central mission of the organization is met and the interests of its stakeholders are addressed at the same time. In an ideal world, every company has been founded to achieve its goals and also to move towards the interests and benefits of its stakeholders. For members of the organization the primary concern is to implement a type of corporate governance which enables the organization to achieve these ends. Without having sound corporate governance that enables appropriate control and supervision procedures in an organization, there is a high chance for divergence of the activities of the organization from its anticipated goals and from the stakeholders’ interests.

Corporate governance concerns how power as well as responsibilities are distributed within the organization. It is related to the configuration and appointment of supervisory and directorship boards, as well as processes for controlling the activities of internal management. Currently, organizations are affiliated to various stakeholders with contradictory interests, so the role of corporate governance and how it handles and
balances the interests of different stakeholders has become very important. One of the main roles of corporate governance is to reduce conflicts and manage agency complications in the corporation (Barnett, & Maniam, 2008).

In larger corporations, where a greater number of stakeholders are affiliated with the activities of the corporation and where goals may be set more ambitiously, the complexity of corporate governance increases. Therefore, the solidness of corporate governance is more important in economies where there are many large corporations, e.g., USA, and its importance becomes more marginal in economies where most corporations are small, e.g., Italy (De Jong, 1997).

Corporate governance is not a static phenomenon. Many countries have modified their corporate governance system over time to make a system that accommodates their needs more efficiently (Bianchi & Enriques, 2001; Jackson & Moerke, 2005). Many scholars argue that in recent years shareholders are gaining more importance, as corporate governance in many countries is moving toward a shareholder-orientation style of corporate governance which is the hallmark of corporate governance in Anglo-Saxon countries (Bradley & Sundaram, 2003; Eberhart, 2012; Rose & Mejer, 2003).

Generally speaking, the style of corporate governance is broadly divided into these two main categories: shareholder-orientation and stakeholder-orientation (Letza, Sun, & Kirkbride, 2004). The countries which adopt the shareholder-orientation (which is common in Anglo-Saxon nations such as the USA and UK) have corporate governance based on the market control mechanism, with the primary goal being wealth maximization of shareholders (Lazonick & O’Sullivan, 2000; Kaplan, 1997). However, in stakeholder-based corporate governance, common in Continental Europe and Japan,
keeping the balance between the interests of various stakeholder is emphasized, ownership is more concentrated, and banks have a more active role in corporate governance (Enriques & Volpin, 2007; Kaplan, 1997).

The main reason that corporate governance has increased in importance is to solve the many problems and conflicts of interests that appear in organizational control when separation between ownership and control occurs (Fama & Jensen, 1983). Different nations, based on historical idiosyncrasies and characteristics of the relationships between stakeholders, cultural priorities and values, and the available resources and infrastructure, develop various types of corporate governance. Therefore, to better understand the corporate governance mechanism we need to become familiar with the consequences of the separation of ownership and control.

**Separation between Ownership and Control**

When a corporation becomes too large, with different sections and departments and a large number of employees, it is no longer possible for owners to handle all the issues related to the activities of the corporation on their own. This type of organization needs to have professional managers with appropriate knowledge to manage the organization. Therefore, by hiring a manager, the owners (principals) delegate some of their authority to the manager (their agent) to run and control the organization as efficiently as possible and in the direction of the interests of the owners. The separation between ownership and control leads to agency problems (Jensen and Meckling, 1976). Agency theory sheds light on the relationships between the owners (principals) and the management team (agents). These relationships are influenced by many factors such as national culture, institutions, and other country-specific factors. Therefore, the
mechanisms related to agency issues result in different styles of corporate governance (suitable to facilitate agency matters) in different sections of the world (Lubatkin, Lane, Collin, & Very, 2005).

Agency theory was introduced by the influential paper of Jensen and Meckling (1976) which was presented in support of classical economics and the notion of the perfection of markets (Sharplin, 2003). According to this theory, shareholders are the real owners of the corporation. Managers and CEOs act as their agents to serve the interests of the owners who are the “residual claimants” of organizational outcomes (Martin, Petty, & Wallace, 2009). As Martin, Petty, and Wallace (2009) clarify, since the corporation is in fact a “nexus of contracts” among different stakeholders, all other parties and stakeholders contributing to the operation of the company (except the shareholder who are the owners) are paid a specific amount of money based only on the terms of their contracts. Whatever money is left, ideally, can be claimed only by the shareholders. Therefore, managers who are, as well, compensated according to the terms of their contracts as “fixed claimants” have a strong desire to find ways to somehow increase their earnings from the corporation (Lubatkin et al., 2005).

According to agency theory, managers do not always attempt to serve the best interests of the owners of the company, and sometimes engage in self-serving interests and decisions (Lazonick & O’Sullivan, 2000). Managers may have inclinations towards excessive expansions of corporation and “empire building” to enjoy the resulted prestige, or may get involved in fraud to make more money (Aguilera & Jackson, 2003). All of these insincere actions by managers are, in reality, at the expense of shareholders and reduce the earnings of shareholders, the real owners of the corporation. It is very difficult
for principals to closely monitor managerial behavior and evaluate the sincerity of management actions due to distance from the organization, lack of information, less technical expertise, etc. (Lubatkin et al., 2005). It is also impossible to anticipate all contingencies and the possibility of opportunistic behaviors in contracts corporations write with their management personnel (Lubatkin et al., 2005). All of these factors make the management of the principal-agent relationship complicated, resulting in the rise of agency costs (Lazonick & O’Sullivan, 2000).

Agency problems appear more often in the economies in which ownership is much dispersed (e.g., the USA) than in economies in which there is greater concentration of ownership (e.g., Continental Europe) (Porta, Lopez, & Shleifer, 1999). In countries with intense ownership dispersion there are many small shareholders who do not have significant power in the decision-making of organizations, nor do they have enough detailed information on corporate activities (Porta, Lopez, & Shleifer, 1999). This means more power for the managers of the company, more probability of opportunism, and higher agency costs (Porta, Lopez, & Shleifer, 1999). This is the reason that the solidness and soundness of corporate governance is more important in economies where there are many large corporation (e.g., the USA), whereas its importance becomes more marginal in economies where the majority of corporations are small and family-owned (e.g., Italy) (De Jong, 1997). Countries that follow the Anglo-Saxon style of governance are more similar to one another in corporate governance than countries which are more stakeholder-oriented (Jackson, 2005). This is the reason that more varied types of corporate governance are observed in Europe and Japan (Jackson, 2005) than in Anglo-Saxon countries.
Corporate Governance in the USA

The main objective of American corporations until the 1980s was to expand the operations of the company and to implement the strategy of “retain and reinvest” (Lazonick & O’Sullivan, 2000). Large American corporations, historically, have been governed based on a managerialism philosophy (Stout, 2013a, b). In such corporations the shareholders did not have strong influence over the boards of directors and were not at the center of attention for companies. They were only one group among multiple stakeholders (e.g., employees, customer, financiers, and society) that the corporations were focusing on in managerial decision-making (Stout, 2013a, b).

In the 1970s the objective of corporate governance of American companies started to change and shareholders started to gain more importance to the point that, after three decades, the primary goal of American companies and the dominant governance style became shareholder orientation (or “market-oriented”) which had as its only objective to maximize value and to distribute more dividends to shareholders (Lazonick & O'Sullivan, 2000; Shin, 2012; Rotenberg & Scharfstein, 1990; Wallace, 2003). The ideology of shareholder primacy has expanded into the way the corporations are managed in the United States, and as Stout (2013a, b) highlights, “executive compensation rules, governance practices, and federal securities laws, have all been reformed to give shareholders more influence over boards and to make managers more attentive to share price.”

There are several reasons for this shift in corporate governance for American companies. One of the main reasons was the rise of the Chicago school of economics in the 1970s. The distinguished economists from this school (Milton Friedman was one of
them), based on their economic and mathematical analysis, supported the notion of shareholder primacy, arguing that the main objective of corporate governance should be to maximize the wealth of their shareholders and to give more power to shareholders (Stout, 2012). Most of these economists were influenced by a reductionist interpretation of Adam Smith (1776) who in his explanation of “the invisible hand” suggests that “the public interest is best served when capital is employed to create the most value, however self-serving this may appear” (Wallace, 2003, p. 121). If each corporation in a free market is able to maximize its profit and minimize its costs, the “invisible hand” of the market will eventually shape a community which is wealthier as a whole (Mele, 2008). Therefore, corporate governance in the USA is more “market-based” and based on market competition for corporate control (Kaplan, 1997). This market pressure and the threat of takeovers encourage the management team to attempt to be efficient (Roe, 1993).

Another reason which added pressure for the adoption of the shareholder orientation in the United States was the introduction of agency theory as a consequence of separation of ownership and control (Sharplin, 2003). Since the major problem within the corporate governance of American corporations is related to agency issues (Enrique & Volpin, 2007), the implications of agency theory have been influential in resolving conflicts between the owners and managers. Due to cultural dispositions in the USA such as the high level of individualism, there is a higher probability that managers will engage in self-serving actions. “The typical US agents enter a US organization predisposed to act in their own best interests because they see themselves, and not their place of
employment, as ultimately being responsible for their own security, advancement, and wealth” (Lubatkin et al., 2005, p. 874).

According to Stout (2012) in 2003, the average compensation of CEO of a large American public company was about 500 times the average salary of an employee. The promotion of shareholder value maximization was a measure to link the salary and bonuses of the managers to the share price and financial performance of the company. This was a way to serve both the purpose of running the corporation in the direction of the interests of the shareholders and to reduce agency costs as well (Lazonick & O’Sullivan, 2000). Melé (2008, p. 9) argues that “[maximization of shareholder value] introduces clarity and simplicity in management and a strict control on managers to avoid opportunistic behaviors… [it also] presents a single-valued objective to which one can refer everything.”

Another reason that shareholder supremacy advanced was the fact that many large American corporations in the 1960s and 1970s grew excessively and rapidly. This resulted in a situation where the highly centralized governance of these corporations was not efficient anymore. Many of their reinvestments and decision-making procedures were not at the optimum level which led to poor performance of such corporations due to mismanagement (Lazonick & O’Sullivan, 2000).

**Corporate Governance in Continental Europe vs. the USA**

In comparison to Anglo-American economies, corporate governance in the more communitarian economies of Continental Europe (and Scandinavia) historically have emphasized more balance among stakeholders, not limited to shareholders. In the Continental European context, shareholders are not the only important stakeholder and
how the activities of corporations influence society, employees, and other stakeholders is important. The agency problems do not appear in Continental European governance as strongly as they do in the American context (Lubatkin et al., 2005). However, in recent years, due to the influence of Anglo-Saxon corporate governance, there has been a move toward more of a shareholder orientation in Continental Europe (Bradley & Sundaram, 2003; Charreaux & Wirtz, 2007; Zumbansen, 2007).

The ownership structure in Continental Europe (and Scandinavia), compared to that in the United States and the United Kingdom, is more concentrated among a few majority shareholders (Swedish Code of Corporate Governance, 2004) and the existence of block-holders is common. Therefore, the concern of agency matters in Continental Europe is different from the United States. In the American context agency framework handles conflicts of interests between many small shareholders and top management, whereas as in Continental Europe the interests of dominant shareholders are more likely to be aligned with those of minority shareholders (Enriques & Volpin, 2007). The style and structure of corporate governance bodies in Continental Europe is more complicated than that in USA. Consequently, corporate governance provides more supervision and auditing in Continental Europe. In general, in Continental Europe governance bodies are often two-tiered, whereas in the USA there is one-tier governance, demonstrating an example of the level of complexity (Swedish Code of Corporate Governance, 2004). The intervention of the state in corporate governance and board configuration is less common in Continental Europe than in the US (Enriques, 2006; Enriques & Volpin, 2007).

De Jong (1997) divides the models of corporate governance into three different categories: Anglo-Saxon, Germanic, and Latinic. In countries with the Germanic
corporate style (e.g., Germany and Scandinavia) the companies are very bank-oriented and banks play an important role in corporate governance (De Jong, 1997). The Latinic corporate model which exists in countries such as Italy, France, and Spain is characterized by high shareholder concentration and networks of corporations play an important role (De Jong, 1997). The main characteristics of the Anglo-Saxon style (e.g., Ireland, and the United Kingdom) are that management has more autonomy, and there is a market model of corporate control (De Jong, 1997).

Another corporate governance model which has proved to be successful for years is Japanese corporate governance, often compared with the Continental European corporate governance model, especially with German corporate governance (Jackson, 2003). Japanese corporate governance is stakeholder-oriented governance and will be discussed more in one of the following sections. Within the stakeholder-oriented corporate governance systems, the leading corporate governances model belong to Germany and Japan.

There are major difference between the styles of corporate governance in the United States, Germany, and Japan. Kaplan (1997) clarifies the major differences between American, German, and Japanese corporate governance, depicted in Table 1. Studying the structure and constituent parts of corporate governance of several leading economies of Continental Europe and Scandinavia helps us to gain a general sense about the features and idiosyncrasies of corporate governance in this region and the factors which make European governance distinct from Anglo-Saxon corporate governance. Here I briefly review the highlights of corporate governance in Germany, Sweden, Norway, France, and Italy.
Table 1: Comparison of corporate governance in US, Japan, and Germany
(Source: Kaplan, 1997).

<table>
<thead>
<tr>
<th></th>
<th>Germany</th>
<th>Japan</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EXECUTIVE COMPENSATION</strong></td>
<td>Moderate</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td><strong>BOARD OF DIRECTORS</strong></td>
<td>Management/Supervisory</td>
<td>Primarily Insiders</td>
<td>Primarily Outsiders</td>
</tr>
<tr>
<td><strong>OWNERSHIP</strong></td>
<td>Concentrated: High Family/Corporate/Bank</td>
<td>Less Concentrated: High Bank/High Corporate/Low Management</td>
<td>Diffuse/Non-corporate</td>
</tr>
<tr>
<td><strong>CAPITAL MARKETS</strong></td>
<td>Relatively Illiquid</td>
<td>Somewhat Liquid</td>
<td>Very Liquid</td>
</tr>
<tr>
<td><strong>TAKEOVER/CONTROL MARKET</strong></td>
<td>Minor</td>
<td>Minor</td>
<td>Major</td>
</tr>
<tr>
<td><strong>BANKING SYSTEM</strong></td>
<td>Universal Banking</td>
<td>Main Bank System</td>
<td>Fragmented</td>
</tr>
</tbody>
</table>

Corporate Governance in Germany

Germany, the largest economy in Europe, has led the corporate governance style in Continental Europe. The study of German corporate governance is fundamental since most of the Continental European countries, to some degree, have imitated German corporate governance (Bradley et al., 1999). The focus of German corporate governance is not shareholders. Instead, importance is given to all stakeholders, especially creditors, employees, and customers. The main purpose of the boards of public corporations, according to the corporate law of Germany, is to contribute to the wellness of the company, people of the society, and the state (Bradley & Sundaram, 2003; Vagts, 1966). According to Fiss and Zajac (2004) the priority of senior managers of German corporations is not the fiscal aspect of the company. Instead, they are “productionists” and “engineering-oriented.” They attempt to produce well-engineered, well-designed products, with high quality, to address the real needs of the society and customers. Most
German senior managers have Ph.Ds. in science or engineering (Aguilera & Jackson, 2003). German managers have a “pluralistic view of the firm as serving multiple constituents” (Aguilera & Jackson, 2003, p. 458).

