THE FACTORS INFLUENCING CORPORATE SUSTAINABILITY REPORTING IN SRI LANKA: AN APPLICATION OF THE THEORY OF PLANNED BEHAVIOUR

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A thesis submitted for the degree of Doctor of Philosophy of The Australian National University
CANDIDATE DECLARATION

I certify that this thesis, entitled 'The Factors Influencing Corporate Sustainability Reporting in Sri Lanka: An Application of the Theory of Planned Behaviour', submitted for examination in the degree of Doctor of Philosophy, is the result of my own original work and that where reference is made to the work of others, due acknowledgement is given.

Prabanga Thoradeniya
October 2011
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I would like to extend my appreciation to the following people, all of whom assisted and supported me throughout this long journey.

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I dedicate this thesis to my parents, Sena and Ratna and to my son Harija.
ABSTRACT

The primary aim of this thesis is to examine the influence of managers' attitudes and other psychological factors on their intention to engage in sustainability reporting (SR) and the relationship between these intentions and the SR behaviour of Sri Lankan companies. This thesis is motivated by the need to contribute to the limited research on SR from a developing country's perspective, the need to extend research focusing on factors that motivate managers to support corporate SR, and the lack of research empirically testing behavioural models that contribute to explain SR practices and ultimately provide directions for change in this area. This thesis also investigates the suitability of Ajzen's (1985) Theory of Planned Behaviour (TPB) in an organizational context. In doing so, the conceptual framework of the study is based on the TPB, which is well-established in the Psychology literature.

This study follows a mixed method research approach to obtain an in-depth understanding of the influence of managers' psychological factors on corporate SR behaviour. Data was collected, using both a questionnaire survey and semi-structured interviews, with top and middle level managers of listed and non-listed companies in Sri Lanka. This enabled a triangulation of approaches regarding data collection. The hypotheses are tested using Partial Least Squares analysis and the interview data is analysed using NVivo 8 software.

The findings of this study indicate that psychological variables influence managers' intention to engage in SR and ultimately corporate SR behaviour. Whilst managers have intention to engage in SR, the majority of companies have not taken the next step towards SR. It was found that due to an insufficient degree of actual control by managers over the SR process and lack of stakeholder pressure, managers' intention to engage in SR were not translating into SR behaviour. For example, it was found that lack of support and commitment from the top management and staff, lack of resources, knowledge, skills and awareness of the potential benefits of SR, inhibited SR behaviour. Further, a multitude of difficulties encountered in accessing reliable data, quantification, data collation, understanding and application of certain indicators of SR guidelines inhibited SR behaviour. Finally, the results suggest the suitability of the TPB in corporate settings and show that
managers' psychological factors are important in determining SR behaviour in Sri Lankan companies.

This thesis indicates the need for Sri Lankan companies to devise more effective strategies and to design programs to promote SR by considering the role of psychological variables in the SR process. The strategies and programs could be aimed towards providing managers with a sufficient degree of actual control over the SR process. For example, strategies and programs designed to raise awareness of SR and its benefits would assist the development of greater sensitivity to SR issues and could enhance managers' support and commitment towards SR. This could precipitate the creation of organizational cultures which contribute towards the improvement of sustainable development and foster a new reporting culture, exhibiting greater transparency and accountability amongst companies.
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CHAPTER ONE

INTRODUCTION

1.1 Introduction

This thesis is concerned with an understanding of the influence of managers' attitudes and other psychological factors on corporate sustainability reporting (hereafter referred to as SR) behaviour. It aims to explore and analyse the extent to which psychological factors affect managers' decisions to engage in SR. In doing so, this study extends prior research that examines factors influencing managers' decisions for environmental, social and sustainability disclosures by integrating psychological variables not previously considered, and by considering the behavioural perspective of individual decision makers (managers). As such, this study seeks to contribute to the call for studies to develop our understanding of the multiple factors that could give rise to changing patterns of corporate disclosures (Adams 2002; Schaltegger and Burritt 2006; Adams and Larrinaga-González 2007; Adams and Whelan 2009). In order to examine how the psychological factors influence the managers’ decisions to engage in SR, this study utilises Ajzen's (1985) Theory of Planned Behaviour (TPB) and adopts a mixed research method approach. This chapter highlights the background issues that motivated the study and the specific aim of the present study.

This chapter will proceed as follows. Section 1.2 explains the background for the study. In this section a brief overview of the literature, which explores the notion of sustainable development and SR, is provided along with its importance in a developing country context. Section 1.3 discusses the motivation of the study. The aim of the study is then presented in Section 1.4. Finally, Section 1.5 provides an overview of the thesis structure.
1.2 Background

The excessive exploitation of natural resources by human beings has led to several environmental challenges (Bebbington et al. 2007; Wijayadasa 2007). In the industrialized world environmental awareness has grown since the 1960s. As a result, legislative initiatives began to seek to prevent ecological degradation (Dillard et al. 2005), thus catalysing a change in the expectations of society (Frost and Wilmshurst 1996).

Industrial growth and rapid development around the world have increased environmental challenges (Sahay 2004; Belal 2000) and the societal risk associated with them (Teoh and Thong 1984; Dillard et al. 2005). Accelerated economic growth, partly due to globalization, has also increased the impact of organizations on the environment (Bebbington et al. 2007). As a result, society is increasingly demanding environmentally and socially responsible behaviour from business management (Frost and Wilmshurst 1996; Dillard et al. 2005). There is a growing interest in how corporations are held accountable to social groups for their action on environmental and social damage (Bebbington et al. 2007). Many businesses pursue practices aimed at contracting their corporate environmental impact (Frost and Wilmshurst 1996). Pressures on managers are increasing to improve the environmental performance of their organizations (Wycherley 1997). Companies are under increasing pressure to conduct their business in an open, transparent and responsible manner (O'Dwyer 2001) and this may be driven by the concept of ‘sustainable development’ (ACCA 2004). Policies on sustainable development, eco-efficiency and wider disclosure of information leading to improved corporate accountability are needed to meet the societal demand for higher quality environmental practices (Schaltegger and Burritt 2000).

Sustainable development has been practised by many cultures, but the industrialized world first became interested in the concept in the 1960s (DSEWPC 2008). Over the last three decades, sustainable development has been defined in literally hundreds of different ways (ibid.). The Brundtland Report (1987) defines sustainable development as follows:

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (UNWCED 1987, p.8)
The concept of sustainable development requires companies to report not only their financial bottom line but also other business impacts (Yongvanich and Guthrie 2005). This idea proposes that an organization’s licence to operate in society stems not only from the need to satisfy stakeholders through satisfactory profits (the economic bottom line), but also by improving environmental and social performance. This refers to the achievement of balanced and integrated economic, social and environmental performance (Nganwa 2002). A full account of companies’ value creation and performance can be provided through reporting information on economic and non-economic performance (Yongvanich and Guthrie 2005). Social and environmental accounting and reporting, therefore, is a tool which can be used to analyse the sustainability performance of organizations as well as to evaluate the challenge the accounting profession faces in the sustainable development agenda (Moneva et al. 2006). The current trend focuses on sustainable development and on reporting openly and honestly about the impact of activities and performance in the three dimensions of sustainable development: economic, environmental and social (Delfgaauw 2000).

The ‘triple bottom line’ (TBL) (Elkington 1997) is a helpful way of interpreting sustainable development (Holdsworth 2002). TBL is a form of sustainability accounting (Lamberton 2005). It revolves around the three-dimensional definition of sustainable development (Moneva et al. 2006) and acts as a tool for environmental and social performance reporting of an organization to its stakeholders. The primary goals of TBL are transparency and effectiveness, accountability, consultation and responsiveness, impact assessment, information and communication (Mahoney and Potter 2004).

The term TBL is linked to corporate citizenship, social and ethical accounting and corporate social responsibility (Mahoney and Potter 2004). Environmental disclosure is part of socially responsible reporting (Deegan and Gordon 1996). Two of the many terms used to describe the social and environmental impact of organizational activities are ‘corporate social responsibility’ and ‘sustainability’ (Jenkins and Yakovleva 2006). SR is a process which involves the public reporting of integrated economic, environmental and social performance of the company (ACCA 2004; Mahoney and Potter 2004; ACCA 2005; Daub 2007). However, O’Dwyer and Owen (2005) argue that the use of the term ‘sustainability’
to describe economic, social/ethical and environmental performance (TBL) reports is highly questionable. On the other hand, Adams and Larrinaga-Gonzalez (2007) refer to environmental, social and all the issues included in an organization's sustainability report as sustainability accounting and reporting. Most organizations use the terms ‘SR’ and ‘TBL reporting’ interchangeably without any problem (O'Dwyer and Owen 2005). The term ‘SR’ is synonymous with citizenship reporting, social reporting, TBL reporting and other terms encompass the economic, environmental, and social aspects of an organization's performance (GRI 2006). This study treats all these terms as broadly the same and refers to them as SR.

1.2.1 Developing Country Context

Resources are unevenly distributed among the world’s population and are being used at an accelerated pace. The implications of environmental destruction are serious throughout the world and particularly in developing countries (Mayur 1979). Many developing countries have inadequate legislation and/or resources to improve environmental and social protection (Adams and Zutshi 2004).

Further, low life expectancy, meagre water supply, a starvation diet, vast slums, inadequate medical facilities and the difficult conditions in which people live are the factors which affect the quality of life of people in developing countries compared to developed nations. Thus, the social and environmental problems of developing countries are quite different to those of developed countries. In effect, the developing nations are simultaneously attempting to advance economically and technologically whilst endeavouring to satisfy the basic needs of life (Cole 1979; Mayur 1979).

Industrial developments can bring, on the one hand, affluence and material wellbeing and, on the other hand, some social ills (Belal 2001). Accelerated development efforts are necessary for developing countries to improve their economies. However, achieving development targets without ensuring the protection of the environment could expose developing countries to unpredictable disasters. Uncontrolled and unplanned urban growth
and industrial expansion have resulted in air, soil and water pollution causing a threat to human, animal and plant life (Wijayadasa 2007). Environmental pollution is now a serious problem in many developing countries due to improper selection of technology, improper planning and lack of legal protection. These countries are unable to afford to invest in pollution control technologies, unlike developed nations.

With continued rapid progress in the development activities of developing countries, the protection and management of the environment became a major concern. It is widely accepted that a systematic and constructive alternative to the uncritical economic growth that has endangered the planet and its inhabitants, humans, animals and nature is necessary (De Silva 1998).

The predicament facing developing countries in balancing economic growth with prudent sustainable development has important implications for corporate behaviour, particularly towards employees, environment and the community. Therefore, it is imperative that SR practices be promoted in developing countries to create greater transparency, accountability and awareness of the role of corporations in promoting sustainable development. Prior research reveals that SR is still in its infancy and the level of environmental and social disclosures are inadequate and of a poor standard in developing countries (Teoh and Thong 1984; Choi 1999; Perry and Sheng 1999; ACCA 2005; Xiao 2006).

1.2.2 Uniqueness of Sri Lanka as a Research Context

Sri Lanka was selected as the research context of the present study. It is a nation classified as a developing country, despite its ascendancy to the level of a lower middle-income category in 2009. Following the end of a 30-year conflict in 2009, the nation is now largely viewed as one on the threshold of precipitate economic growth. Sri Lanka’s Gross National Income per capita was US$1990 in the year 2009 and is significantly higher than that of other economies in the region (e.g. India US$1180, Pakistan US$1000 and Bangladesh US$580). The low and middle-income level of the South Asian region is US$1082, whereas the world’s lower middle-income was US$2316 in 2009 (The World Bank 2011).
Sri Lanka reported a Human Development Index of 0.658 which is above the regional average in 2010; this gives the country a rank of 91 out of 169 countries with comparable data (HDR 2010).

From ancient times, Sri Lankan society and culture has followed, and continues to closely follow, the Buddhist tradition of conservation, a practice that dates back over 2,500 years. This is evidenced by the declaration of a number of UNESCO World Heritage Sites related to Buddhism and the preservation of the natural habitat in 15 National Parks and Strict Natural Reserves which account for 13 per cent of Sri Lanka’s landmass out of a mere total area of 65,610 square Kilometres. This is all the more significant in that Sri Lanka is a country with one of the highest population densities in the world - 318 inhabitants per square kilometre (United Nation World Population Prospects 2010).

The prime motive for selecting Sri Lanka as the research context evolved from the recognition of the need to provide an element of uniqueness to the research. As a nation steeped in Buddhism, and as one that has been intrinsically influenced and shaped by the teachings of the Buddhist philosophy, its effect on the nation’s cultural orientation is likely to enhance the value of this research (Ven. Sumangala 1952; Ven. Rahula 1959; Wijesekera 1990). The following aspects may have been embedded in Sri Lankan culture due in part to Buddhist teachings: personal development; personal effort and intelligence; recognition of human endeavour and human intelligence; individual responsibility; avoidance of ignorance and false views; liberation from doubt and ways of resolving doubt and dispelling doubt; tolerance and understanding; idea generation from seeing, knowing and understanding things; not getting attached to one view; avoiding extremes; giving vision and knowledge; leading to calm; insight and enlightenment; collectivism; selflessness; development of the community; willingness to listen and right speech; universal love; compassion; rejoicing in others’ success; equanimity; and recognition of the impermanence of things (Ven. Rahula 1959; Wijesekera 1990).

Several factors can be broadly cited as the key differentiators for the uniqueness of Sri Lanka as the choice of research context. The most important are the role of Buddhism in environmental preservation, historical perspectives shaped by Buddhism, cultural and
societal norms, environmental legislation and the adoption of international covenants and initiatives (a detailed explanation of these is provided in Appendix 1). Further, the Association of Chartered Certified Accountants’ survey of the top 100 Sri Lankan companies on environmental and social disclosures in annual reports found that, though many Sri Lankan companies have taken an initiative to report on sustainability related issues, the quantity and quality of content is well below the international non-financial reporting guidelines (ACCA 2005; Anonymous 2005).

1.3 Motivation

This study was motivated by three main factors. These factors are discussed in this section.

The first motivation for this study was to contribute to limited research on SR from a developing country’s perspective. Numerous studies have been undertaken to examine environmental reporting and disclosures and there has been a growing interest in sustainability accounting in the last eight years (Burritt et al. 2009). Current research attention has largely been directed at approaches to environmental, social and SR in developed rather than developing nations (O'Dwyer and Owen 2005; Bebbington et al. 2008). A number of studies in environmental accounting and reporting in developing countries were conducted (for example, Teoh and Thong 1984; Belal 2000; Belal 2001; Belal 2008; Belal and Owen 2007; Imam 2000; Lodhia 2003; Kuasirikun and Sherer 2004; Rahaman et al. 2004; Sahay 2004; Elijido-Ten et al. 2010; Sobhani et al. 2009; Zeng et al. 2010; Mahadeo et al. 2011; Elijido-Ten 2011). However, research on SR from the developing country’s perspective remains limited. As discussed in Section 1.2.1, it is important to promote SR of companies in developing countries in order to balance their economic growth with sustainable development. That section highlights the necessity of more SR research in developing countries. Further, Lamberton (2005) states that innovative research projects from different cultural perspectives are needed to increase coverage, depth and quality of sustainability accounting information. Thus, the primary motivation of this study is to address this gap in the literature by undertaking a study of SR from a developing country’s perspective.
Second, the study is motivated by the need to extend research focusing on the influence of psychological factors that motivate managers’ intention to undertake corporate SR so as to provide direction for change towards greater transparency and accountability. The majority of previous disclosure studies, representing a strand of research, investigate the information content of environmental, social and sustainability disclosures. The second strand of research examines the factors that motivate organizations in their decisions on environmental, social and sustainability disclosures. It is important to understand the factors that influence disclosure in order to improve social and environmental accountability (Adams 2002). However, insufficient research attention has been paid to “either organizational influences on its practice, or the impact of the practice of social and environmental accounting on organizations and their participants” which is necessary for organizational change towards greater accountability (Adams and Larrinaga-González 2007, p.337). Adams and Whelan (2009, p.120) state that “future research into changing patterns of corporate social disclosure needs to: be more concerned with the interrelationship of multiple factors that could potentially give rise to change; identify and understand the ways in which different managerial attitudes and cultures will result in different factors being more likely to give rise to a felt need for change.” Schaltegger and Burritt (2006) highlight the need for sustainability accounting and reporting research to move towards behavioural change and the importance of research links between mind-sets, actions, attitudes and behaviours of managers.

Although the literature offers insights into the factors motivating environmental, social and SR, much remains to be done in terms of exploring and explaining the extent to which different factors give rise to change towards greater accountability (Adams 2002; Adams and Larrinaga-González 2007; Adams and Whelan 2009; Mathews 2004; Schaltegger and Burritt 2006). SR decisions could be shaped by decision makers’ personal attitude towards SR, social pressure which they face from inside and outside the organization and the control they have over the decision. As a result, to understand the formation of the intention to engage in SR and corporate SR behaviour, it is appropriate to focus on psychological factors affecting decision makers. Their attitude and other psychological factors are likely to affect the engagement in SR. Research shows that stating one’s willingness to engage in pro-environmental behaviour has an effect on future behaviour and commitment, which
favourably increases subsequent behaviour (Hamid and Cheng 1995). Thus, this study extends the second strand of research by considering the behavioural perspective of decision makers (managers) to examine how their psychological factors influence SR by companies in a way that is likely to change the current reporting practices to improve transparency and accountability.

Thirdly, there is a lack of research empirically testing the behavioural models of decision makers in SR. The literature review on environmental, social and SR reveals that prior studies have mainly tested legitimacy theory, stakeholder theory, political economy theory and institutional theory. Adams (2002) argues that theories on how and why companies report have been developed without giving due reference to internal corporate variables, reporting processes and the attitude of the key players. Further, Adams and Whelan (2009) called for corporate social disclosure research utilising theories and methods which engage organizations and their stakeholders in examining change at individual, organizational and institutional levels. Hence, this study utilises a theoretical framework that is capable of predicting the behavioural intention of corporate decision makers, in order to determine corporate SR behaviour with the involvement of internal decision makers. In doing so, this study applies the TPB (Ajzen 1985) to integrate decision makers’ psychological factors towards SR in order to explain how these factors would influence corporate SR behaviour. Understanding the influence of psychological factors on behaviour will help to design behavioural interventions to facilitate change (Ajzen 2006b).

1.4 Aim of the Study

Motivated by the factors outlined above, this study aims to contribute to the theory and practice of SR. The primary aim of the study is to analyse the influence of psychological factors on SR so as to improve our understanding of how psychological factors may affect managers’ intention to engage in SR, which in turn affects corporate SR behaviour. It is hoped that, by understanding how a decision to engage in SR is formed, this could facilitate change in corporate SR behaviour by devising more effective methods and strategies.
In pursuing the above aim, this study utilises Ajzen’s (1985) TPB. The results will provide insights into the suitability of Ajzen’s (1985) TPB in an organizational context, where performing SR behaviour requires the cooperation of many organizational members. The expectations of the outcome of SR, the impact of social norms, and the incomplete volitional control of managers will be captured by this theory. As the TPB is developed to address behaviours over which an individual has incomplete control, this theory will provide an effective theoretical lens for studying the influence of managers’ psychological factors in determining their SR behavioural intention and corporate SR behaviour.

Directed by the above aim, the present study seeks to address the following core research question:

- What are the effects of psychological factors on managers’ SR behavioural intention and SR behaviour in Sri Lankan companies?

1.5 Thesis Structure

Chapter Two reviews and synthesises the relevant literature to understand the factors influencing SR behaviour. The literature review is made up of three major parts. Initially, it provides an overview of SR in order to provide context. The second part reviews the literature on managers’ perceptions of SR, the stakeholder pressure, the factors that would facilitate or inhibit such reporting, the extent and trend of SR and the theoretical perspectives used in prior studies and their limitations. The third part justifies the use of Ajzen’s (1985) TPB for the present study and reviews prior studies which applied TPB to organizational contexts.

Chapter Three presents Ajzen’s TPB (1985), the theoretical framework informing the study. The TPB considers how psychological variables determine the behavioural intention which reflects how people are motivated to perform the behaviour. The TPB is extended in this study by adding an additional variable. The discussion of the extended TPB leads to the development of hypotheses to be tested in the study. Following this, Chapter Four discusses
the methods and procedures employed to gather data and evidence to test the hypotheses presented in Chapter Three. This study utilises a mixed method approach of data collection to improve the validity of results. That is, data was collected through a questionnaire survey and semi-structured interviews with top and middle level managers of listed and non-listed Sri Lankan companies. The TPB will be chosen as a guide for the development of the survey instrument and the interview protocol.

Chapter Five and Six present the results of the data analysis and discussion. Chapter Five discusses the assessment of the reliability and validity of the measures used in the survey instrument and also the results of the hypothesised model tested using the Partial Least Squares technique. Drawing on the explanation of the TPB in Chapter Three, this chapter analyses how managers’ psychological factors influence their corporate SR behaviour. Chapter Six focuses on the analysis of semi-structured interviews conducted, using NVivo8, to provide evidence to triangulate the survey findings. It further provides evidence to acquire a more in-depth understanding of corporate SR behaviour. In doing this, this chapter highlights why managers’ intention to engage in SR is not substantially translating into corporate SR behaviour.

Finally, Chapter Seven summarises the study and major conclusions emerging from the analysis. It further highlights the implications and contribution of the study to the literature, identifies the limitations of the study and suggests some opportunities for future research.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides a review of literature examining the factors influencing sustainability reporting (SR) behaviour. The studies were drawn from two broad areas of research: the area of environmental, social and SR and the Theory of Planned Behaviour (TPB). Section 2.2 provides a brief overview of the development of SR. This is followed by a discussion of the literature on environmental, social and SR/accounting in Section 2.3. The studies reviewed under this category will fall into four major areas: (1) the managers' perceptions of environmental, social and SR, (2) the stakeholder pressure for environmental, social and SR, (3) the factors that facilitate or inhibit SR, and (4) the extent and trend of environmental, social and SR. The first three areas were reviewed with the aim of understanding different factors influencing environmental, social and SR and the fourth area shows the current status of, and trends in the literature on environmental, social and SR research. This is followed by a discussion of theoretical perspectives used in prior environmental, social and SR/accounting studies (Section 2.4).

The next part of the review (Section 2.5) proposes and justifies the use of the TPB for the present study to overcome the limitations associated with existing theoretical perspectives used in prior environmental, social and SR studies. Section 2.6 reviews the studies that adopted the TPB in the area of accounting and environmental behaviour as there is scant literature on environmental, social and SR area using the TPB. Finally, Section 2.7 provides a summary of the limitations in the literature to locate the present study within the wider literature of environmental and social accounting. It could be argued that the approach taken in this study using a more thorough analysis of the TPB overcomes a number of limitations of previous research in understanding managers' formation of the SR intention and SR behaviour. This chapter concludes with a brief summary.
2.2 Sustainability Reporting (SR)

This section provides a brief overview of the development of SR. In the early 1990s the focus of companies was on environmental reporting, but in the mid-1990s the focus shifted to social reporting, while nowadays the principal focus is on either triple bottom line reporting (TBL) or SR (Gray and Milne 2002; Milne and Gray 2007; Buhr 2007; Thomson 2007; Tilt 2007). SR or TBL reporting provides information about the economic, environmental and social performance of an organization and this notion is directly tied to the concept of sustainable development (Deegan 1999). Most corporations and business organizations started to implement the concept of sustainable development after the release of the Brundtland Report in 1987 (Moneva et al. 2006). Reporting on aspects of sustainable development is useful in addressing the organizational concerns of accountability and transparency (Holdsworth 2002).

According to Perrini (2005), companies’ attitude and behaviours towards the concept of sustainable development and corporate social responsibility are expressed through corporate social and environmental reporting and disclosures. More recently, companies have started to issue discrete reports (for example, ‘health, safety and environment reports’ or ‘social and community reports’) on sustainability performance (Frost et al. 2005). In western countries, many large companies provide separate corporate environmental reports (Perry and Sheng 1999), with those operating in the ‘sensitive’ industrial sectors being the most consistent reporters, producing standalone papers and/or web-based reports (O'Dwyer and Owen 2005). In the late 1990s companies started to produce sustainability reports (Jenkins and Yakovleva 2006) which integrate economic, environmental and social performance into one report (Krajnc and Glavic 2005b) To measure the sustainability performance of a company, a set of sustainable development indicators have been introduced into the sustainability reports (Krajnc and Glavic 2005a).

A KPMG survey in 2008 found that 80% of the world’s 250 largest companies now report on corporate responsibility. This was a dramatic rise in reporting since the last KPMG survey in 2005 (KPMG 2008). A recent international survey of over 5,000 reporters and readers was conducted by KPMG, SustainAbility and Futerra, commissioned by the Global
Reporting Initiative in 2010 to gain insights into why organizations report on their sustainability performance. The following conclusions were reached; "the future of reporting is global, the purpose of reporting is performance, reporting isn’t stakeholder engagement, reporting is trusted, standards have value, all assurance is not equal, readers influence each other, reporting changes behaviour" (Reporting Change: Readers and Reporters Survey 2010, p.5 and 6).

According to Spence (2007), social and environmental reporting is driven by numerous motivations that form part of a business case. Companies initiate SR to address new/existing business challenges and value the rewards SR offers (Bebbington et al. 2009). Caron and Turcotte (2009) identify SR as an innovation phenomenon. SR serves as a mechanism to fulfil accountability requirements and it has the potential to change behaviour (Buhr 2007). The real progression in SR can be made through interactivity, by target group tailoring, and involvement in stakeholder dialogue (Isenmann and Kim 2006). Bebbington et al. (2008) argue that the concept of reputation risk management could play a role in understanding corporate social reporting (CSR). Further, Adams (2008) argues that CSR or SR impact on strategic planning, governance, stakeholder engagement, risk management, decision making, data collection and management systems, performance measurement, public relations and communications. Moreover, she states that "bringing about change requires an understanding of what happens within organizations, of the complexity and interdependency of organizational processes and structures and organizational participants" (p.368). To be successful, SR should be part of a process of engagement, reporting and organizational change (Tilt 2007).

A number of advantages or benefits of SR were identified in previous research. SR is helpful to maintain legitimacy, respond to stakeholder pressure and improve relations with stakeholders, increase transparency and accountability within the company, enhance corporate governance and ethics systems throughout the organization, and to build up corporate reputation, image and brand value. Furthermore, SR helps to manage sustainability issues by disclosing risks and opportunities which facilitates the achievement of company objectives, better recruitment and retention of employees, an increase in staff pride and loyalty to the company, improved internal decision making and cost savings,
improved financial returns, improved management of non-financial risk, gaining competitive advantage, improved data collection and reporting systems and improved social and environmental performance, using SR activities as a proxy indicator for overall performance, comparison and benchmarking performance, internal information and control processes (Adams 2002; Adams and Frost 2008; Sullivan 2002; Park and Brorson 2005; Herzig and Schaltegger 2006; Brown et al. 2010; Adams 2004a; Daub 2007).

Maclaren (1996) argues that SR describes progress towards, or departure from, sustainability and shows the improvement of reporting. Therefore, it is not merely a descriptive tool. It is an internal management tool as well as an external reporting framework. Hodge (1994) states that systematic reporting helps society to understand whether progress is being made, through policies or behavioural change, to build its own history and to expect the implications of its own action to prevent previous mistakes made (cited in Devuyst and Hens 2000). According to Owen (2002), the main challenge for SR is to come up with a well-grounded approach with meaningful indicators and principles. Development of a generally accepted framework for sustainability will enhance its effectiveness and help to meet the information needs of stakeholders (White 1999).

There are several international bodies engaging in providing voluntary frameworks to promote sustainability and SR. For example, the Global Reporting Initiative (GRI), the International Standards Organization (ISO), the World Business Council for Sustainable Development (WBCSD), AccountAbility, the Sustainability Integrated Guidelines for Management (SIGMA) project, the United Nations Global Compact (UNGC), and national initiatives such as Business in the Community (UK) and Canadian and Australian initiatives (Adams and Narayanan 2007).

When compared with other available frameworks, the GRI's SR guideline is the one that mainly focuses on SR. Therefore, it is important to look into it in more detailed. According to O'Dwyer and Owen (2005), the GRI SR guidelines are for voluntary use by organizations to report on economic, environmental and social aspects of organizational activities. The GRI's mission was to improve SR to a level equivalent to that of financial reporting in rigor, comparability, auditability and general acceptance (Willis 2003; Evers et
al. 2004). Performance indicators of the GRI guidelines are based on the three-dimensional definition of sustainability. The guidelines aim to increase the transparency of an organization’s social and environmental impact and quality of information provided, with the hope of achieving sustainability (GRI 2002; Lamberton 2005). The GRI guidelines are the most comprehensive guidelines on SR to date (Nganwa 2002). Caron and Turcotte (2009) notes that it is a guide towards better disclosure of companies’ social and environmental performance. The core GRI SR guidelines are in their third generation (G3) and were initially released in October 2006 (GRI 2006; Brown et al. 2009). The updated version G3.1 guidelines, which is the expanded guidance for SR, was released in 2011 (GRI 2011).

According to Adams and Narayanan (2007), the primary focus of the GRI guidelines is to provide guidance on the content of sustainability reports and also provide principles that assist in preparing sustainability reports. That is, "the GRI guidelines focus on sustainability issues which should be reported while AccountAbility’s AA1000 and AA1000S standards focus on processes of reporting, and auditing" (Adams and Zutshi 2004, p.36). The UNGC communicate their progress in the implementation of 10 UNGC principles encourage reporting according to GRI standards (Vormedal and Ruud 2009).

2.3 The Literature on Environmental, Social and SR

This section discusses the literature on environmental, social and SR/accounting research studies which were categorised into different themes in order to highlight various arguments regarding the following issues:

- What are corporate decision makers’ perceptions of, and attitude towards, environmental, social and SR?
- How does stakeholder pressure influence environmental, social and SR?
- What factors would facilitate or inhibit environmental, social and SR?
- What is the extent and trend of environmental, social and SR?
The review of the above issues will help to understand different factors influencing environmental, social and SR as discussed in prior literature and the current status of, and trends in environmental, social and SR.

2.3.1 Decision Makers’ Perceptions and Attitudes towards Environmental, Social and SR

A number of studies have been conducted to determine the perceptions and attitudes of corporate decision makers, especially accountants, Chief Executive Officers (CEOs) and Chief Financial Officers (CFOs), towards environmental, social and sustainability accounting or disclosures in the annual reports. These studies were conducted in developed countries, as well as developing countries, using quantitative and/or qualitative research methods. Developed countries include Britain, Australia, New Zealand, Germany, Canada, France, Hong Kong and Ireland. Fuji, Thailand, Bangladesh, Jordanian and United Arab Emirates were the countries under the category of developing countries. These studies will be reviewed in this section in light of the present study.

A survey among accounting professionals of the top 1000 United Kingdom (UK) companies conducted by Bebbington et al. (1994) found that the accountants have a positive attitude to the environment but were less involved in the environmental accounting within their organizations. Wycherley (1997) found that some accountants were very supportive while others were very difficult to motivate to support the environmental policy of the organization. A study by Guilding and Kirman (1998) examined the environmental accounting (EA) practices and accountants’ involvement and attitude towards EA practices in contracting industry in New Zealand (NZ). Findings were compared with Bebbington et al.’s (1994) study. The authors found that application of EA practices in NZ contracting sector is better than in large UK companies. On the other hand, accountants had a negative view towards involvement in environmental management practices in the NZ contracting sector compared to those in the UK.
Similar results were found in studies conducted in Australia. For example, Deegan et al. (1996) found that practising accountants and partners in private and public enterprises provide mild support to incorporating environmental issues within corporate financial statements. This minimal support had led to a lack of environmental reporting. A survey among the top 500 Australian company managing directors (MDs)/CEOs conducted by Frost and Wilmshurst (1996) found those MDs/CEOs and their companies place greater importance on environmental issues but do not see it as a critical issue. The authors found a significant relationship between MDs'/CEOs' attitudes towards environmental issues and their corporate actions to the adoption of policies and procedures dealing with environmental issues. Further, Wilmshurst and Frost (2001) found that senior management consider the importance of the environment within the business context but there was limited involvement and a lack of motivation from accounting and accountants in environmental management as they think it is outside their purview. McGowan et al. (2000) investigated the attitude and motivations of Chief Financial Officers (CFOs) of the Top 200 Australian companies towards corporate environmental disclosures and environmental audit. Their questionnaire was also based on the questionnaire used by Bebbington et al. (1994). The authors found that attitudes were largely similar in both the UK and Australia.

For Hong Kong Jaggi and Zhao (1996) found that the managers and professional accountants consider environmental protection important and had a positive attitude but annual report disclosures revealed that there is a gap between the perceived importance of environmental performance and actual environmental disclosures due to its voluntary nature. Professional accountants also considered environmental protection to be important, but did not support the environmental disclosures as important.

A comparative study of European and North American multinational companies (French, German and Canadian) by Cormier et al. (2004) found a relationship between environmental managers' attitude and how they respond to various stakeholders through actual environmental disclosures. This study supports the idea that companies maintain social legitimacy by responding to various stakeholders through environmental disclosures. O'Dwyer (2002) confirms that many senior managers in Ireland were unable to understand the continued practice of voluntary corporate social disclosure (CSD) and avoided engaging
in CSD. These managers’ perceptions of non-CSD indicated that CSD is an unsuccessful mechanism of legitimation.

Similar findings were reported in studies conducted in developing countries. Kuasirikun (2005) found that the Thai accounting professionals also have a positive attitude towards social and environmental accounting. Lodhia (2003) found that Fijian accountants have a reasonable understanding of environmental accounting (EA) and accepted that they have a role to play in EA, but they were unaware of how their skills could be used to contribute to the environmental agenda of the organizations. A study of Jordanian and United Arab Emirates decision makers found that in both countries decision makers were aware of the importance of environmental protection but their involvement and commitments were very low and very few of those companies were engaged in environmental performance reporting (Jahamani 2003).

Although the literature reviewed in this section contributes to our understanding of decision makers’ attitudes towards the environment, some limitations remain. As explained in this section, most of the literature highlights that accountants and senior managers have a positive attitude towards the environment (e.g. Bebbington et al. 1994; Jaggi and Zhao 1996). However, in most cases they were reluctant to support and be involved in EA, thinking it was not within their purview and/or they did not consider EA as an important element within the business. The majority of these studies used a simplified way of understanding decision makers’ attitudes by examining their overall general attitude towards the environment. This sacrifices the richness and detailed examination of decision makers’ specific attitudes towards EA. However, recent studies within the context of developed countries conclude that, among other factors, corporate social reporting and SR was influenced by managerial attitudes to reporting (Adams 2002; Adams and McNicholas 2007). This implies that the decision to engage in SR is not necessarily driven by a single motive or interest but may be the outcome of many factors. Building on prior literature, this study provides an in-depth analysis of managers’ attitudes towards SR. The next section reviews the literature on whether stakeholder pressure influences environmental, social and SR.
2.3.2 Stakeholder Pressure for Environmental, Social and SR

Stakeholder engagement and dialogue are increasingly recognised as a crucial element of SR (Unerman 2007). It is a driver for change and it also poses challenges to the company’s role in environmental and social sustainability (Adams and McNicholas 2007). Clarkson (1995, p.106), stakeholders are “persons or groups that have claim ownership, rights or interests in a corporation and its activities, past, present or future.” Organizations face increasing stakeholder pressures (from communities, green groups, non-governmental organizations (NGOs), acquirers, shareholders, individual and institutional investors, insurers, bankers, directors, employees, customers, suppliers, employees, trade unions, investment analysts, bankers, market forces, legislators/government, and the media) to change current environmental accounting practices (Epstein and Freedman 1994; Medley 1997; Slater and Gilbert 2004; Gray 2001; Saleh et al. 2010; de Villiers and van Staden 2010) and to behave in a more environmentally responsible way (Buhr 2002; Adams and Zutshi 2004; Tilt 2007). Lehman (1995) argues that annual reporting of environmental disclosures establish an accountability relationship between organizations and stakeholders.

According to Park and Brorson (2005), companies have realized the benefits of increased transparency and this drives them to disclose social and environmental performance data to stakeholders in voluntary sustainability reports. Prior research shows that environmental, social and SR can be a useful, important and valuable tool to communicate company performance to its internal and external stakeholders (Ebingher et al. 2006; Spence 2009; Georgakopoulous and Thomson 2008).

Prior literature found that different stakeholders influence environmental, social and SR. A number of empirical studies are briefly reviewed. The managerial perceptions of motives for voluntary CSD and non-disclosure in Ireland was studied by O’Dwyer (2002). Interviewees indicated that businesses face social pressure from the community, pressure groups and the media. Some companies used CSD to promote their corporate image and to influence public perceptions. Further, Adams and Whelan (2009), in their study of Anglo-American limited liability and publicly traded corporations, found that governments, academics, NGOs, the media and the CSR industry can influence corporate actors to
change their patterns of corporate social disclosures. Also, Laine (2009) conducted a longitudinal study of the environmental disclosures of a leading Finnish chemical company over a 34-year period (1972-2005). The author found that to conform to social expectations and by responding to social and institutional pressures, the case company used environmental disclosures as a rhetorical device.

In addition, the potential influence of community lobbying or pressure groups on CSD was investigated by Tilt (1994). It was found that all the pressure groups had seen some kind of CSD, but only 18% considered the current CSD to be sufficient, and 92% of respondents identified the necessity of introducing legislation or standards for minimum disclosure. The author found that pressure groups are one of the key user groups of CSD. However, Neu et al. (1998) found that the concerns of shareholders and government regulators were associated with an increase in the level of environmental disclosure in large Canadian public companies. In this study the concerns of environmentalists were associated with a decrease in the level of environmental disclosure.

Further, Deegan and Gordon (1996) found that the firms which operate in industries which are of concern to environmental groups use environmental disclosures to legitimise their activities. Deegan and Blomquist (2006) found that the World Wide Fund (WWF), through its scorecard, was able to encourage changes in corporate disclosures of companies in the Australian minerals industry and changes in the Environmental Code of the Minerals Council of Australia.

Studies focusing on developing countries also found that stakeholder pressures influence their corporate social reporting (CSR). Belal and Owen (2007) discovered that Bangladeshi managers engage in CSR to manage powerful stakeholders and to improve the corporate image. Demand from international buyers influenced the domestic export-oriented companies while the investors, international agencies (OECD, World Bank and IMF) and the parent companies also exert pressures for CSR on multinational companies. Further, Islam and Deegan (2008) interviewed the senior executives of Bangladesh Garment Manufacturers and Exporters Association and content analysed its annual reports for a 19 year period from 1987 to 2005. They found that the Bangladeshi clothing industry directly
responded to pressures of western consumers, the ILO, UNICEF, the U.S. Government, NGOs, and the media by way of social disclosure, which were motivated for survival considerations. Similar results were found in Rahaman et al.'s (2004) case study at the Volta River Authority (VRA) in Ghana. They found that the constant international pressure from the funding institutions, mainly the World Bank (other lending institutions were CIDA, European Development Fund, OPEC Fund, Danida, Mediocredito Centrale etc.), to comply with their requirements influenced the environmental reporting at the VRA.

Empirical research based on Ullmann's (1985) contingency framework finds support for Ullmann's view (Roberts 1992; Magness 2006). For instance, Roberts (1992) found that companies facing a high level of political exposure, companies wanting to meet creditors' expectations, and better performing companies with a high growth of return on equity engage in high level of social disclosures. Stakeholder power, strategic posture and economic performance are significantly related to the level of corporate social disclosure. Magness's (2006) findings also support Ullmann's view (1985) that when stakeholder power is high, companies with an active strategic posture make greater social responsibility disclosures, but failed to support the view that good financial performance coupled with strategic posture promotes the disclosure of discretionary or non-financial information.

Prior research also claims that some companies are found to be not transparent to stakeholders, social and environmental disclosures are inadequate and they fail to give a proper picture of organizations' accountability in the area of social and environmental matters (Murray et al. 2006; Tilt 2001). Deegan and Rankin's (1999) study reveals an environmental reporting expectation gap within Australia in relation to report preparers' perceptions of the importance of social and environmental information for users' needs and the importance of various social information items. According to legitimacy theory, this expectation gap might indicate that companies do not adequately address societal expectations.