Bradley and Sundaram (2003) explain that one of the most important differences between German corporate governance and Anglo-Saxon corporate governance is the existence of the two-tier board or co-determination (Jürgens, Naumann, & Rupp, 2000; Zumbansen, 2007). In Germany the management board runs the operation of the corporation and ensures that the strategy is implemented in the right form (Bradley & Sundaram, 2003). The supervisory board, which also includes a number of employees, is in charge of devising the general strategies of the company and configuring the configuration and membership of the management board (Bradley & Sundaram, 2003). The employees of German corporations, as the most important stakeholder group, have an active role in corporate decision-making (Melis, 1998). In organizations with more than 2000 employees, German corporate law requires that at least half of the board be representatives of the organization’s employees (Baums, 1993). German corporate law prohibits the supervisory and management boards having shared members (Jürgens, Naumann, & Rupp, 2000).

German corporations are heavily dependent on debt from banks and financing organizations (not individuals). Banks historically have been the main provider of finance and credit to German corporations, especially during the German reconstruction era after the Second World War (Fiss and Zajac, 2004). Therefore, most shares of German companies are owned by banks and financing institutions, along with cross-holdings of other large corporations. Only a small fraction of shares are owned by individuals
(Bradley & Sundaram, 2003; Jürgens, Naumann, & Rupp, 2000). Traditionally, the salaries of CEOs in Germany have been based on a fixed amount of compensation plus some type of bonus, much lower than the compensation of American CEOs. Salaries have not been linked to share price (Bradley & Sundaram, 2003). All these facts result in corporate governance which focuses less on shareholders, and cares more about other stakeholders and the well-being of the community.

**Corporate Governance in Sweden and Norway**

The styles and concerns of corporate governance in Sweden and Norway are very different from those in the United States. The cultural system in these countries is based on social democracy and egalitarian foundations, forcing organizations and their managers to assign tremendous importance to various stakeholders of the corporation (Randøy & Nielsen, 2002) even though having majority shareholders is common among corporations (Swedish Code of Corporate Governance, 2004).

Swedish corporate governance originated from German corporate law, emphasizing the principle of self-regulation and value systems (Swedish Code of Corporate Governance, 2004). The mentality of CEOs in a Swedish company is very different from that in the US. In American culture the strong self-serving inclinations of managers result in agency problems, whereas in Sweden the mentality of the managers is very different. The main goal of managers is to serve the stakeholders of the company and to be a perfect steward for the organization and society in general (Lubatkin et al., 2005).

The salary of CEOs in Sweden is dramatically lower than their American counterparts (Randøy & Nielsen, 2002). On average in 1998 in Scandinavia, the total
remuneration of a CEO of a public firm was about equivalent of 180,000 US dollars (Randøy & Nielsen, 2002). The social dynamics of society force corporations to maintain the compensation of CEOs as low as possible. Otherwise, CEOs will lose legitimacy in the eyes of stakeholders (Randøy & Nielsen, 2002). Swedish corporate law mandates that the value of the vote for all shareholders is equal and there are abundant legal provisions for the protection of minority shareholders’ rights (Swedish Code of Corporate Governance, 2004). As in Germany, Swedish law preserves the right of employees to have their representatives in board meetings (Swedish Code of Corporate Governance, 2004). In addition, there are strong auditing systems to protect the interests of various stakeholders (Swedish Code of Corporate Governance, 2004).

**Corporate Governance in France**

Corporate governance in France is based on a combination of American individualism and Swedish egalitarianism values (Lubatkin et al., 2005). As Lubatkin et al. (2005, p. 879) clarify, “institutions in France typically combine Sweden’s egalitarianism with a respect for authority and status growing out of France’s unique historical context.” The historical influence of the Catholic legacy and the French educational system has made the French populace very familiar with and respectful to the concepts of status, social class, authority, and hierarchy (Lubatkin et al., 2005).

In France, the general public accept that most top managers and leaders come from high social class families, the social elite, the very top universities, and powerful political parties (Charreaux & Wirtz, 2007; Lubatkin et al., 2005). Since social class, augmented by social networks, of managers is their most valuable resource, CEOs of corporations are strongly loyal to the values of their social stratum. There is little chance
of violation of these values or misbehavior towards any stakeholders due to the fear that managers will lose credibility and status in their elite network (Lubatkin et al., 2005). This encourages managers to be great “servants of the state” and their stratum (Lubatkin et al., 2005). Regarding board configuration, in France both one-tier and two-tier boards exist, but the one-tier style is more common (Hopt, & Leyens, 2004). The existence of independent members on the board is a fundamental sign that the rights of various stakeholders are protected (Goyer, 2001). French law requires that at least half of the board members be independent, whereas in Germany this requirement is one-third (Hopt, & Leyens, 2004).

**Corporate Governance in Italy**

Corporate governance in Italy is based on the Italian Civil Code (Lener, 2005). It is very different from other European countries, not well developed, and among the weakest in Europe (Macey, 1998). Political matters have dominated the corporate governance domain in Italy. Many corporate decisions are based on political considerations and the anticipated political consequences of decisions (Macey, 1998). Melis (1998) groups the corporate governance of Italy in the “relationships-oriented” category, since it is based on the network relationship which provides the orientation to protect the group stakeholders.

Even though corporate governance is not advanced in Italy, control processes are strong and stable (Barca, 1995), and the economy is among the most affluent in Continental Europe (Macey, 1998). The reason is that, in fact, in Italy there is no major separation between ownership and control since most corporations are small, family-owned firms (Barca, 1995). The main driving force of Italian economy is the large
number of many small companies which are family owned and controlled (Aganin & Volpin, 2005), in combination with a few large and medium size corporations, which are mainly owned and control by the government (Macey, 1998; Porta, Lopez, & Shleifer, 1999). Being small has helped companies to avoid higher taxes and complicated regulations and has helped them to develop their own networks and to invest more in their own firm-specific advantages and work force (Macey, 1998). These factors have discouraged companies from entering the stock exchange (Aganin & Volpin, 2005).

Ownership is very concentrated and decisions are made according to the interests of block-holders (mostly family members) (Melis, 1998). Block-holders, in most cases, control the organizations thanks to their ownership and their “pyramidal groups and implicit rules” (Melis, 2000; Barca, 1995). Therefore, minority shareholders are not protected well (Aganin & Volpin, 2005; Macey, 1998). The lack of protection of minority shareholders, combined with an insufficient legal system and weak enforcement, has resulted in weak motivation for investors to invest in the Italian stock market (Aganin & Volpin, 2005; Melis, 2000). The “dysfunctional state capitalism” (Schmidt, 2003; Della Sala, 2004) in Italy has contributed to poor corporate governance. Della Sala (2004) sees the root of this problem in the “diffused nature of political authority in post-war Italy [that] prevented the state from acting in a decisive and determined way in economic governance” (Della Sala, 2004, p. 1045).

The power of block-holder shareholders and their close supervision of corporate activities, necessarily based on detailed corporate information, has reduced agency problems and made Italian corporations successful, but it has resulted in the emergence of weak managers in Italian corporations (Melis, 2000). Starting in 1998, the Italian
government has taken some initiatives to advance corporate governance regulations, especially rules for the protection of the rights of minority shareholders (Bianchi & Enriques, 2001).

**Corporate Governance in Japan**

Corporate governance in Japan is stakeholder-oriented, even though in recent years there has been some move towards shareholder-orientation (Eberhart, 2012; Jackson, 2005). Japanese corporations have been able to maintain the balance between various stakeholders’ interests, even though this might seem to contradict considerations of efficiency (Jacoby, 2007). One indication of the stakeholder-orientation of Japanese corporations is the strong protection of employees in Japanese corporate governance. The unwritten rule of Japanese corporate governance has historically supported employees by corporations’ making huge investments in their employees and by offering permanent employment until retirement (Ahmadjian & Robinson, 2001), although these commitments have weakened in recent years. Japanese corporations offer their employees comprehensive training and protect them during economic turmoil (Jacoby, 2005). The main reason for offering permanent employment and other extensive job benefits as Ahmadjian and Robinson (2001, p. 624) clarify, is that after the Second World War “large Japanese employers responded to severe labor unrest and militant unions by assuring their employees a decent living and stable job in return for their cooperation.” In the USA the main control mechanism of the companies is through boards, external auditors, shareholders’ power, and the probability of takeovers, but in Japan these factors are not that strong (Kang & Shivdasani, 1995).
The competitive system of corporate governance in Japan is based on the two main factors of banks and Keiretsu groups. These influences are responsible for the control of management-stakeholder relationships and ensuring the efficiency of operations (Gilson & Roe, 1993). Ownership in Japanese corporations is concentrated in the hands of a few controlling banks and companies (Jackson & Moerke, 2005), enabling much coordination.

**The role of banks in Japanese corporate governance:** Banks have a central role in the governance of Japanese firms and controlling management (Kang & Shivdasani, 1995; Kaplan & Minton, 1994). In fact, the banking system in Japan acts, to some extent, as an alternative mechanism for market control, the dominant type in Anglo-Saxon corporate governance (Kaplan & Minton, 1994; Morck & Nakamura, 1999). Each Japanese corporation works with a specific bank (“main bank”) that is in charge of all financial-related issues of the corporation and acts as the financial representative of the company in the financial and equity markets, and also provides most of the credit for the corporation (Gilson & Roe, 1993). Usually, the main bank owns the greatest amount of shares. This gives the main bank the power to monitor the activities of the corporation, evaluate the performance of managers, and, if necessary, start the procedures for changing disqualified and underperforming managers (Kang & Shivdasani, 1995).

Whether bank monitoring is the most efficient style of governance and in the best interest of shareholders is a topic of debate among scholars. In this regard, Macey and Miller (1995) argue that banks are not the best representatives to protect the rights of the shareholders, due to misalignment between the interests of banks and the interests of shareholders. This misalignment stems from the fact that banks are the “fixed claimants”
of the corporation and desire to maximize their profit (Morck & Nakamura, 1999). Consequently, they encourage corporations to invest and engage in numerous projects which are capital intensive (need more borrowing from the bank) and, in the meantime, have minimum risk, which means lower return for shareholders as the residual claimants (Macey and Miller, 1995). In this way, the banks increase their own profits and secure their loans and lower the returns for the shareholders who are the true “residual claimants” of the corporation (Macey and Miller, 1995).

**The Keiretsu Groups:** Another efficient means of corporate control is the existence of keiretsu alliances among large corporations. Keiretsu networks have helped corporations to handle the problem of financing (McGuire & Dow, 2009). Keiretsu, or the business group, is another Japanese governance control system which works, along with banks, as a shareholder of the corporation (Meric, Kyj, Welsh, & Meric, 2000). Keiretsu is a group of companies which form a business network based on formal and informal contracts which tie them together under the leadership of a main bank (McGuire & Dow, 2009; Morck & Nakamura, 1999; Sakawa & Watanabel, 2013). The corporations who are members of a keiretsu “are bound together by a nexus of explicit and implicit contracts, and maintain substantial business ties with other firms in the group” (Kang & Shivdasani, 1995, p. 32). Each member of the keiretsu group owns a percentage share of other group members and is also owned by other members (Gilson & Roe 1993). Therefore 30 to 90 per cent of the shares of a company that is a member of a keiretsu may be owned by other group members (Macey and Miller, 1995). The keiretsu networks can be vertically or horizontally integrated (Gilson & Roe 1993; Lincoln, Gerlach, & Ahmadjian, 1996; McGuire & Dow, 2009).
What differentiates vertical from horizontal keiretsu is that vertical keiretsu companies, to some extent, are related to each other since they may belong to the different levels of a business value chain (Gilson & Roe 1993; McGuire & Dow, 2009). One example for vertical keiretsu is Toyota which has formed a keiretsu group with its suppliers. An example of horizontal keiretsu is the Mitsubishi group which includes affiliated corporations from different sectors (e.g., Mitsubishi Trust, Mitsubishi Oil, Mitsubishi Electrics, Mitsubishi Motors, Mitsubishi Chemicals, etc.) (Ahmadjian & Lincoln, 2001; Jackson & Moerke, 2005; Nakamura, 2011). The keiretsu networks which nourish the highly collaborative, trust-based relationship transactions between companies create a competitive advantage for Japanese companies and help them to jointly maximize their profit (Lincoln, Gerlach, & Ahmadjian, 1996; Ahmadjian & Lincoln, 2001).

The keiretsu networks with a main bank at the center facilitate “reciprocal monitoring” between bank and member corporations (McGuire & Dow, 2009). The cross-holdings among the network corporations encourage the companies to closely watch each other’s performance and prevent managers from opportunistic behaviors. Keiretsu offers an efficient method for corporate control and governance by reducing the information asymmetries between the members and making cheaper capital available (McGuire & Dow, 2009).
CONTENT ANALYSIS

History

Content analysis is a technique whereby the presence of certain words or themes in communications is analyzed. Individuals and organizations are influenced by, and, in turn, exert influence over others by language. Content analysis enables us to identify recurring ideas in society, in particular organizations, or among individual actors. We can also compare words or themes used by different entities and look at changes over time. According to Krippendorff (2012) and Dovring (1954), the first time that text was analyzed in a systematic way was in the 17th century by religious authorities who were concerned about the publication of secular or irreligious materials in newspapers and other elements of the popular press. The church had serious concerns about the content of newspapers and press, and publication of secular or irreligious materials that might influence the populace.