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Footnote 1: Ullmann's contingency framework: "strategic posture and financial performance (profit), considered in light of stakeholder power, provide a basis for the determination of a cohesive, systematic response to external demands for environmental information." (Ullmann 1985, p.541)
The literature reviewed in this section contributes to our understanding of how different stakeholder pressures influence environmental, social and SR. However, it should be noted that some companies are not adequately addressing the information needs of the stakeholders. It is also important to identify other factors that would facilitate or inhibit environmental, social and SR in addition to decision makers’ attitudes towards SR and stakeholder pressures. The next section focuses on such factors.

2.3.3 Other Factors Affecting Environmental, Social and SR

Apart from decision makers’ attitudes towards environmental, social and SR, and stakeholder pressure for such reporting, this section discusses other factors that would facilitate or inhibit SR.

The managers’ and accountants’ knowledge and skills are important factors that would facilitate SR. Bebbington et al. (1994) found that accountants’ lack of knowledge and skills about environmental accounting possibilities in the corporate world might be preventing their ability to translate attitude into action, prompting the need for provision of environmental training and education for accountants. The requirement for environmental training was also apparent in a number of other studies (for example, Medley 1997; Wycherley 1997; Perry and Sheng 1999; McGowan et al. 2000; Belal 2001; Burritt 2002; Jahamani 2003; Lodhia 2003; Sahay 2004).

A number of studies identified the necessity of legislative intervention to satisfy the stakeholder demand for corporate environmental and social disclosures. One of the main reasons for nondisclosure was the voluntary nature of environmental accounting, which was not legally required (Bebbington et al. 1994; Deegan et al. 1996; Tsang 1998; Perry and Sheng 1999; McGowan et al. 2000; Belal 2001; Lodhia 2003; Lodhia 2004; Sahay 2004; Adams 2002; Adams and Zutshi 2004; Kuasirikun 2005; Martin and Hadley 2008; Al-Khater and Naser 2003; O'Dwyer 2002; Belal and Cooper 2011). Deegan and Rankin (1999) also found that both annual report preparers and users felt that a disclosure decision was mainly influenced by legal obligations. In a more recent study, Vormedal and Ruud (2009)
evaluated the 2004 sustainability reports of the 100 largest companies in Norway. The authors conclude that there is a lack of political and social drivers for SR and an absence of sufficient monitoring and enforcement of the environmental reporting legislation. Further, Freedman and Jaggi (2010) identify the need for mandatory disclosure requirements to ensure better disclosure. Alciatore and Dee (2006) found that firms increase their environmental disclosures with the increased regulatory pressure in oil and gas industry. The findings of these studies show the value and importance of mandatory reporting, as voluntary reporting does not bring forward adequate results. Unerman and O’Dwyer (2007) argue that effective statutory regulation designed to protect social and environmental interests of stakeholders could serve to enhance economic performance and shareholder value of organizations. However, Cooper and Owen (2007) argue that accountability to stakeholders cannot be established by reporting reform alone.

Where top management places greater importance on environmental issues, this is likely to encourage reporting. Schaltegger et al. (2006) claim that SR needs the involvement of management and employees in setting sustainability goals of the company, data collection and communication of sustainability information. Therefore, the authors assert that the design of external SR interplays with internal communication and reporting processes. Campbell (2000) found that the perceptions of the successive Chairmen of British retailer Marks and Spencer Plc were a major determinant of the level of social disclosure. This study demonstrates that corporate action is mostly determined by the attitude and support of top management. According to Martin and Hadley (2008), doubts of the chief executive and/or senior management concerning the advantages of reporting are a main drawback inhibiting environmental reporting. Also, there was a lack of consensus regarding the objectives and measurements that can be adopted in environmental accounting. Further, the data collection effort was found to be another main impediment to environmental reporting (see for example, Deegan et al. 1996; Martin and Hadley 2008). Buhr (2002), in her analysis of two Canadian pulp and paper companies, found that companies need to overcome corporate resistance to produce environmental reports by developing strategies.

The media could influence the level of environmental and social reporting. Brown and Deegan (1998) investigated nine Australian environmentally sensitive industries and found
that in some industries, higher levels of print media attention to an industry’s environmental performance are significantly associated with higher levels of annual report environmental disclosures. This finding was supported by Bewley and Li (2000) in their study of Canadian manufacturing firms. Furthermore, Deegan et al. (2002), in their study of the environmental and social disclosures of BHP Ltd from 1983 to 1997, found that management release positive social and environmental information in response to unfavourable media attention. Deegan et al.’s (2002) finding was supported by Kent and Monem (2008) in their study of TBL reporting by Australian companies.

Corporate characteristics and other contextual factors influence environmental, social and SR practices, such as company size, industry sector, corporate culture, ownership status and country of origin (Adams et al. 1998; Williams and Pei 1999; Adams 2002; Cormier and Gordon 2001; Newson and Deegan 2002; Martin and Hadley 2008). Cormier and Gordon (2001) argue that publicly owned and large enterprises disclose more information than others due to visibility and accountability. Hackston and Milne’s (1996) study also found that large and high profile industry companies disclose more corporate social information than low profile industry companies and dual and multiple overseas listing may be additionally associated with the amount of disclosures made by New Zealand companies. The influence of corporate characteristics such as size and industry sector were also examined and supported by Neu et al. (1998), a study conducted in Canada, Choi (1999), a study conducted in Korea, Singh and Ahuja (1983), a study conducted in India, Gao et al.(2005), a study conducted in Hong Kong, Branco and Rodrigues (2008), a study of Portuguese banks, Brammer and Pavelin (2008), a study conducted in the UK, Alnajjar (2000), Alciatore and Dee (2006) and Karim et al. (2006), studies conducted in the U.S. and a study conducted by Williams (1999) of Australian, Singaporean, Hong Kong, Filipino, Thailand, Indonesian and Malaysian companies.

Also, an investigation of 150 annual reports across six European countries (France, Germany, The Netherlands, Sweden, Switzerland and the UK) by Adams et al. (1998) found that company size, industrial grouping and country of domicile influence the social reporting patterns. However, the authors argue that the reasons for differences across countries are much more complex. Further, Adams’s (2002) study of British and German
large multinational companies representing chemical and pharmaceutical sectors also found that the corporate social reporting process and decision making were dependent on country of origin, corporate size and corporate culture. However, Gray et al. (2001) did not find a stable relationship between disclosures and corporate characteristics such as size.

Deegan and Gordon (1996) found that the companies operating in environmentally sensitive industries exhibit a positive relationship between company size and the amount of positive environmental disclosures. These companies prefer to disclose less specific and more general environmental information (de Villiers and van Staden 2006). Considerable variability in the level of social and environmental disclosures amongst the top ten mining companies and a general trend towards the increasing sophistication of media and content were found by Jenkins and Yakovleva (2006). However, Tilt and Symes (1999) provide an alternative interpretation for environmental reporting of Australian mining companies, finding that the majority of disclosures were related to rehabilitation of mine sites and the disclosures were motivated by the desire to obtain tax benefits rather than by being environmentally conscious.

The occurrence of a critical incident affects the level of environmental and social disclosures. All the companies operating in sensitive or affected industries disclose more environmental and social information than before the occurrence of the incident. This was evidenced by Patten’s (1992) study of the Exxon Valdez (Alaskan) oil spill on environmental disclosures of petroleum companies other than Exxon, and Deegan et al.’s (2000) study of five major social incidents, namely, Exxon Valdez oil spill, Bhopal disaster, the Moura Mine disaster in Queensland, an oil spill, caused by Iron Baron, off the coast of Tasmania; and Kirkki oil spill, off the coast of Western Australia.

The studies conducted in developing countries found different factors influencing environmental and social reporting. Belal (2001) argues that the existence of a very few social groups, underdeveloped corporate culture and the relatively new stock market contribute to provision of a low level of social information in Bangladesh. Teoh and Thong (1984) also found a lack of social pressure from the public and other influential action groups on Malaysian companies for greater social commitment.
A study conducted in a state-owned statutory authority by Adams and McNicholas (2007, p.397), identify the following impediments to the development of SR framework: “a lack of knowledge as to what constitutes ‘best practice’ SR; a lack of understanding as to how sustainability goals and reporting practices could be integrated into the organization wide strategic planning process; a lack of experience in engaging stakeholders in the reporting process and identification of key performance indicators (KPIs); difficulty in choosing between the variety of reporting guidelines and styles available; and a lack of understanding of the difference between financial and economic indicators.”

In addition to the factors highlighted above, Adams and Zutshi (2004) state that corporate social responsibility and reporting guidelines, awards and indices are exerting pressure and influence on companies and governments to be socially responsible and accountable.

Adams (2002) argues that a combination of corporate characteristics, contextual factors and internal factors affect environmental and social reporting. Bebbington et al. (2009) provide a summary of the corporate, contextual and some internal factors associated with reporting activity. Their analysis is summarised in Table 2.1.
<table>
<thead>
<tr>
<th>Corporate Characteristics (for which relationships have been found)</th>
<th>Contextual Factors</th>
<th>Internal Factors (which may be subsumed under the label of corporate culture)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (larger companies report more)</td>
<td>Country of origin (due to a variety of underlying social, political and legal factors)</td>
<td>Views of company chair and Board of Directors</td>
</tr>
<tr>
<td>Industry group (dirty industries report more)</td>
<td>Social and political change (especially over long time periods)</td>
<td>Presence of corporate social responsibility or reporting committee</td>
</tr>
<tr>
<td>Profit or financial performance (relationship mixed and unclear)</td>
<td>Economic cycles (although the direction is unclear)</td>
<td>Corporate structure and governance procedures</td>
</tr>
<tr>
<td>Share-trading volume, price and risk (BETA)</td>
<td>Cultural context (via influence over moral values as well as dependent on the likes of political ‘green’ movements)</td>
<td>Stakeholder involvement in organization</td>
</tr>
<tr>
<td>Debt-to equity ratio</td>
<td>Specific events (such as environmental disasters)</td>
<td>Length of management decision horizon (longer is linked with more reporting)</td>
</tr>
<tr>
<td>Political contributions</td>
<td>Media pressure (which increases disclosure)</td>
<td>Active Strategic posture (more active will report more)</td>
</tr>
<tr>
<td></td>
<td>Stakeholder power (with those who are powerful able to demand disclosures)</td>
<td>Perceived cost and benefits</td>
</tr>
</tbody>
</table>

Source: Adapted from Bebbington et al. 2009, p.591

### 2.3.4 The Status/Extent of Environmental, Social and SR

A considerable volume of literature exists advocating the use of annual reports in the voluntary disclosure of environmental and social information to stakeholders. According to Deegan (2002), the increase of environmental and social disclosures in annual reports is viewed as a result of increased focus and attention given by a number of researchers, governments and various bodies. In addition to the factors that would facilitate or inhibit environmental, social and SR that runs across the literature reviewed so far, it is important to understand the current level and extent of reporting. It is also interesting to understand the reporting media and the progress that has been made in SR by reviewing the literature.
A number of studies examined the level of environmental, social and sustainability disclosures. The level of disclosures increased in quantity and changed in the way language has been used over time across different sectors, companies and countries without any consistency (Guthrie and Parker 1989; Guthrie and Parker 1990; Hackston and Milne 1996; Williams 1999; Bansal and Roth 2000; Campbell et al. 2003; Campbell 2000; Newson and Deegan 2002; Kolk 2003; Langer 2006; Tregidga and Milne 2006; Dey 2007; Milne et al. 2009; Laine 2010; Gray et al. 1995b). In earlier years, some companies were in very early stages of environmental and social reporting and provided very little and general disclosures (Yamagami and Kokubu 1991; Harte and Owen 1991; Roberts 1991; Buhr 1998; O'Dwyer 2003a). Adams (2004b) notes that in some companies the reporting demonstrates a lack of completeness. More recently, Kolk (2008) found that 64% of Fortune Global 250 companies report on sustainability. The SR of Fortune Global 250 companies has incorporated corporate governance information to increase transparency and accountability; however, detailed disclosures are not yet common (Kolk 2008).

Also, the corporate environmental and social disclosures were more narrative or descriptive in nature (Niskala and Pretes 1995; Hackston and Milne 1996; Moneva and Llena 2000; Alnajjar 2000; Beck et al. 2010). This was more apparent in the studies conducted in the developing countries and newly industrialised countries (Tsang 1998; Imam 2000; Belal 2001; Jahamani 2003; Saleh et al. 2010). The same was observed by Burritt and Welch (1997) in their analysis of annual reports of 60 Australian Commonwealth entities, which reveals that the total environmental disclosures increased over the time but that the disclosures were mostly qualitative in nature.

The level of environmental and social disclosures was found to be very limited and the quantity and quality of disclosures were inadequate in developing countries (Teoh and Thong 1984; Choi 1999; Perry and Sheng 1999; Xiao 2006). For example, some Bangladeshi companies did not meet even the mandatory requirements for disclosures, exhibiting the ineffectiveness and inadequacy of the regulatory framework (Belal 2001; Belal 2000; Imam 2000; Belal and Cooper 2011). There was no uniformity of disclosures by Indian companies and environmental/social/sustainability reports were unsystematic, varied in content and character and were non-comparable (Singh and Ahuja 1983; Sahay
2004). Kuasirikun (2005) and Gao et al. (2005) found that the companies were reluctant to disclose environmental and social information due to its sensitive nature. A notable special feature of corporate social disclosures by Thai companies was the donations to preserve the Thai cultural heritage and religion in order to keep Thai cultural values and traditions alive (Kuasirikun and Sherer 2004). Belal and Owen (2007) found that the adoption of international social standards will be more apparent in future for corporate social reporting in Bangladesh; but the authors question whether the compliance with these standards will lead to real changes in corporate behaviour in empowering stakeholders and the suitability of these standards developed in the West, as these may be adopted without giving due consideration to local cultural, economic and social factors.

A lack of objectivity was revealed by prior literature as firms disclose more positive environmental information in a self-laudatory manner (Newson and Deegan 2002; Deegan and Gordon 1996; Deegan and Rankin 1996; Hackston and Milne 1996; Adams 2002). Deegan and Rankin (1996) found that most companies failed to disclose any negative information even though they had negative information to disclose and that the total disclosures were higher in the years of prosecution than in other years. They argued that the firms aim to legitimise their activities by disclosing a high volume of positive environmental information. Cho et al. (2010) found that poor performing companies emphasise good news in their disclosures to manage stakeholder impressions of their corporate environmental performance. Cormier et al. (2004) argue that company management restrict negative information to mandatory reporting requirements. This shows that corporations are likely to provide more information to external stakeholders if it reflects positively on the corporation (McGowan et al. 2000).

Deegan and Rankin (1997) found that shareholders and individuals within organizations consider environmental information is material to their decision making and that an annual report was perceived as the most important source of environmental disclosures. However, companies use different media such as annual reports, brochures, and the World Wide Web for environmental, social and SR. It was found that the corporate environmental and social disclosure in company websites had a higher frequency of disclosure than annual reports; the disclosures were more positive and narrative in nature than the annual report disclosures.
(Zeghal and Ahmed 1990; Williams and Pei 1999; Patten and Crampton 2004; Frost et al. 2005; Coupland 2006; Isenmann et al. 2007; Guthrie et al. 2008). For example, Frost et al. (2005) investigated the nature and extent of SR practices in the annual reports, discrete reports and websites of 25 Australian companies by comparing GRI indicators. The authors found a low level of disclosures across all media with significant inconsistencies and frequent gaps in SR. However, discrete reports and websites provide higher levels of sustainability disclosures than conventional annual reports. Rowbottom and Lymer (2009) found that online sustainability disclosures are primarily used to inform stakeholders within the business.

The web is regarded as an efficient medium for environmental communication (Lodhia 2006a). The richness of the design and presentation of social and environmental website disclosures can potentially influence the perceptions of the users (Cho et al. 2009). However, the research found that companies are not fully utilising the potential of the web for environmental communication (Lodhia 2006b). The accessibility and functionality features of the website limit the usage of the website by companies for the purpose of communicating on sustainability issues (Adams and Frost 2006).

The above literature review reveals that the level of environmental, social and SR is increasing. However, the disclosures are more qualitative in nature and companies tend to disclose information in a self-laudatory manner. Companies use different media to disclose environmental, social and sustainability information. Most common are annual report disclosures. Some companies publish standalone environment, social and sustainability reports. Disclosures on other media such as the World Wide Web are also becoming popular. Some companies use GRI SR guideline and other available guidelines for more structured reporting.

2.4 Theoretical Perspectives of the Environmental, Social and SR Literature

Despite the fact that much has been written on environmental and social reporting, theoretical-based pieces of work are still inadequate. O’Connor (2006) reviewed social and
environmental accounting research studies for a period starting from 1974 to 2006 and found that only 35% of the studies reviewed (83 out of 240 studies) adopted a theoretical perspective. Further, 35% of Australasian social accounting research has focused on motivation for corporate environmental and social reporting behaviours, regardless of theoretical bases in predicting the behaviour (Deegan and Soltys 2007).

According to Deegan (2002), there are various theoretical perspectives adopted in this area of study, as there is no single accepted theory for social and environmental accounting. These theoretical perspectives would fall into three major schools of thought, namely, managerialist, critical and the middle of the road approach. The middle of the road lies between the managerialist and critical perspectives (Gray and Collison 2002). According to Burritt and Schaltegger (2010), both the critical theory perspective (Gray and Milne 2002; Aras and Crowther 2009; Gray 2010) and the managerial path (Burritt et al. 2002) research contribute to the development of sustainability accounting and reporting.

From a theoretical perspective, environmental, social and SR has been studied within the context of theories such as legitimacy theory (e.g. Tilling and Tilt 2010; Archel et al. 2009; Cho and Patten 2007; de Villiers and van Staden 2006; Cormier et al. 2004; Campbell et al. 2003; Milne and Patten 2002; Newson and Deegan 2002; O'Donovan 2002; Savage et al. 2000; Adams et al. 1998), stakeholder theory (Cormier et al. 2004; Herbohn 2005; Moneva and Llena 2000; Roberts 1992; Yongvanich and Guthrie 2005), institutional theory (Neu et al. 1998; Rahaman et al. 2004; Bebbington et al. 2009) and political economy theory (Buhr 1998; Williams and Pei 1999; Williams 1999). Buhr (2007) notes that these theories are commonly employed to explain the motivation for disclosures and to understand reporting situations. Some prior studies in the area have adopted other theoretical perspectives to explain organizational change. For example, Larrinaga-Gonzalez et al. (2001) used Gray et al.'s (1995a) and Laughlin's (1991) models to study the relationship between environmental accounting and organizational change. Adams and McNicholas (2007) used Kurt Lewin's (1947) field theory, group dynamics and the three-step model, while Dey (2007) adopted Oliver's theory of deinstitutionalisation to establish engagement based studies of organizational change in the literature. Parker (2011) notes that alternative and previously untried theoretical approaches can be used to study social and environmental
accounting in future. Further, Gray et al. (2010) analysed the theoretical lenses most commonly employed in social accounting. Their analysis is summarised in Table 2.2.

Islam and Deegan (2008) argue that legitimacy theory, stakeholder theory and institutional theory tend to provide a complementary perspective. Deegan (2007, p.127) describes "legitimacy theory as a positive theory that embraces a systems oriented perspective and which is derived from political economy theory." On the other hand, Larrinaga-Gonzalez (2007) argues that institutional theory is richer than legitimacy theory as it could be more helpful explaining why given SR practices become common in a particular context. There is a great deal of overlap between these theories and the distinctions are often blurred (O'Donovan 2002).

According to Herbohn (2005), organizations will strategically manage their relationships with important stakeholders to ensure their continuing survival. A theoretical basis for reporting information on issues that are perceived to be important to a broader group of stakeholders is provided by stakeholder theory (Yongvanich and Guthrie 2005).

Deegan (2002) argues that managers are motivated for external reporting to legitimise their organizational activities. The social contract between the corporation and society is explained through legitimacy theory (Magness 2006). An organization’s goal should be congruent with societal goals, and stakeholders should know what action is taken by companies to achieve and maintain the legitimacy (Cormier et al. 2004). According to legitimacy theory, organizations exist under an expressed or implied social contract with the society (Campbell 2000). By adopting a legitimacy strategy, organizations try to maintain their position in the industry and in the eyes of the community by making sure that their operational environmental impact does not negatively affect the organization’s operations (Dillard et al. 2005). Cormier et al. (2004) argue that managers should respond to their stakeholders as they have the ability to affect company’s activities. Legitimacy theory argues that managers use disclosures to inform their stakeholders how they are dealing with matters that are of interest to stakeholders and to shape stakeholder impressions (Magness 2006). According to Campbell (2000), the legitimacy ‘gap’ between
how an organization wishes to be perceived and how it actually is can be narrowed by using social disclosures.

In evaluating legitimacy theory, Deegan (2002) suggests that legitimacy theory is still considered an under-developed theory even though it provides useful insights. Campbell et al. (2003) identified a number of problems associated with legitimacy theory and conclude that legitimacy is complex and involves many factors which cannot be easily measured or controlled. Thomson (2007, p.32) claims that environmental and social disclosures are "most commonly explained by some variant of legitimacy theory. However, in many cases what is referred to as legitimacy theory should more correctly be labelled contingency theory."

Parker (2005, p.846) suggests that legitimacy theory "[…]suffers from problems that include apparent conceptual overlap with political economy accounting theory and institutional theory, lack of specificity, and uncertain ability to anticipate and explain managerial behaviour." Further, Campbell (2000, p.97) states that "a managerial influence on the company’s attitude to voluntary social disclosure is not readily explained by the meta theories (legitimacy theory and political economy explanation) espousing stakeholder theory." Therefore, as its theoretical foundation this study does not use these existing social reporting theories. The present study utilises the Theory of Planned Behaviour in an attempt to identify the influence of managers’ psychological factors in determining corporate SR behaviour.
Table 2.2: A Tentative and Highly Speculative, Non-Discrete, Categorisation of a Selection of Theorisations around Social Accounting

<table>
<thead>
<tr>
<th>Theory level (of resolution)</th>
<th>Biological</th>
<th>Political/Sociological</th>
<th>Economic/rationalist</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meta-theory (system level)</td>
<td>General systems theory • Deep ecology</td>
<td>Marxian political economy • Communitarianism • Discourse • Habermas</td>
<td>Friedman’s liberal economics</td>
<td>Postmodernity</td>
</tr>
<tr>
<td>Meso/sub-systems level</td>
<td>Autopoiesis • (Neo) institutional</td>
<td>Bourgeois political economy • Social contract • Accountability • Media agenda setting • Cultural conceptions</td>
<td>Efficient capital markets hypothesis</td>
<td>Foucault • Radical feminism • Actor-network</td>
</tr>
<tr>
<td>Micro I/organizational</td>
<td>Stakeholder • (Neo) institutional • Resource dependence • Contingency</td>
<td>Legitimacy • Stakeholder</td>
<td>Decision usefulness • Signalling • Principal-agent • Transactional costs</td>
<td>Emerging new conceptions of enterprise</td>
</tr>
<tr>
<td>Micro II/internal to organisation</td>
<td>Autopoiesis • Organizational change (multiple) • Boundary management</td>
<td>Structuration • Discourse • Group/identity</td>
<td>Positive accounting • The business case</td>
<td></td>
</tr>
<tr>
<td>Micro III/individual</td>
<td>Values driven • Motivation</td>
<td>Principal-agent</td>
<td>Feminism • Identity</td>
<td></td>
</tr>
</tbody>
</table>

Source: Adapted from Gray et al. 2010, p.12
2.5 Justification for Using the Theory of Planned Behaviour (TPB) for the Present Study

Gray et al. (2010, p.36) notes that, "theories that focus on the individual do not feature very strongly in the social accounting literature or particularly in the accounting literature more widely. There is probably a great deal more to be done to discover why individuals do (and do not) support and develop social accounting."

Adams (2002) argues that the existing social reporting theories as discussed in Section 2.4 lack explanatory power and need to be extended to consider the impact of internal organizational factors affecting corporate social disclosures.

"Theories about why and how companies report have been developed largely without reference to internal corporate variables including both the process by which companies report and the attitudes of the key players.” (Adams 2002, p.224)

According to Adams (2002), the decision to engage in SR is not necessarily driven by a single factor but may be the outcome of the interaction of multiple factors including internal corporate factors. Cordano and Frieze (2000) argue that when considering the internal corporate factors, it is important to understand the individual behaviours that influence the decision to engage in behaviour to achieve an organizational change.

Although the theories in the literature contribute to our understanding of the factors influencing corporate social disclosures, some limitations remain. These theories sacrifice the richness and details associated with the critical internal factors that may influence the individual decision makers to engage in SR. Psychological factors would influence the way that decision markers engage in SR process. Research efforts therefore need to be focused on exploring the interaction of psychological factors of decision makers to see how SR will take place in promoting organizational change. Moreover, there is a lack of empirically tested theories that highlight the behavioural perspective of the individual decision maker (manager) in the area of environmental, social and SR. To overcome these limitations and to understand the factors influencing decision makers’ intention to engage in SR and SR behaviour, an integrated psychological theoretical framework is vital. The TPB provides such theoretical
foundation and it will thus be used in this study (the TPB will be discussed in detail in the next chapter: pages 44-51).

Prior studies have demonstrated the efficacy of the TPB as a foundation for any study that investigates managerial decisions that affect the environmental performance of the organization (Cordano and Frieze 2000; Flannery and May 2000) and other behaviours of interest in the area of accounting (Weidman et al. 2010; Dowling 2007; Glandon 2003). Hence, the TPB is a useful theory that provides a foundation for behavioural research to achieve an organizational change (Cordano and Frieze 2000).

As discussed in Chapter One, developing countries face greater difficulties than developed countries in creating a conducive and solid foundation for SR. Developing nations usually “lack adequate resources or have inadequate institutional capacity in place to promote environmental protection and social justice, to encourage the inclusion of environmental and social costs in decision making, or to promote external reporting” (Davy 1997, p.179; Herzig et al. 2005). As a result, developing country managers have incomplete control to engage in environmental, social and SR. The TPB can be applied to situations where managers have incomplete control over behaviour. It provides a theoretical framework to examine the SR behaviour of Sri Lankan companies. Drawing from this framework, it is expected that the reporting behaviour could be affected by the managers’ attitudes and other psychological variables to carry out the reporting task.

2.6 The Literature on the Theory of Planned Behaviour (TPB)

A survey of the literature on the TPB compiled by Icek Ajzen found that there were few studies in the area of environmental behaviour and a small number of studies related to accounting, out of more than 950 studies which used the TPB. In order to briefly indicate the form of arguments in these studies, five selected accounting and environmental behaviour studies are reviewed, which are relevant to the present study. These studies will demonstrate the suitability of applying the TPB to organizational

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settings as a foundation to investigate managerial decisions to engage in a particular behaviour.³

The TPB was applied to investigate the financial executives' decision to accrue and disclose contingent environmental liabilities (Weidman et al. 2010). The authors found that attitudes and subjective norm were positively related to executives’ intention to disclose environmental liabilities. However, perceived behavioural control, perceived moral obligation and magnitude of the environmental and financial consequences were not significantly related to disclosure of environmental liabilities.⁴ The authors conclude that, for better accounting treatment and transparency of environmental matters, it is important to encourage executives’ to have positive attitude to disclosure, enhance their behavioural control over the decision, and heighten their moral obligation to disclose environmental liabilities.

An investigation of the factors that influence how appropriately auditors use audit support systems was carried out by Dowling (2007). She developed a research model using the TPB and Adaptive Structuration Theory. Consistent with the TPB, attitude, subjective norm, perceived behavioural control and intention determined the use of audit support system appropriately. She also found those compensatory controls, like team norms and their attitude to using the system, influenced mostly when auditors are using less restrictive audit support system. When using the restrictive audit support system, the audit review process is found to be a sufficient complementary control to achieve appropriate use. This finding is helpful for audit firms to determine which type of controls the firm should deploy to achieve appropriate use of the audit support system.

Glandon (2003) investigated the factors influencing decisions regarding a change in management accounting controls after implementation of electronic data interchange (EDI) in small businesses. Similar to Weidman et al.'s (2010) findings discussed above, attitudes and subjective norm influenced the intention but the perceived behavioural control was not significant. This study found that small business executives had little intention to change controls after EDI implementation. This may be due to the fact that

³ A detailed explanation of the TPB will be provided on pages 44-51.

⁴ Perceived behavioural control refers to the ease or difficulty of performing the behaviour and it will reflect the past experience and expected constraints or obstacles (Ajzen 1988, Ajzen 1991).
they are more concerned about competition, production and/or operation, and less sensitive to control issues. This study highlights the necessity of small business executives to develop sensitivity to control issues to avoid increased business risk associated with changing business practices.

Environmental managers’ attitudes and other psychological variables toward the pollution prevention preferences were investigated by Cordano and Frieze (2000). The pollution prevention attitude variable, subjective norm and past source reduction activities showed a positive relationship with environmental managers’ preference to implement source reduction activities. However, they found a negative relationship between perceived behavioural control with the environmental managers’ preference to implement source reduction activities. This study highlights the usefulness of the TPB, which provides information to understand the complex individual decisions and actions that would produce organizational environmental outcomes.

Flannery and May (2000) investigated managers’ environmental ethical intentions in the U.S. metal-finishing industry. The TPB and Jones’s moral intensity construct formed the research model. A significant influence of subjective norm was found on managers’ environmental ethical intention, while a manager’s attitude was a marginal predictor. They found support for two external perceived behavioural control factors (ethical climate and financial cost) but found no support for the internal (self-efficacy) factor. Personal moral obligation factor was of less importance. They found that when consequences were of high magnitude, the metal-finishing managers proclaimed more ethical and environmental intentions. The authors conclude that organizational ethics and environmental models which include the influence of individual, context, and issue specific factors would help to understand the decision making processes and judgements of decision makers who help determine the environmental sustainability.

The above literature review reveals those decision makers’ psychological factors such as their attitudes, subjective norm and perceived behavioural control influence their intention to engage in behaviour in organizational contexts. Dowling’s (2007) study highlights that the intention leads to behaviour. These studies demonstrate the

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5 A person’s subjective norm is his/her belief that important others think he/she should or should not perform a given behaviour (Fishbein and Ajzen 1975).
applicability of the TPB for the present study to understand the influence of managers’ psychological factors on corporate SR behaviour.

2.7 Summary of the Limitations on Literature

The above literature review reveals that various methods and theories have been adopted in previous studies. The limitations and shortcomings associated with those studies will be discussed in this section to explain how the present study differs from previous studies.

The literature on environmental, social and SR/accounting studies have mainly focused on content, level of disclosures and determining factors of such disclosures at the organizational level. Nevertheless, some of these studies supported the legitimacy theory, stakeholder theory or a related theoretical perspective. However, these studies do have limitations: for example, lack of generalizability due to selection of case studies, having a bias due to sample selection from larger companies and/or multinational companies etc.

The environmental, social and SR studies have used different research methods. Most quantitative studies have utilised questionnaire surveys (e.g. Deegan et al. 1996; Frost and Wilmshurst 1996; Deegan and Rankin 1999; McGowan et al. 2000; Cormier et al. 2004; Cummings 2008) and qualitative studies have utilised semi-structured interviews (e.g. Wycherley 1997; Adams 2002; Lodhia 2003; Belal and Owen 2007; O'Dwyer 2003b; O'Dwyer 2002) as data collection methods. Some studies have used both qualitative and quantitative methods (mixed method/triangulation), which utilised questionnaires/interviews together with annual report disclosures (e.g. Jaggi and Zhao 1996; Wilmshurst and Frost 2000; Kuasirikun 2005).

Content analysis is used in most of the studies to measure the level of voluntary social and environmental disclosures in annual reports (Thomson 2007). These studies differ in their methods of measurement. Some researchers have used words, lines, sentences and an index to measure the level of disclosures. By using content analysis, disclosures have been classified as positive and negative. None of these studies have used more sophisticated statistical methods such as structural equation modelling techniques to
analyse data except two recent studies in the area of environmental management accounting (Shauki et al. 2009; Ferreira et al. 2010). It appears that the research method used in the previous research studies can be improved in number of ways even though these studies extensively contribute to the literature in the area of environmental, social and SR/accounting.

The literature review also revealed that there is a very limited number of environmental, social and SR/accounting studies in the context of developing countries (e.g. Teoh and Thong 1984; Belal 2001; Belal 2000; Belal 2008; Belal and Owen 2007; Imam 2000; Lodhia 2003; Kuasirikun 2005; Kuasirikun and Sherer 2004; Rahaman et al. 2004; Sahay 2004; Elijido-Ten et al. 2010).

There was a limited emphasis placed on whether the behavioural aspect of decision makers is important in engaging in environmental, social and SR/accounting. The majority of studies neglected the integration of important psychological factors other than attitude that may affect the decision makers’ intention to engage in environmental, social and SR behaviour. Most of the studies reviewed considered the influential factors of environmental, social and SR at the organizational level rather than psychological variables at the individual decision makers’ level.

There appears to be a lack of research using psychological theoretical frameworks to identify how psychological variables of decision makers influence SR behaviour to give rise to change in disclosures. This study extends previous research by approaching the subject from a behavioural perspective to examine the influence of psychological variables to engage in SR. To this end, a psychological decision making theory, the TPB, is adopted. This study focuses on a unique research context by considering a different research population from a developing country perspective, the Sri Lankan managers. It is argued that to improve and change SR behaviour it is important to understand whether decision makers’ psychological variables influence SR behaviour.

The literature review in Section 2.6 revealed a recent study (Weidman et al. 2010) which applied the TPB as a theoretical framework which falls into the broader perspective on environmental accounting research. The present study differs from Weidman et al.’s (2010) study in four main ways.
• First, the Weidman et al. (2010) study has been conducted in the U.S. where there are accounting guidance, standard and regulatory frameworks for environmental liability recognition and disclosures which arise due to environmental damage. However, the present study applies the TPB to a different research context, a developing country influenced by Buddhism and where SR/disclosures were made purely on a voluntary basis rather than as stipulated disclosures.

• Second, the above stated study lacks generalizability to other environmental liability situations as the scope of the study was limited to environmental liability accrual and disclosure intentions associated with an internally discovered potential liability. The present study, on the other hand, identifies the psychological factors affecting the overall SR process.

• Third, the above mentioned study has not fully tested the TPB by considering the influence of behavioural, normative and control beliefs on attitude, subjective norm and perceived behavioural control respectively. Further, it has not tested the influence of intention on behaviour. The present study will be testing the full theory of the TPB including a variable external to the theory.

• Finally, there are a number of methodological differences in the sample, data collection method and data analysis technique between the above mentioned study and the present study. The present study uses a survey and semi-structured interviews (mixed method) to collect data from top and middle level managers of companies. Data will be analysed by using the Partial Least Squares (PLS) technique and the interview data will be analysed using NVivo software.

2.8 Chapter Summary

This chapter reviewed the relevant literature in the area of environmental, social and SR/accounting with the objective of identifying the gaps in literature. There was scant literature from the developing country perspective. Diverse factors have been identified in the literature as influencing the environmental, social and SR. The majority of studies
which used a theoretical framework utilised the legitimacy theory and stakeholder theory as the theoretical framework. It has been argued that while these theories provide useful insights into motives for environmental, social and SR practices, they tend to ignore the broader psychological factors of individual decision makers. It was apparent that only a limited emphasis was placed on finding out how psychological factors influence the managers' intention and SR behaviour using psychological theoretical frameworks. To address these gaps in the literature, the following chapters of this thesis attempt to investigate the psychological factors influencing Sri Lankan managers' intention to engage in SR and SR behaviour, by improving the methods and data analysis procedures utilised in previous studies through the use of the TPB. The TPB is further explored in the following chapter.
CHAPTER THREE

THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

3.1 Introduction

The purpose of this chapter is to present the theoretical framework of the study and to develop the research hypotheses to be tested in the study. As noted in Chapter Two, there is a lack of research identifying the influence of psychological factors on managers’ behavioural intention to engage in SR and corporate SR behaviour. To address this gap in literature, Ajzen’s (1985) Theory of Planned Behaviour (TPB) will be utilised as the theoretical lens of this study. The TPB outlines how psychological factors influence behavioural intention which reflects how people are motivated to perform certain behaviour. In this study, the TPB is adopted to examine how psychological factors influence Sri Lankan managers’ intention to engage in SR and ultimately corporate SR behaviour. The TPB is extended in this study by examining an additional external variable (i.e. managers’ level of education). Testable hypotheses will be developed based on the extended TPB.

Section 3.2 discusses the TPB. This will be followed by the development of the hypotheses to be tested in the study, based on the TPB. Finally the conceptual framework for the study is presented, followed by the chapter summary.

3.2 The Theoretical Framework of the Study: The TPB

As discussed in the previous chapter, prior research demonstrates the suitability of the TPB as a foundation to investigate managerial decisions that affect the environmental performance of the organization (Cordano and Frieze 2000; Flannery and May 2000) as well as other behaviour of interest in the area of accounting (Glandon 2003; Dowling 2007; Weidman et al. 2010). Therefore, it is expected that TPB will assist in examining the antecedents of SR behaviour of companies.
TPB is an extension of the Theory of Reasoned Action (TRA) (Ajzen 1988). TRA is a widely accepted model in Psychology, utilised to explain any form of human behaviour (Fishbein and Ajzen 1975). The core premise of TRA is that human beings behave in a sensible manner and make systematic use of information to achieve a reasonable behavioural decision (Ajzen and Fishbein 1980; Ajzen 1988). Before deciding to engage or not to engage in a given behaviour, humans consider the implications of their actions (Ajzen and Fishbein 1980). Previous research suggests that an intention model such as TRA offers a theoretical foundation for research on the determinants of behaviours (Hamid and Cheng 1995).

TPB seeks to overcome the limitations associated with the TRA model, which does not deal with behaviours over which people have incomplete control to exercise power to perform the behaviour. According to the TPB, behaviour is a function of salient information or beliefs relevant to the behaviour (Ajzen 1991). Three kinds of beliefs can be distinguished: behavioural beliefs, which are assumed to influence attitude towards behaviour; normative beliefs, which constitute the underlying determinants of subjective norm; and control beliefs, which provide the basis for perceptions of behavioural control (Ajzen 1991). In this theory, attitude, subjective norm and perceived behavioural control determine the ‘behavioural intention,’ which reflects how motivated the individual is to perform the behaviour. Therefore, TPB predicts and explains human behaviour in specific contexts (Ajzen 1991; Hamid and Cheng 1995; Teo and Loosemore 2001). Previous studies reviewed in Ajzen (1991) show that the addition of perceived behavioural control to the TRA model improves the prediction of behavioural intention. Thus, the use of TPB for this study is deemed appropriate to determine the factors that influence managers’ intentions or ‘behavioural intentions’ to engage in SR and corporate SR behaviour.

As illustrated in Figure 3.1 below, TPB posits an intrinsic association between behavioural beliefs and attitude toward the behaviour, normative beliefs and subjective norm, control beliefs and perceived behavioural control, and in combination these factors lead to the formation of behavioural intention. To better understand the effect these interactions have on the actual behaviour, it is necessary to explore each component of the TPB.
Figure 3.1: The Theory of Planned Behaviour (TPB)

Source: Adapted from Ajzen (2006a)
3.2.1 Behavioural Beliefs and Attitude towards the Behaviour

The TPB is concerned with attitude towards behaviour and not with the more traditional attitude towards objects, people or institutions (Ajzen 1985). The attitude towards a behaviour is defined as “a person’s overall evaluation of performing the behaviour in question” (Ajzen 2006a, p.5). Attitude is a hypothetical construct and, as a result, it poses a number of challenges because an attitude is difficult to observe (Teo and Loosemore 2001; Ajzen 2005).

Through observations and other information sources, a person forms a number of beliefs about an action. These beliefs are viewed as underlying a person’s attitude and ultimately determine intentions and behaviour (Ajzen and Fishbein 1980). That is, a person’s attitude towards an action is determined by his/her salient set of beliefs about that action, even though the person holds a large number of beliefs about a given action. Behavioural beliefs about an action and favourable or unfavourable evaluation of an action refer to attitude. Attitude is evaluative in nature and it is this main feature that differentiates it from other concepts.\(^6\) Attitude is related to a person’s behavioural belief about performing the behaviour, evaluation of consequences associated with the given behaviour and the strength of these associations (Fishbein and Ajzen 1975; Ajzen 1988; 2006a). If a person has a favourable attitude towards behaviour it may lead to actual performance of the behaviour (Fishbein and Ajzen 1975; Ajzen 1988).

The following is an example of how attitude is expressed in this study: a manager who believes that SR will improve the reputation of the company would be more likely to evaluate positively the behavioural action of engaging in SR. On the other hand, a manager who believes that SR will not improve the reputation of the company would be more likely to hold a negative attitude toward his/her company engaging in SR.