The “Sons of Zion” was a hymnal published in Sweden. The Swedish government, supporting the Lutheran Church as the official religion, feared that this hymnal would promote the interests of the German Moravian Brethren, thereby damaging the power and reputation of the church and state. The Swedish government believed that the publication of “Songs of Zion” would influence the people to become more attracted to Moravian belief and this would result in the reduction of the power of the orthodox priests and fewer listeners going to the Lutheran Church (Dovring, 1954; Krippendorff & Bock, 2009). This situation stimulated a very hot debate, with the result that scholars and experts in the literature field were supported to contextually analyze the texts, symbols, and terms used in the “Songs of Zion.” Their objective was to verify if this hymnal
contained contextual meanings against the beliefs and ideology of the Lutheran Church and Bible. They also performed analysis to compare this collection with Moravian texts and scriptures to see if there were similarities, and to verify the level and the frequency of the similarities. Analysis was also conducted to find the roots and sources of this publication using quantitative techniques to reveal pro-Germanic or pro-Moravian ideas (Dovring, 1954; Krippendorff & Bock, 2009)

**Definition**

Content analysis is a technique which has been widely used in social science research for some time. As demonstrated in its name, this method concerns the analysis of the content of a specific item which can be text, images, videos, interviews, etc. for the purpose of analyzing the content of the item and its main message and meaning. In general it helps researchers to make better sense of the content of the text or any other specific item.

Scholars have provided the following definitions for content analysis:

- Berelson (1952, p. 18) describes content analysis as "a research technique for the objective, systematic and quantitative description of the manifest content of communication."

- Holsti (1969, p. 14) describes content analysis as "any technique for making inferences by objectively and systematically identifying specified characteristics of messages."

- Weber (1985, p. 9) explains that content analysis is “a research methodology that utilizes a set of procedures to make valid inferences from text. These inferences are about the sender(s) of message, the message itself, or the audience of the message.”
• Mayring (2000, p. 2) defines content analysis as “an approach of empirical, methodological controlled analysis of texts within their context of communication, following content analytical rules and step by step models, without rash quantification.”

• Hsieh & Shannon (2005, p. 1278) assert that content analysis is “a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns.”

• Krippendorff (2012, p. 18) defines content analysis as “a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use.”

All of these definitions emphasize the elements of inference, objectivity, and content. Therefore, this technique helps the scholars to objectively investigate the meaning contained in a text or item through the lens provided by the text or item itself. According to Dovring (1954) this approach enables the investigator to move beyond his or her own cognitive framework and to more adequately reflect the original meaning embodied in the unit of analysis

**Popularity, Usage, and Applications**

Content analysis as a research methodology is very popular among scholars and researchers, especially in communications. One reason for this popularity is the flexibility that this methodology provides to researchers. White and Marsh (2006) introduce content analysis as a rigorous, highly flexible, and systematic approach in studies, stating that this methodology “is applied in qualitative, quantitative, and sometimes mixed modes of research frameworks and employs a wide range of analytical techniques to generate findings and put them into context” (White & Marsh, 2006, p. 22). Content analysis, by
categorizing the data, reduces or simplifies the data under analysis. Weber (1990, p. 12) asserts that "a central idea in content analysis is that the many words of the text are classified into much fewer content categories." Thus, content analysis provides a way of identifying key themes and meanings that might not be apparent in the raw text, or giving systematic analysis to textual materials, and of testing hypotheses that would otherwise be discernable only by subjective analysis. Scholars have associated many benefits and advantages to this type of research methodology.

General Accounting Office (GAO) (1996) pinpoints several of advantages that this methodology offers. First, various computer programs have been developed that help researchers to conduct content analysis, coding the texts and contents in even very large samples and analyzing them with various quantitative methods. Second, content analysis of the text or transcripts can provide a more unobtrusive methodology compared to interviews and direct interaction between interviewers and interviewees which can introduce bias in the responses of interviewees. Third, since content analysis offers clear and transparent procedures and quality control mechanisms for analysis, it enables various evaluators and researchers to work on large amounts of data even if they are geographically isolated from each other. Fourth, content analysis is a systematic methodology due to its structure. Therefore, it enables researchers to have more consistency in their sense-making and inference from the content or text. In addition, I feel that the use of content analysis enables us to make comparisons between a wide variety of organizational and societal materials, and to make longitudinal analyses that would be difficult to accomplish otherwise.
All these advantages, the flexibility, and the benefits of content analysis have influenced scholars to employ this methodology in a number of different ways and applications, and in various disciplines and research topics. Berelson (1952) conducting a field survey in the identification of content analysis applications, highlights seventeen applications for content analysis:

- “To aid in technical research operations
- To audit communication content against objectives
- To compare media or levels of communication
- To construct and apply communication standards
- To describe trends in communication content
- To describe attitudinal and behavioral responses to communications
- To determine the psychological state of persons or groups
- To disclose international differences in communication content
- To discover stylistic features
- To expose propaganda techniques
- To identify the intentions and other characteristics of the communicators
- To measure the readability of communication materials
- To reflect attitudes, interests, and values (cultural patterns) of population groups
- To reveal the focus of attention
- To secure political and military intelligence
- To trace the development of scholarship” (Berelson, 1952).
Classifications and Categorizations

Content analysis can be qualitative or quantitative, and inductive or deductive (Elo & Kyngas, 2008), or it can be a mixed approach (Krippendorff, 1980). White and Marsh (2006) explain the different procedures and steps for conducting qualitative and quantitative content analysis in terms of hypotheses establishment, sampling, and coding. In quantitative content analysis, the researcher attempts to test hypotheses based on existing theories for the purpose of testing their generalizability (White & Marsh, 2006). Quantitative content analysis is a more deductive approach (White & Marsh, 2006). It is based on “previous knowledge and the purpose of the study is theory testing” (Elo & Kyngas, 2008, p. 109; Kyngas & Vanhanen, 1999). Deductive approach is also used when “the researcher wishes to retest existing data in a new context” (Elo & Kyngas, 2008, p. 111; Catanzaro, 1988).

In qualitative content analysis, the researcher, without initially considering any specific theory or hypothesis, investigates and analyzes the text closely and with scrutiny and diligence to see if patterns or concepts can be observed based on the data (White & Marsh, 2006). Based on this investigation, the research question and hypotheses take shape over the time. Therefore, qualitative content analysis tends to be more inductive in nature than deductive (White & Marsh, 2006). As a suggestion, Elo & Kyngas (2008, p. 109) put forth that inductive content analysis should be applied in cases where there is little existing knowledge. Hsieh & Shannon (2005) divide qualitative content analysis into three types: conventional, directed, and summative content analysis. As they explain:

“Conventional content analysis is generally used with a study design whose aim is to describe a phenomenon… this type of design is usually appropriate when
existing theory or research literature on a phenomenon is limited. Researchers avoid using preconceived categories (Kondracki & Wellman, 2002), instead allowing the categories and names for categories to flow from the data. Researchers immerse themselves in the data to allow new insights to emerge (Kondracki & Wellman, 2002)” (Hsieh & Shannon, 2005, p. 1279).

Directed content analysis is a more deductive approach, even though it is qualitative in nature.

“Sometimes, existing theory or prior research exists about a phenomenon that is incomplete or would benefit from further description. The goal of a directed approach to content analysis is to validate or extend conceptually a theoretical framework or theory. Existing theory or research can help focus the research question. It can provide predictions about the variables of interest or about the relationships among variables, thus helping to determine the initial coding scheme or relationships between codes” (Hsieh & Shannon, 2005, p. 1281).

The last type of qualitative content analysis is summative content analysis, and “starts with identifying and quantifying certain words or content in text with the purpose of understanding the contextual use of the words or content. This quantification is an attempt not to infer meaning but, rather, to explore usage” (Hsieh & Shannon, 2005, p. 1283).

Oliverira, Bitencourt, Teixeira, and Santos (2013) introduce an overall categorization of the content analysis. They categorize content analysis in three types: lexical, syntactic, and thematic. Lexical content analysis deals with the “nature and
richness of the vocabulary,” syntactic content analysis is related to “verb tenses and modes,” and theme content analysis is about “themes and frequency” (Oliveira, Bitencourt, Teixeira, & Santos, 2013, p. 304).
CHAPTER III
THEORY AND HYPOTHESES DEVELOPMENT

As mentioned previously, there are three dimensions of sustainability- economic, environmental, and social. Organizations differ from one another in the ways that they address these three dimensions. Some organizations emphasize a specific dimension more than other organizations, due to the preferences of decision-makers. The attention-based view framework (Ocasio, 1997) argues that decisions in organizations are influenced by factors that engage the mind and draw the attentions of decision-makers. It is broadly accepted by scholars and by conventional wisdom that the primary goal of profit-oriented organizations is to make money and to maximize wealth (Goldratt, Cox, & Whitford, 1992; Friedman, 1962; 1970). Drawing on the attention-based view (Ocasio, 1997), in such an environment, where there is significant pressure on organizations to generate profits and to maximize the wealth of shareholders, the attention of decision-makers in various levels will be to make decisions in ways increasingly more consistent with profit maximization intentions. This results in a situation that the conventional corporation, even one which may be among the most sustainable, is likely to give less attention to the environmental or social dimensions of sustainability, and to give more attention to the economic dimension.

The condition for botanical gardens is different. Botanical gardens have economic concerns too, but, historically their main priority has been to focus on environmental and social issues and to contribute to the preservation of the environment. This historical heritage has generated a culture within this type of organization in which the decision-making processes of top management should give more attention to environmental
factors than their counterparts in corporations. Decisions regarding construction of buildings, products offered at gift shops, and foods offered at cafes and restaurants on the premises are made with managers having an eye on the element of environment. Therefore, we can expect that botanical gardens, more than conventional corporations, will emphasize the environmental dimension of sustainability.

We can look at this issue from an upper echelons perspective as well. Upper echelons theory suggests that organizations in fact reflect the “background characteristics” of their top directors and managers (Hambrick & Mason, 1984). For profit-oriented organizations, the senior executives, in many cases, have educational or functional backgrounds in accounting, finance, marketing, management science, law, engineering, and operations (Hambrick & Mason, 1984; Magnusson & Boggs, 2006; Westphal & Zajac, 1995). This type of mentality makes managers think more about the economic aspect of businesses than the environmental or social aspects, therefore, the corporations will be less environmentally oriented. On the other hand, the directors of botanical gardens usually have backgrounds in environmental studies, biology, horticulture, and related fields. They often have broad community networks and a passion to contribute to society and the environment. Based on the above reasoning, we can expect that botanical gardens, in their annual reports, will emphasize the environmental dimension of sustainability more than corporations from the United States, Continental Europe, or Asia. Therefore, I hypothesize that:

**Hypothesis 1:** Botanical gardens emphasize the environmental dimension of sustainability more than American corporations.
**Hypothesis 2**: Botanical gardens emphasize the environmental dimension of sustainability more than European corporations.

**Hypothesis 3**: Botanical gardens emphasize the environmental dimension of sustainability more than Asian corporations.

**Balancing Sustainability in Three Dimensions**

As has been discussed, the essential factor in sustainability is that organizations manage the relationship with all their stakeholders to improve their profitability and survival prospects (Freeman, 1984). Organizations need to communicate and signal to their stakeholders how effectively they are attempting to address their interests of stakeholders. This will enable them to differentiate themselves compared to competitors (Spence, 1974). Addressing the interests of all stakeholders is crucial because the corporate environment and its affiliated stakeholders are the source of resources essential for the continuance of organization activities (Pfeffer & Salancik, 1978).

Mismanagement of stakeholder relationships can have serious negative repercussions and endanger the survival of the organization. Practicing sustainability by paying proactive attention to all three dimensions (economy, environment, and society) and communicating these practices (that can be related to most stakeholders) helps the corporation to improve its legitimacy as well. Legitimacy is the integrative product and the result of all the interactions of the corporation with its stakeholders. Legitimacy is not determined by a single or only a few sources. Based on these explanations, it is important that organizations pay a sufficient amount of attention to each group of stakeholders so that no single group of stakeholders thinks that it is less valuable or of less importance to the organization. If some stakeholders form perceptions that the organization is not
giving adequate attention to all stakeholders (or all three dimensions of sustainability) this damages the legitimacy of the organization and, in turn, its survival prospect.

Whereas corporations have their main focus on the economic aspect of the business, botanical gardens have less bias towards a single dimension, or at least they give more balanced attention to the environmental and social dimensions of sustainability. However, the economic dimension of sustainability, which concerns the economic sustainability of the business, is not overlooked by botanical gardens. In recent years governmental support for botanical garden has been reduced (Looker & Aitken, 2002). On the other hand, the scope of botanical gardens activities has become much wider and broader than it used to be. With more available opportunities to diversify their services, botanical gardens need to be economically more self-sufficient and self-contained. Observing the annual reports of botanical gardens reveals that most botanical gardens now have established economic activities in line with their social and environmental commitment, to generate sources of income necessary for the continuity of their operations. Based on these arguments, combined with those from previous hypotheses, I hypothesize that:

**Hypothesis 4:** Botanical gardens emphasize all three dimensions of sustainability relatively more equally than American corporations.

**Hypothesis 5:** Botanical gardens emphasize all three dimensions of sustainability relatively more equally than European corporations.

**Hypothesis 6:** Botanical gardens emphasize all three dimensions of sustainability relatively more equally than Asian corporations.
We can have parallel comparisons regarding the relative emphasis given to the three dimensions of sustainability, and the balance of these three dimensions between corporations from different regions. Drawing on previous arguments, and based on the fact that research indicates American corporations emphasize the economic aspects of the business and maximization of profit more than European and Asian corporations, and also given the fact that European and Asian nations are historically more stakeholder-oriented (Bradley et al., 1999; Kaplan, 1997; Lubatkin et al., 2005), I hypothesize that:

**Hypothesis 7:** European corporations emphasize all three dimensions of sustainability more equally than American corporations.

**Hypothesis 8:** Asian corporations emphasize all three dimensions of sustainability more equally than American corporations.