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\(^6\) Attitude is a hypothetical construct that manifest in a wide variety of observable responses. These responses are evaluative in nature, reflecting a person’s evaluations and feelings and directed at a given object. Evaluations can change rapidly when a new information is available (Ajzen 2005). Overall evaluation contains two separable components, i.e. instrumental and experiential quality (Ajzen 2006a). This will be further discussed in Chapter 4.
3.2.2 Normative Beliefs and Subjective Norm

Ajzen (1991, p.195) explains that "normative beliefs are concerned with the likelihood that important referent individuals or groups approve or disapprove of performing a given behaviour." Normative beliefs involve specific individuals or groups rather than generalised important others (Ajzen and Fishbein 1980). A subjective norm is a function of normative beliefs. Fishbein and Ajzen (1975, p.401) define it as follows: "a person’s subjective norm is his belief that important others think he should or should not perform a given behaviour." Subjective norm reflects an individual’s sense of social pressure to behave in the acceptable manner (Ajzen 1991; Hamid and Cheng 1995; Teo and Loosemore 2001). If important others perform the behaviour, individuals tend to believe that the important referents think that he/she should perform the behaviour under consideration. A person’s subjective norm is a function of normative beliefs and motivation to comply (Fishbein and Ajzen 1975; Ajzen 1988; 2006a). If an individual believes that most referents, with whom he/she is motivated to comply, think that he/she should perform the behaviour, he/she would perceive social pressure to do so. On the other hand, if an individual believes that most referents, with whom he/she is motivated to comply, think he/she should not perform the behaviour, he/she would have a subjective norm that pressures them to avoid performing the behaviour (Ajzen 1985).

In this study subjective norm can be exemplified by a manager’s level of motivation to comply with the shareholders who would approve or disapprove the corporate behavioural action, namely, engagement in SR.

3.2.3 Control Beliefs and Perceived Behavioural Control

Perceived behavioural control refers to the ease or difficulty of performing the behaviour and it will reflect past experience and expected constraints or obstacles (Ajzen 1988; 1991; 2006a; Hamid and Cheng 1995; Teo and Loosemore 2001). Non-motivational factors such as resources (time, money, skills, and cooperation of others) and availability of required opportunities do affect the likelihood of performing the behaviour. Perceived control over the behaviour is collectively determined by the above factors. If a person possesses the resources, opportunities (ability/behavioural control) and he/she intends to perform, that may result in the individual performing the
behaviour (Ajzen 1988; 1991; 2002a). The extent to which performing the behaviour depends on skills, abilities, will power or opportunities varies from behaviour to behaviour (Ajzen 1985). Ajzen (2002b, p.3) suggests that "a high level of perceived control should strengthen a person's intention to perform the behaviour and increase effort and perseverance." Therefore, control beliefs about resources and opportunities (beliefs concerning factors that can prevent or facilitate goal attainment) can be considered as underlying determinants of perceived behavioural control (Ajzen 1988). This will facilitate or impede the performance of the behaviour (Ajzen 2006a). As an example, consider a graduate who intends to apply for a job to secure an advertised position in a company. Although the graduate may do everything in his/her power to obtain the position, he/she will be disappointed if the company decides to hire a different applicant. Ajzen (2002b, p.2) comments that "the lack of control in this case resides in the fact that getting an advertised position requires action not only on the part of the applicant but is also dependent on the actions of one or more individuals."

In the present study, perceived behavioural control can be exemplified by the availability of financial resources, time, skills, and cooperation of employees to engage in corporate SR behaviour.

3.2.4 Intention

Behavioural intention is a person’s subjective probability that he/she will perform a particular behaviour (Fishbein and Ajzen 1975). Intentions capture the willingness of people to try hard in their efforts in order to perform the behaviour (Ajzen 1991). An individual’s intention to perform a given behaviour is the main factor in the TPB. Thus, the stronger the behavioural intentions of an individual to perform a given behaviour, the more likely that behaviour will be performed. However, intention leads to behaviour only if the person can decide at will, to perform or not to perform the behaviour (volitional control). Attitude towards the behaviour, subjective norm and perceived behavioural control are major determinants of the behavioural intention. The relative importance of attitude, subjective norm and perceived behavioural control depends on the behavioural intention under consideration (Ajzen and Fishbein 1980; Ajzen 1988). Behavioural intention is the immediate determinant of the behaviour. It mediates the effect of attitude, subjective norm and perceived behavioural control on behaviour.
(Ajzen and Fishbein 1980). The general rule is that when attitude and subjective norm with regard to the behaviour in question are more favourable and perceived behavioural control is high, the greater the individual’s intention to perform that behaviour.

3.2.5 Behaviour

Fishbein and Ajzen (1975, p.335) define overt behaviour as “observable acts that are studied in their own right.” To measure the specific behaviour (single act) performed or not performed by the individual, we have to define the behaviour clearly (Ajzen and Fishbein 1980). Intention is likely to lead to behaviour if the person possesses resources, abilities and the cooperation of other people to perform the given behaviour. The factors determining one’s intention must be identified to understand the behaviour of a person. An appropriate measure of intention will provide an accurate prediction of behaviour (Ajzen and Fishbein 1980). Intention is thus considered to be the immediate antecedent of behaviour. People intend to perform behaviour when the opportunity arises and when they have sufficient degree of actual control over the behaviour. In addition to intention, it is important to consider perceived behaviour control because many behaviours may pose difficulties and limit volitional control. If the perceived behavioural control is accurate, it can serve as a proxy for actual control and contribute to the prediction of the behaviour (Ajzen 2002b; 2005; 2006a). Ajzen (2011a) states that, “conceptually, perceived behavioural control is expected to moderate the effect of intention on behaviour, such that a favourable intention produces the behaviour only when perceived behavioural control is strong. In practice, intention and perceptions of behavioural control are often found to have main effects on behaviour, but no significant interaction.”

Although prior literature has demonstrated the applicability of the TPB to examine managers’ behaviour (e.g. Dowling 2007, Weidman, 2010), the theory is not without criticisms. The TPB has been criticized by different authors for its sufficiency or limiting conditions such as limits of predictive validity, rationality, affect and emotions, the role of past behaviour and habit, and the role of background factors (Ajzen 2011b).

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Ajzen (2011b) aims to address the above criticisms in the following way. He notes that the intention-behaviour relationship can vary considerably due to the temporal distance between measurement of intention and observation of behaviour. However, sometimes intentions are poor predictors of behaviour even when the time period between the measurement of intention and the behaviour is short. The lack of actual control over a behaviour limits the predictive validity of intentions.

The TPB has been criticized for ‘rationalism’ and that it does not account for cognitive and affective processes that are known to bias behaviour. However, according to Ajzen (2011b, p.1116), “there is no assumption in the TPB that behavioural, normative and control beliefs are formed in a rational, unbiased fashion or that they accurately represent reality. Beliefs reflect the information people have in relation to the performance of a given behaviour, but this information is often inaccurate and incomplete; it may rest on faulty or irrational premises, be biased by self-serving motives, by fear, anger and other emotions, or otherwise fail to reflect reality. Clearly, this is a far cry from a rational actor.” He further notes that in the TPB, affects and emotions can serve as background factors that influence beliefs. Background factors such as factors of a personal nature including personality and broad life values, demographic variables such as education, age, gender and income and exposure to media may influence the belief that people may hold.

Ajzen (2011b) argues that the performance of a behaviour in the past does not directly cause a person’s current intention, instead past behaviour can be considered as a proxy for habit strength. However, this issue is still unresolved.

3.3 Development of Testable Hypotheses Based on the TPB

Previous studies emphasise managers’ attitude towards the importance of environmental considerations within the business context, and the relationship between managers’ attitude and environmental, social and sustainability disclosures or non-disclosures (Frost and Wilmshurst 1996; Jaggi and Zhao 1996; Wilmshurst and Frost 2001; Adams 2002; Jahamani 2003; Cormier et al. 2004; Adams and McNicholas 2007; Belal 2008; O'Dwyer 2003b; O'Dwyer 2002). The Members’ Code of Conduct of the Australian Institute of Management states that “managers should recognise the interest of the
community and act accordingly; this recognition includes making every endeavour to conserve the environment, balancing the rights of future generations with current economic needs” (AIM 2011). The current study focuses on managers, as they are responsible for the decision regarding corporate engagement in SR.

Ajzen’s (1985) TPB literature in conjunction with environmental, social and sustainability accounting literature will be used to develop the hypotheses for this study to examine corporate SR behaviour and its antecedents within the framework of the TPB.

Ajzen (2002a; 2006a) states that beliefs play a key role in the TPB by providing a cognitive and affective foundation for attitude. It is necessary to assess a person’s salient beliefs to understand why he/she holds certain attitude towards behaviour (Ajzen and Fishbein 1980). The behavioural belief composite (total set of salient beliefs) is the antecedent or cause of the measure of attitude (Ajzen 2002a; 2005; 2006b). That is, attitude towards the behaviour is determined by the set of salient beliefs a person holds about performing the behaviour which leads to certain outcomes and also by his/her evaluations of those outcomes (Ajzen and Fishbein 1980). According to Ajzen (1991), behavioural beliefs are assumed to influence attitudes toward the behaviour. This is based on an expectancy-value model of attitudes (Fishbein and Ajzen 1975). However, Ajzen (1991, p.192) notes that “there is the possibility that the expectancy-value model is an inadequate description of the way attitudes are formed and structured.” Further empirical test is therefore needed to provide more evidence about the potential relationship.

Although prior research on the TPB has provided supportive evidence that a positive correlation is expected between global measures of attitude and the behavioural belief based component (Ajzen and Fishbein 1980; Ajzen 1991; Armitage and Conner 2001), the exact form of the relationship between attitude and its underlying beliefs is still uncertain, not well understood and the magnitude of this relation has sometimes been

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8 “According to the expectancy-value model of attitudes, attitudes develop reasonably from the beliefs people hold about the object of the attitude. In the case of attitudes toward a behaviour, each belief links the behaviour to a certain outcome, or to some other attribute such as the cost incurred by performing the behaviour” (Ajzen 1991, p.191). According to Ajzen (1991), if the expectancy-value model is valid, the belief-based measure of attitude should correlate well with a standard measure of the same attitude.

9 “For example, some investigators (e.g. Valiquette et al. 1988) have questioned the multiplicative combination of beliefs and evaluations in the expectancy-value model of attitude” (Ajzen 1991, p.192).
disappointing (Ajzen 1991). Therefore, it is necessary to test the relationship between behavioural beliefs and attitudes towards the behaviour.\textsuperscript{10}

Gandon’s (2003) study found that behavioural beliefs predict executives’ attitude towards the modification of the management accounting controls after implementation of electronic data interchange. Chugh (2004; cited in Marquardt 2010) states that attention should be focused on implicit attitude and its corresponding mental processes if it is to be a good predictor for ethical and unethical managerial decision making.

Drawing on the above reasoning, it is predicted that the underlying set of behavioural beliefs regarding SR will determine the managers’ attitude towards SR. Therefore, it is hypothesised that:

\textbf{H1- There is a positive relationship between managers’ behavioural beliefs regarding SR and their attitude towards engaging in SR.}

According to the TPB, subjective norm is a function of normative beliefs. That is, a person’s subjective norm is determined by his/her beliefs that specific salient referents (individual or group whose beliefs may be important to the person) think he/she should (or should not) perform a given behaviour and by his/her motivations to comply with those referents (Ajzen and Fishbein 1980). Normative beliefs play a key role by providing cognitive and affective foundations for subjective norm. The normative beliefs are the antecedent or cause of the measure of subjective norm (Ajzen 2002a; 2005; 2006b). According to Ajzen (1991), normative beliefs constitute the underlying determinants of subjective norm. Prior studies found that the correlations between the global measures of subjective norm, and its underlying beliefs, although significant (Armitage and Conner 2001), were of only moderate magnitude (Ajzen 1991). According to Ajzen (1991), the role of normative beliefs as the foundation of subjective norm has been only partly known and not well understood. The exact form of the relationship between subjective norm and its underlying beliefs is still uncertain (Ajzen 1991). Therefore, it is necessary to test the relationship between normative beliefs and subjective norm.

\textsuperscript{10} “Theoretically, attitudes are based on behavioural beliefs, subjective norms on normative beliefs, and perceived behavioural control on control beliefs. However, these propositions are subject to empirical test. The validity of the belief composite measures is typically tested by correlating each composite with the direct measure of the corresponding construct.” (Ajzen 2012) - http://people.umass.edu/aizen/faq.html - accessed 16/3/2012.
In addition, most prior organizational level accounting and environmental behavioural studies which used the TPB did not test the relationship between normative beliefs and subjective norm (for example, Weidman et al. 2010; Cordano and Frieze 2000; Flannery and May 2000).

However, based on Ajzen’s TPB literature, it is predicted that the underlying set of normative beliefs regarding SR will determine the managers’ subjective norm to engage in SR. Therefore, it is hypothesised that:

H2- There is a positive relationship between managers’ normative beliefs regarding SR and their subjective norm to engage in SR.

Ajzen (2002a; 2006a) further states that, as in the case of behavioural beliefs and normative beliefs, control beliefs also play a key role in the TPB by providing a cognitive and affective foundation for perceived behavioural control. A person’s perceived behavioural control is determined by his/her perception of the availability of skills, resources and opportunities and by his/her assessment of the importance of those skills, resources and opportunities to perform a given behaviour (Mathieson 1991). That is, beliefs about the presence or absence of factors that facilitate or impede performance of behaviour (Ajzen 2005). According to Ajzen (1991), control beliefs provide the basis for perceptions of behavioural control. If a person believes that he/she possesses more resources and opportunities, and anticipates fewer obstacles or impediments, the person should have greater perceived behavioural control over the behaviour (Ajzen 1991; 2005). The control beliefs are the antecedents or causes of the measure of perceived behavioural control (Armitage and Conner 2001; Ajzen 2002a; 2005; 2006b). According to Ajzen (1991), as in the case of behavioural beliefs and normative beliefs, the role of control beliefs as the foundation of perceived behavioural control has been only partly understood. That is, the exact form of the relationship is still unclear. Therefore, it is necessary to test the relationship between control beliefs and perceived behavioural control.

In addition, most of prior organizational level accounting and environmental behavioural studies which used the TPB did not test the relationship between control beliefs and perceived behavioural control (for example, Weidman et al. 2010; Cordano and Frieze 2000; Flannery and May 2000).
Nevertheless, based on Ajzen’s TPB literature, it is predicted that the underlying set of control beliefs regarding SR will determine the managers’ perceived behavioural control to engage in SR and the following hypothesis is developed:

\[ H3 - \text{There is a positive relationship between managers' behavioural control beliefs regarding SR and their perceived behavioural control to engage in SR.} \]

Ajzen (2002a; 2006a) suggests that understanding people’s attitudes, subjective norm and perceived behavioural control is useful for addressing behavioural issues. Prior research states that out of the three predictors of intention (attitude, subjective norm and perceived behavioural control), attitude towards the behaviour is the significant predictor of intention (Taylor and Todd 1995; Cordano and Frieze 2000). This means that in some circumstances personal considerations are more influential than social pressures when determining the intentions (Ajzen 1991).

Issues relating to attitudes have been examined in prior environmental accounting research. For example, previous studies emphasise managers’ attitude to engage in environmental, social and SR (Adams 2002; Adams and McNicholas 2007). Adams (2002) found that social reporting is influenced by managers’ attitude. The findings of the above mentioned studies highlight the potential effect of attitude on reporting behaviour. Further, Weidman et al. (2010) found that intention to accrue and disclose environmental liabilities are positively related to executives’ attitude.

In addition, prior environmental behaviour studies which used the TPB (Hamid and Cheng 1995; Taylor and Todd 1995; Cordano and Frieze 2000; Flannery and May 2000; Knussen et al. 2004; Tonglet et al. 2004) show a significant relationship between attitude and behavioural intention. For example, Cordano and Frieze (2000) found a positive relationship between managers’ attitude about pollution prevention and their preference to implement source reduction activities. These studies highlight a potential relationship between managers’ attitude and their intention to act.

Based on the findings of the above literature on environmental, social and SR and the TPB literature, a positive relationship between managers’ attitude and their intention to engage in SR can be predicted and it is hypothesised that:
H4 – There is a positive relationship between managers’ attitude towards SR and their intention to engage in SR.

According to the TPB, subjective norm also predicts the intention to engage in behaviour (Ajzen 1991). Subjective norm reflects the sense of social pressure to behave in an acceptable manner. Internal and external social pressures with regard to environmental protection and reporting have been investigated in the literature. Pressures from regulators (Dillard et al. 2005), individual investors (Epstein and Freedman 1994), institutional investors (Magness 2006), environmental groups (Deegan and Gordon 1996), financiers, general public/society, potential employees (Hedberg and Malmborg 2003) and other stakeholders (Daub 2007) influence organizational environmental behaviour. Further, they require information about organizational environmental and social impacts to assess the organizational contribution to sustainable development (Lamberton 2005). Furthermore, sustainability accounting information is relevant for internal managers to make decisions (Lamberton 2005) and external parties can use disclosures to evaluate company performance (Perry and Sheng 1999). Wheeler and Elkington (2001) state that in predicting the future of SR, it is necessary to consider which stakeholder influence is most important to business.

In some European Union countries, social and environmental pressures have led to compulsory SR (Bebbington 2002). Wilmshurst and Frost (2000) found that a shareholder/investor right to information was considered the most significant factor that influences managers’ decision to disclose environmental information. Providing a ‘true and fair’ view of operations, meeting legal obligations, satisfying ‘due diligence’ requirements and community concern with operations were also ranked as influential factors. The findings of these studies highlight the influence of social pressures on managers’ intention to engage in SR.

In addition, subjective norm has also been a reliable predictor of behavioural intention in prior environmental accounting and behaviour studies (Weidman et al. 2010; Flannery and May 2000). Flannery and May (2000) found that subjective norm was a significant predictor of managers’ environmental ethical investment intentions. Further, Weidman et al. (2010) found that subjective norm was positively related to executives’ intention to disclose environmental liabilities.
Therefore, it is predicted that subjective norm regarding SR will be positively related to managers’ intention to engage in SR and the following hypothesis is developed:

\[ H5 \text{ – There is a positive relationship between managers’ subjective norm regarding SR and their intention to engage in SR.} \]

In the TPB, perceived behavioural control refers to the ease or difficulty of performing the behaviour (Ajzen 1991). Perceived behavioural control can be important to the ultimate behavioural outcome and can be influenced by a range of factors within the organization and the realm of an individual’s approach and openness to adopt SR practices. Issues relating to factors that will facilitate or inhibit engagement in SR can be found in prior research.

Providing SR related training and creating awareness could lead to improving employee skill levels and expertise that could facilitate the SR process. The ability of an individual to take action will depend on an individual’s skill to apply action strategies to issues, combined with appropriate knowledge about the issue (Hines et al. 1987). It is necessary to educate, provide training for environmental management skills and involve environmental accounting information users such as line managers and organizational staff in the environmental agenda to improve environmental performance of the organizations (Frost and Wilmshurst 1996; Wycherley 1997). Perez et al. (2007, p.405) found that “training and awareness building may lead to improvements in the environmental knowledge, skills and expertise of staff, facilitate the adoption of a forward-looking and multifunctional approach, raise the managers’ environmental commitment and encourage employees’ involvement with environmental management.”

Further, Adams and McNicholas (2007) found that lack of time, resources and managers’ lack of knowledge and experience inhibits the SR process. Application of SR requires a large commitment of resources (Lamberton 2005). Additional money and resources are necessary to compile sustainability performance data into a public report (Park and Brorson 2005). Prior research found that large companies initiate the SR. For example, Solomon and Solomon (2006) found that larger institutes have the ability to initiate social, ethical and environmental engagement as they have more resources. Further, prior studies found that there is a positive relationship between company size
and the amount of environmental disclosures (Deegan and Gordon 1996). This may be due to the availability of resources in large companies which would facilitate SR.

If the reporting team works closely with the right personnel throughout the organization, and senior management is supporting the process, others within the organization will be motivated to support the reporting process (Owen 2002). Wilmhurst and Frost (2001) argue that senior management should take a leadership role to adopt environmental accounting within the corporate environmental management system. Frost and Wilmhurst (1996) suggest that senior management should be involved in environmental management to minimise corporate environmental impacts. Cooperation between environmental, social and accounting staff is necessary to facilitate SR. It is necessary to form independent inter-disciplinary sustainability teams for reporting (Lamberton 2005). Improvements in sustainability performance cannot be implemented if there is a lack of communication between members of the SR team and other internal and external stakeholders (Adams and McNicholas 2007).

In addition, SR data capturing methods are broad, varied and unreliable due to its infancy stage. Quantitative and qualitative tools are necessary to measure the performance for reporting purposes (Lamberton 2005). Introducing an internal reporting system for environmental and sustainability data collection and analysis has been found to be a challenging task for many organizations in which managers had an intention to engage in SR (Park and Brorson 2005).

As stated above, managers have to face a number of barriers, constraints and obstacles, which limit the control they possess and their intention to engage in SR. This argument is supported by Dowling (2007), Glandon (2003), Flannery and May (2000) and Weidman et al. (2010) who found that perceived behavioural control influenced behavioural intention.

Based on the above analysis, it is hypothesised that managers’ perceived behavioural control is an antecedent of their intention to engage in SR:

\[ H6 - \text{There is a positive relationship between managers' perceived behavioural control over SR and their intention to engage in SR.} \]
According to the TPB, a person’s intention to perform a given behaviour is a central factor of the theory (Ajzen 1991). Intention captures the motivational factors that influence behaviour, such as how much an effort people are planning to exert, in order to perform the behaviour. The stronger the intention to engage in behaviour, the more likely should be its performance (Ajzen 1991). Ajzen (1985; 2002b; 2006a; 2006b) suggests that intention is assumed to be the immediate antecedent of behaviour. According to Ajzen and Fishbein (1980), an appropriate measure of intention provides an accurate prediction of behaviour. That is, when appropriately measured, intention accounts for an appreciable proportion of variance in behaviour (Ajzen 2005).

There have been relatively few empirical organizational level accounting and environmental behavioural studies testing the relationship between intention and behaviour. For example, Weidman et al. (2010), Glandon (2003), Cordano and Frieze (2000) and Flannery and May (2000) did not test the relationship between intention and behaviour. On the other hand, Dowling (2007) found that intention determined the behaviour.

Therefore, the next hypothesis predicts that managers’ SR intention will lead to corporate SR behaviour:

\[ H7 - \text{There is a positive relationship between managers' intention to engage in SR and corporate SR behaviour.} \]

The TPB assumes that factors such as demographic characteristics have no direct effect on behaviour of interest and do not constitute an integral part of the TPB, but are instead considered to be external variables/background factors. These background factors, however, may influence a person’s intention and behaviour indirectly by affecting behavioural, normative and control beliefs (Ajzen and fishbein 1980; Ajzen 1985; 1991; 2011). Ajzen (2011) suggests that “with the aid of the TPB it becomes possible to examine why a given background factor influences behaviour by tracing its effects via the more proximal antecedents of the behaviour.”\(^\text{11}\)

Hines et al. (1987) found that highly educated individuals were slightly more likely to engage in responsible environmental behaviour than less educated individuals in their

meta-analysis. Whatley (2009) emphasises the importance of integrating sustainability frameworks and theories into the management curriculum to provide the necessary mental state to help create sustainable business practices. Sobczak et al. (2006) found that the type of higher education pursued has the most significant impact on managers’ perceptions of the corporate social responsibility (CSR). This study highlights the importance of embedding CSR courses into the curriculum to raise the awareness of social and environmental issues among future managers. While these studies highlight the relationship between education and SR, they did not specifically examine its effect on beliefs.

Other prior literature explains the role of education in explaining and changing managers’ belief systems (see for example, Quinn and Wennes 2008; Sobczak et al. 2006; Ali and Schaupp 2001). Ali and Schaupp (2001) found that managers whose major area of education is in the social sciences, humanities, fine arts, or business administration had a stronger commitment to the Marxist-related belief system than those majoring in engineering and the science. In addition, through education and training, environmental awareness of new employees can be improved (Gray and Collison 2002). Monaghan and Cervero (2006) point out that training helps individuals to change their attitude and beliefs in order to change their behaviour.

Given the findings of prior studies regarding the positive relationship between level of education and managers’ beliefs, this study predicts that managers’ level of education positively influences the SR beliefs of managers. Therefore, the following hypotheses are put forward:

\[ H8a \] \textit{There is a positive relationship between managers' level of education and their behavioural beliefs regarding SR.}

\[ H8b \] \textit{There is a positive relationship between managers' level of education and their normative beliefs regarding SR.}

\[ H8c \] \textit{There is a positive relationship between managers' level of education and their control beliefs regarding SR.}

Table 3.1 provides a summary of the hypotheses developed for the present study.

\[ \text{\textsuperscript{12}} \text{Marxist-related belief system notes that productive activity is basic to human fulfillment.} \]
Table 3.1: Summary of the Hypotheses

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Independent Variable (Variable 1)</th>
<th>Dependent Variable (Variable 2)</th>
<th>Predicted Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Behavioural Beliefs</td>
<td>Attitude</td>
<td>Positive</td>
</tr>
<tr>
<td>H2</td>
<td>Normative Beliefs</td>
<td>Subjective Norm</td>
<td>Positive</td>
</tr>
<tr>
<td>H3</td>
<td>Control Beliefs</td>
<td>Perceived Behavioural Control</td>
<td>Positive</td>
</tr>
<tr>
<td>H4</td>
<td>Attitude</td>
<td>Intention</td>
<td>Positive</td>
</tr>
<tr>
<td>H5</td>
<td>Subjective Norm</td>
<td>Intention</td>
<td>Positive</td>
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<tr>
<td>H6</td>
<td>Perceived Behavioural Control</td>
<td>Intention</td>
<td>Positive</td>
</tr>
<tr>
<td>H7</td>
<td>Intention</td>
<td>SR Behaviour</td>
<td>Positive</td>
</tr>
<tr>
<td>H8a</td>
<td>Level of Education</td>
<td>Behavioural Beliefs</td>
<td>Positive</td>
</tr>
<tr>
<td>H8b</td>
<td>Level of Education</td>
<td>Normative Beliefs</td>
<td>Positive</td>
</tr>
<tr>
<td>H8c</td>
<td>Level of Education</td>
<td>Control Beliefs</td>
<td>Positive</td>
</tr>
</tbody>
</table>

Figure 3.2 illustrates the proposed conceptual framework of SR intention formation and behaviour based on Ajzen’s (2006a) TPB, which will be utilised to investigate the factors influencing managers’ intention to engage in SR and corporate SR behaviour.
Figure 3.2: The Conceptual Framework of SR Intention Formation and Behaviour

Source: Based on Ajzen's (2006a) TPB
3.4 Chapter Summary

This chapter discussed the TPB, the theoretical framework used in this study to understand the psychological factors influencing managers' intention to engage in SR and corporate SR behaviour. The TPB is a well-established theory in the psychological literature and deals with behaviour over which people have incomplete control to exercise its power to perform the behaviour. Based on the TPB and environmental, social and sustainability accounting literature, a number of testable hypotheses were developed to investigate the factors influencing managers' intention to engage in SR and corporate SR behaviour. The hypotheses of the study were developed within the TPB and also by considering the influence of an external variable (managers' level of education) on SR behaviour. The conceptual framework of SR intention formation and behaviour was then proposed based on Ajzen's (2006a) TPB The next chapter (Chapter Four) discusses the research method that will be utilised to collect data to test the hypotheses developed in this chapter.
CHAPTER FOUR

RESEARCH METHOD

4.1 Introduction

This chapter outlines the research method used to collect data and to test the research hypotheses. A mixed method approach was utilised in this study. That is, data was collected using a questionnaire survey and semi-structured interviews. This chapter describes the steps involved in developing the questionnaire survey and the semi-structured interview protocol. The pre-testing of the survey, response rate and demographic information will also be discussed. It further discusses the covariance-based structural equation modelling techniques, the Partial Least Squares (PLS) technique and the use of computer aided qualitative data analysis software.

The remainder of this chapter proceeds as follows. Section 4.2 describes the research design while Section 4.3 discusses the development of the questionnaire instrument. The pre-testing of the instrument and details of the survey data collection, including response rate and demographic information, will be discussed in Sections 4.4 and 4.5 respectively. This is followed by Section 4.6 which discusses the multivariate modelling techniques; these are covariance-based structural equation modelling and the PLS technique and justification for using the PLS technique for this study. The next three sections discuss the development of the semi-structured interview protocol (Section 4.7), data collected through semi-structured interviews (Section 4.8) and use of computer aided qualitative data analysis software (Section 4.9). The final section summarises the chapter.

4.2 Research Design

This study employed a mixed method to collect data. "Mixed method research combines at least one qualitative and at least one quantitative component in a single research project or program" (Bergman 2008, p.1). Most of the literature in the area of environmental, social and SR has employed either content analysis of annual reports,
interviews or questionnaire surveys. Only a minute number of studies have used the mixed method, despite Bergman (2008, p.1) suggesting that \textit{"mixed method research: has experienced a tremendous increase in popularity in the social, behavioural and related sciences in recent years."}

This study was conducted in two stages, using both quantitative and qualitative methods of data collection. A mixed method involving questionnaire and semi-structured interviews provides multiple sources of evidence. This method was also used to improve the validity of results (Tashakkori and Teddlie 2003; Hammersley 2008).

In the first stage, data was collected through a paper-based and web-based questionnaire survey. The potential respondents were given the option of completing the web-based or paper-based survey for their convenience. Dillman (2000) states that the use of new methods of self-administered surveys such as electronic mail, the World Wide Web and touch-tone data entry are gaining rapid acceptance. He further states that mixed mode surveys improve response rates and coverage errors.

In the second stage, data was collected through semi-structured interviews. The participants of the semi-structured interviews comprised a mix of managers from Sri Lankan companies: that is, top and middle level managers from listed and non-listed companies, involved in SR and those not involved in SR.

Ethical clearance was obtained from the research ethics committee of the Australian National University to conduct the survey and semi-structured interviews. The respondents of the survey were assured that all data collected would be treated in an anonymous manner. The interview participants were assured that all audio recordings would be treated in a confidential manner. Their survey and interview participation was entirely voluntary. Both questionnaire survey and interviews were conducted in English, thus eliminating the need for translation.

4.3 Development of Questionnaire Survey Instrument and Measures

A questionnaire survey was designed to measure the constructs of interest, including SR intention and SR behaviour of Sri Lankan companies, the antecedents of the behavioural
intention and also the underlying determinants of attitude, subjective norm and perceived behavioural control (behavioural, normative and control beliefs respectively). The TPB was used as a guide for the development of the questionnaire survey instrument of this study. In social science research, the measurement of variable is often derived from the theory. Theory plays an important role in the development of multi-item measurement scales (DeVellis 2003).

Ajzen (2006a) notes that it is important to follow the principle of compatibility when developing TPB questionnaires. The correlation between variables will be high when the variables are assessed at a compatible level. High correlation between variables will lead to better prediction of the behaviour. The principal of compatibility requires that all the measures of the theoretical constructs involve exactly the same elements. These elements are target, action, context and time (TACT), whether defined at a very specific or at a more general level (Ajzen and Fishbein 2005). The generality or specificity of each element depends on the measurement procedures used (Ajzen 2005). TACT elements contribute to the development of the measures in a consistent manner (Ajzen 2006a). It enhances the degree of correspondence between the theoretical constructs (Ajzen and Fishbein 1980). To the extent that measures used to assess theoretical constructs comply with the principle of compatibility, constructs should correlate highly with each other (Ajzen and Fishbein 2005; Ajzen 2005). For example, prior research shows that specific behaviour can be predicted well from compatible measures of attitude toward the behaviours in question. That is, correlation between attitudes and behaviour were substantial only when these variables were assessed at compatible levels of specificity or generality (Ajzen and Fishbein 2005).

In this study, when developing measures of the theoretical constructs (e.g. beliefs, attitude, subjective norm, perceived behavioural control, intention and behaviour), the constructs were defined according to the following TACT elements: a group of managers indicate their intention to engage in SR and corporate SR behaviour (action), in annual reports or standalone environmental/social/sustainability reports (target), in Sri Lankan companies (context). It is assumed that companies will increase the practice of SR over time (time). However, the above definition of TACT elements represents the guiding principle for the researcher; this was not explained in the questionnaire itself except for the action element (SR behaviour) as other elements were defined at a more general level due to the nature of this study.
As explained in Chapter Three, Ajzen (2006a) suggests that human action is guided by behavioural beliefs, normative beliefs, and control beliefs. It is necessary to identify beliefs that are specific to the situation, for different behaviours and different research populations. Behavioural, normative and control beliefs can be identified through pilot work (formative stage of research) by eliciting beliefs from a representative sample of the population (Ajzen and Fishbein 1980; Ajzen 1985; 2006a). A list of most commonly held salient beliefs in the research population, identified from the formative stage of research, should be included in the final questionnaire (Ajzen 2006a).

In this study, as the formative stage of research, beliefs were identified from the literature in the area of environmental, social and sustainability accounting and included in the final questionnaire. The present study deviated from the suggested approach to the formative stage of research due to practical reasons relating to logistic and resource constraints: the researcher was based in Australia, not in Sri Lanka, and the scarcity of resources did not permit the researcher to travel overseas to conduct interviews to elicit managers’ beliefs before preparing the questionnaire survey. However, the questionnaire was pre-tested before being sent to potential respondents and the beliefs incorporated in the final questionnaire were further validated during the semi-structured interviews (stage two of the study).

The questionnaire survey was prepared both in a web-based (online via the Australian National University’s polling system, APOLLO) version and paper-based (mail-out) version for the convenience of the respondents and to improve the response rate (Dillman 2000). The following section describes the development of the questionnaire for the present study. A copy of the survey instrument appears in Appendix 2.

4.3.1 Attitude towards the Behaviour

Attitude towards a behaviour is defined as “a person’s overall evaluation of performing the behaviour in question” (Ajzen 2006a, p.5). Semantic differential is most commonly used to measure attitude towards the behaviour (Osgood et al. 1957; Ajzen and Fishbein 1980; Ajzen 2006a). Four adjectives relevant to SR were selected from the literature (e.g. Osgood et al. 1957; Glandon 2003; Ajzen 2006a) and included in the questionnaire to measure the attitude towards SR (See Appendix 2, Question 1, first section).
Ajzen (2006a, p.5) states that, "empirical research has shown that overall evaluation often contains two separable components. One component is instrumental in nature, represented by such adjective pairs as valuable–worthless, and harmful–beneficial. The second component has a more experiential quality and is reflected in such scales as pleasant–unpleasant and enjoyable–unenjoyable." According to Ajzen and Driver (1992), performance of an activity may provide instrumental benefits and may also be associated with moods and emotions (experiential quality). These two types of evaluative reaction can be independent of each other. For example, a manager may believe that SR has important benefits in terms of the value it brings to the company by satisfying stakeholder demand for information (instrumental quality), and, at the same time, may experience the reward it brings to the company (experiential quality). Ajzen (2011b) notes that strong predictions can be obtained when the two types of attitudes (instrumental and experiential quality) were combined into a single measure. Following Ajzen (2006a) and Ajzen and Driver (1992), the questionnaire included the following items which capture these qualities.\(^{13}\)

- it is valuable for my company to engage in SR’ (instrumental quality);
- it is rewarding for my company to engage in SR’ (experiential quality); and,
- it is meaningful for my company to engage in SR (experiential quality).

Ajzen (2006a) further notes that the good–bad scale tends to capture overall evaluation very well. Therefore, the adjective ‘good’ was included as an item to measure attitude in the questionnaire to capture the overall evaluation. The item is:

- it is good for my company to engage in SR.

Multi-item scales are used because psychological constructs such as attitude cannot be adequately captured by a single rating scale or single question. Attitude rating scales can also be based on Likert-type scales (Peterson 2000). A seven-point Likert scale (Likert 1932) was used to measure attitude: a higher number represents a favourable evaluation. At the same time the seven-point Likert scales helped to simplify the task of the respondents (Dillman 2000).

\(^{13}\) The weighting of instrumental and experiential items is not informed by the literature, which only recommends including both types of items, as well as the ‘good–bad’ scale which tends to capture overall evaluation when developing the questionnaire (Ajzen 2006a).
4.3.2 Subjective Norm

Fishbein and Ajzen (1975, p.401) define "a person's subjective norm [as] his belief that important others think he should or should not perform a given behaviour." Subjective norm items with an injunctive quality (i.e. whether important others approve or disapprove behaviour) typically have low variability because important others typically approve the desirable behaviour and disapprove the undesirable behaviour. To overcome this problem, descriptive quality items (i.e. whether important others themselves perform the behaviour) should be included in the scale (Ajzen 2006a). In the questionnaire, both injunctive and descriptive items, which have a high internal consistency, should be included as a measure of subjective norm. High internal consistency confirms that the item selected assesses the same underlying construct (Ajzen 2006a). The important referents/stakeholders related to SR were identified from the literature (e.g. Tilt 1994; Medley 1997; Belal and Owen 2007; Adams and Whelan 2009; O'Dwyer 2003b; O'Dwyer 2002). The following two items which exhibited an injunctive quality were included in the questionnaire:

- most of my company’s stakeholders (shareholders, employees, community, etc.) think that my company should engage in SR; and,

- most of the internal stakeholders (employees and management) would approve my company engaging in SR.

The following two items of a descriptive quality were also included in the questionnaire:

- most organizations, whose opinions are valued by my company, engage in SR; and,

- many companies similar to my company engage in SR.

A seven-point Likert scale was used, with a higher number representing a favourable evaluation. These items are shown in Appendix 2, Question 1, fourth section.
4.3.3 Perceived Behavioural Control

Perceived behavioural control refers to the ease or difficulty of performing the behaviour and it reflects the past experience and expected constraints or obstacles (Ajzen 1988; 1991; 2006a). Items which capture people's confidence as to their capability of performing the behaviour, and items which capture the managers' belief on controllability over the behaviour with a high internal consistency, should be included as measures of perceived behavioural control (Ajzen 2006a). Four perceived behavioural control items relevant to SR were selected from the literature (e.g. Glandon 2003; Ajzen 2006a) to measure the perceived behavioural control towards SR. They represent items of self-efficacy (capability) and controllability (Ajzen 2006a). The following two items exhibit self-efficacy (capability):

- it is easy for my company to engage in SR; and,
- it is possible for my company to engage in SR.

The following two items exhibit controllability:

- the decision to engage in SR is under my company's authority; and,
- the decision to engage in SR is under my company's control.

A seven-point Likert scale was used, with a higher number representing a favourable evaluation. These items are shown in Appendix 2, Question 1, second section.

4.3.4 Intention

Behavioural intention is a person's subjective probability that he/she will perform a particular behaviour (Fishbein and Ajzen 1975). All intention items shown in the questionnaire should have acceptable psychometric qualities. That is, at the very least, intention items should correlate with each other and thereby should show high internal consistency (Ajzen 2006a). Four intention items relevant to SR were selected from the literature (e.g. Glandon 2003; Ajzen 2006a) and included in the questionnaire for measurement of intention to engage in SR. These items were:
• my company is committed to engage in or continue SR;
• my company plans to engage in or continue SR;
• my company has the intention to engage in or continue SR; and,
• my company is willing to engage in or continue SR.

A seven-point Likert scale was used, with a higher number representing a favourable evaluation. These items are shown in Appendix 2, Question 1, third section.

4.3.5 Behavioural Beliefs Composite

Questionnaire items for behavioural beliefs were developed by reference to the advantages and disadvantages of engaging in SR which characterise the behavioural outcomes (Ajzen 2006a). Based on the literature (e.g. Adams 2002; Adams 2008; Adams and Frost 2008; Park and Brorson 2005; Herzig and Schaltegger 2006; Adams 2004b; Daub 2007), 16 advantages and disadvantages to engage in SR were identified. For example, one of the advantages of SR is that SR will improve the reputation of the company. Respondents were asked to rate their agreement to this anticipated outcome, and the desirability of such an outcome. Behavioural beliefs about anticipated (likely) consequences/outcomes of SR and outcome evaluations were assessed using seven-point Likert scales. A higher number represents a favourable perception (see Appendix 2, Question 2 and 3).