**Sustainability and Endowments, Resources, Institutions, and Location**

Corporate social responsibility constitutes a wide range of different activities. CSR/ sustainability is such a broad term that several areas of research originate from it. Therefore, corporations have the freedom to select various approaches towards sustainability and sustainability practices by addressing different aspects of this broad term. Different regions of the world and different countries have diverse specific resources, infrastructures, business, economic and political environment, and different characteristics in general (Kundu & Contractor, 2000). They also have different governance styles. Different geographic locations, continents, and nations have specific demographic and cultural characteristics, factor endowments, natural resources, demand and industrial conditions, and overall competitive and comparative advantages (Porter, 1990; Kundu, Kumar, & Peters, 2008). Consequently, countries have different
approaches towards sustainability. For instance, a country with more limited sources of energy is more likely to adopt measures in line with energy preservation and lowering consumption, or in a region with abundant rivers and water resources there might be less concern to preserve water. A country’s institutions and institutional infrastructure influence the strategies of corporations, the perception systems, and the choice of practices as well (Chacar, Newburry, & Vissa, 2010). These institutions determine if adopting certain practices will advance the legitimacy prospect of the organization. Since all these elements vary in different regions of the world, it should not be surprising to see countries or groups of nations from different regions adopting different sustainability approaches.

**Sustainability and Culture, Attitudes, and Perceptions**

Another important factor heavily affecting the orientation of nations towards sustainability and CSR is the national culture (Adamik, 2011; Waldman et. al, 2006). In addition, culture can affect and determine the type of CSR practices adopted by the organization (Jaakson, Reino, & Mötsmees, 2012; Dodji, Mahmoodi, & Asadi, 2014). The national culture of a country shapes both the way that people use the resources of the country and the institutions in that country as well. As Park, Russell, and Lee (2007) suggest, “national culture is expected to influence how people utilize their natural resources and environments by shaping their attitudes and perceptions…. institutions both reflect and shape culture” (p. 105-106).

Tabellini (2010) has discussed how culture, historical heritage, and events have affected both the formal and informal institutions in the European context. Hawkes (2001) calls culture “the fourth pillar of sustainability.” He argues that culture is the main
setting for sustainable development. He asks what cultural reference point should be used in sustainability, what systems of values should be considered as the criteria for sustainability, and on which system of governance or definition the global “sustainable future” should be based (Hawkes, 2001). He even relates the concepts of ethics and morality to culture, saying that, “Morality and ethics are simply a practical and overt application of culture” (Hawkes, 2001, p. 21).

Cohen and Nelson (1992, cited in Park et. al, (2007)), argue that culture affects people’s perception of ethics and the behaviors which are considered to correspond to morality standards. Culture can affect the way people view sustainable actions and can influence their perception of sustainability. Park, Russell, and Lee (2007) assert that “the perception of environmentally responsible behavior can be significantly different across countries” (p. 105). According to Duxbury and Jeannotte (2010), UNESCO has recently started several initiatives to promote the cultural dimension of sustainability. The governments of New Zealand and Canada have incorporated the culture dimension into their sustainability measures, and have devised sustainable development plans based on the three conventionally recognized dimensions of sustainable development and culture (Duxbury & Jeannotte, 2010).

Husted (2005) highlights the important role of culture in sustainability and argues that “national culture must also be included in a complete discussion of the phenomenon” (p. 349). He also refers to the work of Geert Hofstede (1984) and argues that “power distance, individualism, and masculinity-femininity are related to a country's social and institutional capacity for sustainability” (p. 349). Packalén (2010) views culture as a “medium to give shape to the communication that is necessary in order for sustainable
development to come about in the economic, ecological and social spheres” (p. 118). Throsby (2009) goes so far as to change the term “sustainable development” to "culturally sustainable development.”

Wang and Juslin (2010) found that the Western style practices of corporate social responsibility do not work properly in the Chinese context since they are in contradiction to the interpretation of Chinese ethics rooted in Confucian beliefs and principles (Zhu & Yao, 2008). Adnan (2009) found that the national culture affects even the way that corporations disclose their CSR/sustainability measures in their annual reports and websites.

Park, Russell, and Lee (2007) examined the relationship between the four dimensions of culture suggested by Hofstede and environmental sustainability, finding that “there are significant multidimensional interrelationships among the cultural and environmental sustainability measures” (p. 104). All of this evidence suggests that corporations located in different geographic locations (countries or continents) are likely to have different approaches toward sustainability.

**Sustainability and Corporate Governance**

In general, all of the above factors influence organizations in different regions of the world to apply different styles of corporate governance. To study the sustainability behavior of organizations in various regions of the world it is necessary to analyze the different styles of corporate governance. This is because, as previously mentioned, for organizations to be sustainable they need to address the interests of all stakeholders (Freeman, 1984) and, broadly speaking, corporate governance determines how stakeholders are managed and how organization priorities are defined. Therefore,
corporate governance directly influences sustainability strategies (Aras & Crowther, 2008; Kolk, 2008; Elkington, 2006; Michelon & Parbonetti, 2012).

Europe, historically, has had a strong legacy in promoting sustainable development around the world. Many sustainability related initiatives originated in Europe. The Stockholm Conference, the starting point of environmental movements which eventually resulted in the emergence of the “sustainable development” concept, occurred in Europe at the recommendation of Europeans. The Club of Rome was based in Italy. “Our Common Future,” the world-changing report of the World Commission on Environment and Development (WCED) owed its success to the insightful leadership of Dr. Brutland, the former Prime Minister of Norway. European nations, over time, have proved to be strong supporters and initiators of sustainability reforms. These facts give Europe a headway in this terrain compared to Asia and the United States.

Especially in the case of the USA, the sustainable development road was not that smooth. In the 1970s there were social movements in the United States that supported sustainable development initiatives, but between the years 1981 and 1989 there was a slowdown due to the unwillingness of federal and state administrations skeptical about sustainable development initiatives and their possible negative effect on economic growth (Shabecoff, 1989). During this time the budget for the Environmental Protection Agency (EPA) was reduced dramatically, enforcement of environmental and antipollution laws was eased (Shabecoff, 1989), and some laws were abandoned (Goldstein, 2009). The focus of the federal government was on economic growth. The usage of public lands for economic ends increased as well (Goldstein, 2009; Shabecoff, 1989). During this period of time programs to expand the usage of solar energy were halted (Perlin, 2013) and
proposals were made to limit the budget for environmental research (Goldstein, 2009). Even though in the years before and after this period the United States has been a major supporter of sustainable development, this pushback contributed to Europe’s having a leading role in sustainable development and environmental issues.

Corporate governance in the United States is shareholder-oriented with the main focus on maximizing the wealth of shareholders (Lazonick & O’Sullivan, 2000). Other stakeholders are at much lower levels of importance, therefore, it is expected that in the USA corporations focus more on the economic dimension of sustainability than the social or environmental dimensions. The major corporate governance model in Europe and East Asia is the stakeholder orientation. This implies that, compared to the United States, in these regions more importance is given to various stakeholders by the corporations. Therefore, based on the above points, it is expected that European corporations will emphasize the environmental aspect of sustainability, and that the emphasis on environmental aspect will be stronger than that in the USA.

With regard to Asia, the situation is different. Similar to Europe, corporate governance in this region is stakeholder-oriented, but the social aspect of sustainability is expected to be emphasized by the corporations in this region. Confucian values among the countries in this region (especially in Japan) are deeply rooted and highly valued (Morishima, 1982). Individuals feel responsible about how their actions affect others and society as a whole, and value good citizenship and contributing to the well-being of society. These nations are highly collectivist (Hofstede, 1984), and the social perception of emotions, norms, values, and social reputation is appreciated. The primary concern of individuals is to keep harmony with society and social values, and the violation of these
elements will have serious consequences (Von Glinow, Shapiro, & Zhixing, 2007; Winfield, Mizuno, & Beaudoin, 2000). All of these factors lead us to anticipate that the social dimension of sustainability will be emphasized more than other dimensions in Asia. Based on all the preceding arguments I hypothesize that:

**Hypothesis 9:** American corporations emphasize the economic dimension of sustainability more than botanical gardens.

**Hypothesis 10:** American corporations emphasize the economic dimension of sustainability more than the environmental dimension.

**Hypothesis 11:** American corporations emphasize the economic dimension of sustainability more than the social dimension.

**Hypothesis 12:** European corporations emphasize the environmental dimension of sustainability more than the economic dimension.

**Hypothesis 13:** European corporations emphasize the environmental dimension of sustainability more than the social dimension.

**Hypothesis 14:** Asian corporations emphasize the social dimension of sustainability more than the economic dimension.

**Hypothesis 15:** Asian corporations emphasize the social dimension of sustainability more than the environmental dimension.

**Pressure for Isomorphism**

Sustainability by its nature is a very complex phenomenon, consisting of three dimensions (economic, environmental, and social), with each dimension consisting of various elements. Implementing sustainability requires not only paying attention to each of these three dimensions and their respective consisting elements, but also being able to
integrate and coordinate all these dimensions (Hansen, Grosse-Dunker, & Reichwald, 2009). This coordination can be so complicated that scholars are emphasizing the important role that the field of “Information Systems” can play in implementing and coordination sustainability measures (Bengtsson & Ågerfalk, 2011; Melville, 2010). Considering the above points, it is a real challenge to find efficient ways to manage sustainability, requiring a lot of creativity and innovation both at the products levels (Hansen, Grosse-Dunker, & Reichwald, 2009) and also at technology and processes (Aguilera-Caracuel et al., 2012; Christmann & Taylor, 2001).

Researchers and organizations are still attempting to find innovative solutions to address sustainability. As Hargreaves, Longhurst, and Seyfang (2013, p. 402) assert, “It is increasingly recognized that meeting the sustainability challenge will require innovation at a systemic level to fundamentally change the way things are done and how societal needs are created and met.” This especially true, since sustainability is still a new area and more techniques need to be developed to address it. This task is very difficult for the corporation, given the fact that it is a new topic in corporate management, due to its complexity, and also due to the fact that many corporations do not have sufficient experience and expertise to handle such practices.

Innovation needs a suitable environment and context to flourish. Scholars argue that contextual factors and the characteristics of the environment affect innovation and creativity (Andrews & Smith, 1996; Baer & Oldham, 2006; Shalley, Zhou, & Oldham, 2004). One of central contextual factors which can directly suppress the creativity of employees in any organization is time pressure (Amabile et al., 1996; Hsu & Fan 2010; Sheremata, 2000). Innovative ideas take time to be processed and effectively evolve.
They are not likely to occur overnight or in rush situation (Amabile, Hadley, & Kramer, 2002). Under time pressure employees do not “engage in exploratory thinking … [and only] rely on familiar algorithms when approaching problems” (Baer and Oldham, 2006, p. 963- citation from Andrews & Smith, 1996).

Nowadays, corporations, regardless of their nationality, are increasingly getting involved in setting the expectations of shareholders as a main priority (Bradley & Sundaram, 2003). There is a tremendous amount of pressure on the corporation and intense competition that, in shortest time, they increase their return on investments, invest in projects that show benefits in a very short time, reduce investment risk, increase share price, and increase dividend distributions to shareholders. In such an environment, and given the fact that economic performance is often the priority of corporations, it is obvious that companies may find it hard to engage in sustainability practices which involve engaging in innovative methods (Hargreaves, Longhurst, & Seyfang, 2013) with high risk (Hansen, Grosse-Dunker, & Reichwald, 2009; Hall, 2002). Therefore, corporations are likely to adopt just the minimum level of sustainability practice required by law (Arora & Cason, 1995) and even that will be without much creativity, and only in the form of copying other’s practices or outsourcing to third parties for the minimum implementation. This makes corporations become isomorphic, resembling each other in their sustainability practices, especially in the environmental dimension which is less central to their attention and expertise.

Since the available resources of corporations on which their continuance and survival depend are limited, and, especially in the current condition of high rivalry among organizations, the key factor to access resources is legitimacy (Pfeffer & Salancik, 1978;
Mayor & Rowan, 1977). The competition for gaining legitimacy is so intense that corporations, more than ever, are practicing measures that boost their image and legitimacy. This powerful force has made organizations resemble one another in their practices, and to become isomorphic. The isomorphism is observed and manifested in various representations: coercive, mimetic, and normative (Dimaggio & Powell, 1983).

We observe coercive isomorphism among corporations due to the fact that governments have been expanding and enforcing sustainability-related regulations and laws. Another factor is that there are many international summits and conventions to analyze issues related to sustainability and its future. These have resulted in many international initiatives, plans, guidelines, and protocols for corporations. Also, many international NGOs are monitoring organizations and pressuring them on their sustainability performance.

In terms of mimetic isomorphism, since CSR initiatives and innovations are costly and need an abundance of resources (Aguilera-Caracuel et. al, 2012), corporations do not want to risk testing new ideas. They just go ahead and copy, mimicking what already has proved to be working and what the society has accepted and considers legitimate, especially those practices implemented by successful, highly reputed corporations (Dimaggio & Powell, 1983).

Many corporations considered to be leaders in sustainability are very large international or multinational corporations and have international reputation and recognition. The majority of organizations who have limited resources for studying sustainability would prefer to follow the practices of such international and multinational
corporations. This results in mimetic isomorphism among corporations around the world who are following these role models (Dimaggio & Powell, 1983).

With regard to normative isomorphism (Dimaggio & Powell, 1983), one of the main sources for corporations to become similar in their sustainability measures is the employment and application of sustainability and CSR-related indexes and standards which are used in different countries (e.g., the GRI sustainability framework). Also, compliance with international regulations and laws, and the motivation to earn specific sustainability-related certifications (e.g., ISO certifications), can be effective influences.

Another source of normative isomorphism which Dimaggio and Powell (1983) bring to our attention comes from universities and professional guidelines. Nowadays, we are seeing universities offering courses world-wide on different issues related to CSR and sustainability. It is not surprising to see that the managers of different corporations, even from distant countries, maintain similar sustainability measures since they have been exposed to similar academic courses and training.

The outsourcing of sustainability implementation is another reason for normative isomorphism. As mentioned earlier, the cost of researching and implementing CSR related initiatives can be very high for corporations (Aguilera-Caracuel et al, 2012). This high initial cost motivates corporations to outsource the implementation of sustainability to external companies who are expert and offer sustainability solutions. For instance, a corporation may decide to construct a building or facility on its premise which is in conformity with sustainability criteria. There are some companies, which may operate internationally as well, who are expert in constructing buildings which are LEED certified (LEED: “Leadership in Energy and Environmental Design” is a certificate and
index for the design and construction of sustainable buildings). Organizations wanting to gain legitimacy tend to communicate and signal sustainability measures in their annual reports. The arguments mentioned above contribute to the process of international isomorphism among corporations regardless of their location or geographic distance. It is expected that the isomorphic pressure on the environmental dimension will be higher than that for the economic or social dimension. This is because organizations usually do not have internal expertise on environmental management since it is generally far from their central activities and their main operations, therefore, they usually prefer to rely on external parties and consultants to manage their environmental related matters.