Behavioural belief is measured by a cross-product of the beliefs about anticipated consequences/outcomes of SR (b) and outcome evaluation (e) for each behavioural belief item (consequence of SR). The final measure of behavioural belief was the sum of cross-product for all of the consequences. Ajzen (1991, p.191) states that “a person’s attitude is directly proportional to this summative belief index.” Behavioural beliefs are the underlying determinant of attitude, a relationship expressed by Equation 1:

\[ A_B \propto \sum b_i e_i \]  \hspace{1cm} (Equation 1)

Where \( A_B \) stands for attitude toward behaviour \( B \), \( b_i \) is the belief (subjective probability) that performing behaviour \( B \) will lead to outcome \( i \), \( e_i \) is the evaluation of outcome \( i \),
and the resulting products are summed over all accessible behavioural beliefs (Ajzen and Fishbein 1980; Ajzen 1988, 2006a).

4.3.6 Normative Beliefs Composite

The study examines whether managers were willing to engage in SR. The social pressure that managers may experience when deciding whether to engage in SR is a multiplicative function of how he/she thinks stakeholders (social referents) would approve or disapprove the behaviour and how willing he/she is to comply with each of the stakeholder’s (referent’s) wishes. Most frequently mentioned individuals or groups are the salient referents (Ajzen and Fishbein, 1980). The logic of assessment of normative beliefs is similar to that of behavioural beliefs.

Drawing from the literature (e.g. Tilt 1994; Deeg an and Gordon 1996; Medley 1997; Neu et al. 1998; Campbell 2000; Adams 2002; Adams and Zutshi 2004; Buhr 2002; Belal and Owen 2007; Tilt 2007; Spence 2009; O’Dwyer 2003b; O’Dwyer 2002), 10 important stakeholders relevant to SR were identified. A seven-point Likert scale was used to measure respondents’ belief about identity and expectations of stakeholders and their motivation to comply with the expectations of each stakeholder. A higher number represents a favourable evaluation (see Appendix 2, Questions 4 and 5).

Normative belief is measured by a cross-product of the beliefs about identity and expectations of stakeholders towards engaging in SR (n) and motivation to comply with those stakeholders (m) for each normative belief item (stakeholder). The final measure of normative belief was the sum of cross-product for all of the stakeholders. Ajzen (1991) states that subjective norm is directly proportional to this summative normative belief index. Normative beliefs are the underlying determinant of subjective norm, a relationship expressed by Equation 2:

\[ S_N \propto \sum n_i m_i \]  
(Equation 2)

Where \( S_N \) is the subjective norm, \( n_i \) is the normative belief concerning referent \( i \), \( m_i \) is the person’s motivation to comply with referent \( i \), and the resulting products are summed over all accessible normative beliefs (Ajzen 1988).
4.3.7 Control Belief Composite

The examination of the strength and power of different control beliefs can be viewed as factors facilitating or impeding performance of the behaviour (Ajzen 2006a). Based on the literature (e.g. Bebbington et al. 1994; Deegan et al. 1996; Campbell 2000; Adams 2002; Adams and McNicholas 2007; Adams and Zutshi 2004; Buhr 2002; Lodhia 2003; Schaltegger et al. 2006; Martin and Hadley 2008), 14 factors facilitating or impeding SR were identified. A seven-point Likert scale was used to measure control belief strength and control belief power. A higher number represents a favourable evaluation. Control beliefs about the presence of factors that may facilitate or impede SR and control belief power were then assessed (see Appendix 2, Questions 6 and 7).

Control belief is measured by a cross-product of the belief about the presence of factors that may facilitate or impede performance of SR (c) and perceived power of the factor (p) for each control belief item (control factor). The final measure of control belief was the sum of cross-product for all of the control factors. Ajzen (1991) states that perceived behavioural control is directly proportional to this summative control belief index. Control beliefs are the underlying determinant of perceived behavioural control, a relationship expressed by Equation 3:

\[ PBC \propto \sum c_i p_i \]  

(Equation 3)

Each control belief \( c_i \) is multiplied by the perceived power \( p_i \) of the particular control factor to facilitate or inhibit performance of the behaviour, and the resulting products are summed over all accessible control beliefs to produce the perception of behavioural control (PBC) (Ajzen 1991).

4.3.8 SR Behaviour

Ajzen (2006a, p.3) states that "manifest indicators of the behaviour are obtained either through direct observation or by means of self-report," and he further argues that self-reports are more easily obtained even though validity is not always assured. To measure SR behaviour, respondents were asked to indicate the emphasis that their company currently placed on each of the three areas of SR, namely, environmental, social and
economic reporting aspects. A seven-point Likert scale was used, with a higher number representing high level of SR behaviour (see Appendix 2, Question 8).

Ajzen (2006a) argues that this measure of behaviour is not an ideal measure as it relies on the self-reporting of respondents. Another possibility could be to utilise content analysis of the sustainability section of annual reports or separate sustainability/environmental/social reports of the respondents’ companies to identify the level of SR. However, the content analysis method could not be used in this study as anonymity of response impeded the identification of respondents with particular companies.

4.3.9 The Level of Education of the Management Team

The respondents were asked to indicate the highest level of qualification achieved by members of the management team of their company. Twelve categories of top and middle level managers were included in this question (see Appendix 2, Question 9). This question was used to measure the influence of the managers’ levels of education on SR as an external variable to the TPB. The average value of top and middle level managers’ levels of education was used in the analysis, as the engagement in SR can be considered as a collective decision of the top and middle level managers.

4.3.10 Company Demographic Information

Company demographic questions were included in the questionnaire to gather company information regarding publication of a separate sustainability/environmental/social report (Question 10), industry sector (Question 11), type of company (Question 12), number of employees of the company (Question 13), and annual sales turnover (Question 14) (see Appendix 2, Questions 10–14). Question 10 was intended to find out the SR trends within companies. This question was followed by a question (Question 11) on industry sector to find out whether respondents’ companies represent an appropriate cross-section of industries.
Question 12, 13 and 14 were included to find out the company type (listed or non-listed) and size in terms of number of employees and annual sales turnover. This information was used as controls when testing the conceptual framework of the study as explained below.

4.3.11 Control Variables

Three control variables were included when testing the conceptual framework of this study to minimise the chances of model misspecification. They are company size (measured by annual sales turnover and number of employees), environmentally sensitive industries, and company listing on the Colombo Stock Exchange (CSE) (see Appendix 2, Questions 12–14). These control variables were selected because prior research shows that large companies (e.g. Singh and Ahuja 1983; Hackston and Milne 1996; Choi 1999; Williams 1999; Imam 2000; Adams 2002; Patten 1992) and companies which are in environmentally sensitive industries (e.g. Deegan and Gordon 1996) are heavily engaged in environmental and social disclosures. Further, environmental and social disclosures vary across company sector type (e.g. Hackston and Milne 1996; Tsang 1998; Choi 1999; Williams 1999; Newson and Deegan 2002; Campbell et al. 2003; Gao et al. 2005; Martin and Hadley 2008). Prior studies typically use annual sales turnover and number of employees to measure company size (e.g. Roberts 1992; Neu et al. 1998).

Based on prior studies, the chemical and pharmaceutical, construction and engineering, and power and energy sectors were classified as environmentally sensitive industries (e.g. Alciatore and Dee 2006; Karim et al. 2006; Freedman and Stagliano 1995).

In addition to company size and environmentally sensitive industries variables, the company listing on the CSE variable was selected as a control variable for the following reason. Listed companies are subject to different legal framework and regulatory environment (e.g. the CSE rules and regulations) and these companies have a different exposure that may create pressures internally for companies to do things differently, including SR. They may be more inclined to SR issues due to greater public scrutiny and greater expectation for accountability. Therefore, it is assumed that listed
companies may be more engaged in SR than non-listed companies, even though SR is a voluntary reporting practice in Sri Lanka.

For the purpose of analysis, the size variable will be log-transformed because the independent variables had a skewed distribution. The other two control variables (i.e. environmentally sensitive industries and company listing on the CSE) will be measured as dummy variables.

4.3.12 Respondent Demographic Information

In the last section, respondent demographic questions were included in the questionnaire to find out the respondents’ demographic and background information. Dillman (2000) suggests to minimise asking personal information that could be regarded as intrusive. Data collected included job title, the highest level of academic qualification, professional qualifications, religious background, ethnic group, age, gender, number of years in the current position and number of years working in the current company (see Appendix 2, Questions 15–23). This demographic information will be further discussed in Section 4.5 below.

The following table shows the TPB variables/constructs measured by each question included in the questionnaire.

Table 4.1: Variables/Constructs Measured

<table>
<thead>
<tr>
<th>Question Number of the Questionnaire</th>
<th>Variable/Construct Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 – First set of items</td>
<td><em>Attitude</em> towards engaging in SR</td>
</tr>
<tr>
<td>Q1 – Second set of items</td>
<td><em>Perceived behavioural control</em> towards engaging in SR</td>
</tr>
<tr>
<td>Q1 – Third set of items</td>
<td><em>Intention</em> to engage in SR</td>
</tr>
<tr>
<td>Q1 – Fourth set of items</td>
<td><em>Subjective norm</em> towards engaging SR</td>
</tr>
<tr>
<td>Q2</td>
<td>Beliefs about anticipated (likely) consequences/outcomes of SR (Behavioural belief strength - ‘b’)</td>
</tr>
<tr>
<td>Q3</td>
<td>Evaluation of the consequences/outcomes of SR (Outcome evaluation – ‘c’)</td>
</tr>
<tr>
<td>Question Number of the Questionnaire</td>
<td>Variable/Construct Measured</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>The sum of the cross-products of items in Q2 and Q3</td>
<td><strong>The behavioural beliefs composite</strong>&lt;br&gt;Belief strength ((b)) is multiplied by outcome evaluation ((e)), and the resulting products are summed over all accessible behavioural outcomes&quot; (Ajzen 2006a, p.10).&lt;br&gt;Behavioural belief index = (\sum b_i e_i)&lt;br&gt;(b_i) is the belief (subjective probability) that performing behaviour will lead to outcome (i); (e_i) is the evaluation of outcome (i); and the resulting products are summed over all accessible behavioural beliefs (Ajzen 1988; 2006).</td>
</tr>
<tr>
<td>Q4</td>
<td>Beliefs about identity and expectations of stakeholders (salient social referents) towards engaging in SR (Normative belief strength - 'n')</td>
</tr>
<tr>
<td>Q5</td>
<td>Motivation to comply with expectations of each stakeholder (Motivation to comply - 'm')</td>
</tr>
<tr>
<td>The sum of the cross-products of items in Q4 and Q5</td>
<td><strong>The normative beliefs composite</strong>&lt;br&gt;This is the sum of the cross-products of belief about identity and expectations of stakeholders ((n)) and motivation to comply with expectations of each stakeholder ((m)).&lt;br&gt;Normative belief index = (\sum n_i m_i)&lt;br&gt;(n_i) is the normative belief concerning referent (i); (m_i) is the person’s motivation to comply with referent (i); and the resulting products are summed over all accessible normative beliefs (Ajzen 1988).</td>
</tr>
<tr>
<td>Q6</td>
<td>Beliefs about the presence of factors that may facilitate or impede engaging in SR (Control belief strength - 'c')</td>
</tr>
<tr>
<td>Q7</td>
<td>Perceived power of the factors that may facilitate or impede engaging in SR (Control belief power - 'p')</td>
</tr>
<tr>
<td>The sum of the cross-products of items in Q6 and Q7</td>
<td><strong>The behavioural control beliefs composite</strong>&lt;br&gt;This is the sum of the cross-products of beliefs about the presence of factors that may facilitate or impede to engage in SR ((c)) and perceived power of these factors ((p)).&lt;br&gt;Control belief index = (\sum c_ip_i)&lt;br&gt;Each control belief (c_i) is multiplied by the perceived power (p_i) of the particular control factor to facilitate or inhibit performance of the behaviour, and the resulting products are summed over all accessible control beliefs (Ajzen 1991).</td>
</tr>
<tr>
<td>Q8</td>
<td><strong>SR behaviour</strong> of the respondent’s company</td>
</tr>
<tr>
<td>Q9</td>
<td>The level of <strong>education</strong> of the management team</td>
</tr>
<tr>
<td>Q10–14</td>
<td><strong>Company demographic</strong> information</td>
</tr>
<tr>
<td>Q15–23</td>
<td><strong>Respondent demographic</strong> information</td>
</tr>
</tbody>
</table>
4.4 Pre-testing of the Questionnaire Survey Instrument

After formulating the questions, the survey instrument was pre-tested. Pre-testing was conducted to increase the validity and reliability of the survey instrument. The use of a convenience sample is the most common approach to questionnaire pre-testing (Peterson 2000). A pre-test of the web-based survey instrument was conducted among 22 academics. Feedback and comments led to revisions, including the elimination of a few non-core questions from the questionnaire. Poor question wording and questionnaire construction can result in measurement error (Dillman 2000). Therefore, comments received were helpful to improve the clarity of the questionnaire by modifying some of the wording and formatting of the questions.

After incorporating the above revisions, the questionnaire was further pre-tested among a sample of 20 top level managers of Sri Lankan companies before posting or e-mailing it to the sample of managers selected for the survey. Perhaps not surprisingly, managers felt that the survey was a little long; however, this time no revisions were made as all the questions in the questionnaire were required to measure the TPB constructs and other demographics. Twenty to 30 minutes of participants’ time was required to complete the questionnaire survey. The final survey instrument was then e-mailed or posted to the sample of Sri Lankan managers.

4.5 Data Collection through Questionnaire Survey

4.5.1 Research Sample and Respondents

The questionnaire survey examined the factors influencing managers’ intention to engage in SR and corporate SR behaviour. Accordingly, the survey targeted those within companies who were involved in setting the sustainability vision for the company. The choice of managers as a representative sample was consistent with Adams and McNicholas’s (2007) finding that managers’ perceptions influenced SR and the level of accountability.
The sample of respondents was selected from three data sources, as follows:

- All 234 Sri Lankan companies listed on the Colombo Stock Exchange (CSE) as at 1\textsuperscript{st} January 2009.

- 416 Non-listed companies were selected out of 2134 companies included in the 2008 Kompass Sri Lanka Directory. Of these 2134 companies, only 1258 companies had provided the number of employees of the company, which was required for the selection criteria. When selecting this sample, consideration was given to companies which have 50 or more employees. This selection was based on the assumption that small companies may be less aware of SR than large companies, as there is no requirement for mandatory SR for companies in Sri Lanka. There were 474 companies with more than 50 employees; however, 47 listed companies, 10 statutory/state bodies, and a trade union were excluded. Therefore, the balance of 416 companies was selected as part of the sample from the 2008 Kompass Sri Lanka Directory.

- 309 companies in commercial operation in free trade zones/parks, approved by the Board of Investments (BOI) of Sri Lanka as at 1\textsuperscript{st} January 2009 were also considered. There were a total of 315 companies in this data source; however, six of these companies were excluded as these companies were under the same management as other companies in this group.

Information related to company addresses, telephone and fax numbers, and e-mail addresses of managers was readily available from the above data sources. The companies spread across a diverse number of industries, company sizes and company ownership characteristics. The person with the most senior position/highest job title in top management was selected for inclusion in the sample for each company. As such, the Chief Executive Officers (CEOs)/Managing Directors (MDs) of the above stated companies were selected as the potential respondents. By virtue of their role and responsibilities within their companies, these decision makers typically have a thorough knowledge of their organizations. The final sample included 959 potential respondents.
4.5.2 Procedure

The questionnaire was printed in colour as a small booklet, as recommended by Dillman (2000) (refer Appendix 3). Each booklet consisted of eight pages. The Australian National University (ANU) logo and title of the questionnaire survey were printed on the cover page of the survey booklet to create a positive first impression and for legitimacy (Dillman 2000). The first page of the booklet provided brief instructions to potential respondents followed by a definition of SR. This was followed by questions comprising a multi-item scales. The final part was devoted to gathering company and demographic information of respondents. The final page of the questionnaire invited potential respondents to make comments and this page also included an expression of appreciation to respondents. The back cover was left blank. When preparing the questionnaire both qualitative and graphical symbols and arrangements were used to give directions to respondents (Dillman 2000).

A total of 959 questionnaires were initially posted to potential respondents on the 5th of January 2009, personally addressing them along with the invitation (cover) letter, information sheet (describing the importance and other relevant information of the study) (refer Appendices 4.1 and 4.2) and a stamped, self-addressed return envelope as recommended by Dillman (2000). This helped to briefly inform the potential respondents about the purpose of the study, the confidentiality of the data, risks associated with the study and their right to withdraw from participation at any time in the process of this study.

The respondents were given the option of completing the web-based or paper-based questionnaire. The URL of the web-based questionnaire was indicated in the project information sheet and the invitation letter. A personalised e-mail (Dillman 2000), which was similar to the invitation letter and information sheet, was also sent to potential respondents indicating the URL of the web-based survey for their convenience. By clicking on the URL respondents were able to directly access the web-based survey. E-mail reminders were sent to respondents two weeks after the initial mail-out to improve the response rate (Dillman 2000). Informed consent was obtained from respondents by submission of the web-based survey or return of the paper-based questionnaire.
To further enhance the response rate, the researcher met the Chairman of the Board of Investments (BOI) of Sri Lanka to request their institutional support to encourage the CEOs/MDs of 309 companies approved by the BOI to take part in the questionnaire survey. The Chairman of the BOI agreed to send personalised e-mails with his endorsement to this sample with a brief explanation of the purpose and importance of the study, as well as indicating the URL of the web-based survey, stating his support for the present study, and urging respondents to participate in the study.

No cash incentives were offered to respondents. However, as a token of appreciation for respondents’ contribution to the present study, the researcher donated money (Sri Lankan Rupees 5000) to a Sri Lankan temple. This amount was based on the number of returned/submitted questionnaires and used for the purpose of planting trees in Sri Lanka during ‘National tree planting week’ and/or ‘World environment day’. Approximately $0.25 was donated for each completed and returned/submitted surveys by respondents. Respondents were made aware of this beforehand through the information sheet of the survey, invitation letter of the survey and questionnaire survey instrument by including the following statement: ‘as a token of appreciation for your contribution to this study a donation will be made to plant trees in Sri Lanka to combat climate change and deforestation.’ The copies of the invitation letter and information sheet of the survey are shown in Appendices 4.1 and 4.2.

The first mailing of the questionnaire survey was made on the 5th January 2009. To improve the response rate, two weeks later, on the 19th January 2009, reminder letters were sent to 948 participants. After a month’s time, on the 25th of February 2009, a second reminder letter along with another copy of the questionnaire survey, invitation letter and information sheet were sent to participants (copy of these reminder letters are included in Appendices 4.3 and 4.4). Multiple contacts are recommended to improve the response rates of questionnaire surveys administered by e-mail, the web or postal delivery (Dillman 2000). However, resource constraints restricted the ability to telephone individual respondents to encourage their participation in the questionnaire survey.

When developing the web-based survey, the deadline for the last date was set on the 1st of March 2009. However, subsequent to this deadline, additional completed paper-based
surveys were received. Therefore, paper-based responses received till the 20th of April 2009 were accepted to include in the analysis.

4.5.3 Response Rate

Out of the 959 questionnaire surveys distributed, 11 surveys were not delivered. These 11 companies were selected from the 2008 Kompass Sri Lanka Directory. Sixty-seven web-based surveys and 174 paper-based questionnaires were returned by respondents. Twenty-two potential respondents returned the blank survey questionnaire declining to participate in the study, indicating that it was not company policy to respond to questionnaire surveys or indicating their lack of awareness and knowledge about SR. Total responses received were 241; this resulted in a response rate of 26% (see Table 4.2 below). This response rate compares favourably with prior research in a similar area (e.g. in Weidman et al.’s (2010) study, the response rate was 11%).

<table>
<thead>
<tr>
<th>Table 4.2: Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial sample</td>
</tr>
<tr>
<td>Less: Surveys returned to sender</td>
</tr>
<tr>
<td>Companies declined to respond</td>
</tr>
<tr>
<td><strong>Final sample</strong></td>
</tr>
<tr>
<td>Survey received - web-based</td>
</tr>
<tr>
<td>paper-based</td>
</tr>
<tr>
<td><strong>Total responses</strong></td>
</tr>
<tr>
<td><strong>Response rate</strong></td>
</tr>
</tbody>
</table>

The majority of these responses were received in response to the reminders. This response rate was regarded as satisfactory as the questionnaire was lengthy. The researcher attributes this response rate to the reminders, to web-based access to the questionnaire survey, to the institutional support received from the BOI Sri Lanka and professional appearance of the questionnaire survey booklet (Dillman 2000).

Four web-based surveys were eliminated due to incompleteness. There were many missing data in these four responses: 37%, 73%, 88%, and 92% respectively. Another three web-based and a paper-based response were removed from the dataset as these were possible candidates for multivariate outliers (this will be further discussed in
Chapter Five). The total usable responses were 233, consisting of 60 web-based responses and 173 paper responses. This resulted in a usable response rate of 25%.

### 4.5.4 Company and Respondent Demographic Information

Demographic data for the total sample (n=233) of respondents indicates that the respondents’ companies were distributed across different types of industries classified under the CSE industry classification (Table 4.3 below). The manufacturing sector has the highest number of sample companies (69), that is, 29.6% of the sample, followed by the banking, finance and insurance sector (10.7%) and other sectors 10.7% (advertising, auditing, consultancy, shipping etc.). The chemicals and pharmaceuticals, construction and engineering, and power and energy sectors were classified as environmentally sensitive industries (these totalled 28 responses, that is, 12%).

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>69</td>
<td>29.6</td>
</tr>
<tr>
<td>Banking, finance and insurance</td>
<td>25</td>
<td>10.7</td>
</tr>
<tr>
<td>Other (advertising, auditing, consultancy, shipping etc.)</td>
<td>25</td>
<td>10.7</td>
</tr>
<tr>
<td>Diversified holdings</td>
<td>16</td>
<td>6.9</td>
</tr>
<tr>
<td>Construction and engineering</td>
<td>14</td>
<td>6.0</td>
</tr>
<tr>
<td>Plantations</td>
<td>14</td>
<td>6.0</td>
</tr>
<tr>
<td>Hotels and travel</td>
<td>13</td>
<td>5.6</td>
</tr>
<tr>
<td>Information technology</td>
<td>12</td>
<td>5.2</td>
</tr>
<tr>
<td>Beverage, food and tobacco</td>
<td>11</td>
<td>4.7</td>
</tr>
<tr>
<td>Health care</td>
<td>11</td>
<td>4.7</td>
</tr>
<tr>
<td>Chemicals and pharmaceuticals</td>
<td>9</td>
<td>3.9</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>9</td>
<td>3.9</td>
</tr>
<tr>
<td>Power and energy</td>
<td>5</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>233</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Information was also collected on company listing on the CSE and companies publishing a separate report regarding sustainability/environmental/social issues. These variables were coded as dichotomous variables (scores of zero and one). Thirty-two point six per cent (76) of the sample represented the listed companies on the CSE. Seventy-nine point eight per cent (186) of the respondents stated that their company was not publishing a separate report regarding sustainability/environmental/social issues.
Tables 4.4 and 4.5 represent the number of employees and annual sales turnover of respondents’ companies respectively. The average number of employees was 789 and the average annual sales turnover was 14,791 million Rupees (approximately AUD$127 million) per company. The sample included many large, blue chip companies as measured by annual sales turnover.

**Table 4.4: Number of Employees of Respondents’ Companies**

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 50</td>
<td>23</td>
<td>9.9</td>
</tr>
<tr>
<td>51-100</td>
<td>46</td>
<td>19.7</td>
</tr>
<tr>
<td>101-250</td>
<td>50</td>
<td>21.5</td>
</tr>
<tr>
<td>251-500</td>
<td>37</td>
<td>15.9</td>
</tr>
<tr>
<td>501-1,000</td>
<td>28</td>
<td>12.0</td>
</tr>
<tr>
<td>1,001-2,500</td>
<td>19</td>
<td>8.2</td>
</tr>
<tr>
<td>2,501-3,500</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>Over 3,500</td>
<td>26</td>
<td>11.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>233</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

**Table 4.5: Annual Sales Turnover of Respondents’ Companies (in Million Rupees)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 100</td>
<td>29</td>
<td>12.4</td>
</tr>
<tr>
<td>101-500</td>
<td>42</td>
<td>18.0</td>
</tr>
<tr>
<td>501-1,000</td>
<td>24</td>
<td>10.3</td>
</tr>
<tr>
<td>1,001-5,000</td>
<td>34</td>
<td>14.6</td>
</tr>
<tr>
<td>5,001-10,000</td>
<td>14</td>
<td>6.0</td>
</tr>
<tr>
<td>10,001-30,000</td>
<td>29</td>
<td>12.4</td>
</tr>
<tr>
<td>30,001-50,000</td>
<td>29</td>
<td>12.4</td>
</tr>
<tr>
<td>Over 50,000</td>
<td>32</td>
<td>13.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>233</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Respondents held a wide variety of job titles within the top and middle levels of management. Table 4.6 illustrates the diverse range of job titles held by respondents. The most common job titles were Chief Executive Officer and Managing Director. A number of respondents who were holding top positions in the company designated as Director, General Manager and Vice-President were included in the ‘Other’ category. Fifty-six point three per cent (131) of the responses were received from participants that held the top position in the company. The balance of responses was received from middle level management. This is justifiable as both top and middle level management are involved in SR efforts of companies and may be aware and sufficiently knowledgeable to complete the questionnaire.
Table 4.6: Respondents’ Job Titles

<table>
<thead>
<tr>
<th>Title</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top Management</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chairman</td>
<td>9</td>
<td>3.9</td>
</tr>
<tr>
<td>Chief Executive Officer</td>
<td>34</td>
<td>14.6</td>
</tr>
<tr>
<td>Chief Financial Officer/Controller</td>
<td>23</td>
<td>9.9</td>
</tr>
<tr>
<td>Company Secretary</td>
<td>3</td>
<td>1.3</td>
</tr>
<tr>
<td>Managing Director</td>
<td>52</td>
<td>22.3</td>
</tr>
<tr>
<td>Other (4 Directors, 5 General Managers and a Vice-President)</td>
<td>10</td>
<td>4.3</td>
</tr>
<tr>
<td><strong>Middle Level Management</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accountant</td>
<td>21</td>
<td>9.0</td>
</tr>
<tr>
<td>Manager-Communications</td>
<td>11</td>
<td>4.7</td>
</tr>
<tr>
<td>Manager-Environmental/Sustainability</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td>Manager-Human Resources</td>
<td>14</td>
<td>6.0</td>
</tr>
<tr>
<td>Manager-Public Relations</td>
<td>8</td>
<td>3.4</td>
</tr>
<tr>
<td>Other Middle Level Managers</td>
<td>46</td>
<td>19.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>233</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Information was collected on the highest level of academic qualification achieved by the respondents. Fifty-three point six per cent (125) of the respondents had masters degrees, 38.6% (90) had undergraduate degrees and 2.1% (5) held doctoral degrees as their highest level of academic qualification. According to their responses to the survey, these respondents were also qualified in many different disciplines, including accountancy, banking, finance, information technology, law, marketing, engineering, and human resources management.

Information was also collected on respondents’ gender, religion and ethnic group. Of the 233 respondents, 76% (177) were males and the balance 24% (56) females. Seventy per cent (163) of the respondents were Buddhist and 87.6% (204) Sinhalese. Tables 4.7 and 4.8 below provide demographic information with respect to religious background and ethnic group of respondents respectively.
Table 4.7: Respondents’ Religious Background

<table>
<thead>
<tr>
<th>Religion</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buddhist</td>
<td>163</td>
<td>70.0</td>
</tr>
<tr>
<td>Catholic or Christian</td>
<td>39</td>
<td>16.7</td>
</tr>
<tr>
<td>Hindu</td>
<td>10</td>
<td>4.3</td>
</tr>
<tr>
<td>Muslim</td>
<td>16</td>
<td>6.9</td>
</tr>
<tr>
<td>Not applicable</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>233</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Table 4.8: Respondents’ Ethnic Group

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burgher</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>Malay</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>Moor</td>
<td>10</td>
<td>4.3</td>
</tr>
<tr>
<td>Sinhalese</td>
<td>204</td>
<td>87.6</td>
</tr>
<tr>
<td>Tamil</td>
<td>8</td>
<td>3.4</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>233</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

As shown in Table 4.9 below, the majority (i.e. 33%, 77, of respondents) were within the age category of 40–49 years and 26.6% (62) were within the age category of 30–39 years.

Table 4.9: Age of the Respondents

<table>
<thead>
<tr>
<th>Age Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 or under 25 years</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>26–29 years</td>
<td>25</td>
<td>10.7</td>
</tr>
<tr>
<td>30–39 years</td>
<td>62</td>
<td>26.6</td>
</tr>
<tr>
<td>40–49 years</td>
<td>77</td>
<td>33.0</td>
</tr>
<tr>
<td>50–59 years</td>
<td>48</td>
<td>20.6</td>
</tr>
<tr>
<td>60 and 60 plus</td>
<td>19</td>
<td>8.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>233</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The descriptive statistics with respect to respondents’ number of years in their current position and number of years worked in the current company are given in Table 4.10. The respondents’ average number of years in their current position was 6.47 years and the average number of years working in the company was 9.66 years. There is only a minor difference between mean and median values for the both variables.
Table 4.10: Work Experience of Respondents

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Minimum Value</th>
<th>Maximum Value</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of years in current position</td>
<td>1</td>
<td>26</td>
<td>6.47</td>
<td>5.00</td>
<td>4.890</td>
</tr>
<tr>
<td>No. of years working for the company</td>
<td>1</td>
<td>31</td>
<td>9.66</td>
<td>7.00</td>
<td>7.044</td>
</tr>
</tbody>
</table>

The characteristics of the sample indicated that the majority of respondents were experienced, middle-aged, Sinhalese Buddhist males, who were well educated, with academic and professional qualifications.

4.6 Structural Equation Modelling and Partial Least Squares Techniques

The literature review revealed that the studies which applied the TPB framework utilised either hierarchical regression analysis or structural equation modelling (SEM) to analyse data. Hair et al. (2008, p.19) states that “SEM provides the appropriate and most efficient estimate technique for a series of separate multiple regression equations estimated simultaneously.” SEM is capable of incorporating both latent and manifest (observable) variables of a hypothesised model for simultaneous analysis (Byrne 2001; Hair et al. 2008). The underlying theoretical constructs that cannot be measured/observed directly are called latent variables. These latent variables can be represented by measured (observable) variables. Byrne (2001, p.5) suggests that “exogenous latent variables are synonymous with independent variables; endogenous latent variables are synonymous with dependent variables.” SEM assumes that items used to measure latent variables are reflective in nature (Chin 1998b; 2010). SEM takes a confirmatory approach to the data analysis and is capable of assessing or correcting measurement error by providing estimates of error variance parameters (Byrne 2001).

---

14 Reflective items/measures reflect the underlying construct, with the construct causing the observed measures (Hulland 1999). Reflective measures should covary.
The sub-models of SEM model are the structural model which defines the relationships among variables (path model) and the measurement model which enables use of several indicators to measure latent variables incorporating measurement error.

"SEM differs from other multivariate techniques in that it is a covariance structure analysis techniques rather than a variance analysis technique. As a result, SEM focuses on explaining covariance among the variables measured, or the observed sample covariance matrix." (Hair et al. 2008, p.649)

SEM requires a large sample size; also several considerations affect the required sample size, including multivariate normality of data, estimation technique, model complexity, amount of missing data and average error variance among the reflective indicators (Hair et al. 2008). The maximum likelihood estimation method that is commonly used in SEM assumes the variables being examined are multivariate normal and is very sensitive to violations of the normality assumption (Chin 1998a; 2010; Kline 2005).

Chin (2010, p.661) suggests that "more complex models capturing many factors related to attitudes, opinions, and behaviour over time could be difficult to fully capture using covariance based SEM." That is, when the associated number of items increases, the model becomes too complex and it leads to indeterminacy in covariance based SEM.

PLS is an alternative technique of covariance based SEM analysis. However, covariance based procedures are the most dominant approach to SEM (Chin 1998a). Smith and Langfield-Smith (2004) discussed the benefits of using the PLS technique in management accounting research, one of which was the PLS technique’s ability to incorporate non-normally distributed data. The PLS technique specifies relationships in terms of measurement (outer) and structural (inner) models. PLS can identify all recursive models even with single-item, formative and reflective constructs, with a small sample size and minimal assumptions about the characteristics of data. Regression based estimation methods are used in PLS rather than maximum likelihood estimation. The parameter estimates are produced in PLS to maximise the variance explained in the same way as ordinary least squares (OLS) multiple regression. The focus in PLS is on prediction whereas covariance based SEM is more focused on theory

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15 Formative indicators produce/form/cause the latent variable. These indicators are multidimensional in nature (Chin 2010). There can be positive, negative or no correlation between formative indicators of the same construct (Hulland 1999).
testing (Chin et al. 2003; Chin 1998a; Hair et al. 2008). Therefore, the "PLS does not provide a test of theoretical fit" (Hair et al. 2008, p.776). However, the "PLS can be used in a confirmatory sense following a covariance based orientation." (Chin 2010, p.663)

When choosing between the PLS and covariance based SEM the following should be considered: objectives – prediction versus explanation, theoretical constructs such as indeterminate versus defined, epistemic relationships, theory requirements, empirical factors and computational issues such as identification and speed (Chin 2009). In PLS, latent variables are estimated as linear aggregates or components, scores are estimated directly and variance based whereas covariance based SEM has an inherent indeterminacy (Chin 1998b; 2009; 2010). Both in PLS and covariance based SEM, latent constructs will be determined by reflective indicators, and in PLS emergent constructs will be determined by formative indicators; there is greater flexibility in PLS because covariance based SEM works in confirmation mode and expects strong theoretical grounding; PLS requires only ‘soft’ assumptions about the distributional characteristics of the raw data; PLS requires a smaller sample size, estimation is fast, avoids the problem of negative variance estimates and will always identify recursive models, whereas covariance based SEM models ideally need four or more indicators per construct to be over determined; PLS works well with highly complex models whereas covariance based SEM techniques are suitable for small to moderate complex models (Chin 1998a; 2000; 2009; 2010).

This study adopts the PLS technique to analyse the survey data. The justification for using PLS over other covariance based SEM in the present study is provided in the next section.

4.6.1 Justification for Using PLS Over Other Covariance Based SEM

This section highlights the reasons for the use of PLS over covariance based SEM techniques. A number of factors were considered when choosing the PLS technique for data analysis in the present study, including the distribution of data, sample size, model complexity and the nature of the latent variables of the conceptual framework under investigation. PLS has the ability to deal with more complex models with non-normally
distributed data, single indicator measures, both formative and reflective variables and small samples (Chin 1998a; 2000; 2010).

The data in this study are univariate and multivariate non-normal (this will be discussed in Chapter Five in detail). This precludes the use of the SEM technique, which requires normality. However, Kline (2005) discusses four options that can be utilised to avoid bias when dealing with non-normally distributed continuous indicators in SEM. One option is to normalise the variables with transformations and then analyse the transformed data with standard maximum likelihood estimation. Other options are using a corrected normal theory method or using an estimation method that does not assume multivariate normality such as asymptotic distribution free or arbitrary distribution function (ADF) or a normal theory method with nonparametric bootstrapping. However, these options require a very large sample size with thousands of cases for more complex models (Kline 2005).

Given the non-normality of data, the use of single composite measures as behavioural, normative and control beliefs variables, formative and reflective variables, the small sub-sample (multi-group) comparisons (these will be discussed in Chapter Five in detail) and the model complexity of the present study, PLS was considered to be an appropriate technique for analysing data in the present study.

4.7 Development of the Semi-Structured Interview Protocol

Semi-structured interviews were conducted to obtain evidence to triangulate the survey findings and to attain a more in-depth understanding of corporate SR behaviour by eliciting managers’ behavioural beliefs and attitude towards SR, normative beliefs and subjective norm, control beliefs and perceived behavioural control, intention to engage in SR and SR behaviour. The TPB was used as a guide for the development of the interview protocol (Appendix 5.1).

Demographic and introductory questions were included in the interview protocol to get background information about the participant’s company, the participant’s role, and what the term SR meant to the participant’s company and the extent of SR. The demographic and introductory questions also included questions about adherence to
GRI guidelines and United Nations Global Compact principles by the participant’s company, participation in SR awards schemes, and the impact of the Sri Lankan government’s ten-year vision (2006-2016). The open-ended questions were used for all the interviews to get an in-depth understanding of the situation.

To elicit behavioural outcomes, participants were asked to explain their thoughts/beliefs about performing SR behaviour. The following questions were asked (Ajzen and Fishbein 1980; Ajzen 2006a):

- What do you believe are the advantages of SR? Please explain.
- What do you believe are the disadvantages of SR? Please explain. And,
- What other things do you associate with SR? Please explain.

To elicit the identity of relevant referent individuals and groups, participants were asked to respond to the following questions and to explain about relevant stakeholders who would approve or disapprove performance of SR behaviour (Ajzen and Fishbein 1980; Ajzen 2006a):

- Are there any stakeholders (i.e. groups, organizations or individuals) who would approve your company’s decision to engage in SR? Please explain; and,
- Are there any stakeholders (i.e. groups, organizations or individuals) who would disapprove of your company engaging in SR? Please explain.

To elicit salient control factors, participants were asked to explain factors that may facilitate or impede performance of SR behaviour in response to the following questions (Ajzen 2006a):

- What factors or circumstances would enable your company to engage in SR? Please explain.
- What factors or circumstances would make it difficult for your company to engage in SR? Please explain. And,
- Are there any other issues that come to your mind when you think about the ease or difficulties of your company engaging in SR? Please explain.
4.8 Data Collection through Semi-Structured Interviews

4.8.1 Research Participants

Semi-structured interviews were conducted among top and middle level managers of Sri Lankan companies. Managers’ opinions and attitude towards outcomes of SR, their perceptions as to what their stakeholders believe regarding SR, their feelings as to how they succeeded or failed in SR and obstacles and barriers encountered throughout the SR process were discussed in the interviews.

The participants in semi-structured interviews comprised a mix of managers from 11 listed and six non-listed companies (a total of 20 interviewees). These companies include those involved in SR practices, and those which are not involved in SR. The reason for inclusion of both types of companies in the sample was that they may have faced different types of problems regarding SR and this would help to get an overall understanding of managers’ beliefs regarding SR.

The semi-structured interviews were carried out with top and middle level management to get a richer understanding of managers’ beliefs. The top management was selected because they set the vision and focus for sustainability efforts and accountability within the company. The middle level management was selected because they are the people who are directly involved with the operational aspects of sustainability programs and the reporting process. The majority of managers interviewed were designated as CEO, Chairman, Managing Director and Head of Sustainability. In three companies interviews were held with two managers due to accessibility to, and available contacts in, those companies. To elicit the salient behavioural, normative and control beliefs regarding SR, 20 interviews were held at company premises until saturation was reached, that is, where similar ideas were generated from the interviewees. The following table shows the profile of interviewees and the duration of each interview.
<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Company Type</th>
<th>Industry</th>
<th>Title/Position</th>
<th>SR Status</th>
<th>Duration of the Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Listed</td>
<td>Forestry</td>
<td>General Manager</td>
<td>Reporting</td>
<td>45 minutes</td>
</tr>
<tr>
<td>B</td>
<td>Listed, multinational</td>
<td>Tobacco Manufacturer</td>
<td>CSR Manager</td>
<td>Reporting</td>
<td>40 minutes</td>
</tr>
<tr>
<td>C</td>
<td>Non-listed, multinational</td>
<td>Cement Manufacturer</td>
<td>Vice-President – Sustainable Development</td>
<td>Reporting</td>
<td>40 minutes</td>
</tr>
<tr>
<td>D</td>
<td>Non-listed, family owned</td>
<td>Apparel Manufacturer</td>
<td>Director - Corporate Branding and Strategic Sustainability</td>
<td>Reporting</td>
<td>45 minutes</td>
</tr>
<tr>
<td>E</td>
<td>Listed</td>
<td>Diversified Holding (Conglomerate)</td>
<td>Head of Sustainability</td>
<td>Reporting</td>
<td>30 minutes</td>
</tr>
<tr>
<td>F</td>
<td>Listed, multinational</td>
<td>Telecommunications</td>
<td>Head – Sustainability, Corporate Responsibility and Public Policy</td>
<td>Reporting</td>
<td>40 minutes</td>
</tr>
<tr>
<td>G1, G2</td>
<td>Listed</td>
<td>Hospitality Industry</td>
<td>Interview 1 – General Manager, Interview 2 - Consultant- Social and Environmental Management</td>
<td>Reporting</td>
<td>20 minutes, 60 minutes</td>
</tr>
<tr>
<td>H</td>
<td>Listed</td>
<td>Bank</td>
<td>General Manager – Risk, Compliance and Sustainability</td>
<td>Reporting</td>
<td>30 minutes</td>
</tr>
<tr>
<td>I1, I2</td>
<td>Listed</td>
<td>Diversified Holding (Conglomerate)</td>
<td>Interview 1 - Economist, Group Coordinator of Sustainability and Manager Corporate Communication, Interview 2 – Head - Strategic Business Development Unit</td>
<td>Reporting</td>
<td>25 minutes, 40 minutes</td>
</tr>
<tr>
<td>J</td>
<td>Non-listed, Board of Investment (BOI) approved, family owned</td>
<td>Apparel Manufacturer</td>
<td>Managing Director</td>
<td>Not reporting</td>
<td>20 minutes</td>
</tr>
<tr>
<td>K</td>
<td>Listed</td>
<td>Insurance</td>
<td>CEO</td>
<td>Not reporting</td>
<td>15 minutes</td>
</tr>
<tr>
<td>Interviewee</td>
<td>Company Type</td>
<td>Industry</td>
<td>Title/Position</td>
<td>SR Status</td>
<td>Duration of the Interview</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------</td>
<td>---------------------------</td>
<td>----------------------------------------------------</td>
<td>-----------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>L</td>
<td>Listed</td>
<td>Hospitality Industry</td>
<td>Managing Director</td>
<td>Not reporting</td>
<td>35 minutes</td>
</tr>
</tbody>
</table>
| M1, M2     | Listed                        | Tile Manufacturer        | Interview 1 - Managing Director  
Interview 2 - Head of Finance | Not reporting   | 15 minutes  
20 minutes               |
| N          | Non-listed                    | TV Channel                | Executive Chairman                                 | Not reporting   | 20 minutes               |
| O          | Non-listed, BOI approved, multinational | Telecommunication | CFO and Director Finance                           | Not reporting   | 20 minutes               |
| P          | Listed                        | Power and Energy          | Managing Director/CEO                               | Not reporting   | 20 minutes               |
| Q          | Non-listed, partnership       | Advertising               | Joint Managing Director                             | Not reporting   | 15 minutes               |
4.8.2 Procedure

According to Krane et al. (1997), qualitative research is a collection of methods with differing epistemologies and methodologies. One of the methods of qualitative research data gathering is qualitative interviewing, which is a flexible and powerful tool to capture the voices and the ways people make meaning of their experiences (Rabionet 2011). Kvale (1996, p.6) states that "an interview is a conversation that has a structure and a purpose. It goes beyond the spontaneous exchange of views as in everyday conversation and becomes a careful questioning and listening approach with the purpose of thoroughly testing knowledge." In addition, "the knowledge obtained is produced through the interpersonal interaction in the interview" (p.31). This implies that face-to-face communication is of importance in interviews.

Further, semi-structured interviewing is also an important tool of qualitative research data gathering (Adams 2010). According to Adams (2010), the aims of semi-structured interviews are to explore in-depth experiences of the participants and the meanings they attribute to these experiences. He further notes that semi-structured interviews are a particularly useful tool when little is known about the topic of interest. According to Adams (2010), a number of key considerations need to be taken into account before, during and after conducting a semi-structured interview. Preparation includes identifying the location, and technical, contextual and safety aspects; during the interview, the interviewer needs to listen carefully, managing silence, be non-judgemental, allow the participant to guide and focus discussion, while maintaining professional conduct. Actions after the interview include making extensive field notes.

Rabionet (2011) discusses six stages that should be followed when learning about conducting semi-structured interviews. They are selecting the type of interview, establishing ethical guidelines, crafting the interview protocol, conducting and recording the interview, analysing and summarising the interviews and reporting the findings.

As discussed in the previous section, semi-structured interviews (face-to-face approach) were conducted with managers to elicit behavioural, normative, control beliefs and other evidence related to SR.
An ethical clearance for conducting the semi-structured interviews was obtained from the research ethics committee of the Australian National University.

Initially, the potential participants were contacted via e-mail or telephone and requested to take part in the semi-structured interviews. The contact details of the managers were readily available through public sources such as Kompass Directory (www.kompass.lk) and public sources such as the CSE web-site (http://www.cse.lk/welcome.htm). Participants were briefly informed about the purpose of the study, the confidentiality of the data, risks associated with the study and their right to withdraw from participation at any time during the study.

A list of broad themes of SR indicating the matters to be discussed at the interview was sent to selected managers before the interview, along with the invitation e-mail, consent form and information sheet of the project. The copies of these documents are contained in Appendix 5.2, 5.3 and 5.4. Interviews were conducted from the 15th of January 2009 to the 1st of March 2009 and lasted between 15 minutes and one hour.

Interviews were held at the office of the interviewees. All interviews started with briefing about the purpose of the study and ethical issues. Participants were assured that their identity as well as their company identity would be kept confidential. There was interaction between the participants and the researcher. The signed consent form was collected from the participants a few minutes before the semi-structured interviews began. All participants expressed their consent for the interviews to be recorded.

As noted before, interview protocol guided the interviews but, at the same time, the interviewer probed in order to obtain contextual information, individual company information related to SR and issues that arose during the interviews. This helped to gain an understanding of overall practice of SR in the company.

All the interviews were transcribed and provided to participants for confirmation. The transcribed interview data, representing behavioural, normative and control beliefs of managers, their intention to engage in SR, other company and SR related information was analysed using the NVivo 8 software package as recommended by Bazeley (2007). In analysing the interview transcripts, the researcher looked for direct quotes that might
or might not support claims of evidence related to SR. Further discussion on the use of computer aided qualitative data analysis software is provided in the next section.

4.9 Use of Computer Aided Qualitative Data Analysis Software

Evidence for the present study was analysed using the computer aided qualitative data analysis software (CAQDAS). CAQDAS packages can be used for data management across a range of uses, such as interview data and qualitative responses for questionnaires, to develop hierarchical coding trees, for powerful searching, for theory building and to get the output from data and analysis. The main purpose is to facilitate data analysis. Therefore, CAQDAS is a tool to aid qualitative researchers in managing their data before, during, and after analysis. Despite criticisms, CAQDAS has the ability to handle and analyse more data. It contributes to improving the reliability of data, more data handling and analysis may lead to providing more evidence, and it has the capacity to handle more data than human memory. Furthermore, the new ‘third wave’ of CAQDAS such as NVivo and ATLAS.ti, can help researchers analyse and organize text documents, and hyperlinks to audio, visual, digital and internet data (Matheson 2005).

As indicated earlier, this study used the NVivo 8 software for interview data analysis. Since the themes (codes) to be explored were already known to the researcher, a tree node and free nodes were created at the beginning of data analysis.\textsuperscript{16} The coding process that followed allowed the researcher to gather all the materials related to nodes.

The tree node (parent node) was used to gather evidence that was related to the theoretical constructs of the TPB to triangulate the findings of the survey. Under this parent node, child nodes for behavioural beliefs and attitude towards SR behaviour, normative beliefs and subjective norm, control beliefs and perceived behavioural control, intention to engage in SR and SR behaviour were created to gather evidence that led to the theoretical constructs. Free nodes were created to gather evidence related to the relationship between intention and SR behaviour, which was highlighted through survey findings, and to gather evidence that led to exceptional situations, where interviewees had raised issues other than those related to theoretical constructs. This

\textsuperscript{16} Tree nodes fit into a hierarchical structure, moving from the parent node (a general category at the top) to child nodes (more specific categories). Free nodes are ‘stand-alone’ nodes that have no connection with other nodes and they do not fit into a hierarchical structure (Nvivo 8 2008).
process enabled the researcher to gather the evidence that supported the psychological factors that determine managers’ intention to engage in SR behaviour and corporate SR behaviour, triangulate the findings of the survey and to identify other country specific issues.

According to Krane et al. (1997), presentation of qualitative data is a complex task, as researchers have enormous amounts of data. Researchers have to select the data that best represents and interprets the phenomena under study. Researchers must also provide adequate information to show how they derived their conclusions. In the present study findings will be presented in Chapter Six using direct quotations linking evidence to theoretical constructs of the TPB.

4.10 Chapter Summary

The purpose of this chapter was to outline the research method used to collect data to test the hypotheses. The present study used a mixed approach, where data was collected through a web-based and a paper-based questionnaire survey and semi-structured interviews with top and the middle level managers. This chapter described the research design, development of the questionnaire survey instrument, survey participants of the study, survey data collection procedures, the pre-test, response rate and demographic information. A questionnaire survey was sent to top managers in Sri Lankan companies. Two hundred and thirty-three useable responses were received, resulting in a response rate of 25%. This chapter also discussed the covariance based SEM and the PLS statistical techniques that can be used to analyse survey data and the justification for using the PLS for the data analysis of the present study. It also discussed the development of the semi-structured interview protocol, interview participants and the interview data collection procedure. Semi-structured interviews were conducted with 20 top and middle level managers of Sri Lankan listed and non-listed companies, until saturation was reached. Finally, the chapter discussed the use of computer aided qualitative data analysis software. The next chapter (Chapter Five) will discuss the survey data analysis and findings.
CHAPTER FIVE

SURVEY DATA ANALYSIS AND FINDINGS

5.1 Introduction

This chapter focuses on the survey data analysis and the results of the testing of the hypotheses and the conceptual framework developed in Chapter Three. This chapter initially considers data related issues such as accounting for missing data, t-tests conducted for web-based and paper-based responses, testing for non-response bias, testing for univariate and multivariate outliers, and testing for univariate and multivariate normality of data. It also assesses the reliability and validity of the scales used in the questionnaire survey and supporting statistics presented. As discussed in Chapter Three, the conceptual framework of the study will be tested using the PLS Graph Version 3.0 software. The results of testing the measurement and structural model are presented, along with the results of the hypotheses tested and the additional analysis conducted. Further, it discusses the explanatory power of the overall model.

The rest of the chapter is organized as follows. Section 5.2 discusses the data preparation and screening procedures. Following this, Section 5.3 discusses the concepts of reliability and validity of variables. Section 5.4 examines the PLS measurement and structural models and Section 5.5 outlines the results of hypothesis testing. This chapter concludes with a brief summary.

5.2 Data Preparation and Screening

This section discusses the process of data preparation and screening. First, it discusses the analysis of missing data. Second, it outlines the test conducted to check whether there was a difference between web-based and paper-based responses. This is followed by discussions of the non-response bias test, tests conducted for univariate and multivariate outliers and normality.
5.2.1 Missing Data Analysis

The questionnaire data required preparation prior to analysis. As the first step of data screening, the accuracy of data entry was checked with the entry of data in an Excel spreadsheet.

As explained in the previous chapter, four web-based responses were eliminated due to the high level of incompleteness. Apart from those, the following open-ended questions of the questionnaire (refer Appendix 2) were dropped from the analysis because of the extent of missing responses. These items were:

- Question 4, item 10 (question about other stakeholders - 46% of responses were missing);
- Question 5, item 10 (question about other stakeholders - 45% of responses were missing);
- Question 6, item 14 (question about other factors - 53% of responses were missing);
- Question 7, item 14 (question about other factors - 52% of responses were missing); and
- Question 9, item 12 (question about level of education of other managers - 56% of responses were missing).

The above five items were dropped from the scale and analysis as many respondents left them unanswered.\textsuperscript{17} None of these items were deemed very important or critical to the study.

After this, data was analysed for missing information. It was necessary to create substitute data for the missing responses of the dataset. While most questionnaires were fully completed, there were some missing data.

For the responses which appeared to have a minimum of missing items (less than 10% of missing responses out of the total questions for an individual case in the dataset), missing values were replaced with the mean calculated on the basis of available valid

\textsuperscript{17} Respondents who have answered the above five questions have not specified the other stakeholders, other factors or level of education of other managers. They have simply circled the number on each rating scale.
responses for the variables in the dataset. Despite the fact that this method has several disadvantages (e.g. it understates the variance estimates, distorts the actual distribution of values, and depresses the observed correlation because all missing data will have a single constant value), it is a widely used method in imputing replacement values of missing data (Hair et al. 2008).\textsuperscript{18}

The following behavioural beliefs composite variable items Question 2 items 13, 14, 15, and 16 and Question 3 items 13, 14, 15 and 16 (refer Appendix 2) – were reverse coded. These items were reverse coded so that all items were scored in the same direction and consistent with other items which measured the behavioural beliefs composite variable. These items are shown in Table 5.1 below.

\textit{Table 5.1: Reverse Coded Items}

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 2 – item 13</td>
<td>SR will open my company to public criticism when reporting unfavourable organizational impacts on the environment</td>
</tr>
<tr>
<td>Question 2 – item 14</td>
<td>SR will lead to provision of inaccurate information due to poor environmental and social data analysis of my company</td>
</tr>
<tr>
<td>Question 2 – item 15</td>
<td>SR will increase complexity in reporting because of the need to restructure my company’s conventional reporting system</td>
</tr>
<tr>
<td>Question 2 – item 16</td>
<td>SR will lead to additional costs to my company</td>
</tr>
<tr>
<td>Question 3 – item 13</td>
<td>Opening my company to public criticism when reporting unfavourable organizational impacts</td>
</tr>
<tr>
<td>Question 3 – item 14</td>
<td>Providing inaccurate company information due to poor environmental and social data analysis</td>
</tr>
<tr>
<td>Question 3 – item 15</td>
<td>Increasing complexity in reporting because of the need to restructure my company’s conventional reporting system</td>
</tr>
<tr>
<td>Question 3 – item 16</td>
<td>Leading to additional costs for my company</td>
</tr>
</tbody>
</table>

After completing the above preparation of data, the Excel file was uploaded into SPSS 16 computer package for further analysis.

\textsuperscript{18} An additional test was conducted using all the responses with missing figures (19 responses) removed from the dataset. Analysis was conducted with only complete responses. The results are robust by omitting all the responses with missing values. The testing of the structural model with only completed responses in the dataset shows significant path coefficients and 0.594 R2 of intention to engage in SR.
5.2.2 Independent Sample t-test for Web-based and Paper-based Responses

Using SPSS 16, an independent samples t-test was conducted for the main constructs of the Theory of Planned Behaviour (TPB) and the external variable to assess whether the two administration modes (60 web-based and 173 paper-based) of the questionnaire were compatible or whether there was a statistically significant difference between the two sample means of the two groups. The results are shown in Table 5.2 below.

<table>
<thead>
<tr>
<th>Construct</th>
<th>The t Value (t)</th>
<th>The p-Value (Significance 2-tailed Value)</th>
<th>Mean for Web-based Responses</th>
<th>Mean for Paper-based Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioural Beliefs</td>
<td>-0.875</td>
<td>0.383</td>
<td>389.16</td>
<td>404.62</td>
</tr>
<tr>
<td>Normative Beliefs</td>
<td>1.047</td>
<td>0.296</td>
<td>284.12</td>
<td>271.01</td>
</tr>
<tr>
<td>Control Beliefs</td>
<td>-3.996</td>
<td>0.000</td>
<td>382.01</td>
<td>453.69</td>
</tr>
<tr>
<td>Attitude</td>
<td>0.335</td>
<td>0.738</td>
<td>5.94</td>
<td>5.89</td>
</tr>
<tr>
<td>Subjective Norm</td>
<td>-0.340</td>
<td>0.734</td>
<td>4.85</td>
<td>4.91</td>
</tr>
<tr>
<td>Perceived Behavioural Control</td>
<td>-0.951</td>
<td>0.343</td>
<td>5.12</td>
<td>5.27</td>
</tr>
<tr>
<td>Intention</td>
<td>-0.481</td>
<td>0.631</td>
<td>5.44</td>
<td>5.52</td>
</tr>
<tr>
<td>SR Behaviour</td>
<td>2.037</td>
<td>0.043</td>
<td>5.58</td>
<td>5.18</td>
</tr>
<tr>
<td>Level of Education</td>
<td>0.475</td>
<td>0.635</td>
<td>1.46</td>
<td>1.44</td>
</tr>
</tbody>
</table>

The above t-test failed to reveal a statistically significant difference between the means for a majority of the TPB constructs for the two groups, except for control beliefs and SR behaviour constructs where the p-values were less than the alpha = .05. However, the p-value of SR behaviour variable is close to .05 and it may have not achieved the desirable p-value due to random error.\(^{19}\) Out of all the nine variables considered, the control belief variable represents only 11% of the total variables.\(^{20}\) A sub-sample analysis for web-based responses and paper-based responses (Appendix 6) was conducted to see if there is any major implication of the finding of mean differences of control beliefs and SR behaviour variable. The path coefficients from control beliefs to perceived behavioural control and intention to behaviour were significant for both

\(^{19}\) This test was conducted using the sample which excludes outliers. Similar results were found when outliers (63 web-based and 174 paper-based) were included in the sample.

\(^{20}\) The t-test assumes normality of data. Since some variables are not normally distributed, the Mann-Whitney U Test (non-parametric test) that makes no assumption about the distribution of the variables was also conducted. This test conclude that the variables do not provide statistically significant evidence of a difference between web-based and paper-based responses in median except for the SR behaviour variable (p=0.044) and control beliefs variable (p=0.000). In other words, the two tests achieved the same result.
groups. As a result, it was decided not to consider the mean differences of these two variables (control beliefs and SR behaviour) between the two groups as a major problem. Therefore, the responses from the two groups of respondents were summated for further analysis.

5.2.3 Non-Response Bias

A non-response bias test was conducted to examine whether non-respondents differ from respondents in some important and systematic way related to the purpose of the study. The researcher compared the early responses with the late responses to test for statistically significant differences between the TPB variables, including the external variable of the study. This method assumes that respondents who return the questionnaire late are similar to non-respondents (Armstrong and Overton 1977).

An independent sample t-test was conducted for the first 20% (47) of responses and the last 20% (47) of the total sample, including web-based and paper-based responses. It was found that there were no significant statistical differences (p<0.05) of the TPB variables except for the perceived behavioural control variable. The p-value of the perceived behavioural control variable (0.045) was close to .05 and it may have not achieved the p-value due to pure random error. Therefore, it was concluded that there was no large evidence of non-response bias. The sample data can be considered as free of non-response error (Dillman 2000). The results are shown in Table 5.3 below.

\[\text{This test was conducted using a sample which excluded outliers. Similar results were found when outliers were included in the sample.}\]
Table 5.3: Independent Samples t-test for the First 20% and Last 20% of Responses

<table>
<thead>
<tr>
<th>Construct</th>
<th>The t Value (t)</th>
<th>The p-Value (Significance 2-tailed Value)</th>
<th>Mean for Early Responses</th>
<th>Mean for Late Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioural Beliefs</td>
<td>.286</td>
<td>.776</td>
<td>385.36</td>
<td>413.81</td>
</tr>
<tr>
<td>Normative Beliefs</td>
<td>1.431</td>
<td>.157</td>
<td>278.78</td>
<td>266.87</td>
</tr>
<tr>
<td>Control Beliefs</td>
<td>-1.192</td>
<td>.237</td>
<td>382.13</td>
<td>467.70</td>
</tr>
<tr>
<td>Attitude</td>
<td>-.554</td>
<td>.582</td>
<td>5.96</td>
<td>6.02</td>
</tr>
<tr>
<td>Subjective Norm</td>
<td>.468</td>
<td>.641</td>
<td>4.95</td>
<td>5.20</td>
</tr>
<tr>
<td>Perceived Behavioural Control</td>
<td>2.043</td>
<td>.045</td>
<td>5.14</td>
<td>5.12</td>
</tr>
<tr>
<td>Intention</td>
<td>-1.288</td>
<td>.202</td>
<td>5.38</td>
<td>5.80</td>
</tr>
<tr>
<td>SR Behaviour</td>
<td>1.676</td>
<td>.099</td>
<td>5.48</td>
<td>5.01</td>
</tr>
<tr>
<td>Level of Education</td>
<td>.030</td>
<td>.976</td>
<td>1.49</td>
<td>1.45</td>
</tr>
</tbody>
</table>

As explained in the previous chapter, 22 potential respondents declined to participate in the study indicating that it was not their company policy to respond to questionnaire surveys or indicating their lack of awareness and knowledge about SR. The reason was not clear for the non-response by other potential respondents. It may be due to a number of reasons such as company policy, lack of awareness and knowledge about SR, business, lack of time and lack of interest.

5.2.4 Univariate and Multivariate Outliers

This section discusses the process of identifying the outliers. There are two types of outliers, namely univariate outliers and multivariate outliers. Univariate outliers can be identified by inspecting the frequency distribution of z scores (Kline 2005). Hair et al. (2008) define cases with standard scores of 2.5 or greater as univariate outliers for small samples (80 or below observations) and for larger sample sizes this threshold can increase up to 4.

In the present study, univariate outliers were assessed using the SPSS. The box plots for each variable can also be used to identify univariate outliers (Meyers et al. 2006). The box plots are shown below (Figure 5.1) indicating the univariate outliers as defined above for the nine main variables of the study.
Figure 5.1: Box Plot Graphs for Univariate Outliers
The potential univariate outliers (case numbers) as indicated in Figure 5.1 above are shown in Table 5.4.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Case Number of Univariate Outliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioural Beliefs (BBS)</td>
<td>N/A</td>
</tr>
<tr>
<td>Normative Beliefs (NBS)</td>
<td>31</td>
</tr>
<tr>
<td>Control Beliefs (CBS)</td>
<td>N/A</td>
</tr>
<tr>
<td>Attitude</td>
<td>N/A</td>
</tr>
<tr>
<td>Subjective Norm (SN)</td>
<td>103 and 160</td>
</tr>
<tr>
<td>Perceived Behavioural Control (PBC)</td>
<td>31</td>
</tr>
<tr>
<td>Intention</td>
<td>14, 40, 56, 63, 94, 97 and 111</td>
</tr>
<tr>
<td>SR Behaviour</td>
<td>67, 124, 129 and 166</td>
</tr>
<tr>
<td>Level of Education (EDU)</td>
<td>37 and 221</td>
</tr>
</tbody>
</table>

The Mahalanobis distance measure (Hair et al. 2008) was calculated to assess whether there were any multivariate outliers, as this study involves multivariate analysis. This measures the distance between each case and the group multivariate mean. A chi-square distribution with conservative alpha level of 0.001 can be used to evaluate each case for the possibility of multivariate outliers (Kline 2005; Meyers et al. 2006). Four cases (31, 40, 97 and 56) exceeding a value of 26.13 can be considered as possible candidates for multivariate outliers. These four multivariate outliers are shown in Figure 5.2 and the Table 5.5 below.

Figure 5.2: Multivariate Outliers
Table 5.5: Multivariate Outliers

<table>
<thead>
<tr>
<th>Case Number of Multivariate Outlier</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>46.88590</td>
</tr>
<tr>
<td>40</td>
<td>36.57237</td>
</tr>
<tr>
<td>97</td>
<td>34.99113</td>
</tr>
<tr>
<td>56</td>
<td>26.53363</td>
</tr>
</tbody>
</table>

Hair et al. (2008) suggest comparing the possible outliers with other observations in the sample to understand the aspects of the case that distinguish them from the other observations. “If outliers portray a representative element or segment of the population, they should be retained to ensure the generalizability to the entire population. As outliers are deleted, the researcher runs the risk of improving the multivariate analysis but limiting its generalizability” (Hair et al. 2008, p.67). However, deletion of outliers may contribute to multivariate normality (Kline 2005) which will be discussed in the next section. Tabachnick and Fidell (1996) suggest seeing whether univariate outliers also qualify as multivariate outliers before deciding what to do with outliers. These four cases (31, 40, 97 and 56) of multivariate outliers also qualified as univariate outliers as shown in Table 5.4 above. Therefore, the cases of 31, 40, 97 and 56 were removed from the dataset as these qualified as univariate and multivariate outliers.²²

5.2.5 Data Distribution: Univariate Normality and Multivariate Normality

Many statistical techniques require a normal distribution of the variables to be analysed.²³ Univariate normality can be measured using tests for skewness and kurtosis. As shown in Table 5.6, skewness and kurtosis values of the variables are above or below zero, indicating non-normal distribution of data (Hair et al. 2008).

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²² The results are robust for inclusion of outliers in the dataset. The testing of the structural model with four outliers in the dataset shows significant path coefficients. The R² of intention to engage in SR was 0.543 with four multivariate outliers in the dataset. The R² of intention to engage in SR (without outliers and control variables) is 0.610. This will be discussed later in this Chapter.

²³ “Normal distribution: purely theoretical continuous probability distribution in which the horizontal axis represents all possible values of a variable and the vertical axis represents the probability of those values occurring. The scores on the variable are clustered around the mean in a symmetrical, unimodal pattern known as the bell-shaped or normal curve” (Hair et al. 2008, p.36).
Table 5.6: Skewness and Kurtosis Statistics

<table>
<thead>
<tr>
<th>Construct</th>
<th>Skewness Statistic</th>
<th>Skewness Std. Error</th>
<th>Kurtosis Statistic</th>
<th>Kurtosis Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioural Beliefs</td>
<td>-.204</td>
<td>.159</td>
<td>-.791</td>
<td>.318</td>
</tr>
<tr>
<td>Normative Beliefs</td>
<td>-.008</td>
<td>.159</td>
<td>-.588</td>
<td>.318</td>
</tr>
<tr>
<td>Control Beliefs</td>
<td>-.071</td>
<td>.159</td>
<td>-.798</td>
<td>.318</td>
</tr>
<tr>
<td>Attitude</td>
<td>-.757</td>
<td>.159</td>
<td>.024</td>
<td>.318</td>
</tr>
<tr>
<td>Subjective Norm</td>
<td>-.466</td>
<td>.159</td>
<td>.431</td>
<td>.318</td>
</tr>
<tr>
<td>Perceived Behavioural Control</td>
<td>-.205</td>
<td>.159</td>
<td>-.560</td>
<td>.318</td>
</tr>
<tr>
<td>Intention</td>
<td>-.746</td>
<td>.159</td>
<td>.275</td>
<td>.318</td>
</tr>
<tr>
<td>SR Behaviour</td>
<td>-1.239</td>
<td>.159</td>
<td>2.701</td>
<td>.318</td>
</tr>
<tr>
<td>Level of Education</td>
<td>.387</td>
<td>.159</td>
<td>-.474</td>
<td>.318</td>
</tr>
</tbody>
</table>

The graphical presentation of histograms of each variable which compared the observed data values with a normal distribution is shown in Appendix 7. This shows that some variables are not normally distributed.

The multivariate normality of a dataset can be assessed by examining Mardia’s coefficient (Mardia 1970) for multivariate kurtosis. Mardia's coefficient value of 1.96 or above is an indication of non-significant kurtosis. Based on Mardia test results, it was concluded that the data was severely non-normally distributed. The normalised estimate of multivariate kurtosis was found to be 167.161, and the critical ratio was 43.007. A large estimated value indicates significant positive kurtosis and this magnitude of normalised Mardia value provides evidence that data are multivariate non-normal (Byrne 2001). This finding led to consideration of a multivariate modelling technique (PLS) which deals with testing of non-normal data as explained in Chapter Four.

5.3 Reliability and Validity of Variables

Reliability and validity are two important characteristics which assess the degree of measurement error present in any measure (Hair et al. 2008).  

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24 With 4 multivariate outliers in the dataset, the normalised estimate of multivariate kurtosis was found to be 213.07, the critical ratio of which was 58.059.

25 Reliability is the degree to which the observed variable measures the 'true' value and is free of error. Validity is the degree to which a measure accurately represents what it is supposed to (Hair et al. 2008).
There are two approaches to evaluate the reliability of a multi-item scale. One approach relates to the evaluation of internal consistency of a multi-item scale using an index such as coefficient alpha (Cronbach 1951), and the second approach is to evaluate a scale’s longitudinal stability (Peterson 2000). In this study, the second approach was not selected to evaluate reliability as it requires administering the survey to the same sample at, two or more points in time.

DeVellis (2003, p.27) highlights that “internal consistency reliability, as the name implies, is concerned with the homogeneity of the items within a scale.” All the scales employed in this questionnaire survey were original scales developed for the present study. In the TPB, the direct measures of attitude, subjective norm, perceived behavioural control and intention need to ensure high internal consistency in their measures to conform with the assumption that the items selected do in fact assess the same underlying construct. According to Ajzen (2006a, p.8), “for theoretical reasons, this requirement is not imposed on the belief composites that are assumed to determine attitudes, subjective norms, and perceptions of behavioural control. That is, internal consistency is not a necessary feature of belief composites.” Therefore, a reliability test was only applied to variables other than behavioural, normative and control beliefs composite variables. That is, the reliability test was applied only to attitude, subjective norm, perceived behavioural control and intention variables. To determine the internal consistency of measures of attitude, subjective norm, perceived behavioural control and intention, a Cronbach alpha was calculated. As shown in Table 5.7, all the measures reported a high Cronbach alpha which is above the lower limit of 0.70 (Hair et al. 2008). This represents a high inter-correlation of indicators measuring the construct.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach Alpha Reliability Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td>0.813</td>
</tr>
<tr>
<td>Subjective Norm</td>
<td>0.772</td>
</tr>
<tr>
<td>Perceived Behavioural Control</td>
<td>0.743</td>
</tr>
<tr>
<td>Intention</td>
<td>0.833</td>
</tr>
</tbody>
</table>

Table 5.7: Cronbach Alpha

Construct validity and convergent validity were evaluated using factor analysis for the main constructs of the TPB.\textsuperscript{26} Using the SPSS, all initial 16 items of Question 1, which

\textsuperscript{26} Construct validity is the extent to which a set of measured variables actually represents the latent construct those variables are designed to measure. Convergent validity is the extent to which indicators of a specific construct share a high proportion of variance in common (Hair et al. 2008).
aimed to measure attitude, subjective norm, perceived behavioural control and intention, were factor analysed to ascertain whether the questionnaire captured the above four constructs. Applying a cut off loading of 0.4 (Hair et al. 2008), four distinct groups of variables (attitude, subjective norm, perceived behavioural control and intention) were well defined and items loaded highly onto these identified constructs (Table 5.8 below).

Then, factor analysis was applied at the individual variable level. The Varimax rotation method was used in the analysis. Factor analysis confirmed that items loaded onto a single dimension within their constructs except for the behavioural beliefs composite variable.

The behavioural beliefs composite variable extracted three factors. Three items (refer Appendix 2: Question 2, items 13 to 15 multiplied by Question 3, items 13 to 15) of the behavioural beliefs composite variable fell in the second factor and two items (item 15 and 16) fell in the third factor. One item (item 15) was a cross-loading item, where it had loaded in both factors two and three. Hair et al. (2008) suggest using different rotation methods to eliminate the cross-loadings. They argue that, “if a variable persists in having cross-loadings, it becomes a candidate for deletion” (p.119). By considering the fact that these behavioural belief items (13, 14, 15 and 16) were set at a more general level as compared to other items and from a theoretical point of view, they are not regarded as fundamental to the construct; in addition, an item (item 15) loaded onto factors two and three; it was decided to delete these items from further analysis, resulting in other remaining behavioural beliefs items loading onto one factor. These results provided evidence of acceptable construct validity and convergent validity (Hair et al. 2008).
Table 5.8: Factor Analysis for Attitude, Subjective Norm, Perceived Behavioural Control and Intention

<table>
<thead>
<tr>
<th>Item</th>
<th>Component/Construct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Attitude</td>
</tr>
<tr>
<td></td>
<td>2 Subjective Norm</td>
</tr>
<tr>
<td></td>
<td>3 Perceived Behavioural Control</td>
</tr>
<tr>
<td></td>
<td>4 Intention</td>
</tr>
<tr>
<td>Q01A01- It is good for my company to engage in SR</td>
<td>0.735</td>
</tr>
<tr>
<td>Q01A02- It is rewarding for my company to engage in SR</td>
<td>0.820</td>
</tr>
<tr>
<td>Q01A03- It is valuable for my company to engage in SR</td>
<td>0.868</td>
</tr>
<tr>
<td>Q01A04- It is meaningful for my company to engage in SR</td>
<td>0.856</td>
</tr>
<tr>
<td>Q01PBC01- It is easy for my company to engage in SR</td>
<td>0.187</td>
</tr>
<tr>
<td>Q01PBC02- It is possible for my company to engage in SR</td>
<td>0.238</td>
</tr>
<tr>
<td>Q01PBC03- The decision to engage in SR is under my company’s authority</td>
<td>0.016</td>
</tr>
<tr>
<td>Q01PBC04- The decision to engage in SR is under my company’s control</td>
<td>0.300</td>
</tr>
<tr>
<td>Q01IN01- My company is committed to engage in or continue SR</td>
<td>0.299</td>
</tr>
<tr>
<td>Q01IN02- My company plans to engage in or continue SR</td>
<td>0.285</td>
</tr>
<tr>
<td>Q01IN03- My company has the intention to engage in or continue SR</td>
<td>0.324</td>
</tr>
<tr>
<td>Q01IN04- My company is willing to engage in or continue SR</td>
<td>0.325</td>
</tr>
<tr>
<td>Q01SN01- Most of my company’s stakeholders (shareholders, employees, community etc.) think that my company should engage in SR</td>
<td>0.312 0.665 0.306 0.174</td>
</tr>
<tr>
<td>Q01SN02- Most of the internal stakeholders (employees and management) would approve my company engaging in SR</td>
<td>0.273 0.659 0.399 0.184</td>
</tr>
<tr>
<td>Q01SN03- Most organizations, whose opinions are valued by my company, engage in SR</td>
<td>0.216 0.812 0.128 0.219</td>
</tr>
<tr>
<td>Q01SN04- Many companies similar to my company engage in SR</td>
<td>0.026</td>
</tr>
</tbody>
</table>

111
5.4 Measurement and Structural Models Using PLS

As discussed in Chapter Four, the PLS Graph Version 3.0 software (Chin 2000) was used to test the hypothesised relationships among variables outlined in the present study. The use of the PLS software in recent management accounting studies (for example, Smith 2003; Chenhall 2005; Mahama 2006; Hall 2008; Ferreira et al. 2010) shows that this software has become increasingly used by accounting researchers.

In PLS, measurement and structural models are termed as outer and inner models respectively (Hair et al. 2008). Reflective indicators should co-vary together with other reflective indicators measuring the underlying latent constructs and formative indicators need not co-vary; therefore, measures of internal consistency do not apply to formative indicators (Chin 2000; Hair et al. 2008).

The PLS employs path diagram for analysis. DeVellis (2003, p.16) suggests that "path diagrams are a method for depicting casual relationships among variables." The standardised coefficients (the numbers along the paths) indicate the strength of the causal relationship between the variables joined by the arrow (DeVellis 2003).

The PLS was used to measure relationships among latent underlying independent (exogenous) variables and their associated latent dependent (endogenous) variables. The measurement model constitutes the relationship among the indicators and their underlying latent variables or theoretical constructs (Chin 1998a), whereas the structural model constitutes the hypothesised relationships among latent variables (theoretical constructs). The PLS technique simultaneously estimates both measurement and structural models.

The PLS results can be reported in two stages. The first stage focuses on the reliability and validity of item measures used. This stage is required to build up the confidence that the measures used to determine underlying constructs of the conceptual framework of the study are valid. In the second stage, the validity and results of the conceptual framework (i.e. structural portion) can be presented, if the measures are shown to be adequate (Chin 2010). Hulland (1999, p.198) points out that, "this sequence ensures that the researcher has reliable and valid measures of constructs before attempting to draw conclusions about the nature of the construct relationships."
5.4.1 Model Evaluation: Measurement Model Results

This section discusses the results of the PLS measurement model. The measurement model evaluates the accuracy (i.e. reliability) of the measures and also their convergent and discriminant validities (Hulland 1999; Chin 2010).²⁷

5.4.1.1 Construct-Measurement Relationships

There are two basic types of epistemic relationships relevant to causal modelling, namely reflective indicators and formative indicators (Hulland 1999).²⁸

Among the main nine variables in the present study, seven variables were latent variables with reflective indicators (i.e. behavioural beliefs, normative beliefs, control beliefs, attitude, subjective norm, perceived behavioural control and intention variable), one variable (SR behaviour) was an emergent variable with formative indicators, whilst the other variable external to the TPB was an observed/measured variable (the managers’ level of education). The measures of the SR behaviour construct were considered as formative indicators because it is more correct to think that the three measures (i.e. environmental, social and economic reporting aspects) are ‘causing’ or defining the SR behaviour construct.

Apart from that, company listing on the CSE, environmentally sensitive industries, and company size (measured by annual sales turnover and number of employees) were included in the model as measured control variables. A summary of variable measurement methods is provided in Table 5.9.

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²⁷ Convergent validity is the extent to which indicators of a specific construct share a high proportion of variance in common. Discriminant validity is the extent to which a construct is distinct from other constructs (Hair et al. 2008).

²⁸ Epistemic relationships are the nature of the links between constructs and measures. Reflective items/measures reflect the underlying construct, with the construct causing the observed measures (Hulland 1999). Reflective measures should covary. Formative indicators produce/form/cause the latent variable. These indicators are multidimensional in nature (Chin 2010). There can be positive, negative or no correlation between formative indicators of the same construct (Hulland 1999).
Table 5.9: Variable Measurement Methods

<table>
<thead>
<tr>
<th>Construct/Variable</th>
<th>Variable Type</th>
<th>Method of Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioural Beliefs</td>
<td>Latent variable</td>
<td>Composite measure as explained in Chapter Four</td>
</tr>
<tr>
<td>Normative Beliefs</td>
<td>Latent variable</td>
<td>Composite measure as explained in Chapter Four</td>
</tr>
<tr>
<td>Control Beliefs</td>
<td>Latent variable</td>
<td>Composite measure as explained in Chapter Four</td>
</tr>
<tr>
<td>Attitude</td>
<td>Latent variable</td>
<td>Measured by four reflective indicators</td>
</tr>
<tr>
<td>Subjective Norm</td>
<td>Latent variable</td>
<td>Measured by four reflective indicators</td>
</tr>
<tr>
<td>Perceived Behavioural Control</td>
<td>Latent variable</td>
<td>Measured by four reflective indicators</td>
</tr>
<tr>
<td>Intention</td>
<td>Latent variable</td>
<td>Measured by four reflective indicators</td>
</tr>
<tr>
<td>SR Behaviour</td>
<td>Emergent variable</td>
<td>Measured by three formative indicators</td>
</tr>
<tr>
<td>Level of Education</td>
<td>Observed/measured variable</td>
<td>Measured by average value of managers’ level of education</td>
</tr>
<tr>
<td>Company Listing on the CSE</td>
<td>Measured control variable</td>
<td>Measured as a dummy variable</td>
</tr>
<tr>
<td>Environmental Sensitive Industries</td>
<td>Measured control variable</td>
<td>Measured as a dummy variable</td>
</tr>
<tr>
<td>Company Size</td>
<td>Measured control variable</td>
<td>Measured by annual sales turnover and number of employees variables (log-transformed)</td>
</tr>
</tbody>
</table>

5.4.1.2 Reliability of the Measures: Assessment of Individual Item Loadings

It is important to examine how each item relates to each construct. Each measure should be strongly related to the construct it attempts to reflect and also it should not have a stronger connection with another construct (Chin 2010). According to Hulland (1999, p.198), in PLS, “individual item reliability is assessed by examining the loadings of the measures with their respective construct. As a rule of thumb, many researchers accept items with loadings of 0.7 or more. This implies that there is more shared variance between the construct and its measure than error variance. Poorly worded and inappropriate items and an improper transfer of an item from one context to another may result in a low loading. Low item loadings lead to a problem of low reliability, poor construct validity and non-generalizability of the item across contexts.”
The reliability of measures is assessed by examining the correlations of each item to its intended construct (loadings) (Chin 1998a; 2010). The rule of thumb of 0.7 was applied to decide which items to retain, and which items to delete. All the indicators underlying the latent variables of attitude, subjective norm, perceived behavioural control and intention reported item loadings well above 0.7 (Table 5.10). These four variables were latent variables with reflective indicators. These results indicate that each item loads more highly on their own construct than on other constructs and that all constructs share more variance with their measures than with other constructs.