Botanical gardens, compared to corporations, are not under severe pressure to focus mainly on the economic dimension, nor are they facing severe time constraints and tension to generate outcomes in very short time. They are not audited or observed so intensely, and not many supervising or regulatory organizations monitor them, nor do they encounter many regulations to limit their activities. They have more autonomy in their activities and historically they have adopted innovative approaches to solve the problems they have been facing. Based on the above reasoning, I can hypothesize that:

**Hypothesis 16:** Pressure for isomorphism for the environmental dimension of corporations is higher than that for botanical gardens.

**Hypothesis 17:** Pressure for isomorphism for the economic dimension of corporations is higher than that for botanical gardens.

**Hypothesis 18:** Pressure for isomorphism for the social dimension of corporations is higher than that for botanical gardens.
**Hypothesis 19:** Among the three dimensions of sustainability for corporations the pressure for environmental isomorphism is higher than isomorphic pressures for the social or economic dimensions.
CHAPTER IV

METHODOLOGY

My objective in this part of the analysis (or the first part of the analysis) is to determine whether the means of assessing sustainability is generalized for different types of organizations, or remains differentiated between organizational types. This is an interesting question because if we find that different types of organizations are defining and measuring sustainability in a similar way, then we can say that the movement toward sustainability has achieved a coherent form, with a generally recognized pattern and form of achieving sustainability goals. On the other hand, if we find that organizations of different types have widely differing sustainability goals and measurements, then we can say that sustainability has yet to achieve a generally agreed upon form and is still open to a variety of interpretations and aspirations. Accordingly, I looked for organizations that were dedicated to sustainability as a key value and indeed a raison d’etre. The category of organization that met this description most clearly was botanical gardens.

Botanical gardens have historically and traditionally been repositories of plant species, some focusing on plants of a given type (palms, cacti, orchids, etc.), but many encompassing a wide set of plant species and focused on displaying and often on contributing to the preservation of diverse species.

Sample

For the botanical gardens sample I obtained the annual reports of botanical gardens identified through membership in American Public Gardens Association (APGA) from their websites. There were a total number of 40 botanical gardens in the sample.
The other category of organizations I chose for comparison was corporations. However, I wanted to use corporations that had made a commitment to sustainability and had been recognized for their achievements in sustainability. Every year the World Economic Forum announces the 100 most sustainable corporations as determined by the consulting firm Corporate Knights, located in Canada, which compiles the list based on a methodology described in this section. Thus, I am comparing botanical gardens to corporations recognized for sustainability. This enables me to compare botanical gardens, as a type of non-profit oriented organization which has sustainability at the core of its mission and is its raison d’etre, versus another category of economic organizations which have as their main mission to maximize both profits and sustainability. This comparison helps us understand how the emphasis on the environment vs. profit affects sustainability practices.

I derived the firm sample from the Global 100 which consists of the world’s most sustainable corporations. This list is updated annually by the Corporate Knights foundation which is based in Toronto, Canada (Global-100, 2014). The Corporate Knights uses twelve different indicators (Shown in Table 2) to evaluate corporations in terms of sustainability. These twelve indicators are: “Energy Productivity, Carbon Productivity, Water Productivity, Waste Productivity, Innovation Capacity, Percentage Tax Paid, CEO to Average Worker Pay, Pension Fund Status, Safety Performance, Employee Turnover, Leadership Diversity, Clean Capitalism Pay Link” (Retrieved from http://global100.org).
Table 2: Indicators used by Corporate Knights to evaluate corporations in terms of sustainability

<table>
<thead>
<tr>
<th></th>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Energy Productivity</td>
<td>This metric looks at how much revenue companies can squeeze out of every unit of energy they use, and shows which companies are best able to adapt to our changing energy future.</td>
</tr>
<tr>
<td>2</td>
<td>Carbon Productivity</td>
<td>This metric divides a company’s total revenue by total GHG emissions, and gives us a sense of how companies are exposed to the new GHG regulatory environment.</td>
</tr>
<tr>
<td>3</td>
<td>Water Productivity</td>
<td>This indicator divides revenue by water use, providing a first level measure of how well-positioned companies are to respond to water scarcity challenges.</td>
</tr>
<tr>
<td>4</td>
<td>Waste Productivity</td>
<td>This metric divides revenue by total non-recycled waste, and helps identify companies that are managing their waste intelligently.</td>
</tr>
<tr>
<td>5</td>
<td>Innovation Capacity</td>
<td>This metrics looks at the amount of money companies are investing in R&amp;D as a percentage of their revenue. It is one of several measures that can be used to identify knowledge champions.</td>
</tr>
<tr>
<td>6</td>
<td>Percentage Tax Paid</td>
<td>The metric measures the amount of tax that companies pay out as a percentage of their EBITDA, Companies that perform favourably on this metric may be better positioned to withstand the tightening of global tax policy.</td>
</tr>
<tr>
<td>7</td>
<td>CEO to Average Worker Pay</td>
<td>This metric compares total CEO compensation to average employee compensation, and identifies companies with a horizontally integrated remuneration framework.</td>
</tr>
<tr>
<td>8</td>
<td>Pension Fund Status</td>
<td>This metric analyzes the performance of corporate pension plans by dividing a plan’s unfunded liabilities by market capitalization.</td>
</tr>
<tr>
<td>9</td>
<td>Safety Performance</td>
<td>This metric helps us identify companies with best-in-class health &amp; safety performance.</td>
</tr>
<tr>
<td>10</td>
<td>Employee Turnover</td>
<td>This metric measures employee turnover, which refers to the rate at which companies lose their employees.</td>
</tr>
<tr>
<td>11</td>
<td>Leadership Diversity</td>
<td>This metric measures the gender diversity of a company’s board of directions and senior management team.</td>
</tr>
<tr>
<td>12</td>
<td>Clean Capitalism Pay Link</td>
<td>This metric singles out companies that have a link between their sustainability performance and the remuneration of their senior executives.</td>
</tr>
</tbody>
</table>

* Source: Global 100, Corporate Knights, Retrieved from http://global100.org

I selected all the most sustainable organizations from Global 100 for six years from 2009 to 2014. I accessed the website of each company and downloaded the
respective annual report. For those companies which appeared on the list for more than one year the most recent annual report was downloaded. Initially, the sample consisted of companies from six main regions: US, UK, Continental Europe, Australia, Canada, and Asia. The sample size was as below:

<table>
<thead>
<tr>
<th>Region</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Asia</td>
<td>46</td>
</tr>
<tr>
<td>2 Australia</td>
<td>19</td>
</tr>
<tr>
<td>3 Canada</td>
<td>18</td>
</tr>
<tr>
<td>4 Continental Europe</td>
<td>84</td>
</tr>
<tr>
<td>5 UK</td>
<td>38</td>
</tr>
<tr>
<td>6 USA</td>
<td>41</td>
</tr>
</tbody>
</table>

I did a simple cluster analysis based on terms frequency for each region to see if the UK, Canada, Australia, and Continental Europe could be grouped together. The result showed significant differences among these regions. In the second step I attempted to see if the USA resembles either UK or Canada. Again, these regions seemed to be very different. The data for UK looked more like a hybrid form between USA and Continental Europe. I decided to remove Canada, UK, and Australia from analysis at this stage of the study to avoid any data distortion. Consequently, I did the analysis using three main regions: Asia, Continental Europe, and USA. I chose three regions to examine whether there were differences in sustainability measures among countries with different styles of corporate governance.

Bradley et al. (1999) explains that there are two main types of corporate governance: contractarian and communitarian. The contractarian system views corporations as a nexus of contracts (Coase, 1937). In this view the corporation does not
have an independent and distinct status as an entity. It is simply a combination of contracts and negotiated agreements among different stakeholders (Bradley et al., 1999). The role of management is to facilitate and bargain the terms of contracts with and among various stakeholders (Bradley et al., 1999). The primary goal of the management team in the contractarian system is maximization of the value of the residual claim of the corporation (Bradley et al., 1999). The only stakeholder group among all who can claim the corporation’s residual are shareholders. Other stakeholders are “fixed-claim holders,” therefore they do not have an incentive to maximize the corporation’s residual (Smith, Adhikari, & Tondkar, 2005). Therefore, in the contractarian system, shareholders’ claim maximization is the main purpose of the managers (Smith, Adhikari, & Tondkar, 2005).

Since the main focus of contractarian governance system is the shareholders of the company, it is usually called a shareholder oriented system (Simnett, Vanstraelen, and Chua, 2007). This type of governance system is common in Anglo-American countries and the USA.

The communitarian perspective views the corporation as a social organization (Smith, Adhikari, & Tondkar, 2005) as well as on historical, political, and economic entity (Bradley et al., 1999). In this view the organization’s main goal is not the maximization of shareholder’s wealth. Rather, it has social responsibilities as well (Smith, Adhikari, & Tondkar, 2005). In this view, the organization has to fulfil its responsibilities regarding various stakeholders. The communitarian system is viewed more as a stakeholder oriented system (Simnett, Vanstraelen, and Chua, 2007). This type of governance is common in Continental Europe and Japan.
In my sample, the USA represents the contractarian governance system and Continental Europe and Asia represent the communitarian governance system. I compare the USA separately with Continental Europe and Asia. The reason for this is that, even though both Continental Europe and East Asian countries practice communitarian governance, Continental Europe governance has its roots in the German governance system, whereas East Asian corporate governance derived from Japanese corporate governance (Bradley et al., 1999). I consider these two groups as separate groups to be able to examine any differences in the pattern of their sustainability practices.

Based on the above notion, I expect that organizations from contrarian countries will focus more on the shareholder and, specifically, economic dimension of sustainability. In contrast, I expect to see a better balance between the three sustainability dimension (economic, environmental, and social) among corporations based in a communitarian culture such as that found in Continental Europe and East Asia.

**Design and Content Analysis Procedure**

I used the annual reports of organizations (both botanical gardens and the most sustainable corporations) to evaluate the extent to which sustainability measures are included, recognizing the three dimensions of sustainability embodied in the Global Reporting Initiative: economic, social, and environmental. This was performed by counting the frequency of terms related to each dimension using content analysis of the annual reports. The higher the frequency of terms for a specific dimension, the more emphasis the organization places on that specific dimension. The reason for selecting annual reports for content analysis is that, as Milne & Adler (1999) highlight, the annual report is widely used in CSR research to indicate sustainability and CSR practices of the
organization. According to Tilt (1994), the annual report is the main, most preferred, and most credible means of disclosing social and CSR practices to stakeholders by organizations. Adams and Harte (1998) assert that the annual reports are socially of great significance, they are easily available, and they are used as the main medium of communication by the organizations. Neu, Warsame, and Pedwell (1998, p. 269) explain the important role of annual reports and their purpose as an effective means of communication:

“Environmental disclosures in annual reports provide organizations with an effective method of managing external impressions. Annual reports are a primary information source for investors, creditors, employees, environmental groups and the government. For example, both institutional investors (Hutchins, 1994) and individual investors (Epstein & Freedman, 1994) rely on the annual report for Financial and non-Financial information, as do environmental groups and government regulators (Patten, 1992, p. 472: Gamble [et al.], 1995, p. 34). Although organizations utilize a variety of textually-mediated communication media such as brochures and advertising in an attempt to, inter alia, sustain legitimacy, the annual report appears to be the preferred method for communicating with the aforementioned relevant publics as opposed to the general public” (Zeghal & Ahmed, 1990, p. 49; Marx, 1993, p. 38).

I obtained the annual reports of botanical gardens identified through membership in American Public Gardens Association (APGA) from their websites.
I implemented content analysis by using the ATLAS.ti content analysis software package. ATLAS.ti is an advanced and comprehensive software package widely used in qualitative and quantitative studies (Muhr, 2004).

In this approach, I used the Global Reporting Initiative (GRI) framework. I use this framework since GRI is the framework that has been most frequently adopted by organizations for CSR evaluation and reporting (Adams, 2004; Giannarakis & Theotokas, 2011; Sawani, Zain, & Darus, 2010). GRI is a non-profit effort developed in 1997 in Boston by the Coalition for Environmentally Responsible Economies (CERES) with the support of the United Nations Environment Programme (UNEP) (Moerman & Van Der Laan, 2005). The purpose of GRI was to standardize sustainability reporting among organizations by providing methods and metrics for measuring and evaluating various aspects of organizations’ sustainability.

The GRI framework includes two categories of standard disclosures: General and Specific standard disclosures.

The general standard disclosures contain seven areas which all organizations are able to use and apply. The seven areas include:

- “Ethics and Integrity”
- Governance
- Identified Material Aspects and Boundaries
- Organizational Profile
- Stakeholder Engagement
- Report Profile
- Strategy and Analysis”
The specific standard disclosure, according to GRI Sustainability Reporting Guidelines, provides information regarding the impact and influence of organization activities on the social, environmental, and economic wellbeing of stakeholders which significantly affect the decisions and evaluations of stakeholders. The specific standard disclosures of GRI framework, based on Triple Bottom Line (TBL), incorporate environmental, economic, and social dimensions of sustainability (Jamali, 2006). The specific standard disclosures of GRI are shown in Figure 5. For more detailed information on these aspects of GRI refer to Table 10.

The social dimension itself is divided into four categories: human rights, society, labor practices and decent work, and product responsibility. The GRI framework helps the organization to evaluate the impact of its actions and to adjust them accordingly.

**Figure 5: Specific standard disclosures of GRI** (Based on G4- Sustainability Reporting Guidelines, p. 43, Retrieved from https://www.globalreporting.org/)
I identified terms representing sustainability measures from the Global Reporting Initiative (GRI) sustainability framework using the methodology developed by Dickinson, Gill, Purushothaman, and Scharl (2008) and modified for this analysis along lines which will be described below. These terms enabled me to measure and evaluate the sustainability reporting of botanical gardens and the most sustainable corporations. Then I benchmarked the annual reports of the organizations against the terms associated with the environmental, social, and economic dimensions of the GRI index (Dickinson et al., 2008; Gill, Dickinson, & Scharl, 2008). Each of these three dimensions consists of many different aspects. For each aspect, there are several indicators and concept systems which are represented by a wide variety of definitions, terms, and words. Dickinson et al. (2008) have investigated GRI and retrieved the main terms representing each dimension of GRI. Dickinson et al. (2008), following their GRI investigation, which was performed by four raters, came up with an initial pool of 71 concepts which were explained by 1200 terms. Inter-rater reliability for this procedure was 85%. The raters further refined the pool which resulted in 550 terms representing 71 concepts which explained the social, environmental, and economic dimensions of sustainability. I used the same terms from their study in my analysis, but eliminated terms given multiple classifications and those comprised of more than one word.