The SR variable was an emergent variable with formative indicators. The ‘economic reporting aspects’ item of this variable reported a loading of only 0.4208 whereas the other two items reported loadings well above 0.7. Although Hulland (1999) argues that items with loadings of less than 0.5 should be dropped, he notes that item reliability can only be applied to measures that are reflective in nature, rather than formative. Given the fact that the ‘economic reporting’ item was modelled as a formative indicator of the underlying construct and its loading was 0.4208, it was decided to retain the ‘economic reporting’ item based on theoretical grounds. The loadings for the measurement model are shown in Table 5.10 below.

The Cronbach alpha (Table 5.7) and the composite reliability values (the same as Cronbach alpha values in Table 5.7) can be used to report the reliability of the measures (Hulland 1999). The composite reliability is only applicable for latent variables with reflective indicators (Chin 2010). The composite reliability is a measure of internal consistency. Internal consistency is not required for behavioural, normative and control belief composites of the TPB as explained in Section 5.3 (Ajzen 2006a) and the emergent variable, the SR behaviour (Chin 1998a; 2000; Hair et al. 2008). All of the latent variables with reflective indicators reported a composite reliability which was greater than 0.70, the Cronbach alpha (Chin 1998a) as shown in Table 5.7.
<table>
<thead>
<tr>
<th>Constructs and its Indicators</th>
<th>Item Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attitude</strong></td>
<td></td>
</tr>
<tr>
<td>Q01A01- It is good for my company to engage in SR</td>
<td>0.8511</td>
</tr>
<tr>
<td>Q01A02- It is rewarding for my company to engage in SR</td>
<td>0.8984</td>
</tr>
<tr>
<td>Q01A03- It is valuable for my company to engage in SR</td>
<td>0.9148</td>
</tr>
<tr>
<td>Q01A04- It is meaningful for my company to engage in SR</td>
<td>0.9084</td>
</tr>
<tr>
<td><strong>Subjective Norm</strong></td>
<td></td>
</tr>
<tr>
<td>Q01SN01- Most of my company’s stakeholders (shareholders, employees, community etc.) think that my company should engage in SR</td>
<td>0.8279</td>
</tr>
<tr>
<td>Q01SN02- Most of the internal stakeholders (employees and management) would approve my company engaging in SR</td>
<td>0.8502</td>
</tr>
<tr>
<td>Q01SN03- Most organizations, whose opinions are valued by my company, engage in SR</td>
<td>0.8742</td>
</tr>
<tr>
<td>Q01SN04- Many companies similar to my company engage in SR</td>
<td>0.7712</td>
</tr>
<tr>
<td><strong>Perceived Behavioural Control</strong></td>
<td></td>
</tr>
<tr>
<td>Q01PBC01- It is easy for my company to engage in SR</td>
<td>0.7599</td>
</tr>
<tr>
<td>Q01PBC02- It is possible for my company to engage in SR</td>
<td>0.8450</td>
</tr>
<tr>
<td>Q01PBC03- The decision to engage in SR is under my company’s authority</td>
<td>0.8303</td>
</tr>
<tr>
<td>Q01PBC04- The decision to engage in SR is under my company’s control</td>
<td>0.7872</td>
</tr>
<tr>
<td><strong>Intention</strong></td>
<td></td>
</tr>
<tr>
<td>Q01IN01- My company is committed to engage in or continue SR</td>
<td>0.8810</td>
</tr>
<tr>
<td>Q01IN02- My company plans to engage in or continue SR</td>
<td>0.9552</td>
</tr>
<tr>
<td>Q01IN03- My company has the intention to engage in or continue SR</td>
<td>0.9505</td>
</tr>
<tr>
<td>Q01IN04- My company is willing to engage in or continue SR</td>
<td>0.9066</td>
</tr>
<tr>
<td><strong>SR Behaviour</strong></td>
<td></td>
</tr>
<tr>
<td>Q08CR_EN01- Environmental reporting aspects (e.g. energy and water usage, wastage, greenhouse gas emissions, environmental impacts etc.)</td>
<td>0.8302</td>
</tr>
<tr>
<td>Q08CR_SO02- Social reporting aspects (e.g. workplace relationships, employee benefits, training and education, human rights, occupational health and safety procedures, donations to community etc.)</td>
<td>0.9827</td>
</tr>
<tr>
<td>Q08CR_EC03- Economic reporting aspects (e.g. expenditures, incomes, distribution to providers of capital, taxes etc.)</td>
<td>0.4208</td>
</tr>
</tbody>
</table>
5.4.1.3 Convergent Validity of the Measures Associated with Individual Constructs

Researchers should also be concerned about the convergent validity of measures when using multiple measures to determine the underlying constructs (Hulland 1999). As noted previously, Chin (2010, p.674) defines convergent validity as "the extent to which blocks of items strongly agree (i.e. converge) in their representation of the underlying construct they were created to measure."

The average variance extracted (AVE) statistic can be used to measure convergent validity. As composite reliability, AVE is only applicable for latent variables with reflective indicators (Chin 2010). An AVE greater than 0.50 indicates the convergent validity of variables (Chin 1998b; 2010). All variables qualified for convergent validity as results indicated an AVE above 0.5 for all the constructs as shown in Table 5.11 below.

<table>
<thead>
<tr>
<th>Construct</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td>0.798</td>
</tr>
<tr>
<td>Subjective Norm</td>
<td>0.692</td>
</tr>
<tr>
<td>Perceived Behavioural Control</td>
<td>0.650</td>
</tr>
<tr>
<td>Intention</td>
<td>0.853</td>
</tr>
</tbody>
</table>

5.4.1.4 Discriminant Validity

Discriminant validity holds if a construct shares more variance with its measures than it shares with other constructs in a given model (Hulland 1999). "If a specific construct is more correlated with another construct than with its own measures, there is the possibility that the two constructs share the same types of measures and are not conceptually distinct" (Chin 2010, p.670). This indicates that the two sets of items are not clearly differentiating the two underlying constructs that you believe to exist.

As explained in Section 5.5.1.2, all items load more highly on their own construct than on other constructs and all constructs share more variance with their measures than with other constructs thus exhibiting discriminant validity at the item level (Chin 2010).

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29 AVE measures the amount of variance that a latent variable captures from its indicators relative to the amount due to measurement error (Chin 1998a; 2010).
This premise of the discriminant validity (Hair et al. 2008) of variables is measured by comparing the square root of AVE with inter-construct correlations (Chin 2010). A correlation matrix can be used for this comparison. The correlations between variables can be shown in the left diagonal elements of the matrix and the square root of AVE values for each construct can be shown along the diagonal (Hulland 1999). A clear evidence of discriminant validity can be exhibited if the square root of AVE exceeds the inter-construct correlations with other variables (Chin 1998a; Hulland 1999).

Given the values of the square root of AVE (in bold) exceeded the corresponding correlations for each value as shown in Table 5.12 below, it is possible to conclude that there is adequate discriminant validity between the variables in this study. These results suggest that all indicators are valid measures of their underlying latent variables.

<table>
<thead>
<tr>
<th>Table 5.12: Correlation Matrix with AVE Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioural Belief</td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td>Behavioural Belief</td>
</tr>
<tr>
<td>Normative Belief</td>
</tr>
<tr>
<td>Control Belief</td>
</tr>
<tr>
<td>Attitude</td>
</tr>
<tr>
<td>Subjective Norm</td>
</tr>
<tr>
<td>Perceived Behavioural Control</td>
</tr>
<tr>
<td>Intention</td>
</tr>
<tr>
<td>SR Behaviour</td>
</tr>
</tbody>
</table>

5.4.1.5 Descriptive Statistics

The descriptive statistics (actual minimum and maximum values, theoretical range of values, mean and standard deviation) for the main constructs contained in the conceptual framework are provided in Table 5.13 below. These descriptive statistics were obtained using summated scores for each variable by using the SPSS software. Each construct was measured on a seven-point scale except for the level of education variable. The theoretical range of value for the level of education variable was 0 to 3. The SR variable was 0 to 7. All other variables ranged from 1 to 7. It is important to note that three belief constructs were composite variables: as explained in the previous
chapter even it used seven-point scales. The mean values of the variables are higher than their scale’s mid-points, reflecting the skewness of the variables as discussed in Section 5.2.5.

Table 5.13: Descriptive Statistics of Constructs in the Structural Model

<table>
<thead>
<tr>
<th>Construct</th>
<th>Actual Minimum Value Observed</th>
<th>Actual Maximum Value Observed</th>
<th>Theoretical Range of Values (Min. and Max.)</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioural Beliefs</td>
<td>122.00</td>
<td>588.00</td>
<td>12.00-588.00</td>
<td>400.64</td>
<td>117.88</td>
</tr>
<tr>
<td>Normative Beliefs</td>
<td>47.00</td>
<td>441.00</td>
<td>9.00-441.00</td>
<td>274.38</td>
<td>83.64</td>
</tr>
<tr>
<td>Control Beliefs</td>
<td>174.00</td>
<td>637.00</td>
<td>13.00-637.00</td>
<td>435.23</td>
<td>123.55</td>
</tr>
<tr>
<td>Attitude</td>
<td>3.00</td>
<td>7.00</td>
<td>1.00-7.00</td>
<td>5.91</td>
<td>0.96</td>
</tr>
<tr>
<td>Subjective Norm</td>
<td>1.00</td>
<td>7.00</td>
<td>1.00-7.00</td>
<td>4.90</td>
<td>1.10</td>
</tr>
<tr>
<td>Perceived Behavioural Control</td>
<td>2.25</td>
<td>7.00</td>
<td>1.00-7.00</td>
<td>5.23</td>
<td>1.02</td>
</tr>
<tr>
<td>Intention</td>
<td>1.00</td>
<td>7.00</td>
<td>1.00-7.00</td>
<td>5.50</td>
<td>1.16</td>
</tr>
<tr>
<td>SR Behaviour</td>
<td>0.00</td>
<td>7.00</td>
<td>0.00-7.00</td>
<td>5.28</td>
<td>1.33</td>
</tr>
<tr>
<td>Level of Education</td>
<td>1.00</td>
<td>2.00</td>
<td>0.00-3.00</td>
<td>1.44</td>
<td>0.31</td>
</tr>
</tbody>
</table>

5.4.2 Model Evaluation: Structural Model and Results of Hypothesis Testing

It is important to discuss the analysis of the PLS structural model following a discussion of the measurement model. This section is devoted to discussing the PLS structural model which assesses the relationship between the latent variables of the theoretical model.

After running the PLS graph software, it is necessary to undertake a resampling technique such as bootstrapping or jack-knifing in order to obtain estimates of significance for each path of the structural model. A t-statistic for each path coefficient was obtained through the bootstrapping technique. Multiple sub-samples from an original dataset were created through the bootstrap technique (Chin 1998a; Byrne 2001), which performs a bootstrap on 1000 samples to evaluate the statistically significant
estimates for path coefficients; this approach is in line with prior studies (Mahama 2006; Ferreira et al. 2010). The results of the testing of the structural model (path coefficients), as well as their statistical significance, are shown in Figure 5.3.
Figure 5.3: The Structural Model of SR Behaviour

(With managers’ level of education as an external factor and control variables: size, the CSE listing and environmentally sensitive industries)

Notes: ***p<0.001 (one-tail); **p<0.01 (one-tail) and *p<0.05 (one-tail)
Solid lines represent significant paths.
5.4.2.1 Hypothesis 1: Behavioural Beliefs and Attitude

Based on the TPB, attitude towards behaviour depends on the underlying behavioural beliefs that a person holds about a particular behaviour. The PLS analysis (Figure 5.3 above) provided strong support (p<0.001) for hypothesis H1: that there is a positive relationship between managers' behavioural beliefs regarding SR and their attitude towards engaging in SR. The standardised path coefficient between behavioural beliefs and attitude was 0.632 with a p-value of 0.000. This result is consistent with prior studies. For example, five prior studies which used the TPB in other areas, reviewed by Ajzen (1991), provide correlations between behavioural beliefs and attitude at a significant level of p<0.05. Further to this, a meta-analysis conducted by Armitage and Conner (2001) on the TPB studies found a strong correlation (0.50) between behavioural beliefs and attitude at a significant level of p<0.001. Glandon (2003) also reports a coefficient of 0.015 (p<0.01) between behavioural beliefs and executives' attitude towards the modification of management accounting controls after implementation of electronic data interchange.

5.4.2.2 Hypothesis 2: Normative Beliefs and Subjective Norm

In the same manner as behavioural beliefs assist in explaining the attitude toward behaviour, normative beliefs explain the subjective norm towards the behaviour. Hypothesis H2, that there is a positive relationship between managers' normative beliefs regarding SR and their subjective norm to engage in SR, was strongly supported (p<0.001) (Figure 5.3 above). The standardised path coefficient between normative beliefs and subjective norm was 0.539 with a p-value of 0.000. This result is consistent with the findings of the meta-analysis of studies which used the TPB in other areas (Armitage and Conner 2001). This meta-analysis found a strong correlation (0.50) between normative beliefs and subjective norm. However, the result is contrary to Glandon's (2003) study which found, no relationship between normative beliefs and executives' subjective norm towards the modification of management accounting controls after implementation of electronic data interchange.
5.4.2.3 Hypothesis 3: Control Beliefs and Perceived Behavioural Control

Hypothesis H3 was developed with regard to control beliefs. H3 deems that there is a positive relationship between managers’ behavioural control beliefs regarding SR and their perceived behavioural control to engage in SR. This hypothesis was also strongly supported by the findings (p<0.001) as shown in Figure 5.3 above. The standardised path coefficient between control beliefs and perceived behavioural control was 0.368 with a p-value of 0.000. This finding is in line with the literature presented in the meta-analysis of Armitage and Conner (2001), which found a strong correlation (0.52) between control beliefs and perceived behavioural control. However, as in the case of normative beliefs and subjective norm, Glandon (2003) found no relationship between control beliefs and executives’ perceived behavioural control.

5.4.2.4 Hypothesis 4: Attitude and Intention

Hypothesis H4 predicted that there is a positive relationship between managers’ attitude toward SR and their intention to engage in SR. This hypothesis was supported by the data, (p<0.001), indicating managers’ attitude to engage in SR has an effect on managers’ intention to engage in SR. The attitude variable had a significant standardised path coefficient of 0.320 with a p-value of 0.000. It is interesting to note that this significant result is comparable to that of Cordano and Frieze (2000), which reports a standardised path coefficient of 0.34 (p<0.001) between pollution prevention attitude and preference to implement source reduction activities. The result is also similar to the findings by Flannery and May (2000), Glandon (2003), Weidman et al. (2010), supporting a positive relationship between managers’ attitude and their intention to engage in behaviour.

5.4.2.5 Hypothesis 5: Subjective Norm and Intention

Hypothesis H5 predicted that there is a positive relationship between managers’ subjective norm regarding SR and their intention to engage in SR. The subjective norm and intention
to engage in SR had a significant standardised path coefficient of 0.276 with a p-value of 0.000. This provides support for H5, too (p<0.001). The result is comparable to Cordano and Frieze (2000) who report a standardised path coefficient of 0.18 (p<0.01) between subjective norm about environmental regulation and preference to implement source reduction activities.

Ajzen (1991) states that the relationship between subjective norm and intention provides mixed results with no clearly discernible pattern. For example, Flannery and May (2000), Cordano and Frieze (2000), Glandon (2003) and Weidman et al. (2010) found a significant influence of subjective norm variable on intention, while in other TPB studies (e.g. Taylor and Todd 1995; Knussen et al. 2004) the subjective norm variable indicated a weaker influence on intention than attitude towards behaviour. In the present study, the significant result is consistent with that of Cordano and Frieze (2000), Flannery and May (2000), Glandon (2003) and Weidman et al. (2010). According to Armitage and Conner (2001, p.485), "subjective norm shows a reasonably strong relationship with intention when appropriately measured with multiple item scales." Therefore, it is possible to argue that the present study used appropriate measures to test the relationship between subjective norm and intention.

5.4.2.6 Hypothesis 6: Perceived Behavioural Control and Intention

Hypothesis H6 predicted that there is a positive relationship between managers’ perceived behavioural control over SR and their intention to engage in SR. The results supported the hypothesis (p<0.001), exhibiting a significant path coefficient of 0.329 with a p-value of 0.000. Prior TPB studies (e.g. Ajzen 1991) have produced similar results showing a strong relationship between perceived behavioural control and intention. Further, the path coefficient for the relationship between perceived behavioural control and a behavioural preference for source reduction activity was found to be significant (p<0.05) in Cordano and Frieze’s (2000) study. In spite of its statistical significance, the predicted sign was in the opposite direction to that found in Cordano and Frieze’s (2000) study. Weidman et al. (2010) found that perceived behavioural control significantly and positively relates to
executives’ intention to accrue environmental liabilities but not the disclosure of environmental liabilities. Further, Glandon (2003) also found that there is no relationship between perceived behavioural control and executives’ intention to modify management accounting controls after implementation of electronic data interchange. While prior research has provided mix findings, the results of this study highlight that, in the context of SR, managers’ perceived behavioural control is likely to lead to greater intention to engage in SR.

Out of the three variables (attitude, subjective norm and perceived behavioural control), Ajzen (1991) suggests the attitude variable makes a significant contribution to the prediction of intention in the TPB. Taylor and Todd’s (1995) study also revealed that the attitude variable had the strongest relationship with intention. However, Flannery and May (2000) found that managers’ attitude was a marginal predictor and subjective norm was a significant predictor of managers’ environmental ethical decision intentions. In order to find out the relative effect of the three variables, t-tests were conducted for the difference between path coefficients of attitude towards engaging in SR, subjective norm and perceived behavioural control on intention. None were statistically significant. Therefore, this study suggests all three variables have a similar effect. However, as noted before (Figure 5.3 above), the attitude to engage in SR behaviour and perceived behavioural control variables indicated higher standardised path coefficients than the subjective norm variable. This difference may be explained by statistical randomness.

5.4.2.7 Hypothesis 7: Intention and SR Behaviour

Analysis also supports hypothesis H7: that there is a positive relationship between managers’ intention to engage in SR and corporate SR behaviour. The intention variable had a significant (p<0.05) standardised path coefficient of 0.184 with a p-value of 0.029 (Figure 5.3 above). The finding shares similar results as Dowling’s (2007) study, which reports a standardised path coefficient of 0.264 (p<0.05) between intention to use the audit support system appropriately and appropriate use of the audit support system. Further, a
meta-analysis conducted by Armitage and Conner (2001) on TPB studies found a strong correlation (0.47) between intention and behaviour at a significant level of p<0.001.

The analysis was controlled for the effect of company listing on the CSE, company size and environmentally sensitive industries. It was found that none of the three control variables influenced managers’ intention to engage in SR behaviour. However, out of the three control variables, only company listing on the CSE variable reported a significant influence on SR behaviour, indicating that listed companies are more involved in SR behaviour. The path coefficient was 0.159 (p<0.05).

**5.4.2.8 Hypotheses 8a, b and c: Managers’ Level of Education and Beliefs**

According to Ajzen (1991; 2011), external variables indirectly influence intention through behavioural, normative and control beliefs. That is, background factors influence intention and behaviour, but this influence is usually mediated by beliefs (Ajzen 2005). Hypotheses H8a, b and c, that there is a positive relationship between managers’ level of education (the external variable) and their behavioural beliefs, normative beliefs and control beliefs regarding SR, were supported by the analysis. The level of education positively influenced behavioural beliefs (p<0.01), normative beliefs (p<0.01) and control beliefs (p<0.05) with path coefficients of 0.167 (p=0.007), 0.166 (p=0.004) and 0.160 (p=0.017), respectively (Figure 5.3 above). As Ajzen (1991) suggests, the results exhibited the influence of a background factor on managers’ behavioural, normative and control beliefs. This shows that managers’ level of education influences their intention to engage in SR behaviour. Further insights into the determinants of behaviour could be gained by examining the effect of a given background factor on behavioural beliefs, normative beliefs and control beliefs (Ajzen 2005).

The following Table 5.14 provides a summary of the results of hypothesis testing.
Table 5.14: Summary of Hypothesis Testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 - There is a positive relationship between managers’ behavioural beliefs regarding SR and their attitude towards engaging in SR</td>
<td>Supported</td>
</tr>
<tr>
<td>H2 - There is a positive relationship between managers’ normative beliefs regarding SR and their subjective norm to engage in SR</td>
<td>Supported</td>
</tr>
<tr>
<td>H3 - There is a positive relationship between managers’ behavioural control beliefs regarding SR and their perceived behavioural control to engage in SR</td>
<td>Supported</td>
</tr>
<tr>
<td>H4 - There is a positive relationship between managers’ attitude towards SR and their intention to engage in SR</td>
<td>Supported</td>
</tr>
<tr>
<td>H5 - There is a positive relationship between managers’ subjective norm regarding SR and their intention to engage in SR</td>
<td>Supported</td>
</tr>
<tr>
<td>H6 - There is a positive relationship between managers’ perceived behavioural control over SR and their intention to engage in SR</td>
<td>Supported</td>
</tr>
<tr>
<td>H7 - There is a positive relationship between managers’ intention to engage in SR and corporate SR behaviour</td>
<td>Supported</td>
</tr>
<tr>
<td>H8a - There is a positive relationship between managers’ level of education and their behavioural beliefs regarding SR</td>
<td>Supported</td>
</tr>
<tr>
<td>H8b - There is a positive relationship between managers’ level of education and their normative beliefs regarding SR</td>
<td>Supported</td>
</tr>
<tr>
<td>H8c - There is a positive relationship between managers’ level of education and their control beliefs regarding SR</td>
<td>Supported</td>
</tr>
</tbody>
</table>

5.4.3 Additional Analysis

An additional test was conducted to understand the influence of culture patterned by Buddhism on managers’ attitude towards engaging in SR. Although Sri Lanka is a multi-ethnic, multi-lingual and multi-religious country, the predominant cultural and ethnic composition of Sri Lanka is Buddhist culture shaped by the teaching of Buddhism. Harmony prevails between different cultures and Buddhist teaching may shape the managers’ attitude by promoting appreciation of the environment and the inculcation of sound environmental values which have been embedded in Sri Lankan culture since ancient times. This is shown in Appendix 8. Buddhism and thereby Buddhist culture was found to have a positive and significant (p<0.01) influence on managers’ behavioural beliefs which was an antecedent to their attitude towards engage in SR. The Buddhism variable had a significant standardised path coefficient of 0.166 to managers’ behavioural beliefs variable.
Further, a multi-group (Byrne 2001) comparison was conducted to examine whether there was any difference between models estimated for Buddhists and non-Buddhist respondents. Sub-samples considered were 163 Buddhist respondents and 70 non-Buddhist respondents (refer Appendix 9). All path coefficients were significant for Buddhist respondents with an $R^2$ of 0.589 and 0.062 for intention and SR behaviour, respectively. For non-Buddhist respondents, the path coefficients of intention engage in SR to SR behaviour, the influence of control beliefs on perceived behavioural control and of managers’ level of education on normative beliefs and control beliefs were not significant.

T-tests were conducted to see whether the differences in path coefficients for Buddhist and non-Buddhist models are significant. It was found that subjective norm to intention path, managers’ level of education to control beliefs path, control beliefs to perceived behavioural control path and perceived behavioural control to intention path were statistically significant. Therefore, this analysis suggests that there is a difference between these two groups in managers’ intention to engage in SR behaviour, in the effect of subjective norm, perceived behavioural control, control beliefs and managers’ level of education.

### 5.4.4 Explanatory Power of the PLS Model

As explained in the previous chapter, the PLS does not provide a test of theoretical fit. It provides the $R^2$ for endogenous variables. Hulland (1999) states that researchers should report $R^2$ values for all endogenous constructs in their models when using the PLS. The $R^2$ for each dependent variable is shown in Figure 5.3 above and Table 5.16 below. An individual’s intention to perform a given behaviour is the main factor in the TPB. Intention to engage in SR exhibited an $R^2$ of 0.620. This indicates that a large proportion of the variance of intention was jointly explained by its three antecedents: attitude towards SR, subjective norm and perceived behavioural control. More than one third ($R^2=0.400$) of the variance in attitude was explained by its antecedent behavioural beliefs. A moderate proportion of the variation in subjective norm ($R^2=0.290$) and perceived behavioural

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30 The $R^2$ of intention to engage in SR was only 0.543 with four multivariate outliers in the dataset. $R^2$ of intention to engage in SR (without outliers) improved from 0.610 to 0.620 after introducing the control variables to the model.
control ($R^2=0.136$) was explained by their antecedents normative beliefs and control beliefs respectively. The effect of managers’ level of education (external variable to the TPB) was considered as an antecedent of the main constructs of the TPB. This external variable explained the variance in behavioural beliefs ($R^2=0.028$), normative beliefs ($R^2=0.028$) and control beliefs ($R^2=0.025$) by a small proportion. However, this external variable only accounts for a small part of the variance of beliefs.

The explanatory power of the model is strong for each variable, other than the SR behaviour variable ($R^2=0.073$) and belief constructs, as stated before. Only a small amount of variance in SR behaviour was explained by managers’ intention to engage in SR, with an $R^2$ of 0.047 before introducing control variables to the model.\textsuperscript{31}

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioural Beliefs</td>
<td>2.8%</td>
</tr>
<tr>
<td>Normative Beliefs</td>
<td>2.8%</td>
</tr>
<tr>
<td>Control Beliefs</td>
<td>2.5%</td>
</tr>
<tr>
<td>Attitude</td>
<td>40.0%</td>
</tr>
<tr>
<td>Subjective Norm</td>
<td>29.0%</td>
</tr>
<tr>
<td>Perceived Behavioural Control</td>
<td>13.6%</td>
</tr>
<tr>
<td>Intention</td>
<td>62.0%</td>
</tr>
<tr>
<td>SR Behaviour</td>
<td>7.3%</td>
</tr>
</tbody>
</table>

\textbf{Table 5.15: $R^2$ of PLS Model}

5.4.5 Multi-group Analysis

A multi-group (Byrne 2001) comparison was conducted to examine whether there was any difference between models estimated for listed companies on the CSE and non-listed companies (refer Appendix 10). The reason for this multi-group comparison was that the company listing on the CSE was the only control variable which significantly influenced SR behaviour. Sub-samples considered were 76 respondents from listed companies and 157 respondents from non-listed companies. All path coefficients were significant for listed companies with an $R^2$ of 0.692 and 0.117 for intention and SR behaviour, respectively. This

\textsuperscript{31} The $R^2$ of the SR behaviour variable improved from 0.047 to 0.073 (by 2.6%) after introducing the control variables to the model.
highlights that listed companies are more involved in SR behaviour. For non-listed companies the path coefficients of managers’ level of education to behavioural beliefs and control beliefs were not significant. The $R^2$ of intention and SR behaviour were 0.597 and 0.037 respectively.

Further, t-tests were conducted to see whether the differences in path coefficients of listed and non-listed models are significant. It was found that behavioural beliefs to attitude towards the SR behaviour path, subjective norm to intention path, managers’ level of education to behavioural beliefs path and control beliefs path were statistically significant. Therefore, this analysis suggests that there is a difference between the two groups in managers’ intention to engage in SR behaviour, in the effect of subjective norm, behavioural beliefs and managers’ level of education.

5.5 Discussion

The primary purpose of this study was to investigate how different psychological factors influence managers’ intention to engage in SR and SR behaviour of Sri Lankan companies using Ajzen’s (1985) TPB. This study also examined the influence of a variable external to the TPB on SR behaviour, in addition to examining the immediate antecedents of SR behaviour within the framework of the TPB. As discussed in Chapter One, the core research question to be addressed in this study is “what are the effects of psychological factors on managers’ SR behavioural intention and SR behaviour in Sri Lankan companies?”

The data captured the conceptual model well from a statistical point of view, leading to meaningful interpretation, supporting the hypotheses. As explained above in Section 5.4.2, all the TPB variables and the external variable, the managers’ level of education, were significant in the predicted direction. The findings of this study supported all the hypothesised relationships with regard to prediction of SR behaviour of Sri Lankan companies.
According to Ajzen (2006a), beliefs play a key role in the TPB by providing cognitive and affective foundations for attitude, subjective norm and perceived behavioural control. The belief composites are the antecedents of the measures of attitude, subjective norm and perceived behavioural control. The results of the PLS analysis found that there was a positive significant relationship between behavioural beliefs regarding SR and attitude towards engaging in SR. These behavioural beliefs were based on advantages and disadvantages engaging in SR which were identified from prior literature (Adams 2002; Adams 2008; Adams and Frost 2008; Park and Brorson 2005; Herzig and Schaltegger 2006). Attitude was driven by underlying behavioural beliefs, which were based on favourable and unfavourable outcomes of SR. The present study also found that normative beliefs regarding social referents associated with SR positively influenced the subjective norm with a significant relationship. This shows that managers’ SR decision was influenced largely by the approval of their internal and external stakeholders. That is, consistent with prior literature, managers would also be influenced by social pressures (Tilt 1994; Campbell 2000; Belal and Owen 2007; Adams and Whelan 2009). The control beliefs were captured based on the factors that would facilitate or impede (i.e. availability of resources, support from the employees and managers, awareness of SR, availability of reporting guidelines etc.) the SR process. These factors are consistent with prior literature on SR (Adams and McNicholas 2007; Campbell 2000; Schaltegger et al. 2006; Lodhia 2003). These factors were internal and external to both managers and the companies. It was found that there was a positive significant relationship between control beliefs and perceived behavioural control. Managers who may perceive themselves to be in control of SR process have more confidence and are likely to engage in SR behaviour.

It was hypothesised that attitude towards SR, subjective norm and perceived behavioural control over SR would influence the intention to engage in SR based on the TPB. The managers’ positive attitude towards engaging in SR influenced their intention to engage in SR. The more positive the attitude of managers towards SR behaviour, the stronger their intention to engage in SR. Subjective norm and perceived behavioural control also influenced managers’ intention to engage in SR. The results reported that these three immediate antecedents explained a large proportion of the variance ($R^2$ of 0.610) (without the effect of control variables) in intention to engage in SR.
However, the intention to engage in SR behaviour variable did not strongly explain the variance in SR behaviour. The intention variable explained only 0.047 (without the effect of control variables) of the variation in SR behaviour. However, the pathway between intention and SR behaviour was significant (p<0.05). Therefore, results show that intention predicts SR behaviour. However, it was necessary to identify why managers’ intention to engage in SR behaviour will not translate well into actual SR behaviour. This led to the identification of other variables that determine corporate SR behaviour in addition to the variables already included in the TPB. As shown in Figure 5.3 above, the inclusion of control variables led to a minimal improvement in variance in SR behaviour (R² of 0.073).

Such findings are in contrast to various environmental accounting research studies which have found that large companies, in terms of size and operating in environmentally sensitive industries, are heavily engaged in environmental and social disclosures. Further, these disclosures vary across different industry sectors (e.g. Singh and Ahuja 1983; Patten 1992; Deegan and Gordon 1996; Hackston and Milne 1996; Neu et al. 1998; Tsang 1998; Choi 1999; Williams 1999; Imam 2000; Adams 2002; Newson and Deegan 2002; Campbell et al. 2003; ACCA, 2004; Gao et. al. 2005; Martin and Hadley 2008). However, Vormedal and Ruud (2009) found that there is no clear link between size and high reporting scores. Further, Alnajjar (2000) found that industry groups have no significant influence on total social responsibility disclosure.

In addition, according to Martin and Hadley (2008, p.253), “environmental engagement is strongly related to sector type, and certainly more so than size, where the relationship is less clear. The ‘dirtier’ sectors that pose greater risks to the environment – notably extractive or processing sectors such as utilities and industrial engineering-are more heavily regulated, and hence tend to be more engaged in both satisfy[ing] and pre-empt[ing] regulatory controls as well as to exploit greener marketing opportunities where possible.”

Nevertheless, in the present study both the size variable and the environmentally sensitive industries variable were found to be statistically insignificant predictors of managers’ SR intention and corporate SR behaviour. This may be due to the fact that there is no operation
of major environmentally sensitive industries such as coal mining, oil exploration, and chemicals, whereas the power and energy industry in Sri Lanka have environmental safeguards. However, these industries are not legally required to engage in environmental, social or SR. Prior research has identified electronics, petroleum, chemical and oil and gas industries as significantly affected by environmental regulations due to their environmental sensitiveness (Alciatore and Dee 2006; Karim et al. 2006; Freedman and Stagliano 1995).

Company listing on the CSE variable was a significant influence on SR behaviour (p<0.05). This was expected as these CSE listed companies are exposed to the CSE regulatory environment, greater public scrutiny and expectations than non-listed companies. This may have created pressure for listed companies to engage in SR for greater transparency and accountability. Most of the listed companies include a sustainability section or chapter in their annual reports, even though SR is a voluntary reporting practice in Sri Lanka.

Ajzen, (2006a, p.1) suggests that “intention is thus assumed to be the immediate antecedent of behaviour. However, because many behaviours pose difficulties of execution that may limit volitional control, it is useful to consider perceived behaviour control in addition to intention. To the extent that perceived behavioural control is veridical, it can serve as a proxy for actual control and contribute to the prediction of the behaviour in question.” Therefore, in addition to the above mentioned control variables, actual behavioural control may have inhibited the translation of managers’ favourable intention into actual SR behaviour. The perceived behavioural control captured by the questionnaire were availability of financial resources, availability of time, support from employees and top management, availability of SR guidelines and non-financial data collection procedures, existence of a stock of specialised employees’ knowledge, skills and expertise, ease in assessing reliable data, ease in changing the mind-set of management, awareness of the potential benefits of SR, familiarity with SR practices, availability of accepted accounting standard for SR and concerns about the company’s stakeholder accountability (Bebbington et al. 1994; Deegan et al. 1996; Adams 2002; Adams and McNicholas 2007; Campbell 2000; Schaltegger et al. 2006; Lodhia 2003). By considering the above perceived behavioural control measures as proxy for actual behavioural control, the moderating effect of actual control belief on the intention and SR behaviour was tested, as suggested by Ajzen
(2006a), and the moderating effect found to be statistically insignificant. Ajzen (2005) notes that there could be a gap between intention and behaviour due to literal inconsistency. That is, sometimes people do not act on their stated intentions. Further, the effect of intention on behaviour is stronger when actual control is high (Ajzen 2005). Although, the moderation effect of actual behavioural control on the relationship of intention and SR behaviour was not statistically significant, the reasons for a weak relationship between intention and SR behaviour is explored further in the next chapter, in the interview data analysis and discussion.

Ajzen (1985) states that individual and situational characteristics indirectly influence behaviour through behavioural, normative and control beliefs. That means these background factors influence SR intention only indirectly to the extent that they influence the way individuals perceive and feel about the behaviour. The present study considered only one external factor at the organizational level as the TPB was applied to an organizational context. That was the managers’ level of education. This allowed the level of analysis to remain the same. Consistent with Ajzen (1985), it was found that managers’ level of education has an effect on the behavioural, normative and control beliefs held by managers which influenced their immediate antecedents of SR intention (attitude to engaging in SR, subjective norm and perceived behavioural control). This finding is consistent with prior literature which examines the role of education in explaining and changing managers’ belief systems (Quinn and Wennes 2008; Sobczak et al. 2006; Ali and Schaupp 2001). This education variable captured the managers’ general education not their specific education on sustainability issues. Although it is not clear whether this has captured the managers’ sustainability education, one could argue that the majority of managers are qualified in many different disciplines, including accountancy, banking, finance, information technology, law, marketing, engineering, and human resources management and that managers had some form of education in the area of environmental and sustainability. Most of the managers were exposed to overseas training, some receiving their tertiary education in foreign countries. Others have overseas experience participating in various training programs, seminars and study tours related to environmental management. However, this was not surveyed in this study. Nevertheless, this interpretation reinforces the importance of incorporating environmental, social and sustainability
education and training in primary, secondary and tertiary level curricula in shaping the beliefs of future managers.

The findings of the present study, which examined the factors influencing managers' SR intention and corporate SR behaviour within the framework of the TPB, showed that intention to engage in SR is significantly influenced by individual factors (attitude), sense of social pressure, sense of control over performing the behaviour, Buddhist culture and education. In turn, managers' attitude, sense of social pressure and sense of control over performing the SR behaviour was influenced by their beliefs regarding SR.

The TPB was found to be applicable to SR area and it provides a theoretical platform for researchers to further investigate this area. The above results indicated strong support for the conceptual framework based on the TPB that included the education (external) variable. The findings establish the need to consider the influence of managers' beliefs, attitude, societal pressures regarding SR and managers' control over behaviour when engaging in SR behaviour. The findings may also help to clarify the importance of SR. Companies may need to take the challenge to improve SR behaviour by understanding and finding ways to influence managers' actual control over the SR process and their other psychological variables that determine their intention to engage in SR behaviour. Understanding why managers hold certain beliefs, attitude, subjective norm and perceived behavioural control will be helpful when developing programs for behavioural interventions (Ajzen 2006b).

5.6 Chapter Summary

This chapter discussed the treatment of missing data in the dataset, reverse scoring of scale items, an independent sample t-test for paper-based and web-based questionnaire survey, the non-response bias and outliers in the dataset. This was followed by factor analysis, the PLS measurement and structural models, hypothesis testing and discussion.

The conceptual framework of this study was tested using the PLS Graph Version 3.0 software. The conceptual framework examined the relationships between latent variables,
behavioural beliefs and attitude towards SR, normative beliefs and subjective norm and control belief variables and perceived behavioural control variables. In addition, the conceptual framework predicted a positive directional effect that the latent variables of attitude towards SR behaviour, subjective norm regarding the SR behaviour, and perceived behavioural control over performing SR behaviour have upon the intention to engage in SR behaviour. Then the effect of intention on SR behaviour was examined. The managers’ level of education variable was included in the conceptual framework to examine the directional effect of an ‘external’ variable on behavioural intention through behavioural, normative and control belief variables of the TPB. The findings of this study supported all the hypothesised relationships with regard to prediction of SR behaviour. The next chapter will discuss the semi-structured interview data analysis and discussion of the findings.
CHAPTER SIX

SEMI-STRUCTURED INTERVIEW DATA ANALYSIS

6.1 Introduction

This chapter focuses on the analysis of the data collected from the semi-structured interviews. Its purpose is twofold. The first purpose is to obtain evidence to triangulate the survey findings discussed in the previous chapter. The second is to attain a more in-depth understanding of managers' intention formation and corporate SR behaviour by exploring and revealing issues and factors emerging from the semi-structured interviews.

To elicit the salient behavioural, normative and control beliefs pertaining to SR, interviews were conducted until saturation was reached. This was achieved with the 20 semi-structured interviews of top and middle level managers of Sri Lankan companies. Interviews lasted an average of 30 minutes (minimum of 15 minutes and maximum of one hour). The mix of managers was selected from 11 listed and six non-listed companies on the CSE. Nine of those companies were known to be involved in SR practices. The data collection process and analysis was guided by the conceptual framework of the study, which is based on the TPB. The evidence collected was analysed using NVivo8 software package. As discussed in Chapter Four, all audio-taped interviews were transcribed as initial data preparation and uploaded to the NVivo8 software package.

The following sub-sections present the findings, which are focused on seeking evidence that may support or detract from the survey findings. The rest of the chapter proceeds as follows. Section 6.2 discusses how the term SR is viewed by managers. In subsequent sections (Section 6.3, 6.4, 6.5 and 6.6), the findings will be discussed under different headings which relate to the TPB constructs for ease of explanation. Direct quotations are used to link evidence to theoretical constructs of the TPB. These will be followed by Sections 6.7 and 6.8, discussions on the barriers to corporate SR behaviour and other country specific issues, respectively. This chapter ends with a brief summary.
6.2 Perceptions of SR

Before going into detailed discussion on the interview findings, it is important to examine how interviewees viewed the meaning of the term SR. This sets the scene for understanding managers’ beliefs regarding SR.

The interview findings reveal that managers of SR companies had a good understanding of the meaning of the term SR. They viewed SR as a form of integrated public reporting of the company’s triple bottom line performance. One interviewee stated:

“SR ties everything together to understand the triple bottom line performance and how well we are doing.” (Interviewee C: Vice-President – Sustainable Development)

Similar views were expressed by the Head of Sustainability, Corporate Responsibility and Public Policy of another organization:

“Sustainability report will be the score card that we will present to our stakeholders on our performance in terms of the triple bottom line.”