The unit of analysis in content analysis can be “words or terms, themes, characters, paragraphs, items, concepts, and semantics” (Berg, 1989, p. 238). I selected word as the unit for analysis, since it make the analysis simpler and more objective. To perform the content analysis I needed to extract the most important and meaningful words from GRI. I used the list developed by Dickinson, Gill, Purushothaman, and
Scharl (2008). As explained above, the initial list contained about 550 terms. The size of the list was a possible problem, as the analysis might become so detailed as to obscure the main themes. A second issue with this list was that some of the terms did not clearly link to a single sustainability dimension meant by GRI. For example, the word “asset” was linked to both economic and social dimensions. Another issue was that some of the terms in the list were actually phrases or compound words, e.g., “human capital.” Basically, this is a problem with content analysis, especially when the unit of analysis is words (one- to three-part words). It is very difficult and sometimes impossible for only a few words to capture and explain the meaning of a longer text, paragraph, or indicator. To make my analysis more exact and to avoid distortion in the data, I decided to further narrow down the list of terms, remove some terms, and come up with a list of words which clearly served my purpose. To do this, I took the following steps.

First, the list contained single, two-part, and three-part words. The problem with this difference in the length of the terms was that it makes comparisons between the frequencies of terms with different numbers of words difficult. To solve this problem, I limited the unit of analysis to only one-part, single words. This makes between-term comparisons possible and makes the analysis more objective and more accurate as well, since many computer softwares can have difficulty conducting content analysis on multiple words accurately.

Second, some of the terms did not clearly express or explain a specific dimension of sustainability (environmental, economic, and social). I removed the terms given multiple classifications from the list in order to have only those meaningful terms
that are unambiguous and clearly linked to one and only one of the dimensions of sustainability.

Third, some GRI terms included in the list, even though they were clearly related to sustainability, were too general or belonged to more than one aspect of sustainability (environmental, economic, social) rather than only one dimension; or, it could be that GRI had used these words for different indicators or dimensions of sustainability. Such terms were eliminated to make the final list consisting of those words which were unambiguous, and clearly related to a single dimension of sustainability.

Fourth, one of the problems in counting distinct words was that some of the words had different formats, therefore, the software considered them as different words and counted them separately. To be able to count the words I needed to change the form of the words to be able to distinguish the words which had the same root. To do this I needed to implement a stemming process. In the stemming process the different formats of a word are converted to the most simple and basic form of the word. For example the stem for the words “advertise,” “advertising,” “advertisement,” “advertiser,” and “advertised” is the term “advertis.” This enabled me to place all of these words in the same category. To conduct this stemming processes I used the stemming algorithm developed by Martin F. Porter (1980).

This stemming algorithm was developed during a complicated Information Retrieval (IR) project in a computer lab in Cambridge, England and published under the title “An Algorithm for Suffix Stripping.” Porter’s stemming algorithm is currently used as a suitable tool for word stemming. This algorithm can be written using different
computer and programming languages and there are online portals based on this algorithm for word stemming. I used one of the online portals (http://www.text-processing.com) which uses Python programming language (one of the advanced and very efficient programming languages) for Porter’s algorithm.

Fifth, after identifying the stems of the words I used the software (Atlas.ti) to count the frequency of the stems used in the annual reports. This process was performed for botanical gardens and the American, Continental European, and East Asian corporations separately.

Sixth, as mentioned before, the frequency of terms was used as a proxy to evaluate the degree of sustainability for an organization. To make comparison between the organizations possible, I identified 25 terms which were most frequently used for each dimension of sustainability in all annual reports considered together. These stem of terms for corporations and botanical gardens are shown in Table 3.

Seventh, since the annual reports have different numbers of pages, to make the statistical analysis and comparison valid, I calculated the per page frequency of the terms by dividing the frequency of the terms by the total number of annual report pages. To ease the presentation and interpretation I multiplied the per page frequency of terms by 100.
Table 3- Stems of the keywords for corporations and botanical gardens

<table>
<thead>
<tr>
<th>Rank</th>
<th>Corporations (Sustainability Dimension)</th>
<th>Botanical Gardens (Sustainability Dimension)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Economic</td>
<td>Environmental</td>
</tr>
<tr>
<td>1</td>
<td>asset</td>
<td>plant</td>
</tr>
<tr>
<td>2</td>
<td>incom</td>
<td>environment</td>
</tr>
<tr>
<td>3</td>
<td>market</td>
<td>oil</td>
</tr>
<tr>
<td>4</td>
<td>tax</td>
<td>research</td>
</tr>
<tr>
<td>5</td>
<td>capit</td>
<td>dispos</td>
</tr>
<tr>
<td>6</td>
<td>revenu</td>
<td>emiss</td>
</tr>
<tr>
<td>7</td>
<td>credit</td>
<td>water</td>
</tr>
<tr>
<td>8</td>
<td>pension</td>
<td>renew</td>
</tr>
<tr>
<td>9</td>
<td>transact</td>
<td>fuel</td>
</tr>
<tr>
<td>10</td>
<td>compens</td>
<td>chemic</td>
</tr>
<tr>
<td>11</td>
<td>dividend</td>
<td>wast</td>
</tr>
<tr>
<td>12</td>
<td>purchas</td>
<td>air</td>
</tr>
<tr>
<td>13</td>
<td>grant</td>
<td>recycl</td>
</tr>
<tr>
<td>14</td>
<td>award</td>
<td>green</td>
</tr>
<tr>
<td>15</td>
<td>econom</td>
<td>carbon</td>
</tr>
<tr>
<td>16</td>
<td>return</td>
<td>climat</td>
</tr>
<tr>
<td>17</td>
<td>supplier</td>
<td>wind</td>
</tr>
<tr>
<td>18</td>
<td>economi</td>
<td>mine</td>
</tr>
<tr>
<td>19</td>
<td>monetari</td>
<td>nuclear</td>
</tr>
<tr>
<td>20</td>
<td>export</td>
<td>refin</td>
</tr>
<tr>
<td>21</td>
<td>budget</td>
<td>remedi</td>
</tr>
<tr>
<td>22</td>
<td>beneficiari</td>
<td>convent</td>
</tr>
<tr>
<td>23</td>
<td>wage</td>
<td>speci</td>
</tr>
<tr>
<td>24</td>
<td>subsid</td>
<td>heat</td>
</tr>
<tr>
<td>25</td>
<td>fdi</td>
<td>solar</td>
</tr>
</tbody>
</table>

Measures

**Balance, Equal Emphasis to the Three Dimensions**

As discussed before, sustainability has three dimensions: economic, environmental, and social. For corporations to have substantial sustainability it should be important to balance these three dimensions. To test Hypotheses 5 to 9, to see whether the corporations give equal emphasis to the three dimensions, I use entropy measure. The concept was introduced in the field information theory by American mathematician Claude Shannon in 1948 and is a proxy for uncertainty and disorder in
information and data transferring (Shannon, 2001). Entropy has extensive application in
the fields of information theory, physics, and thermodynamics (Greven, Keller, &
Warnecke, 2003).

In general, if there are n groups/categories available to contain the variable/data,
entropy measures how the variable is distributed in these groups, and the probability
distribution of the variable. The higher entropy is, the higher is the probability that a
variable is distributed in different groups evenly (Carter, 2011). The maximum entropy
(ln (n); n=number of groups/segments) means that there is maximum disorder in the
distribution among the groups and that the variable is equally distributed among all the
n available groups, or, in other words, the probability of each group to contain the
variable or data is equal to 1/n (Carter, 2011). Based on the same reasoning, the lower
the value of entropy means that the variable/data is more concentrated in specific
group/s. The minimum entropy (0) means that all the data/variable is contained only in
one group/category.

Jacquemin and Berry (1979) applied entropy index to measure group
diversification and the weight of each product segment or industry to total sales for
corporations which operate in different segments of products or diverse industries
(Gulati & Westphal, 1999; Luo & Chung, 2005; Palepu, 1985) and since then it has
been widely used in the strategic management literature for this purpose (Hoskisson et
al., 1993).

Another measure which is used to measure diversification is Herfindahl index,
but entropy measure is a more exact method (Palepu, 1985). The validity of using
entropy to measure diversification has been examined by Hoskisson et al. (1993) and
they argue they have found “strong convergent, discriminant and criterion-related validity for the entropy measure of diversification” (Hoskisson et al., 1993, p. 215; Hoskisson, Johnson, & Moesel; 1994). Consequently, the following entropy-based formula was used in this study (Beckman & Haunschild, 2002; Bigley & Wiersema, 2002; Jehn, Northcraft, & Neale, 1999).

\[
\text{Entropy-based measure} = \sum_{i=1}^{n} P_i \times \ln(1/P_i)
\]

**Equation 1: Entropy-based measure**

In which \(n\) is the number of different groups (or in this case the number of sustainability dimensions) and \(P_i\) is the percentage of keywords in group \(i\) to all the keywords in all groups. In this case of sustainability, since there are the three dimensions of economy, environment, and society, therefore, \(i\) will range from 1 to 3 (since \(n=3\)). The range of entropy value is \([0 \leq \text{Entropy} \leq \ln(n)]\) or in this case between 0 and \(\ln(3) = 1.09\). Entering the three dimensions into the entropy-based formula, the above formula can be written as follows:

\[
\text{Entropy-based measure} = \frac{Eco}{Eco + Env + Soc} \times \ln \left( \frac{1}{\frac{Eco}{Eco + Env + Soc}} \right) + \frac{Env}{Eco + Env + Soc} \times \ln \left( \frac{1}{\frac{Env}{Eco + Env + Soc}} \right)
\]
Equation 2: Entropy-based measure for sustainability three dimensions

\[ + \frac{Soc}{Eco+Env+Soc} \times \ln \left( \frac{1}{\frac{Soc}{Eco+Env+Soc}} \right) \]

“Eco” is the frequency of economic keywords per page of annual reports. “Env” is the frequency of environmental keywords per page of annual reports, and “Soc” is the frequency of social keywords per page of annual reports. All of these quantities have been multiplied by 100 for the ease of presentation and interpretation.

High entropy value means that the focal organization is placing more of a balanced emphasis on economic, environmental, and social dimensions, whereas low entropy value indicates that the organization is inserting more emphasis on specific dimension/s.

Isomorphic Pressure

To test Hypotheses 16 to 19 which concern the isomorphism pressure, I used the coefficient of variation as an indicator for dispersion around the mean. Coefficient of variation is an indicator of dispersion of distribution around the mean and is defined as the standard deviation divided by mean. As equation 3 elaborates, the formula for calculation of coefficient of variation is (Pfeffer & Langton, 1993):
Coefficient of variation (CV) = \frac{\text{Standard Deviation}}{\text{Mean}} = \frac{\sigma}{\mu}

Equation 3: Coefficient of variation (CV)

A higher coefficient of variation indicates more dispersion from the mean. A lower coefficient of variation means that the distribution has lower variance, therefore is more concentrated around the mean, meaning that the isomorphic pressure is higher.

In the strategic management literature coefficient of variation has been used as a measure for similar constructs. Coefficient of variation has been used as a measure for isomorphism, standardization, and similarity changes (Westphal, Seidel, & Stewart, 2001); dispersions (Carnahan, Agarwal, & Campbell, 2012; Pfeffer & Langton, 1993; Skilton & Bernardes, 2014); heterogeneity (Cattani et al., 2008; Gibson & Vermeulen, 2003); risk and divergence from target (Gómez-Mejía et al., 2007; Miller & Reuer, 1996; Weber, Shafir, & Blais, 2004); continuous variables variations (Zhu & Chen, 2014); inequality (Fredrickson, Davis-Blake, & Sanders, 2010); uncertainty (Bromiley & Harris, 2014); and volatility (Sørensen, 2002; Vomberg, Homburg, & Bornemann, 2014).
CHAPTER V

RESULTS

The descriptive statistics of the data for the three dimensions of sustainability (economic, environmental, and social) for American, Continental European, and Asian corporations, and botanical gardens and the Inter-correlations matrix are displayed in Table 4 and Table 5.

Table 4: Descriptive statistics: Corporations in the USA, Europe, and Asia, and botanical gardens*

<table>
<thead>
<tr>
<th>Item</th>
<th>Sustainability Dimension</th>
<th>Mean</th>
<th>St. Dev</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Corps.</td>
<td>Economic</td>
<td>57.17</td>
<td>64.87</td>
<td>0.00</td>
<td>223.27</td>
</tr>
<tr>
<td></td>
<td>Environmental</td>
<td>7.32</td>
<td>6.33</td>
<td>0.68</td>
<td>24.55</td>
</tr>
<tr>
<td></td>
<td>Social</td>
<td>24.40</td>
<td>29.60</td>
<td>0.10</td>
<td>109.33</td>
</tr>
<tr>
<td>C. European Corps.</td>
<td>Economic</td>
<td>37.81</td>
<td>43.08</td>
<td>0.00</td>
<td>153.31</td>
</tr>
<tr>
<td></td>
<td>Environmental</td>
<td>8.73</td>
<td>7.95</td>
<td>0.74</td>
<td>26.83</td>
</tr>
<tr>
<td></td>
<td>Social</td>
<td>31.70</td>
<td>34.12</td>
<td>5.67</td>
<td>156.23</td>
</tr>
<tr>
<td>Asian Corps.</td>
<td>Economic</td>
<td>35.00</td>
<td>43.39</td>
<td>0.24</td>
<td>156.67</td>
</tr>
<tr>
<td></td>
<td>Environmental</td>
<td>7.70</td>
<td>7.28</td>
<td>0.62</td>
<td>27.20</td>
</tr>
<tr>
<td></td>
<td>Social</td>
<td>29.47</td>
<td>29.75</td>
<td>4.02</td>
<td>112.09</td>
</tr>
<tr>
<td>Botanical Gardens</td>
<td>Economic</td>
<td>5.27</td>
<td>6.88</td>
<td>0.12</td>
<td>23.71</td>
</tr>
<tr>
<td></td>
<td>Environmental</td>
<td>16.31</td>
<td>25.54</td>
<td>3.17</td>
<td>130.28</td>
</tr>
<tr>
<td></td>
<td>Social</td>
<td>14.14</td>
<td>16.55</td>
<td>2.00</td>
<td>67.49</td>
</tr>
</tbody>
</table>

*Note: To ease the interpretation and presentation the original frequencies of words per page have been multiplied by 100.

n=25 for each item
To test the hypotheses 1 to 3, I used unpaired t-tests to compare the means.