Another interviewee explained what SR meant to his company:

“SR to our company means basically talking about the manner in which we operate our company in a sustainable fashion balancing social, economic and environmental objectives and (...) reporting on what we do within a common guideline. We set benchmarks and targets for triple bottom line performance and then report our performance against those targets.” (Interviewee E: Head of Sustainability)

During the interviews it was felt that some managers from non-SR companies do not have a thorough understand of the SR process; however, they had a basic understanding of the terms sustainability and SR. The following quotation most succinctly illustrates this:

“Well, in the modern-day management and modern-day world all kinds of words have come; sustainability is one. Sustainability to us is to be in the trade and to be within the framework of well-known brands; that is the way I look at sustainability. In order to sustain you have no choice other than to report with
the modern-day trends; we have to go in line with certain norms, especially in line with environment.” (Interviewee L: Managing Director)

A more detailed discussion on SR based on the TPB constructs will be provided in the following sections.

6.3 Behavioural Beliefs and Attitude towards SR

According to the TPB, behavioural beliefs are the immediate antecedents of attitude towards behaviour. Attitude is related to a person’s behavioural beliefs about performing the behaviour, evaluation of consequences associated with the given behaviour and the strength of these associations (Fishbein and Ajzen 1975; Ajzen 1988; 2006a). Therefore, it was necessary to identify the participants’ behavioural beliefs regarding SR to determine their attitude towards engaging in SR. To this effect, three questions were asked to elicit perceived consequences/likely outcomes of engaging in SR behaviour (refer Appendix 5.1 – Section 2).

The interviewees explained the perceived consequences as well as the advantages and disadvantages of engaging in SR, which are expected to have led to the behavioural beliefs and attitude to engaging in SR exhibited by interviewees.

All 11 interviewees of SR companies claimed that SR has the ability to improve the reputation of their companies and competitiveness. They were of the view that when companies are more transparent and are willing to declare what they do, this would enhance their prestige and competitive position in the market. SR further helped them to interact with their stakeholders by improving stakeholders’ knowledge about their company’s activities towards sustainable development. Due to enhanced transparency, accountability and greater interaction with stakeholders, according to interviewees, companies were able to enhance their brand image as well as improve perceptions of a socially responsible corporate citizen. Reporting on certain sustainability related projects that companies had undertaken has helped them to create an image through added publicity, creating an avenue to run their businesses more effectively and more profitably in the long term. This finding
is consistent with literature revealing that one of the main motivations for corporate social reporting was to enhance the corporate image (McGowan et al 2000; Adams 2002; O’Dwyer 2002; Sahay 2004; Belal and Owen 2007), and gaining competitive position (Daub 2007; Herzig and Schaltegger 2006). These overall behavioural beliefs were clearly demonstrated in the responses with positive outcomes of SR cited through consistent use of the words ‘enhanced brand image’, ‘recognition’, ‘reputation’, ‘goodwill’ and ‘sustainability’. The following two quotations further establish the prevalence of positive behavioural beliefs pertaining to SR:

"We believe that this [SR] would help us enhance our brand image as well our image as a corporate citizen. We see the benefits of SR from getting our stakeholders more involved in our business by giving them more information, being more transparent in the way we manage our business and this is an opportunity for us to be transparent beyond just numbers." (Interviewee E: Head of Sustainability)

"It [SR] also helps us in terms of good reputation, image as well as profits to be in business; in other words it helps improve our sustainability." (Interviewee H: General Manager – Risk, Compliance and Sustainability)

Thirteen interviewees expressed the belief that SR would improve monitoring of the environmental and social impacts of the company. If there is a SR mechanism in place then organizational actors would be more concerned to see how sustainability activities would be carried out. The implementation aspect and the outcomes of those activities would be viewed more carefully. All 11 interviewees of SR companies expressed the view that monitoring is something that they need to work on further by developing relevant performance indicators. An interviewee expressed this idea as follows:

"Identifying sustainable key performance indicators and tracking those to further improve monitoring, is an area we really need to improve."(Interviewee H: General Manager – Risk, Compliance and Sustainability)

By improving their existing monitoring mechanisms of environmental and social aspects, interviewees believed that they would be able to close the gaps within the existing systems thereby leading to enhanced monitoring that would facilitate SR. Monitoring would further help them to set benchmarks and targets for triple bottom line performance and to report performance against those targets. Some interviewees of non-SR companies also stated that
if they were going to engage in SR they would have to develop a monitoring mechanism with 'proper' systems and the 'right' performance indicators.

It was also asserted that the provision of more sustainability information (SR) could facilitate the monitoring, internal decision making process and communication. This view supports Adams's (2002; 2008) comment that better internal systems and control due to corporate social reporting has the potential to lead to better decision making and to cost savings. The majority of the interviewees of SR companies perceived that monitoring would facilitate improved communication within the company. They were of the view that the company should communicate in a way that enables internal and external parties to understand the company's triple bottom line performance. It was evident that many interviewees perceived SR as a tool for improving communication with both internal and external audiences, and for facilitating the decision making process as is aptly demonstrated in the following interviewee statement:

"It all depends on how you are engaged with this entire [SR] process and how you disseminate information to all employees in a very simple, understandable and easy way. This [SR] helps internal decision making and communication."
(Interviewee F: Head - Sustainability, Corporate Responsibility and Public Policy)

In addition to the above, a CEO of a non-SR company added credibility to the belief that SR functions as a communication tool, when he expressed his views regarding the link between SR, monitoring and communication:

"If we are going to get into SR we will have to develop some monitoring mechanism with 'right' performance indicators and that will increase the communication within the company." (Interviewee K: CEO)

Many interviewees of SR companies mentioned that SR would assist in enhancing staff morale and contribute towards attracting competent employees to the company. The results are similar to Adams’s (2002) findings, who states that companies would benefit from corporate social reporting as it helps to attract to, and retain in, the organization the most talented people. This point could be linked to the issue discussed above in relation to the internal communication. Many interviewees believed that with better communication,
employees would be more motivated because this would enable them to understand what the company was doing with regard to sustainability and SR, as well as the potential benefits arising from such practices. This idea is supported in the literature (Herzig and Schaltegger 2006).

Seven interviewees explained different sustainability policies and practices adopted by their companies to enhance staff morale, support employee motivation and attract more talent to their companies. For instance, some companies practised a very strong open-door policy, whereby every day would start with an open session where an employee, irrespective of the positions he/she holds in the organization, would be required to say something to improve the sustainability efforts of the company. Four companies have sessions where employees can write their views, suggestions and complaints about different sustainability initiatives or post them on the intranet. These suggestion boxes or idea banks were opened and considered weekly. This was to bring to the organization a culture of innovation. These interviewees further explained that many of the ideas put forward by staff have been put into practice and used in reporting and that, as consequence, they have been able to reap benefits. For example, ideas of how to save water, energy, paper, how to improve social benefits of the employees and the society etc. A General Manager expressed the idea that, due to these initiatives, in his company "the majority works with passion as everyone understands the kind of business they are in, one which values sustainability and SR."

Seven interviewees explained that employees were quite positive about SR because this enhanced their personal status by working for a good corporate citizen. Some interviewees believed that a strong brand and corporate image generally helps to attract talent into the organization and they hoped SR would strengthen this image. An interviewee expressed this idea as follows:

"Employees truly respect a lot for what we do. When we report they realize how much we have done; then they see the whole big picture; the final report ties everything together to understand the triple bottom line performance and how well we are doing. SR is what the employees also require and they are proud of the company; loyalty will improve and trust and confidence in the business." (Interviewee C: Vice-President – Sustainable Development)
Fifteen interviewees of SR and non-SR companies stated that SR involves a cost; however, interviewees of SR companies perceived SR as an activity that would lead to future cost savings for the company. It would also help companies to increase their revenue and market share because they could justifiably say how they were different from the rest and portray goodwill to the general public. Many interviewees of SR companies also perceived that SR was a way of differentiating themselves to achieve a competitive advantage and thereby strengthen their position in the market. They were of the view that differentiation, robust corporate governance structure and strategic innovation and research and development are three things which are paramount for a company. These interviewees noted that SR would bring a long term return. Further, the image, perception, and the culture that is created by being an environmentally friendly company would encourage employees to be more energy efficient and productive. Also, SR practices would encourage companies to look at creative ways to become economically sustainable through cost management, value analysis and managing carbon footprints. This has made interviewees of SR companies consider the cost of the SR process as an investment in sustainable business, leading to cost savings in the longer term and improving future returns. The following quotation most succinctly illustrates this:

"The cost factor is there but we are a team who strongly believes that this [SR] is going to pay off. This would reduce cost and increase profits in the long run for us; we will not look at this from a cost angle but as an investment."
(Interviewee A: General Manager)

Three interviewees also expressed the view that SR would help mitigate certain government issues and regulations and this would delay legislation, as suggested in literature (Buhr 1998; Adams 2002). Some managers were of the view that SR is more than a marketing tactic and their companies have committed to sustainability principles. Some companies have changed their whole business model based on sustainability, thus facilitating the SR process.

As explained in this section, managers expressed their beliefs regarding consequences or outcomes of engaging in SR. It became apparent when analysing their responses that all the managers, including managers from non-SR companies, perceived SR as important. They identified the benefits of SR and expressed a positive and favourable attitude towards
engaging in SR. This premise was tested in Chapter Five, where it was found that managers’ behavioural beliefs influenced their attitude to engaging in SR. The interviews also support this relationship as shown by the following quotes:

“SR is something that we have believed. We are in the business of making a profit. We don’t deny that. But if you look at certain other companies, the triple P means profits, profits, and profits. In our company it is people, planet and profits. Our company very strongly believes that in the future SR should be the key.” (Interviewee A: General Manager)

“We feel that SR in coming years definitely will give more benefits than right now. In that context I am very positive about the SR.” (Interviewee G1: General Manager in Finance)

The managers’ positive attitude towards SR may also stem from a combination of personal and social value systems inspired by Buddhist culture. It could be argued that managers may have a positive attitude to engaging in SR due to their sustainability mind-set influenced by Buddhist culture, which promotes achieving balance. An interviewee expressed how the Buddhist culture influenced the sustainability mind-set in the following way:

“Our team is reflecting true Sri Lankan Buddhist culture and traditions. We have contributed heavily towards the green environment. It has always been more on the eco-friendly side. Anybody going to our resorts will identify good environmental policies that we have adopted in our own way. We are very much Sri Lankan culture-oriented. That is something we value very much within this group. We want to make the foreigners aware of the good things that we have in this part of the world. We have a rich history of more than 2500 years. We want to maintain that identity of having a rich culture.” (Interviewee L: Managing Director)

As depicted above and as discussed in Chapters One and Five, a positive attitude to engaging in SR seems to derive from the culture and value systems that pervade Sri Lankan society, stemming primarily from the pervasive influence of Buddhism and its philosophy in shaping beliefs. Thus, among other influences, Buddhist culture may be a key contributory factor to positive attitude to engage in SR. However, despite the positive attitude towards SR, it is important to note that not all the companies are engaging in SR. This issue will be discussed in detail in Section 6.7.
In this study, managers’ level of education was proposed as an antecedent of managers’ beliefs regarding SR and evidence was found in support of this relationship. While the variable measured the level of general education of managers, interviews revealed that some managers had also been exposed to sustainability related education. In the words of an interviewee:

“Personally I have just finished a Postgraduate course at Cambridge University in Sustainability Business; what I have developed is a model which I believe will be the new model in corporate responsibility and I termed it new paradigm strategic corporate sustainability.” (Interviewee D: Director – Corporate Branding and Strategic Sustainability)

The managers who had received some form of sustainability related training or education may have a positive attitude towards SR and may be keener to engage in SR, possibly because of greater awareness of potential benefits. The above finding strengthens the view regarding education. Not only is there a need to improve general education but, specifically, also about sustainability. It highlights the importance of incorporating sustainability education in business and commerce curricula as a means to improve future decision makers’ SR behaviour.

A number of companies have started different sustainability projects that do not accrue any economic gains, with the aim of educating the next generation of school children on sustainability issues. Many interviewees thought that this is the level at which sustainability thinking should be inculcated in children. An interviewee stated that one of these programs has now become the UNESCO benchmark for teaching sustainability development to schoolchildren. He was proud to say that they have made some impact with this program and that their idea at the school level had been embraced by UNESCO worldwide.

6.4 Normative Beliefs and Subjective Norm

A subjective norm is a function of normative beliefs. Normative beliefs are concerned with the likelihood that important referent individuals or groups approve or disapprove of performing a given behaviour (Ajzen 1991). During the interviews two questions were
asked of the participants to elicit the identity of relevant referent individuals and groups (stakeholders) who would approve SR and the managers’ willingness to comply with the wishes of those stakeholders (refer Appendix 5.1, Section 3).

All the interviewees, including interviewees from non-SR companies, identified employees, shareholders (including parent company), business partners such as customers and suppliers who are connected with the value chain, government and law enforcement authorities, bankers, NGOs and the community at large as important stakeholders who would approve companies engaging in SR.

All 11 interviewees from SR companies stated that their companies are reporting on sustainability issues to their stakeholders, as they perceived that it is important to comply with wishes of internal and external stakeholders. This was mainly because companies thought that stakeholders were important for them and companies should try to be more accountable to those stakeholders. Adams (2002) notes that corporate social reporting increases credibility with stakeholders and would help address public pressure regarding corporate impacts. These interviewees further explained their beliefs about social pressure from stakeholders and how the companies could react to that social pressure by disclosing information. The majority of participants (15) explained that SR could be used to disclose information to stakeholders, as a way communicating to stakeholders to legitimise their company activities and to get the license to operate in the society. When the stakeholders see SR they feel good and they realise that they are with an organization that is consistently focusing on sustainability matters. When companies report on sustainability, stakeholders understand the company is taking certain actions because it is a company based on sustainability principles. Stakeholders would like to work, or continue their affairs, with such companies when they understand why SR is needed and also they know that if the company becomes affected they would also become affected. Interviewees of SR companies noted that stakeholders are proud of SR and the work they do on environment, and social responsibility. So far stakeholders have not objected to it.

Interviewees of SR companies also recognised the importance of SR to the employees, as a key asset of the company. Employees have a certain respect and regard for the company
based on its principles and the way it conducts the business. With experience, employees would become very keen and quite passionate about the SR process. In the words of an interviewee:

"Employees do a lot for the organization; so they also would like to know what the organization does for them. So they are quite keen and positive about it [SR] and they all help towards that. I don't see any hindrance from any parties."

(Interviewee C: Vice-President – Sustainable Development)

Seven interviewees were of the belief that stakeholders are watching every single move of the company. For example, environmental NGOs take action against the companies who are degrading and polluting the environment. Further, some interviewees explained that the government so far has been very supportive and appreciates fairly good environmental and social practices and they were happy to accept any SR requirement that the government might bring forth in the future. Further, some interviewees believed that big exporters are influenced by the foreign customers, given the fact that Sri Lanka has an export-oriented economy. This result is similar to Belal and Owen's (2007) finding in Bangladesh where the influence of international buyers created a demand for corporate social reporting from the domestic export-oriented companies. However, some interviewees noted that customers expect companies to do sustainability projects without their support. Having an environmentally friendly plant, good ethical guidelines and doing sustainability projects all comes with a cost. That cost is not compensated for by the customer. However, as noted before, some companies tend to consider the cost element as an investment which brings a future return.

SR companies have taken several initiatives to manage their different stakeholders. Certain processes and procedures were adopted by companies to ensure that they work with their stakeholders in a way that adds value to stakeholders and companies. Mio (2010) states that lack of materiality and inclusiveness in SR can be improved through the dialogue with stakeholders. To improve SR, attention should be directed at managing the sustainability process.

To make the businesses sustainable into the future, the interviewees felt that it is necessary to listen to stakeholder requirements. Initially, some companies do a stakeholder mapping
and classification to see who are the most important stakeholders to the business, then proactively try to engage with a cross-section of the stakeholders to get a good idea of, what they want the company to do. When companies invite stakeholders for a dialogue there is a facilitator who is independent and a very credible person who is willing to improve the dialogue between the stakeholders and the companies. This helps companies to know what their stakeholders want from the company. It is a process of simply listening and responding to stakeholders to make the businesses sustainable, which also facilitates a two way communication. This process had helped workers and even villagers to talk freely, about the ill effects or the good effects as they all get an opportunity to take part in a dialogue. This process has also helped to collect information to be more transparent. So companies are in a position to communicate with the stakeholders and stakeholders could decide whether companies are doing the ‘right thing’. However, it was noted that getting stakeholders to come and speak to company representatives is a challenge. Some companies have been very successful in dealing with stakeholders who really mattered to them, because they have realised that without a dialogue the SR process is not worthwhile.

Four companies manufacturing in rural areas want to make sure that the community also develops along with the company. Some of their workers come to work from those communities because companies do provide job opportunities to people in those rural areas. Then they can make a decent living without having to engage in heavy physical work. Interviewees from these companies believed that the rural workers need to develop to have the ‘right mind-set’ to work with the company. Further, the rural communities where the companies are operating need to accept the business as socially responsible. These companies have adopted different mechanisms: for example, having Community Advisory Panels to help them develop the rural communities where they are operating. Companies include several important personnel in their Community Advisory Panel such as the mayor, a school teacher from a leading school, religious leaders from religious institutions, the village headman and any other local authority they feel important to be in the Community Advisory Panel. Companies work together with them to conduct necessary assessments, prioritise and address the stakeholders, train and develop workers to sustain their jobs without clashing with the culture, and this leads to better planning for the future. These
companies have a sustainability coordinator to get the support and involvement of employees in sustainability initiatives and reporting.

SR companies have research units to formulate sustainability strategies to facilitate reporting. Companies adopt different strategies, initiatives, activities and programs to manage their own employees in career advancement, work life balance and rewarding excellence. Some companies pay above market rates to their employees to reduce staff turnover, provide them with meals while they are on duty, and accommodation. These companies have many welfare activities for, and benefits to, the employees, such as interest free loans, medical facilities, programs to address gender, diversity, empowerment and so forth. In the words of an interviewee:

"We champion the issue of women’s empowerment in the apparel sector through our programs and this probably is the benchmark championing women’s empowerment worldwide and has been listed in all the United Nations Reports as the best practice; including the human rights report. At the end of each year we reward the most empowered women in each of our factories. This we have done for the last five years and we have a very grand awards ceremony." (Interviewee D: Director – Corporate Branding and Strategic Sustainability)

As explained, the managers expressed their beliefs regarding stakeholders’ approval for the company to engage in SR and managers’ willingness to react to stakeholder pressure through engaging in SR. In Chapter Five, this relationship between normative beliefs and subjective norm regarding SR was statistically tested and a significant relationship was found between the two constructs. The above interview findings further support this relationship between normative beliefs and subjective norm.

6.5 Control Beliefs and Perceived Behavioural Control

Control beliefs about resources and opportunities (i.e. beliefs concerning factors that can prevent or facilitate goal attainment) can be considered as underlying determinants of perceived behavioural control (Ajzen 1988). Three questions were asked of the participants to elicit the factors that may facilitate or impede SR (refer Appendix 5.1, Section 4). The
questions helped to identify participants’ beliefs regarding how non-motivational factors affect the SR process.

The majority of interviewees (16) perceived that the key success factor for implementation of SR in an organization is the support from top management and their faith in it. The support of top management is necessary as that would facilitate the SR process. This notion has been supported by the literature on social reporting (Campbell 2000; Schaltegger et al. 2006).

All the interviewees of SR companies were of the view that initiation for SR has to come from the top where senior management decides on SR as a way forward. The top management should be instrumental to SR efforts of the company. This is because the benefits of SR cannot be harvested immediately. Line managers do not understand this because they want quick gains within the next two or three years, as they are short-term, performance oriented. SR is a strategic element and represents a strategic stand for a company. Strategic decisions have to come from the top management and their commitment to SR is necessary to communicate widely within the company. A number of interviewees described it as follows:

"I believe that the leader of the organization is pivotal in that [SR]. The top management, top men or the top women and the senior management team have to really spread the message and live with it." (Interviewee E: Head of Sustainability)

"Being one of the pioneers of SR within this company we have tried out various methods but unfortunately it has to be more or less the stick and the carrot method; so it has to come from the top where the senior management decides on this as a way to go." (Interviewee F: Head - Sustainability, Corporate Responsibility and Public Policy)

"From the very word go from the top management we began to report on sustainability issues in the annual reports." (Interviewee A: General Manager)

Some companies have a corporate social responsibility (CSR) Steering Committee which gives direction and approval to execute sustainability activities and reporting. These companies have a very good governance structure where the top people like the Chairman, Regional Directors and senior managers are involved in the CSR Steering Committee. In
some companies, the champions get together and informal leaders rise up to form environmental committees. They become like advisory committees to the top management. They generate ideas, identify the possibilities, rectifications, alterations, and finding better methods and they inform the top management on relevant sustainability issues.

Furthermore, all the interviewees of SR companies expressed the view that the availability of guidelines, such as the GRI SR guidelines, facilitates the SR process and sets performance benchmarks among companies. They explained that the GRI is the only available guideline which is useful and would be a good base to work on SR. Some were of the view that they are very committed to using the GRI guidelines, which serve as a standard for SR. Furthermore, it gives guidance in ascertaining whether companies are doing ‘things right’ as per a global standard. An interviewee explained:

"We have continuously improved [SR] right throughout and the GRI guidelines helped us to benchmark our operations with other companies; that is one of the benefits of using the GRI guidelines." (Interviewee B: CSR Manager)

It was interesting to note that three managers have attempted to link the GRI indicators with the value chain. They were of the view that each indicator represents a certain element in the value chain and there is a positive connection there. With this link, each owner or each line manager of a particular element in the value chain (for example, the marketing manager, the production manager etc.) could use these indicators to their own advantage. First of all, managers see where they stand and then set up a certain target or benchmark, which may be compared with a competitor or with a global company or may be internally; they then gradually improve on certain targets which they think is appropriate. The more detailed analysis through the GRI guidelines allows companies to narrow down to a certain issue, identify what the issue is and then eliminate it in order to be a better and more profitable company. Managers were of view that the GRI guidelines indirectly help the company’s bottom line.

Further, the interviewees stated how the United Nation Global Compact (UNGC) and its sustainability principles helped them in SR. Two member companies of the UNGC Sri Lanka Network have been recognised at the UN level. Both of these companies are in the
top 10 or 20 companies worldwide in terms of environmental and sustainability initiatives and reporting. In the words of an interviewee:

"When we started as a member of UNGC we began to report in terms of 10 GC principles, stemming from labour, human rights, environment and anti-corruption. It was initially perceived as probably a distraction to get into these areas; but since we have signed up to the GC things have become a lot more structured." (Interviewee D: Director – Corporate Branding and Strategic Sustainability)

It was surprising to note that companies which have signed up to the UNGC Sri Lanka Network are sensitive to, and have been using, the GRI SR guidelines to structure their reporting. The GRI has shown where the UNGC10 principles link to the GRI indicators. So the GRI guideline has gone one step further, where anyone who abides by the GRI framework definitely abides by UNGC principles. The managers were of the view that the GRI is the key guideline and should not be diluted with too many frameworks. There should be one framework that everybody can adhere to. This is aptly demonstrated in the following interview statement:

"I can say that of the 30 odd companies that are in the Network, between 20 and 30% now are using the GRI guidelines and developing their own sustainability reports. And they are doing an extremely good job in terms of managing the SR using, GRI guidelines." (Interviewee D: Director – Corporate Branding and Strategic Sustainability)

Managers further expressed their beliefs and experiences concerning factors that would prevent or facilitate the SR process. This reflected their past experience and expected obstacles. As discussed in Chapter Five, the control beliefs and perceived behavioural control relationship were found to be statistically significant. This relationship was further supported by the interview findings. A further discussion on managers’ experiences and the barriers to corporate SR behaviour will be provided in Section 6.7.
6.6 Intention to Engage in SR and SR Behaviour

The main factor of the TPB is an intention to perform behaviour. None of the interviewees denied that they were in the business of making a profit. All the interviewees from SR companies said that the triple bottom line, of people, planet and profit, was in their hearts, intrinsic and embedded into their business model which supports SR. They were of the view that they need not change their business model in order to cater to the SR element. All the interviewees of companies which have already begun SR expressed their willingness to continue with SR. Non-SR company managers also expressed their willingness or intention to engage in SR in the future. The following quotation of a Managing Director of a non-SR company most succinctly illustrates this:

"I think it is a good thing to have a reporting system on sustainability activities where the environment is protected, health and safety of workers assured, pollution of all types prevented. So that people can check whether the company is doing the right thing or not." (Interviewee J: Managing Director)

Some companies have started providing sustainability related information to the public recently, so SR is still in its infancy. Only a few companies report on sustainability when there are 232 public quoted listed companies and thousands of non-listed companies in Sri Lanka. The concept of SR is relatively new and it is only beginning to disseminate in Sri Lanka.

Six interviewees revealed that their companies have had environmental management systems in place with environmental, social and sustainability policies for a long time. Based on that foundation, these companies have gone for local and international certifications to achieve a competitive edge and to facilitate SR. As illustrated by an interviewee:

"We have an environmental management system; having a system alone is not enough as far as the market is concerned; we have to go for international standards and get certified; we go for standards like ISO 9001 and 14001 for environmental systems." (Interviewee G2: Consultant - Social and Environmental Management)
All the interviewees of SR companies further explained the current level of SR behaviour by focusing their attention on how progress was made up to this point. Some companies have made an attempt to produce a ‘good’ report. It was quite inspirational. Some companies have gradually recognised the importance of SR and continuous improvement as part of striving to achieve excellence and success. Once they start reporting, companies realise that they need improvement in certain areas. All the interviewees of SR companies expressed their intention to continue engaging in SR by giving due reference to the GRI SR guidelines. Some companies were planning to issue a separate sustainability report in the future. Some managers stated that after signing up to the UNGC the systems have become a lot more structured and it helped them to focus on SR. In some companies SR was substantial and at a relatively high level, namely some report in the Chairman’s Report or a separate section was devoted to such reporting. An interviewee explained the progress they have made in the following manner:

"Initially, I can remember we introduced two pages, on social and, environmental impacts and sustainability. Then next year it went up to four or five pages; and went up to 11 pages and now we have a separate chapter."

(Interviewee G2: Consultant - Social and Environmental Management)

It was also necessary to find out the extent of reporting and what areas were more focused on by companies. The majority of interviewees of SR companies explained that they equally focus on the triple bottom line. An interviewee from an apparel manufacturing company expressed that the company he works for gives more focus to reporting social aspects. This was mainly because the greatest sphere of influence that they have is in terms of employees. Therefore, a lot of focus has been on social reporting in terms of labour and human rights. On the other hand, two interviewees from the same company expressed the idea that they integrate the triple bottom line by giving more weight to environmental aspects. This was mainly due to the nature of their businesses.

It was interesting to note that three SR companies have gone a step further by giving due consideration to auditing their sustainability reports. Some companies have an intention to audit their sustainability reports in the near future to increase the credibility of their reports. Some managers stated that every single item in their reports was acknowledged by an independent verifier. They were satisfied with the fact that their reporting is very
transparent and the process is followed quite well according to AA1000 assurance standard. Some companies were planning to look for specialised companies in sustainability to conduct an audit as it would help them in developing and introducing their capacity building initiatives in this area.

The above findings reveal that some companies are engaged in SR behaviour and they are making good progress on SR aspects. However, this was the case with companies already engaged in SR. The survey results discussed in Chapter Five found that there is a positive and significant relationship between intention and SR behaviour. However, this relationship was found to be weak as a variance of only 4.7% (without the influence of control variables) of SR was explained by the intention. The interview results shed some light on this relationship. It is important to find additional explanations for why managers’ intention is not largely translating into corporate SR behaviour. This led to the following section, which discusses the barriers to SR reporting.

### 6.7 The Barriers to Corporate SR Behaviour

The barriers discussed in this section provide an explanation for the weak relationship between intention to engage in SR and SR behaviour within the TPB. Ajzen (2006a, p.1) suggests that “intention is thus assumed to be the immediate antecedent of behaviour. However, because many behaviours pose difficulties of execution that may limit volitional control, it is useful to consider perceived behaviour control in addition to intention. To the extent that perceived behavioural control is veridical, it can serve as a proxy for actual control and contribute to the prediction of the behaviour in question.” That is, according to the TPB, intention would translate into behaviour if there is an adequate level of actual control over behaviour. That is, actual behavioural control moderates the effect of intention on behaviour. If the perceived behavioural control is accurate, it can serve as a proxy for actual control and contribute to the prediction of the behaviour. On the other hand, a lack of actual control may hinder behaviour. The discussion in this section provides evidence that

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perceived behavioural control (refer Section 6.5) is not the same as, or deviates from, the actual behavioural control. That is, there is a significant gap between perceived behavioural control and actual behavioural control. For example, managers perceived that top management support is necessary to engage in SR; however, in many companies top management is not willing to support the SR process. Further, there is a lack of pressure from the stakeholders for SR. Therefore, it could be argued that Sri Lankan managers do not possess a sufficient degree of actual control for SR, coupled with lack of stakeholder pressure for SR, resulting in a low level of SR behaviour. A more detailed discussion of each actual behavioural control factor or barrier for SR and lack of stakeholders’ pressure for SR are provided below.

6.7.1 The Level of Support from Top Management

As explained in Section 6.5, many interviewees perceived that top management support is the critical success factor for implementation of SR in companies. Even though in some companies top management supports the SR effort it was found that the majority of companies’ top management is not actually supporting SR. Due to lack of support and lack of commitment to the process, only a few companies end up with SR. The interview data analysis revealed that the main reason for the lack of support and commitment from top management may be due to their lack of awareness and understanding of SR. Top managers may not be well aware of SR, and its advantages and benefits for the company. Prior studies in the environmental, social and SR area show that disclosures are limited due to lack of awareness, perceived benefits and knowledge (Perry and Sheng 1999; Belal 2001; Owen 2002; Adams and McNicholas 2007). Further, Martin and Hadley (2008) found that senior management doubt over the advantages of reporting is the most important drawback to environmental reporting.

Further, this finding is in line with Cobb et al.’s (1995) view about the importance of providing the leadership role for accounting change to occur and how barriers to change may hinder the change. The interview findings revealed that most respondents perceived support from top management as the critical success factor to engage in SR. However, in
reality, the majority of companies’ top management did not support SR. This may be mainly due to their lack of understanding about the benefits derived from SR. According to Cobb et al. (1995), action of top management as a leader is necessary to overcome the barriers. In this case it was evident that managers’ intention to engage in SR not translating into SR behaviour could be attributed to the lack of support from top management. Without support from top management other barriers to SR may not be overcome. Interviewees of SR companies demonstrated the importance of support from top management in the following way:

“The key success factor for reporting or sustainability implementation in an organization is the support from the top and their faith in it [SR].” (Interviewee F: Head - Sustainability, Corporate Responsibility and Public Policy)

“There is corporate acceptance at the top level, that we must be socially sensitive; we must be environmentally sensitive; obviously economically sensitive.”(Interviewee G2: Consultant - Social and Environmental Management)

Further, interviewees of non-SR companies explained the lack of support from top management in the following manner:

“Top management is not too keen to adopt SR; they want the resources to be put elsewhere.” (Interviewee O: CFO and Director Finance)

“To-day our concern, more than social ethics or SR, is to keep the company going and whether industry can remain as it is.” (Interviewee J: Managing Director)

The interview results further highlighted why managers were expressing those views about lack of support from top management. The following sub-sections (6.7.1.1-6.7.1.3) provide a richer explanation for lack of support from the top management.

6.7.1.1 Emphasis on Operational Excellence

Many managers of non-SR companies were more concerned about the survival or viability of the business. They try to restructure operations in such a way that they remain
competitive in the market. Some managers were of the view that company survival would depend on the company being in a bottom line financial result delivery paradigm. A lot of companies talk about social responsibility and reporting as an add-on to the business and not so much a mainstream strategy. Therefore, many managers are trying to pursue financial results and operation excellence, exhibiting a very strong financial bias in terms of business leadership. This again could be attributed to managers’ lack of understanding of SR and its benefits as an investment which brings a future return to the company. As explained by an interviewee:

“*We need sufficient cash for survival as well as for future investments; obviously the new requirements [SR] mean new cost; we are trying at the moment to run, with the lowest possible cost structure. So our Board of Directors at the moment is not too keen to adopt anything more: they want to maintain the basic systems and manage them.*” (Interviewee O: CFO and Director Finance)

6.7.1.2 Myths about SR

Some managers of non-SR companies were of the belief that SR is undertaken by companies solely for added publicity, for reputation building and to win SR awards. Also, some were of the view that if the company is a small company and/or non-listed company it needs not engage in SR as there is no reporting requirement from the CSE for non-listed companies. In the words of interviewees:

“The companies do report on sustainability, on their own to get added publicity and in our case it didn’t happen to us.” (Interviewee P: Managing Director/CEO)

“We are not a listed company and we don’t want publicity. We don’t do formal SR in an annual report sense.” (Interviewee N: Executive Chairman)

“We are not engaged in SR; we are not going into annual report competitions.” (Interviewee M2: Head of Finance)
This thinking could also be attributed to managers’ lack of understanding and awareness of benefits that could be derived through SR process. Many managers may not really think that by engaging in SR effectively they could actually improve their bottom line.

Many interviewees of non-SR companies stated that perhaps due to lack of understanding and awareness of SR, their top management was not supportive of SR; many of them held different myths about SR. As a result they tend to focus on operational excellence without translating their intention to engage in SR into corporate SR behaviour.

6.7.1.3 Understanding of the Concept of Sustainability and of the Benefits of SR

When referring to sustainability, top managers may immediately switch on to philanthropy or charitable work. This social empathy attitude may have been shaped by culture as discussed in Section 6.3. All managers of SR and non-SR companies were willing to undertake large-scale corporate responsibility projects. The managers of non-SR companies think that a donation will keep the community satisfied or keep them away from the business activities. A cultural shift may be needed for top management to realise and understand that good corporate citizenship projects really need to become sustainability projects. Corporate citizen projects add value to the society as a whole. The sustainability projects are projects that are intertwined with the business strategy, which adds value to the society and environment whilst assisting in improving a company’s profit.

The old culture was that companies know what they are contributing to the community. The culture that is in transition now is that companies might give more than they were giving to the community in the past, but companies have to realise how much they are getting back from those projects. What the companies may get back would be not just the image but how to make cost reductions or efficiencies, improve systems and productivity and receive many more business opportunities. Managers may need to understand the real principle that sustainability is an investment without a short-term return; it is an investment which would help long-term survival of the company. It tries to identify mutual win-win scenarios for the society, the environment and the company, so quantification of environmental, social and
economic impacts is extremely important to make the change. Some managers may not really understand the distinction between sustainability projects and charity, but they obviously like to contribute to the society. It is important to create awareness to make managers understand what sustainability really means and what the benefits of reporting sustainability issues are. Managers may need to see SR as a good discipline within the company to achieve long term profitability. Such thinking and understanding is extremely important and should be embedded in the organization. In this way, more companies would embrace SR. In the words of an interviewee:

"First and foremost there should be a huge paradigm shift amongst the top management towards what I would call shareholder value creation to sustainable value creation and that mind-set can happen only if the top management and senior management understand the word triple bottom line; until such time that [SR] will never happen." (Interviewee D: Director – Corporate Branding and Strategic Sustainability)

6.7.2 Time, Resources and Specialised Staff

According to all the interviewees of SR and non-SR companies, concentrating on reporting is one of the most time consuming affairs in business life. A lot of time needs to be allocated from certain units and line managers and other employees. They were more concerned about this time factor because a lot of effort is required in preparing and compiling the data. This also comes with a requirement of resources in terms of time and skilled employees. Prior studies note that lack of time and resources inhibit the reporting process (Park and Brorson 2005; Adams and McNicholas 2007). All the interviewees believed that it is necessary to improve the capabilities and skill levels of their employees as they currently lack specialised staff and expertise within their companies. It was noted that the non-existence of a specialised stock of knowledgeable and skilled employees in the area of SR inhibits the SR process. All the managers mentioned that training for, and awareness of, SR would help to educate employees to overcome these problems as there needs to be a knowledge base within the company to engage in SR. These sentiments were well verbalised in the following response by a Chairman of a non-SR company:
“Well, we don’t have the expertise here and we don’t have enough people who are trained in that [SR]. There is a need for training.” (Interviewee N: Executive Chairman)

Given this situation, some companies have realised that they need to have certain processes in place to enhance the skill levels and knowledge of employees regarding SR. Some SR companies have already started specific SR training at the senior level to change the existing culture, the mind-set and the process itself. But they were of the view that, at both the senior and junior levels, there is still more work that can be done. In the words of an interviewee:

“We can look into having an e-learning module for SR. So that every employee will have awareness and a basic understanding.” (Interviewee H: General Manager – Risk, Compliance and Sustainability)

6.7.3 Employee Resistance

It was also noted in the interviews that getting employees’ support for SR has been an obstacle. Resistance arises because SR would require additional reporting and monitoring, and in most areas performance would become more transparent, so employees would be under pressure to perform. Objections from the line managers and certain heads are due to lack of awareness of SR benefits. But the challenge is to convince employees by showing the value contributed by them to the company and to each person in the entire company. Buhr (2002) notes that companies need to overcome corporate resistance to produce environmental reports. Some interviewees stated that to overcome this problem of employee resistance, some SR companies have begun different initiatives such as inviting experts to conduct training programs, workshops and seminars on SR to educate their employees. An interviewee demonstrated the enthusiasm of her organization to overcome employee resistance by enhancing their knowledge and skill level in the following way:
"We had a workshop conducted by an Indian GRI official to educate employees on SR. He is an expert on that. Last year he had a workshop before we started working on the annual report. He showed a big picture on benefits, win-win scenarios and case studies on how we can benefit from it [SR]. This year again we had a refresher course telling them the benefits and all. Otherwise everybody will wonder why you need this integrated information. So far this has helped a lot." (Interviewee II: Group Coordinator of Sustainability and Manager Corporate Communication)

6.7.4 Availability and Reliability of Data

Fifteen interviewees of SR and non-SR companies revealed the multitude of difficulties encountered by managers in accessing reliable data, quantification and data collation for SR. This problem arises mainly because managers do not understand how to analyse, quantify and collate the data. Literature supports the finding that the data collection effort was found to be a main drawback to environmental reporting (Park and Brorson 2005; Deegan et al. 1996; Martin and Hadley 2008).

Many interviewees explained that certain types of sustainability information are not readily captured and made available by their financial systems and/or enterprise resources planning systems. So they have to develop an effective information system or business intelligence software systems and programs for data collection. Certainly it is a hurdle that companies would have to overcome if they are to engage in SR. It was also noted that companies face problems in identifying appropriate information in the first year because they need to break all information into relevant areas. Due to lack of experience, managers may not be aware of the correct way to proceed on SR. Lack of understanding how the reporting must be done would be an obstacle in the initial stages.

In diversified businesses, data collection would be more difficult as subsidiaries are located in different places and their priorities are different. All interviewees of diversified SR companies noted that one of the challenges that managers of diversified businesses have is to convert ideas and goals into meaningful objectives and indicators. They were trying to assemble some specific performance indicators for each of the goals as part of the sustainability process, so that there would be some meaningful indicators which they can
target themselves to benchmark the performance. These managers stated that it is a challenge to get data from the respective owners or the source because of the size and the diversity of the group. These managers also want to see that there is a common theme across the group. In the words of an interviewee:

“Our intention is that we would attempt a C level report as a first step because we are a conglomerate; whereas the subsidiaries’ operations have their own policies; we believe there needs to be a common thread in terms of policies and procedures, goals and targets. In the first year what we would like to do is to bring some uniformity across the group. Our objective then is to go on to a report at a greater detail, may be into level B and then level A in the following financial years.” (Interviewee E: Head of Sustainability)

However, some companies have gone to the extent of quantifying the carbon element that they are producing and quantifying the triple bottom line performance in terms of environmental, social and economic impacts. An interviewee explained the support they get from universities to help them in quantification and how they have commissioned a specialised unit to do an audit. But the majority of interviewees of SR companies noted that they are facing many challenges in quantifying data. Companies were experiencing a lot of trouble putting data into a common theme and reporting their footprint. They also struggled in identifying and measuring the sustainability key performance indicators (KPIs) and monitoring or tracking against achieving those KPIs. The data collation part is also important because it should be done periodically (i.e. quarterly or yearly) on one basis across indicators.

To manage the above mentioned difficulties some companies have taken several steps. Some were reviewing all their management information systems to see whether they are relevant to today’s business and whether there are any room for improvement. When there are no management information systems in place, companies need to have programs to implement the systems. Three companies have appointed a coordinator for sustainability projects and reporting. The coordinator works on a number of projects involving documenting and communicating with all the stakeholders who are involved in sustainability projects, setting up KPIs, measuring them and looking at world best practices on SR.
6.7.5 Applicability of GRI SR Guidelines

As explained in Section 6.5, despite the fact that many managers favoured the use of the GRI guidelines, these managers had also explained the shortcomings of the GRI guidelines and were of the view that it needs further improvement.