Hypothesis 1 suggests that botanical gardens emphasize the environmental dimension of sustainability more than American corporations. The t-test for this hypothesis was marginally significant ($t=-1.7$, $p=.09$). The mean for the environmental dimension of botanical gardens was 16.3 (SD=25.53) compared to 7.31 (SD=6.32) for American corporations. The t-test was not significant for Hypothesis 2 and hypothesis 3. Therefore, we cannot conclude that botanical gardens emphasize the environmental dimension more than European or Asian corporations.

Table 6: T-tests between sustainability dimensions of botanical gardens and corporations

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>USA Env</th>
<th>USA Eco</th>
<th>Europe Env</th>
<th>Asia Env</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botanical Gardens Env</td>
<td>$t=-1.7$</td>
<td>$t=-1.41$</td>
<td>$t=-1.62$</td>
<td>$t=3.97$</td>
</tr>
<tr>
<td>Botanical Gardens Eco</td>
<td>$t=0.09$</td>
<td>$t=0.16$</td>
<td>$t=0.11$</td>
<td>$t=0.001$</td>
</tr>
</tbody>
</table>
Hypotheses 4 to 8 address whether equal emphasis is given to the three dimensions of sustainability among firms based in the USA, Continental Europe, and Asia and the botanical gardens. The entropy calculations using equation 2 was performed to test these hypotheses. The calculated values of entropy measure are depicted in Figure 6. As it was mentioned previously, the higher entropy is, the higher is the probability that a variable is distributed in different groups evenly. Therefore, in this case higher level of entropy shows that the focal organization is placing more equal emphasis on the three dimensions of sustainability, or in other words the three dimensions are more balanced.

The range of entropy value is \([0 \leq \text{Entropy} \leq \ln(n)]\) or in this study between 0 and \(\ln(3) = 1.09\). The maximum entropy (1.09) means that there is equal distribution in the three dimensions of sustainability.

The value for entropy measure for botanical gardens is 1.007 (=92% of max entropy) which shows a high degree of balance between the environmental, social, and economic dimensions of sustainability. The calculated entropy for American corporations is about 0.84 (=77% of max entropy), lower than that for botanical gardens. This supports Hypothesis 4 which predicts that botanical gardens place more equal emphasis on the three dimensions than American corporations. Hypothesis 5 posits that, compared to European corporations, botanical gardens give more equal emphasis on the three dimensions of sustainability. The lower entropy value for European corporations, about 0.96 (=88% of max entropy), supports this prediction. Hypothesis 6 suggests that botanical gardens place more equal emphasis on the three dimensions of sustainability than the Asian corporations. The entropy value for Asian corporations is about 0.95 (=87% of max entropy) which is lower than that for botanical gardens meaning that,
compared to botanical gardens, Asian corporations place lower level of equal emphasis on the three dimensions of sustainability.

Hypothesis 7 predicts that European corporations emphasize the three dimensions of sustainability more equally than the American corporations. To test this hypothesis I compare the entropy values for European corporations (=0.96) and American corporations (=0.84) which shows evidence for the support of this hypothesis. The comparison of estimated entropy value for Asian corporations (=0.95) and American corporations (=0.84) reveals that Asian companies give more equal emphasize to all the three dimensions of sustainability than do their American counterparts which supports of Hypothesis 8.

Figure 6: Entropy measures for corporations from the USA, Continental Europe, and Asia, and botanical gardens.
Hypothesis 9 predicts that American corporations will emphasize the economic dimension of sustainability more than botanical gardens. To test this hypothesis, I used t-test which revealed significant difference between American corporations and botanical gardens in this regard ($t=3.97; p=.001$). For the economic dimension of sustainability for American corporations the mean was 57.16 (SD=64.86) whereas for botanical gardens it was 5.26 (SD=6.88). Thus Hypothesis 9 was strongly supported (refer to Table 6).

Hypothesis 10 posits that American corporations emphasize the economic dimension of sustainability more than the environmental dimension. The t-value ($=3.82$) for this comparison was significant at p-value level of 0.001, therefore, this hypothesis was strongly supported. The mean for the economic dimension was 57.16 (SD=64.86), and the mean for the environmental dimension was 7.31 (SD= 6.32). The results of the t-tests for hypotheses 10 to 15 are displayed in Table 7. To see if American corporations also emphasize the economic dimension of sustainability more than the social dimension (hypothesis 11) I conducted a t-test. The result of the test showed a significant difference between the means of the economic (M= 57.16, SD=64.86) and social (M=24.39, SD=29.59) sustainability dimensions of American corporations ($t= 2.29, p=.028$)

In the case of European corporations the mean of the economic dimension (M=37.81, SD=43.08) was higher than the mean of the environmental dimension (M= 8.73, SD=7.95) with the t-value equal to 3.31 ($p=.003$). This means that for European corporations the emphasis on the environmental dimension is less than the economic dimension. Thus, hypothesis 12 was not supported.
Hypothesis 13 proposes that European corporations emphasize the environmental dimension of sustainability more than the social dimension. The result of the t-test for this hypothesis was significant ($t= -3.28$, $p=.003$) but in the reverse direction meaning that the mean of the social dimension ($M=31.69$, $SD=34.11$) was higher than the mean of the environmental dimension ($M= 8.73$, $SD=7.95$). The t-test to compare the economic and social dimensions of European corporations did not demonstrate any difference between these two dimensions ($t=.556$, $p=.581$).

Hypothesis 14 suggests that Asian corporations emphasize the social dimension of sustainability more than the economic dimension, but was not supported by the results of the t-test ($t= .525$, $p=.602$). Nevertheless, the social dimension ($M= 29.47$, $SD=29.74$) was shown to be emphasized more than the environmental dimension ($M= 7.69$, $SD=7.27$) by Asian corporations ($t= -3.55$, $p=.001$) which demonstrates support for hypothesis 15. The economic dimension ($M= 34.99$, $SD=43.38$) of Asian firms was emphasized more than the environmental dimension ($M=7.69$, $SD=7.27$) with the t-value of 3.1 at the significance level of 0.005.

Table 7: T-tests between sustainability dimensions of corporations

<table>
<thead>
<tr>
<th></th>
<th>USA Eco</th>
<th>USA Soc</th>
<th>Europe Eco</th>
<th>Europe Soc</th>
<th>Asia Eco</th>
<th>Asia Env</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA Eco</td>
<td>3.82</td>
<td>0.001</td>
<td>3.31</td>
<td>0.003</td>
<td>0.52</td>
<td>0.602</td>
</tr>
<tr>
<td>Europe Env</td>
<td></td>
<td>2.29</td>
<td>3.28</td>
<td>-3.28</td>
<td>-3.55</td>
<td>0.001</td>
</tr>
<tr>
<td>Asia Soc</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
To test Hypotheses 16 to 19 which concern the isomorphism pressure I used the coefficient of variation as an indicator for dispersion around the mean. A higher coefficient of variation indicates more dispersion from the mean. A lower coefficient of variation means that the distribution has lower variance, therefore is more concentrated around the mean, meaning that the isomorphic pressure is higher.

The comparisons of coefficients of variation for the three regions of USA, Continental Europe, and Asia, and the botanical gardens, across the three dimensions of sustainability, are presented in Figure 7. Hypothesis 16 proposed that the pressure for isomorphism for the environmental dimension of corporations is higher than the pressure for isomorphism for botanical gardens.

To test this hypothesis, I compare the coefficient of variation for environmental dimension of corporations from the USA, Europe, and Asia versus the coefficient of variation for the environmental dimension of botanical gardens. The value of coefficient of variation for the environmental dimension of botanical garden is 1.56, higher than those of USA corporations (=0.86), European corporations (=0.91), and Asian corporations (=0.94). This shows that the pressure for environmental isomorphism is generally higher for corporations in the three regions than for botanical gardens.

For the economic dimension the coefficient of variation for botanical gardens is 1.3 which is again higher for that of American, European, and Asian corporations (1.13, 1.13, & 1.23 respectively). This is an evidence of support for Hypothesis 17 which predicts that the pressure for isomorphism for the economic dimension for corporations is higher than that for botanical gardens.
Hypothesis 18 suggests that the pressure for isomorphism for the social dimension of corporations is higher than that for botanical gardens. The coefficients of variation for social dimensions of American, European, Asian corporations and the botanical gardens are equal to 1.21, 1.07, 1, and 1.17 respectively. This means that the pressure for social isomorphism is higher for botanical gardens than for European and Asian corporations, but not for American corporations. Therefore, this hypothesis is only partially supported.

Hypothesis 19 posits that among the three dimensions of sustainability for corporations the pressure for environmental isomorphism is higher than isomorphic pressures for social, or economic dimensions. In the case of American corporations, the coefficient of variation for environmental dimension is 0.86 which is lower than that for economic and social dimensions, 1.13, and 1.21 respectively.

Similarly, for European corporations the coefficient of variation for the environmental dimension is 0.91, lower than that for economic (=1.13) and social (=1.07) dimensions. For Asian corporations the coefficient of variation for environmental, economic, and social are 0.94, 1.23, and 1 respectively with the lowest value for the environmental dimension. Therefore, Hypothesis 19 is supported.
Figure 7: Coefficients of variation for corporations from the USA, Continental Europe, and Asia, and botanical gardens across the three dimensions of sustainability.
CHAPTER VI

DISCUSSION, CONTRIBUTION, IMPLICATIONS, AND CONCLUSION

This study demonstrates that corporations have a long way to go yet before they actually display a deep commitment to sustainability. Even the most sustainable corporations, those rated among top 100, are limited in the amount that they are actually valuing sustainability. The economic dimension is preeminent among these corporations. Even the botanical gardens have been struggling with sustainability, but they have been better able to balance the three dimensions of sustainability than corporations at this time. Corporations from the USA, Continental Europe, and Asia emphasize the economic dimension of sustainability. Since sustainability is a combination of three dimensions, therefore, one of the managerial implications of this study is that if the managers really intend to show commitment to sustainability, then they need to develop environmental and social practices and signal them in annual reports. An important point to make here is that corporations cannot be sustainable just by emphasizing the economic dimension more and more and leaving the other dimensions alone.

This has implications for the current monitoring system of sustainability as well. The GRI, for example, might want to look at the balance between the three sustainability dimensions rather than just absolute performance on each one, and take that into account in their monitoring and reporting. In other words, a company that did well on the environmental but forgot about the social dimension should not be allowed to get by on the basis that one balances out the other. Consultants, impact investors, and indexes (e.g., GRI) need to add and incorporate the concept of balance to the measures they look at and consider whether corporations are allowing over-performance in one dimension to cancel
out or average out underperformance in the other two dimensions. If so, then they need to reconsider their assessment and reporting methodology system.

Another methodological contribution of this study is that using the methodology of content analysis, I have discovered the terms which are the most prevalent and also most effective in signaling and communicating sustainability measures and addressing the widest range of stakeholders. These distinct terms are particular to each specific dimension of three dimensions of sustainability. This list of terms can be applied by other researchers as a starting point for further research. It can be used by corporations which need to act quickly to find the most effective way to communicate sustainability measures to the maximum number of their stakeholders and in this way to increase their legitimacy and its consequent benefits.

Researchers evaluating the sustainability performance of organizations have generally taken CSR reports and looked at them and said they are great, rather than actually looking at annual reports which are, after all, the most important document expressing what corporations truly value. It is better to look at annual reports to see whether sustainability is actually represented there and the standing of each dimension and perhaps to compare annual reports with sustainability reports.

One conclusion of this study is that the practice of sustainability is not completely a choice of the organizations, and many country (institutions, infrastructure, technology, etc.) and society (culture, norms, expectation) level factors influence it as well.

This study also shows that, compared to botanical gardens, there are isomorphic pressures in the practice of sustainability and most corporations are only sufficing to resemble and copy each other’s sustainability initiatives. Companies may be outsourcing
sustainability to third parties rather than investing their time and resources and having a proactive and creative role in their sustainability measures.

In this study I have used botanical gardens because their actions can provide insight, but they have not been previously used in management research. This research also shows that the historical factors such as the level of experience of an organization in managing sustainability is an influential factor in sustainability practices. It also shows that the management mentality and whether the organization has sustainability as a main priority affect the organization’s sustainability performance.

One important finding or emphasis of this study which has been often ignored when there is discussion about sustainability is that implementing practices to promote sustainability within any type of organization is subject to engagement in innovative processes and a creative thinking framework. It is also important that the organization have autonomy, to some extent, to be able to evolve such time-taking practices and test them. Sustainability practices may not happen or be successful under pressure and time constraint.

I see two main reasons for the existence of the link between sustainability and creativity. First, sustainability is still a new field and the approaches to it have not been fully discovered and developed yet, and, therefore, contain a high degree of ambiguity. Even in the cases that specific measures or approaches have been developed still the results and effectiveness have not been fully researched and discovered. Second, sustainability measures for each organization can be extremely idiosyncratic, meaning that they can be very much dependent on organization-specific factors, depending on internal and external environment, and facility conditions, employee characteristics and
backgrounds, the historical heritage of the organizations, community dynamics, culture, institutions and regulations, and many other contextual and environmental factors, therefore, sustainability can be a very case-based phenomenon. Its methods and practices may not that easy to generalize. These factors should be considered by organization in practices, by scholars in research, and by external agents in evaluating sustainability.
REFERENCES


Elkington, J. (2004). Enter the triple bottom line. The triple bottom line: Does it all add up, 1-16.


Hall, J. (2002). Sustainable development innovation; a research agenda for the next 10 yearsEditorial for the 10th Anniversary of the Journal of Cleaner Production. *Journal of Cleaner Production, 10*(3), 195-196.


Oliveira, M., Bitencourt, C., Teixeira, E., & Santos, A. C. (2013). Thematic content analysis: Is there a difference between the support provided by the MAXQDA® and


<table>
<thead>
<tr>
<th>American Corporations</th>
<th>Continental Europe Corporations</th>
<th>Asian Corporations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Agilent</td>
<td>1-ABB Group -Swiss</td>
<td>1-Aeon -Japan</td>
</tr>
<tr>
<td>2-Alcoa</td>
<td>2-Accenture-Ireland</td>
<td>2-CapitaLand Limited-Singapore</td>
</tr>
<tr>
<td>3-Amazon</td>
<td>3-Acciona SA-Spain</td>
<td>3-City Developments Ltd-Singapore</td>
</tr>
<tr>
<td>4-AMD</td>
<td>4-Accor-Spain</td>
<td>4-Daikin-Japan</td>
</tr>
<tr>
<td>5-Baxter</td>
<td>5-Adidas-Germany</td>
<td>5-Daiwa House Industry Co Ltd-Japan</td>
</tr>
<tr>
<td>6-BiogenDec</td>
<td>6-Aeropos de Paris-France</td>
<td>6-East Japan Railway Company-Japan</td>
</tr>
<tr>
<td>7-Campbell</td>
<td>7-Air France-KLM-France</td>
<td>7-Eisai Co Ltd-Japan</td>
</tr>
<tr>
<td>8-Cisco</td>
<td>8-Alcatel-Lucent-France</td>
<td>8-Hang Seng Bank Ltd-Hong Kong</td>
</tr>
<tr>
<td>9-Clorox</td>
<td>9-Allianz SE-Germany</td>
<td>9-Hitachi Chemical Company-Japan</td>
</tr>
<tr>
<td>10-CocaCola</td>
<td>10-ASML Holding NV-Netherlands</td>
<td>10-Honda-Japan</td>
</tr>
<tr>
<td>11-Dell</td>
<td>11-Atlanta-Italy</td>
<td>11-Ibiden Co. Ltd.-Japan</td>
</tr>
<tr>
<td>12-Disney</td>
<td>12-Atlas Copco AB-Sweden</td>
<td>12-Keppel Land Limited-Singapore</td>
</tr>
<tr>
<td>13-Duke Energy</td>
<td>13-Banco Espirito Santo SA-Portugal</td>
<td>13-Komatsu Ltd.-Japan</td>
</tr>
<tr>
<td>14-EMC</td>
<td>14-Basf-Germany</td>
<td>14-Konica Minolta Inc-Japan</td>
</tr>
<tr>
<td>15-FPL</td>
<td>15-BMW-Germany</td>
<td>15-Kuray-Japan</td>
</tr>
<tr>
<td>16-GE</td>
<td>16-Cie Generale d’Optique Essi.-France</td>
<td>16-Lawson Inc.-Japan</td>
</tr>
<tr>
<td>17-Genzyme</td>
<td>17-Coloplast AS-Denmark</td>
<td>17-LG Electronics Inc-S Korea</td>
</tr>
<tr>
<td>18-GoldmanSachs</td>
<td>18-Credit Agricole SA-France</td>
<td>18-Mitsubishi Heavy Industries-Japan</td>
</tr>
<tr>
<td>19-Hess</td>
<td>19-Daimler AG-Germany</td>
<td>19-Mitsui Osk Lines Ltd-Japan</td>
</tr>
<tr>
<td>20-HP</td>
<td>20-Danone-France</td>
<td>20-MTR Corp-Hong Kong</td>
</tr>
<tr>
<td>21-IBM</td>
<td>21-Danske Bank AS-Denmark</td>
<td>21-NEC-Japan</td>
</tr>
<tr>
<td>22-Intel</td>
<td>22-Dassault Systemes SA-France</td>
<td>22-Nippon-Japan</td>
</tr>
<tr>
<td>23-Johnson &amp; Johnson</td>
<td>23-Deutsche Boerse AG-Germany</td>
<td>23-Nissan Motor Co Ltd-Japan</td>
</tr>
<tr>
<td>24-Johnson Controls</td>
<td>24-Dexia SA-Belgium</td>
<td>24-Nitto Denko Corp-Japan</td>
</tr>
<tr>
<td>25-Kodak</td>
<td>25-DNB ASA-Norway</td>
<td>25-Nttdata-Japan</td>
</tr>
<tr>
<td>26-Kraft Foods</td>
<td>26-Electrolux-Sweden</td>
<td>26-Nttdocomo-Japan</td>
</tr>
<tr>
<td>27-Life technologies</td>
<td>27-Enagas-Spain</td>
<td>27-Panasonic-Japan</td>
</tr>
<tr>
<td>28-Monsanto</td>
<td>28-Ericsson-Sweden</td>
<td>28-Posco-Korea</td>
</tr>
<tr>
<td>29-Motorola</td>
<td>29-Essilor International-France</td>
<td>29-Ricoh Co Ltd-Japan</td>
</tr>
<tr>
<td>30-Nike</td>
<td>30-Fresenius Medical Care AG-Germany</td>
<td>30-Samsung Electronics Co Ltd-S Korea</td>
</tr>
<tr>
<td>31-P&amp;G</td>
<td>31-Galp Energia SGPS SA-Portugal</td>
<td>31-Sekisui-Japan</td>
</tr>
<tr>
<td>32-PG &amp; E</td>
<td>32-Geberit AG-Switzerland</td>
<td>32-Sembcorp-Singapore</td>
</tr>
<tr>
<td>33-PinnacleWest</td>
<td>33-H&amp;M Hennes &amp; Mauritz-Sweden</td>
<td>33-Shinhan Financial Group-S Korea</td>
</tr>
<tr>
<td>34-Prologis</td>
<td>34-Henkel-Germany</td>
<td>34-Sony-Japan</td>
</tr>
<tr>
<td>35-Sigma aldrich</td>
<td>35-Hochtief AG-Germany</td>
<td>35-StarHub Ltd-Singapore</td>
</tr>
<tr>
<td>36-Staples soul</td>
<td>36-Husqvarna AB-Sweden</td>
<td>36-sysmex-Japan</td>
</tr>
<tr>
<td>37-Starbucks</td>
<td>37-Iberdrola SA-Spain</td>
<td>37-T&amp;D Holdings Inc-Japan</td>
</tr>
<tr>
<td>38-State Street Corp</td>
<td>38-Inditex SA-Spain</td>
<td>38-Tisho Pharmaceutical-Japan</td>
</tr>
<tr>
<td>39-SunLife</td>
<td>39-Intesa Sanpaolo Spa-Italy</td>
<td>39-Taiwan Semiconductor-Taiwan</td>
</tr>
<tr>
<td>40-UTC</td>
<td>40-JCDecaux SA-France</td>
<td>40-Tenet_Sompo-Japan</td>
</tr>
<tr>
<td>41-Weyerhaeuser</td>
<td>41-Kesko OYJ-Finland</td>
<td>41-Tokyo electron Ltd-Japan</td>
</tr>
<tr>
<td>42-Koninklijke Philips NV-Netherlands</td>
<td>42-Tokyo Gas Ltd-Japan</td>
<td></td>
</tr>
<tr>
<td>43-Lafarge SA-France</td>
<td></td>
<td>43-Toppan-Japan</td>
</tr>
<tr>
<td>Rank</td>
<td>Company</td>
<td>Country</td>
</tr>
<tr>
<td>------</td>
<td>-----------------------</td>
<td>----------</td>
</tr>
<tr>
<td>44</td>
<td>L’Oreal-France</td>
<td>France</td>
</tr>
<tr>
<td>45</td>
<td>LVMH-France</td>
<td>France</td>
</tr>
<tr>
<td>46</td>
<td>Michelin-France</td>
<td>France</td>
</tr>
<tr>
<td>47</td>
<td>Muenchener Rueckversich-Germany</td>
<td>Germany</td>
</tr>
<tr>
<td>48</td>
<td>Neste Oil OYJ-Finland</td>
<td>Finland</td>
</tr>
<tr>
<td>49</td>
<td>Nestle SA-Swiss</td>
<td>Switzerland</td>
</tr>
<tr>
<td>50</td>
<td>Nokia-Finland</td>
<td>Finland</td>
</tr>
<tr>
<td>51</td>
<td>Norsk Hydro ASA-Norway</td>
<td>Norway</td>
</tr>
<tr>
<td>52</td>
<td>Novartis-Swiss</td>
<td>Switzerland</td>
</tr>
<tr>
<td>53</td>
<td>Novo Nordisk-Denmark</td>
<td>Denmark</td>
</tr>
<tr>
<td>54</td>
<td>Novozymes-Denmark</td>
<td>Denmark</td>
</tr>
<tr>
<td>55</td>
<td>Outotec-Finland</td>
<td>Finland</td>
</tr>
<tr>
<td>56</td>
<td>Philips-Netherlands</td>
<td>Netherlands</td>
</tr>
<tr>
<td>57</td>
<td>Renault-France</td>
<td>France</td>
</tr>
<tr>
<td>58</td>
<td>Repsol-Spain</td>
<td>Spain</td>
</tr>
<tr>
<td>59</td>
<td>Roche Holding AG-Swiss</td>
<td>Switzerland</td>
</tr>
<tr>
<td>60</td>
<td>Royal Dutch Shell PLC-Netherlands</td>
<td>Netherlands</td>
</tr>
<tr>
<td>61</td>
<td>Saint Gobain-France</td>
<td>France</td>
</tr>
<tr>
<td>62</td>
<td>Saipem-Italy</td>
<td>Italy</td>
</tr>
<tr>
<td>63</td>
<td>Sap-Germany</td>
<td>Germany</td>
</tr>
<tr>
<td>64</td>
<td>Scania AB-Sweden</td>
<td>Sweden</td>
</tr>
<tr>
<td>65</td>
<td>SCA-Sweden</td>
<td>Sweden</td>
</tr>
<tr>
<td>66</td>
<td>Schneider Electric-France</td>
<td>France</td>
</tr>
<tr>
<td>67</td>
<td>Shell-Netherlands</td>
<td>Netherlands</td>
</tr>
<tr>
<td>68</td>
<td>Siemens AG-Germany</td>
<td>Germany</td>
</tr>
<tr>
<td>69</td>
<td>Statoil ASA-NORWAY</td>
<td>Norway</td>
</tr>
<tr>
<td>70</td>
<td>Stmicroelectronics NV-Swiss</td>
<td>Switzerland</td>
</tr>
<tr>
<td>71</td>
<td>Stora Enso-Finland</td>
<td>Finland</td>
</tr>
<tr>
<td>72</td>
<td>Storebrand-Norway</td>
<td>Norway</td>
</tr>
<tr>
<td>73</td>
<td>Swiss Re AG-Switzerland</td>
<td>Switzerland</td>
</tr>
<tr>
<td>74</td>
<td>Swisscom AG-Swiss</td>
<td>Switzerland</td>
</tr>
<tr>
<td>75</td>
<td>Telefonaktiebolaget LM-Sweden</td>
<td>Sweden</td>
</tr>
<tr>
<td>76</td>
<td>Telenor-Norway</td>
<td>Norway</td>
</tr>
<tr>
<td>77</td>
<td>TeliaSonera AB-Sweden</td>
<td>Sweden</td>
</tr>
<tr>
<td>78</td>
<td>UCB SA-Belgium</td>
<td>Belgium</td>
</tr>
<tr>
<td>79</td>
<td>Umicore SA-Belgium</td>
<td>Belgium</td>
</tr>
<tr>
<td>80</td>
<td>Unibail Rodamco-France</td>
<td>France</td>
</tr>
<tr>
<td>81</td>
<td>Vestas Windsystems-Denmark</td>
<td>Denmark</td>
</tr>
<tr>
<td>82</td>
<td>Vivendi SA-France</td>
<td>France</td>
</tr>
<tr>
<td>83</td>
<td>Wartsila-Finland</td>
<td>Finland</td>
</tr>
<tr>
<td>84</td>
<td>Wolters Kluwer NV-Netherlands</td>
<td>Netherlands</td>
</tr>
<tr>
<td>Botanical Gardens</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-Arnold Arboretum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Barnes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-Birmingham</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-Boerner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-Brooklyn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-Cheekwood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-cheyennecity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-Chicago</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9-Cleveland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-Daniel Stowe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-Denver</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-Desert Botanical Garden</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-Fairchild tropical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14-Fernwood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-Final Adkins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-Gardenleaves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17-Green Bay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-Hoyt arboretum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-Inniswood Metro Gardens</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-Kruckeberg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-Maine gardens</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22-Matthaei</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23-Missouri</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24-Myall Park</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-Napels</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26-National Tropical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27-NewYork</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28-Norfolboga</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29-Norfolk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-Olbrich</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31-Poluy Hill Arbor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32-Quarryhill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-Queens</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34-Rotary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35-San Francisco</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36-San Luis Obispo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37-San Luis Obispo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38-Santa barbara</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39-Santa fe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40-Toledo</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 10: Global Reporting Initiative (GRI) dimensions (Source: G4- Sustainability Reporting Guidelines –pp.44 (Retrieved from https://www.globalreporting.org/)

<table>
<thead>
<tr>
<th>Category</th>
<th>Economic</th>
<th>Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspects</td>
<td>Economic Performance</td>
<td>• Materials</td>
</tr>
<tr>
<td></td>
<td>Market Presence</td>
<td>• Energy</td>
</tr>
<tr>
<td></td>
<td>Indirect Economic Impacts</td>
<td>• Water</td>
</tr>
<tr>
<td></td>
<td>Procurement Practices</td>
<td>• Biodiversity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Emissions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Effluents and Waste</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Products and Services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Compliance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Transport</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Overall</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Supplier Environmental Assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Environmental Grievance Mechanisms</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub- Categories</td>
<td>Labor Practices and Decent Work</td>
</tr>
<tr>
<td>Aspects</td>
<td>Employment</td>
</tr>
<tr>
<td></td>
<td>Labor/Management Relations</td>
</tr>
<tr>
<td></td>
<td>Occupational Health and Safety</td>
</tr>
<tr>
<td></td>
<td>Training and Education</td>
</tr>
<tr>
<td></td>
<td>Diversity and Equal Opportunity</td>
</tr>
<tr>
<td></td>
<td>Equal Remuneration for Women and Men</td>
</tr>
<tr>
<td></td>
<td>Supplier Assessment for Labor Practices</td>
</tr>
<tr>
<td></td>
<td>Labor Practices</td>
</tr>
<tr>
<td></td>
<td>Grievance Mechanisms</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
FIGURE 8: The box-plot diagram of the data
VITA

SAYED MOHAMMAD REZA AFJEI

2000- 2006  B.Sc. Electrical Engineering
K.N. Toosi University of Technology
Tehran, Iran

2008- 2009  MBA Master of Business Administration
MIP-School of Management, Politecnico Di Milano
Milan, Italy

2009- 2010  MIB Master of International Business
Florida International University
Miami, Florida, USA

2010- 2015  Ph.D. in Business Administration
Florida International University
Miami, Florida, USA