Many interviewees of SR companies explained their inability to understand certain GRI indicators. They noted that there are too many confusing indicators and they are of a general set of indicators which is applicable to everybody. The need to develop GRI guidelines was highlighted in Hedberg and Malmborg’s (2003) study.

There are a few GRI sector specific supplements available. However, these interviewees explained that the GRI guidelines are not very customised based on the nature of the business, so in that sense it is a big obstacle for them to use the GRI guidelines in SR. Because of that, they had to frequently check with experts locally. Sometimes, managers need to refer back to foreign GRI consultants or attend foreign training programs to understand and clarify these guidelines. For example, a manager noted that different people calculate the ‘rate of injuries’ in different ways, so getting it into a common indicator is a challenge. They further explained that if the language and the requirements of the GRI guidelines are clearly laid down it would probably be easier for lower management and line managers to use. An interviewee verbalised it in the following manner:

"I think it [GRI guidelines] is quite an appropriate framework but certain elements should be re-generalised. It tends to play with words quite a bit. Since it is not too easy to understand the kind of description, when you go out to the line managers and say that, Look I need you to report on these elements; they read it and they look at you; sometimes it has happened with a blank face not understanding, not even what is written there." (Interviewee F: Head - Sustainability, Corporate Responsibility and Public Policy)

Seven managers of SR companies further explained that the GRI SR guideline is formulated for a global perspective and some indicators are not relevant to them as they have not been formulated for a particular culture. Furthermore, there are certain relevant issues which are missing from the GRI guidelines. For example, religious issues are probably less relevant to developed countries, but might be quite relevant in Sri Lanka.
Further, product life cycle and product health and safety issues cannot be looked into and reported in as much detail as they would be in developed countries. Developed countries would have local or country regulations governing them but this may not be the case in developing countries. This is in line with Belal and Owen’s (2007) study which questioned the suitability of adopting international social reporting standards in Bangladesh without giving due consideration to local cultural, economic and social factors. Some managers stated that the GRI framework cannot be easily adapted to the South Asian region where there are developing countries. Changes to the GRI SR guidelines based on regional needs would facilitate SR in developing countries. There needs to be a regional supplement or document with a scaled down version of requirements. In the words of an interviewee:

“When they say region it expects a company which is regionally placed. You have the head office which maybe in London and mining or refineries in Kenya or Cambodia or Vietnam and so on. But those are good for the big multinationals like British Petroleum but not for small players or some multinationals which are not widespread. As those for them to adopt, GRI guidelines should be more generalised; and also you cannot expect somebody who sits in Holland and sets up GRI framework to be easily adapted to the South Asian region or African region where there are developing countries. So maybe that regional change could make life much easier and be more supportive to the developing countries to report.” (Interviewee F; Head - Sustainability, Corporate Responsibility and Public Policy)

6.7.6 Fear of Disclosing Sensitive Information

Four managers of SR companies mentioned that detailed SR including reporting on product life cycle or product health and safety and information of a strategic nature would expose a company to competitive disadvantage. This suggests that managers are very selective in disclosing sensitive information due to the fear of losing their competitive position. This is in line with findings in the literature where companies were reluctant to disclose environmental and social information due to its sensitive nature (Gao et al. 2005; Kuasisikun 2005).

Some managers were worried about the level of maturity of the readers of sustainability reports. They were of the view that transparency for the sake of transparency can
sometimes be counter-productive as this may open the company to public criticism, depending on the maturity of readers of the report. For example, they believed that the media could use what is reported out of context if the company reports negative information. SR could, whilst improving awareness levels, cause some misunderstanding by the readers as a result of their inability to comprehend. Also, managers were in favour of reporting positive information in a self-laudatory manner. This result is similar to findings in prior environmental and social reporting studies (Deegan and Gordon 1996; Deegan and Rankin 1996; Hackston and Milne 1996; Imam 2000; McGowan et al. 2000; Adams 2002; Newson and Deegan 2002; Cormier et al. 2004). This leads to the question of whether the SR process is fully transparent or not. These sentiments were well illustrated in the following response:

“What will happen if you misinterpret the data given and also if you divulge data that shouldn’t be divulged; all this data is very strategic so a company or top management of the company should understand which data out of this can be presented in a positive manner whereas which data although positive may need to be held back simply to keep the competitive edge.” (Interviewee F: Head - Sustainability, Corporate Responsibility and Public Policy)

6.7.7 The Degree of Stakeholder Pressure for SR

In Section 6.4, it was explained that all the interviewees were willing to comply with stakeholders’ wishes by engaging in SR. However, some interviewees explained that in day-to-day operations they are subject to the sensitive reaction in the society. Whatever the output, they need to compare that with the impacts that they make on the environment and society. There are beneficial impacts which they could improve further and there are adverse impacts which they could try to completely eradicate or, if not possible, at least mitigate. This was because they encounter stakeholder pressure or community pressure from their environment, asking them to operate their business in a more holistic manner. Companies are under pressure to do their business in the ‘right way’, without exploiting the environment and the society, and making sure that there are sufficient resources in the future to continue business. Otherwise, companies may not get the license to operate. Even though some companies are willing to be more accountable to stakeholders in terms of SR,
it was found that stakeholder pressure may not be adequate to the level where they insist on companies reporting on sustainability issues.

However, all the interviewees, including interviewees of non-SR companies, revealed that they undertake a large number of sustainability/CSR activities and projects, mostly those involving in massive infrastructure and rural development. A few examples are construction of roadways, putting up bridges, building community centres, planting trees to combat deforestation. Also, major sustainability initiatives such as moving towards paperless offices, building new factories under the green factory concept, starting a hotel school where people who really cannot afford hotel school fees have an opportunity to learn almost free of charge, making financial contributions for poor people and children who have heart ailments to undergo heart surgeries in private hospitals, sponsoring needy students and sportmen local to take part in national events, assisting in eradication of cruelty to animals, assisting in promoting wild life conservation, looking after disabled soldiers who are the by-product of the war, giving them courage to live, building their confidence and that of their family members, and giving company share allocations to employees. Some companies even go to the extent of distributing their profits to labourers. However, the extent to which these efforts are reported will depend on the degree of stakeholder pressure, as the literature suggests that less pressure from stakeholders would inhibit environmental and social reporting (O’Dwyer 2003b; Sahay 2004).

6.7.7.1 Customers, Shareholders, the NGOs and Professional Accounting Bodies

Many interviewees of SR and non-SR companies explained that in developed countries there may be a lot of stakeholders who are keen on SR, who will be enticed by sustainability reports and who might even make the decision to buy based simply on sustainability reporting or triple bottom line performance. But that is still not the case in the third world countries where the majority of stakeholders still do not understand what SR is. Some customers are more price-sensitive. It is more of a socio-economic condition prevailing in the country, where companies have to cater to the price-sensitive customers. It was also noted that the SR topic is not on the agenda of shareholders, NGOs, and
professional accounting bodies and they are not very focused on demanding SR. However, professional accounting bodies make some contribution by conducting training courses, SR awards schemes etc. to create awareness of SR. This interview finding appears to be consistent with prior literature. Prior studies discuss the influence of environmental pressure groups for corporate social disclosures (Tilt 1994; Deegan and Gordon 1996). However, Belal (2001) claimed that a very few social groups contribute to the provision of a low level of social information in Bangladesh. Teoh and Thong (1984) also found a lack of pressure from the public for greater social commitment and Williams (1999) found that investors are not influencing environmental and social disclosures.

6.7.7.2 The Community

Some non-SR companies feel that getting the goodwill of the community by being involved in CSR projects is important, and just sufficient to continue with their operations. The interviewees from these companies were of the view that being involved in CSR activities was more important than engaging in SR. They felt that what they have done for the community is known to the community; they get their support and thereby protect the company. In the words of an interviewee:

“We have constructed a bridge connecting two villages and that construction of the bridge was done specifically because of the request made by villagers. That was an extra cost to us. We could have done the project without constructing the bridge but we find that the bridge was very useful to the villagers. We do these things in order to maintain goodwill with the villagers and we find that the goodwill of the community is a better insurance for us than any other precaution. They know that if not for the project they would not get these facilities and these benefits. So they value the contribution and any kind of inconvenience is not taken seriously. It’s a winning situation for the society and the company.” (Interviewee P: Managing Director/CEO)
6.7.7.3 The Government

Kolk (2003) states that reporting requirements and government encouragement would have improved SR practices of Global 250 companies at country level. However, the literature shows that ineffective and inadequate regulatory frameworks, lack of statutory requirements, government pressure and reporting standards affect environmental and social reporting by companies (Perry and Sheng 1999; McGowan et al. 2000; Belal 2001; O’Dwyer 2002; O’Dwyer 2003b; Lodja 2003; Cormier et al. 2004; Kuasirikun 2005). All the interviewees indicated that companies are not facing any pressure from the government either as there is no statutory requirement for SR. Some interviewees stated that such legislation or requirements would directly benefit the companies. Government could also improve its support to create awareness and understanding of SR by conducting workshops, seminars and lectures for the business community. Furthermore, the government could really help in this area by highlighting the importance of sustainability initiatives and reporting, by granting financial assistance, infrastructure, investment relief and tax reliefs for sustainability projects and reporting. If there were some levels of encouragement it would further enhance sustainability initiatives and reporting.

6.7.7.4 The Financial Institutions

All the interviewees of SR companies were of the view that banks should also be interested in SR. The banks could decide that they would only lend to corporates that have good environmental and social performance. Banks could have a very strong standing with those to whom they give loans because if companies do not have good environmental practices or social practices their money is at a risk. Apart from the money being at risk they would not lend to an organization that does not have appropriate systems. The banks have to make sure that things do not go wrong. In the words of a General Manager of a reputable bank:

"We haven’t done adequately to link our lending policy with companies that are involved in sustainability activities and reporting. It is happening by default but not necessarily as part of our system. That is something that we want to do." (Interviewee H: General Manager - Risk, Compliance and Sustainability)
From the above findings it could be inferred that whilst companies are engaged in sustainability initiatives and managers have a positive attitude towards SR, they have not taken the next step towards SR behaviour. This may be because stakeholders are not powerful enough to demand greater transparency and accountability.

6.8 Other Issues

This section discusses other issues arising from the interviews which are country specific and relevant to the understanding of SR, but have not been included as part of the conceptual framework of the study.

Five interviewees of non-SR companies stated that if SR is going to be a key debate in the country then they would have to be at the forefront. It all depends on how fast the country would adopt SR practices and move in that direction. Some interviewees of non-SR companies further stated that a lot of things that they would do will to some extent, have, be restricted by what the other companies would do. To some extent their speed will also be determined by the rest of the country and the rest of the corporate world. So when SR becomes a norm in the country, which will happen in time to come, companies would follow that requirement for SR. It is important that all the stakeholders start pressing for SR.

Eight interviewees of SR companies explained the importance of getting involved in SR awards and other corporate citizenship awards schemes conducted by several institutions of the country as a way of popularising SR. The majority of the interviewees talked in favour of these award schemes. Participation in these awards schemes had given them the opportunity not only to win awards but to learn, convey the message to the employees that they value these things, help them to see how they are excelling and what continuous improvement they are making towards SR.

However, five interviewees expressed the view that they are not very convinced about how these awards schemes were conducted and expressed a negative perception towards some award competitions in the country. Some were disappointed and thought that they should
not waste their time participating in such award schemes. Some companies deliberately stay away from the local award programs and participate in the international and regional award programs. They believed that there may be certain biases in local awards and also global recognition is considered to be more important than the local award. An interviewee commented on his own reservations in terms of the way the SR awards competition was conducted in the country in the following way:

"I find it little difficult to accept that the Tobacco Company in Sri Lanka keep winning the SR awards; and I honestly and personally in my personal capacity don’t see how a Tobacco company can be sustainable, because I think it is going against the grain of the very concept of sustainability if you are contributing to a socially unhealthy operation, which is injurious to health."  
(Interviewee D: Director – Corporate Branding and Strategic Sustainability)

6.9 Chapter Summary

This chapter discussed the semi-structured interview data analysis and findings. The interview findings triangulated the survey findings and also revealed the possible reasons for a weak relationship between managers’ intention to engage in SR and corporate SR behaviour. This may largely be due to the fact that managers may have lost actual control over SR behaviour and a lack of stakeholder pressure for SR. Ajzen (1988; 1991) suggests that actual control over the behaviour is collectively determined by non-motivational factors. Consistent with Ajzen’s idea, the interviews revealed that non-motivational factors such as the lack of support and commitment from top management due to low levels of understanding of the concept of SR and its potential benefits, a lack of understanding of how to report, and a lack of knowledge, skills, awareness, resources and support from employees, the limitations of the GRI SR guideline and lack of stakeholder pressure, meant that managers may not be able to translate their intention to engage in SR into corporate SR behaviour. This shows that managers may not have a sufficient degree of actual control over SR behaviour. If managers get a sufficient degree of actual control over SR behaviour and stakeholder pressure for SR, it could be expected that SR would improve in the future. Further, it may have a potential for change to a new reporting culture focused on
sustainability within the organization. The next chapter will discuss the conclusions and implications of the study.
CHAPTER SEVEN

CONCLUSIONS AND IMPLICATIONS

7.1 Introduction

This chapter summarises and concludes the thesis by drawing together the major findings of the study. Initially, it provides a brief review of the study’s aim, motivations and the related research question as outlined in Chapter One. Moreover, observed relationships of the theoretical constructs of Ajzen’s TPB (1985) in relation to SR are discussed. This study concludes that psychological factors influence managers’ intention to engage in SR and ultimately SR behaviour. The findings indicate the suitability of the TPB in corporate settings, where the performance of the behaviour of interest requires the cooperation of many organizational members. Further, the lack of managers’ actual control over the SR process and the lack of stakeholder pressure for SR are major inhibitors of corporate SR behaviour. The implications of the findings are discussed in the chapter.

The chapter will proceed as follows. Section 7.2 provides a brief summary of the thesis and its major findings. Section 7.3 highlights the contribution of the thesis and outlines the implications of the study for the TPB and practice of SR in Sri Lanka. Section 7.4 provides a discussion of the limitations of the study. Section 7.5 will then identify several possible avenues for future research. The final section provides some concluding remarks.

7.2 Thesis Summary

The primary aim of this study was to examine and understand how psychological factors influence managers’ intention to engage in SR and the SR behaviour of Sri Lankan companies. That is, to understand how managers’ attitude towards SR, their perceptions about the social pressure imposed on the organization from internal and external stakeholders (subjective norm) and the perceived control they have over the SR decision (perceived behavioural control) influence their intentions and corporate SR behaviour. In
doing so, the study utilised Ajzen’s (1985) TPB, which is a well-established theory in the Psychology literature, to better understand the reasons behind SR behaviour. Further, this study sought to determine the suitability of the TPB for organizational contexts. The study also seeks to understand the influence of managers’ education and the influence of Buddhism on SR behaviour. The study was motivated by three factors. First, to contribute to limited research on SR from the perspective of a developing country; second, to extend research focusing on the influence of psychological factors that motivate managers’ for corporate SR; third, to fill the gap in the literature by empirically testing a behavioural model of decision making to provide direction for change in SR behaviour aiming towards greater transparency and accountability.

Chapter One discussed the above motivators, the aims of the study and the uniqueness of Sri Lanka as a research context. It must be acknowledged that Sri Lanka is a country which is influenced by Buddhist teachings. However, the environmental, social and SR is still in its early stages and of a relatively poor standard (ACCA 2005; Anonymous 2005), which signals a need for research in this area. Accordingly, the following core research question was formulated to understand the behavioural perspective of managers to engage in SR behaviour within the framework of the TPB: “what are the effects of psychological factors on managers’ SR behavioural intention and SR behaviour in Sri Lankan companies?”

Chapter Two of this thesis provided an in-depth review of the relevant literature in the area of environmental, social and SR. This helped to identify the gaps in the literature. One of the points to emerge from Chapter Two was the lack of research identifying how psychological variables of decision makers influence the SR behaviour to give rise to change in disclosures by using psychological theoretical frameworks.

In Chapter Three, the theoretical framework (Ajzen’s TPB, 1985) informing the study was presented to address this gap in the literature, leading to the development of testable hypotheses using the TPB.
Chapter Four outlined the research design of the study. It explained the mixed method (questionnaire survey and semi-structured interviews) data collection approach adopted in this study to improve the validity of the results.

Chapter Five was devoted to report survey data analysis using the PLS technique and findings of the survey. Survey data was used to test the hypotheses developed in this study.

Finally, Chapter Six provided evidence collected from semi-structured interviews with Sri Lankan managers. This research material provided the means to triangulate data from two sources with particular emphasis on the survey findings discussed in Chapter Five. It further provided evidence to attain a more in-depth understanding of SR behaviour in Sri Lankan companies.

The survey results show that managers' psychological variables (attitude, subjective norm and perceived behavioural control) influence managers' intention to engage in SR behaviour. That is, the present study has provided evidence that managers' SR intention was influenced by their attitude, their perceptions about internal and external stakeholder pressures, and their perceived sense of control over performing the SR behaviour. These psychological variables were determined by their respective beliefs. It was also found that the level of education and the religious variable influenced managers' beliefs regarding SR. Further, the intention to engage in SR behaviour was found to have a significant relationship with SR behaviour; however, this relationship was found to be weak.

The interview findings further supported the survey findings and provided insights into this weak relationship between managers' intention and SR behaviour. It can be said that the Sri Lankan companies are more open towards carrying out corporate social responsibility (CSR) and sustainability initiatives and managers have a high intention to engage in SR. These intentions may stem from a combination of personal and social value systems inspired by Buddhism, which is positive towards balance. Whilst managers have the intention to engage in SR they have not taken the next step towards corporate SR due to lack of a sufficient degree of actual control over the SR process as a result of one or more of the following factors:
• a lack of support and commitment from top management due to poor awareness and understanding about SR and SR benefits;
• the excessive emphasis placed on operational excellence by top management to the detriment of other considerations such as SR;
• myths about SR, including that companies undertake SR solely for added publicity and/or to win SR awards, and that SR is a practice for large, multinational and listed companies;
• a lack of time, resources and knowledgeable and skilled employees;
• employee resistance (due to lack of awareness and experience);
• a multitude of difficulties in accessing reliable data;
• the inability to understand certain indicators of the GRI guidelines; and,
• a reluctance to disclose sensitive information.

Further, lack of stakeholder pressure for SR has also inhibited corporate SR behaviour (the above issues will be discussed in detailed in Section 7.3.3).

Furthermore, the findings support the suitability of the TPB in corporate settings and show that managers’ psychological factors are important in determining SR behaviour in Sri Lankan companies. An additional test was conducted which found that Buddhist culture has a positive and significant influence on managers’ behavioural beliefs which was an antecedent of their attitude towards engage in SR. Further, a multi-group comparison was performed for Buddhist and non-Buddhist respondents to see whether there is a difference between these two groups. It was found that there is a difference between the two groups in managers’ intention to engage in SR behaviour in terms of psychological variables such as subjective norm, perceived behavioural control and control beliefs.

Company listing on the CSE variable was found to be a significant control variable on SR behaviour, whilst company size and environment sensitive industries were found insignificant. Therefore, a multi-group comparison was performed for the CSE listed and non-listed companies. It was found that all the path coefficients were significant for the sub-sample of the CSE listed companies; highlighting that the CSE listed companies are more involved in SR.
According to Ajzen (2006a), understanding why people hold a certain attitude, subjective norm and perceived behavioural control is helpful when developing programs for behavioural interventions to change behaviour (Ajzen 2006b). This study has indicated the need for Sri Lankan companies to devise more effective strategies and design programs to enhance SR behaviour. These strategies and programs could be aimed towards providing a sufficient degree of actual control to managers over the SR process. For example, managers' lack of awareness, understanding of SR benefits and lack of commitment lead to lack of actual control over the SR process. Therefore, it is important to develop strategies and design programs towards raising greater awareness about sustainability and SR and enhance managers' commitment towards sustainable business and SR behaviour (these issues will be discussed in detail in Section 7.3.3).

However, it is worth discussing whether developing strategies to enhance SR to promote change is desirable for all companies; and what other changes are required in order to facilitate SR.

Non-SR company managers were very confident that they undertook a lot of community services, philanthropic activities and CSR initiatives to maintain goodwill with the community. They find that the goodwill of the society in which they operate is better insurance for them than any other precaution such as engaging in SR. These managers think that by engaging in SR they need not publicise their CSR initiatives. They felt that what they have done for the community is known to the community, and consequently the community has a positive image about the company and they receive community support. They perceived it as a winning situation for the society and the company. They further perceived that SR is not needed as their companies are not aiming for SR awards. These companies seemed uninterested in engaging in SR because they do not properly understand the advantages of SR. For them, SR is done for publicity, for image building, and to win awards. Therefore, it is important to develop strategies and programs to enhance managers' awareness about SR and its benefits in an attempt to enhance SR.

These programs and strategies could also be directed at making a paradigm shift amongst the business management by communicating and making managers understand that good
corporate citizenship projects need to become sustainability projects for the long-term viability of the business. SR projects are projects that have intertwined with business strategy which by its very nature adds value to the society, and the environment whilst assisting in improving company’s bottom-line. First and foremost, all companies ought to develop a robust understanding of the concept of sustainability and then embed it in the organization and commit to it. Understanding and acting sustainably is a paradigm shift from simply economic shareholder value creation to stakeholder value creation. It is apparent that the concept of sustainability is probably not being understood by managers. SR, therefore, is an extension of organizational commitment to sustainable business. If companies are committed to sustainable business then they need to develop sustainable strategies and are more likely to report on the outcomes of these. Therefore, SR is likely to become an outcome of embedding and committing to sustainable business practice.

These programs and strategies could also be directed at stakeholders to create and enhance their awareness about sustainability and SR. For example, external stakeholders such as the government, the community, customers, pressure groups, financial institutions, professional bodies, shareholders, and internal stakeholders such as employees, need to demand organizations look at businesses in a more holistic manner, demanding them to see whether they are conducting business in an appropriate and ethical manner. Stakeholders could pressurise companies to conduct their business without exploiting the environment and the society, and to make sure that there are sufficient resources in the future to continue business. Stakeholder pressure could also lead companies to be more sustainable and engage in SR with greater transparency and accountability.

7.3 Contribution to the Literature and Implications of the Research

This section summarises the contributions of this thesis to the environmental, social and SR literature, its implications for the theoretical framework adopted in this study (i.e. the TPB) and the implications for SR practice in Sri Lanka.
7.3.1 Contribution to the Literature

This study differs from prior environmental, social and SR research in several aspects and as such contributes to the literature as follows. Prior research has been largely restricted to developed countries. There is a need to enhance research focusing on developing countries in this area of study (for example, Teoh and Thong 1984; Belal 2000; 2001; 2008; Imam 2000; Lodia 2003; Kuasirikun and Sherer 2004; Rahaman et al. 2004; Sahay 2004; Kuasirikun 2005; Belal and Owen 2007; Elijido-Ten et al. 2010). This study was conducted in a unique research context, a developing country, which is influenced by Buddhist teaching. Thus, given its particular focus this study serves as a foundation in filling the gaps in the literature. The theoretical significance of this study is noteworthy as it complements the current focus of environmental, social and SR research on developed countries.

The literature calls for empirical research designed to address how to achieve organizational behavioural change to improve transparency and accountability (Adams 2002; Adams and Larrinaga-González 2007; Adams and Whelan 2009; Schaltegger and Burritt 2006; Mathews 2004). Very little is known about how the integrated psychological factors of managers’ influence SR behaviour which facilitates the understanding of the way by which behaviour can be changed. According to Ajzen (1991, p.206), “intention, perception of behavioural control, attitude toward the behaviour, and subjective norm each reveals a different aspect of behaviour, and each can serve as a point of attack in attempts to change it.” Furthermore, prior studies did not apply an integrated psychological behaviour theory in the above area of research to understand and predict the behaviour, except for Weidman et al.’s (2010) study, which was different from the present study in its research context as discussed in Chapter Two. Instead, the majority of studies utilised legitimacy theory and stakeholder theory as their theoretical framework. This study applied a well-established theory in Psychology, Ajzen’s (1985) TPB as its conceptual framework, to examine the role of psychological factors influencing managers’ intention and SR behaviour, which is an important part of a broader set of determinants helping to understand SR behaviour in promoting behavioural change. The theory was further validated based on managers’ views. Thus, the study made a theoretical contribution to the literature by filling the gap in the literature in relation to understanding the managers’
behavioural perspective on SR behaviour by using an integrated theoretical framework, the TPB. Further, according to Adams and Larrinaga-Gonzalez (2007), the lack of research engagement with organizations which practise sustainability accounting and reporting has detracted from the theoretical and practical development of SR. Therefore, engagement research in the area of environmental, social and SR is critical to enhance these practices. This study contributes to the literature by studying the behavioural perspective of managers using a mixed methodology as a conducive framework for engagement research.

7.3.2 Implications for the TPB

Ajzen’s (1985) TPB has its origins in psychological literature and it has a number of supporting empirical studies in other disciplines. Although the theory has been tested in waste management (environmental behaviour) studies at the organizational level (Cordano and Frieze 2000; Flannery and May 2000), very limited studies can be found in the area of accounting (exceptions include Glandon 2003; Dowling 2007; Weidman et al. 2010). The use of Ajzen’s TPB to study the SR behaviour of Sri Lankan companies represents an extension of the application of the theory in a new behavioural context. This study also extended the TPB to see how factors such as managers’ level of education and the influence of Buddhism would affect managers’ beliefs about SR. In this way, the study is informed by the TPB and extends prior work in the area of environmental and social disclosures. The contribution to the TPB is significant as this study provides further empirical evidence to support it and does so by applying the theory to understand SR behaviour in a unique developing country context influenced by Buddhist culture. Further, this study supports previous work, as noted before, that highlights the applicability of the TPB to an organizational setting where collective decisions are made.

This study has also shown that psychological variables do influence the SR process to the extent that managers have control over the process. That is, the influence of these factors on SR behaviour varies depending on the actual control managers’ have over the SR behaviour. If managers lack actual control over SR, the process will be hindered and their intention to engage in SR will not translate into SR behaviour. The implication is that, to translate SR
behavioural intention into behaviour, managers need to be provided with the necessary control over SR behaviour. For example, managers need to be provided with adequate resources, support from top management, training and education and other non-motivational factors to engage in SR in promoting behavioural change. Thus, the application of the TPB contributes to the advancement of knowledge in the area by highlighting that engaging in SR behaviour is difficult without actual control over the process. Further, the study also suggests that future research may meaningfully pursue various extensions of the theory, such as incorporation of other external variables to the TPB, to provide a better understanding of other factors determining SR behaviour in promoting behavioural change. The TPB can also be used to develop research models to examine the influence of psychological and other variables on behaviour in corporate settings.

7.3.3 Implications for the Practice of SR in Sri Lanka

Prior literature on corporate environmental disclosure in developing countries revealed that companies made limited disclosures of inadequate quantity and quality, as well as a lack of statutory requirements and ineffective and inadequate regulatory frameworks to promote corporate disclosures (Singh and Ahuja 1983; Belal 2000; 2001; Imam 2000; Jahamani 2003; Lodia 2003; Kuasirikun and Sherer 2004; Sahay 2004; Kuasirikun 2005). In Sri Lanka it is mandatory to get an Environment Impact Assessment (EIA) before establishing any development project. Business undertakings must have environmental safeguards and follow those strictly. To an extent, ‘whistle blowers’ are watching the operations of companies, whether they pollute and degrade the environment. Despite these mandatory provisions (except for SR), companies continue to demonstrate reluctance towards the adoption of SR. To encourage SR, promoters require knowledge about psychological factors among managers and how these factors relate to corporate SR behaviour. The following reasons were found and can be attributed to the lack of SR behaviour in Sri Lanka.
• The benefits of SR are not properly communicated to the companies. Managers may not be fully aware of the potential benefits of engaging in SR and the increased business risk associated with not engaging in SR.

• Managers have their traditional ways of doing business; companies believe that financial information is more important; they are unaware that environmental and social consequences impact on business.

• Managers are reluctant to disclose sensitive issues, making everything commercially confidential, due to fear of competitive disadvantage and public criticism. Many companies are only willing to report positive information in a self-laudatory manner; they are not amenable to change; everything is taken for granted; happy and complacent as long as they manage to earn profits.

• Inadequate stakeholder pressure for SR from the government, general public, customers, shareholders, professional accounting bodies, financial institutions, pressure groups, the NGOs and other watchdogs. There is no government mandatory SR requirement, leading company managers to think that it is not necessary to engage in SR in a more formal manner as long as what they do is known to the local community.

• Managers perceive SR as an activity of multinational, listed and ‘blue chip’ companies, because large, listed firms with international experience and resources can leverage knowledge acquired in different jurisdictions and develop a set of best practices based on their collective learning.

• Managers are unaware of how to use the available SR guidelines. They perceive that some areas of internationally developed guidelines are not appropriate for the local culture as guidelines are not customised based on the nature of the business and the culture. A regional change to the GRI guidelines appears necessary.
• Managers do not have adequate knowledge in report development and there are not enough organizational and institutional arrangements in place to support their SR efforts. They encounter a multitude of difficulties in accessing reliable data, quantification and data collation for SR due to lack of experience, lack of effective information systems and hence struggle to identify sustainability KPIs. In diversified businesses, data collection is more difficult as subsidiaries are located in different places and their priorities are different, and there is a lack of meaningful indicators for benchmarking across the diversified businesses.

It is important to note that the launch of SR and other related award schemes gave an impetus to popularising the concept of SR in Sri Lanka. However, some companies do not participate in these award schemes due to negative perceptions and lack of credibility towards some award competitions. On the other hand, some companies do not want to join the bandwagon of those who strive for popularity associated with the winning of awards.

The findings of the present study provide Sri Lankan policy makers with an opportunity to take the necessary steps to strengthen the relationship with managers’ intention to engage in SR and corporate SR behaviour. According to Ajzen (2006b), when the relationship between intention and behaviour is weak, the most effective method is to induce individuals to form an implementation decision, that is, to form a plan detailing when, where, and how the behaviour will be performed. Policy makers could formulate plans for SR and provide necessary guidance for companies to make it easier for them to carry out SR. The effective planning and development of programs for managers to develop sensitivity to SR would promote SR in Sri Lanka with the majority of companies resorting to it. There is an opportunity for companies to explore avenues to broaden managers’ commitment, to enhance understanding of their role and of reporting issues, and to strive towards raising greater awareness.

Close coordination between the Central Environmental Authority (CEA), the Board of Investment (BOI), professional accounting bodies and other relevant authorities which have a stake in the environment is needed to make SR more prominent in Sri Lanka.
Various interventions are necessary to create awareness and educate managers. SR education will provide opportunities for managers to learn about the benefits of SR. Therefore, policy makers could organize special workshops, seminars, and continuous training and development interventions to educate managers in the corporate sector of Sri Lanka. Policy makers could get advice from world renowned best practice companies to create awareness of SR among the corporate players in Sri Lanka. The above interventions are likely to help promote and translate managers’ intention to engage in SR into SR behaviour in Sri Lankan companies. Policy makers can also consider the introduction of a mandatory non-financial reporting standard. Understanding managers’ perceptions towards corporate disclosures will help set standards to identify how to introduce changes to such disclosures (Cormier et al. 2004). Therefore, the findings of this study will help the regulators, independent reviewers, and policy makers in Sri Lanka to develop a SR framework that could guide the development of an accounting standard, as currently there is no such standard available in the country. However, it is important to note that voluntary disclosures may be more suitable for social aspects of reporting.

Further, it is important to include ‘Sustainability’ as a subject in the school curricula. Students at G.C.E. (Ordinary Level) and G.C.E. (Advanced Level) could be given the opportunity to select sustainability studies for their individual and group project work. This type of intervention will complement the pervasive social value system and the inherent pro-sustainability social mind-set that exists as an outcome of the strong Buddhist culture. In turn, education will assist towards extrapolating this mind-set to one of action wherein students are more likely to accept the need to integrate proactive sustainability initiatives as imperatives for sustainable development. This would instil an action-oriented sustainability ethos as opposed to latent sustainability awareness amongst the younger generation before they join the workforce.

The points discussed above demonstrate the practical significance of this study.
7.4 Limitations of the Study

A number of inherent limitations associated with this study are discussed below.

From the variable measurement perspective, a shortcoming of the present study was the use of self-reported data as the measurement of SR behaviour variable. This is not an ideal measure of SR as it relies on the judgement of respondents to quantify SR instead of a more objective measurement. The respondents were asked to indicate the level of emphasis that their companies place on each of the three areas of SR. Since the survey of this study was anonymous, the researcher could not identify the company where the respondents were working and was not able to analyse the content of company annual reports or standalone sustainability reports or to research via other means of communication such as World-Wide-Web to come up with a more accurate measurement of actual SR behaviour. Therefore, to preserve anonymity the only available option was to rely on the self-reported data on SR behaviour variable.

Another limitation is the possibility of omitted external and control variables. For example, only two variables external to the TPB were tested and the study considered the influence of only three control variables that may affect intention and SR behaviour. While the explanatory power of the conceptual framework was strong and significant, it is unreasonable to expect that all external variables to the TPB and all control variables were considered in the study.

Further, the sample of respondents was selected from three data sources, as explained in Chapter 4. Population demographic data was not available in all three data sources. Therefore, it was not possible to compare respondents’ demographics with population statistics to give more assurance that the sample was representative.

From the methodological perspective, it is worth considering the simultaneous use of both the survey and semi-structured interviews as stage one and stage two of the study. This means that the selection of the items for key variables of the survey, such as beliefs, was identified from the literature. An alternative approach would be to conduct the semi-
structured interviews prior to the survey. This approach would have given rise to identification of the beliefs regarding SR from the research population in addition to those in the literature. However, this approach was not feasible considering the time and resource limitations faced by the study. It is reassuring, however, that a comparison of the survey items and interview data highlights that there were no major differences between the survey items used and the beliefs held by interviewees.

Furthermore, most of the semi-structured interviews were conducted with a top or middle level manager of each company. Only on three occasions, did the researcher have the opportunity to interview two managers of the same company. Additional insights into managerial perceptions could have been obtained if different managers had been interviewed from the same company, if the researcher had participated in company meetings and observed field activities. In addition, stakeholder perceptions would have provided further insights into SR behaviour. However, the time constraints did not permit of pursuing this avenue.

Moreover, when developing the web-based survey, the deadline for the last date for responding was set in two months’ time. That is, the web-based survey was open only for two months for the respondents. However, subsequent to this deadline the researcher received additional, completed paper-based surveys. The early deadline for the web-based survey may have contributed to a lower response rate for the web-based survey.

From a theoretical perspective, this study does not consider the overlap and integration of the TPB with other theoretical perspectives. This was beyond the scope of the present study.
7.5 Future Research

Drawing from the above discussion in Section 7.4 on limitations of the study, this section highlights several areas for future research.

From a theoretical perspective, future research can extend the theoretical framework (i.e. the TPB) used in the present study. The present study demonstrated that psychological factors determine managers' intention and ultimately influence SR behaviour. The TPB provided useful information that can be used to set a foundation for future research in the area of SR. Future research can extend the TPB by including other external variables to see how this influences other constructs within the framework of the present study. Furthermore, it should be noted that focusing on the TPB, as an explanation for psychological factors influencing managers' intention and SR behaviour, does not undermine or invalidate the explanatory power of other social and psychological theories used in prior literature. Therefore, future research could attempt to integrate other relevant theoretical perspectives with the TPB to enhance the understanding of factors influencing SR in promoting behavioural change.

From a methodological perspective, future research in this area can also be conducted by refining the methods used in this study. In-depth case studies and action research methods which are engaged with organizations may yield additional insights into the factors influencing SR. This will provide the opportunity for visiting the premises, branches, and field offices and observing field activities, interviewing the stakeholders and pressure groups, observing environmental and social practices and their impacts, matching them with the company environmental and social policy, and evaluating the environmental and social safeguards and reporting undertaken by the companies.

Further, it was found that managers have an intention to engage in SR in Sri Lanka and, as a result, it could be expected that SR would improve in the future. Using this study as the foundation, future research may focus on a longitudinal study of actual SR by analysing the contents of company annual reports, standalone sustainability reports, and other means of
communication such as media reports and the World Wide Web. This would enable to examine whether there has been progress in SR over time.

From a contextual perspective, by selecting Sri Lanka as the research context for the present study, it provides evidence for the exploration of comparative research in different cultures. That is, it would be interesting to discover whether the results would be comparable when this study is replicated in other research contexts. For example, it would be useful to undertake studies of different cultures (developed and developing nations) and industries (locally and globally). Further, the measurement scales developed in this study can be used to measure managers’ SR intention formation and SR behaviour in other research contexts to see whether there are similarities and differences between Sri Lanka and other cultures. It will also, help to further validate the measures developed for the present study.

7.6 Concluding Remarks

This thesis aimed to understand the psychological factors influencing managers’ intention to engage in SR and SR behaviour. The conceptual framework was adopted from a well-established theory in psychology, the TPB, with some external variables. In doing so, this study also sought to understand the suitability of the TPB within an organizational setting in a new behavioural context. Several distinctive characteristics were associated with this research study compared with prior studies in the area of environmental, social and SR. The main characteristics were the conceptual framework utilised in the study, the unique research context, the adoption of a mixed method as the form of data collection and the adoption of advanced statistical approaches to test the hypotheses of the study.

The thesis makes a number of contributions to the literature. It sought to fill the gaps in the literature by undertaking a SR study from a developing country perspective and by utilising a well-established theoretical framework (TPB) to understand managers’ intention to engage in SR and corporate behaviour. This study concludes that psychological factors influence managers’ intention to engage in SR and ultimately SR behaviour. The findings
indicate the suitability of the TPB in corporate settings, where the performance of the behaviour of interest requires the cooperation of many organizational members. Further, the lack of managers’ actual control over the SR process and the lack of stakeholder pressure for SR are major inhibitors of corporate SR behaviour.

The findings of this study will potentially assist the development of greater sensitivity to SR issues amongst managers. This will encourage the creation of enabling organisational cultures which contribute towards the improvement of sustainable development and foster a new reporting culture, exhibiting greater transparency and accountability amongst companies.

This thesis identified limitations associated with the present study. It further explored the avenues for future research on SR behaviour in promoting behavioural change for greater transparency and accountability.
APPENDIX 1

SRI LANKA

1.1 The Role of Buddhism in Environmental Preservation

As a predominantly Buddhist country, Sri Lanka’s appreciation of the environment and the inculcation of sound environmental values have been promoted from ancient times due to Buddhist teachings. Its culture is fashioned and influenced by Buddhism and the teachings of the Buddha from the time Buddhism was introduced to Sri Lanka. Teachings of the Buddha are “the actual words used by the Buddha as they are to be found in the original Pali texts of the Tripitaka, universally accepted by scholars as the earliest extant records of the teachings of the Buddha. It has come down to us through oral tradition.” (Ven. Rahula 1959, p.xi)

Among the well-known essentials and fundamental teachings of the Buddha are doctrines of the Four Noble Truths, the Nobel Eightfold Path. “Of the two main forms of Buddhism known in the world, Theravada and Mahayana, Theravada, which is regarded as the original orthodox Buddhism, is practiced in Sri Lanka. It could be translated as ‘the School of the Elders’ (theras)” (Ven. Rahula 1959, p.xii). Hence Sri Lankan culture is imbued by Theravada Buddhism.

“The universal acceptance is that Sinhala Buddhists have preserved Theravada Buddhism in its purest form. The fundamental difference between Theravada and Mahayana rests on the ideology and not on the precepts. At the present time the Sinhala Buddhists are not conscious of any such distinctions. They believe in one Buddhist doctrine according to the teachings of the Buddha. But it cannot be denied that Sinhala Buddhists do observe certain ceremonial practices from Mahayana tradition although they may be quite unconscious of the fact.” (Wijesekera 1990, p.106)

“Among the world religions Buddhism has great promise as a basis for an environmental ethic, because it teaches a concern for the other animals and nature as well as our fellow
humans” (Gunn 1998, p.13). De Silva (1998), in his work *Environmental Philosophy and Ethics in Buddhism*, has attempted to create a Buddhist diagnosis of the human domination of nature, constructing a Buddhist orientation towards the non-human world. He explored an ethic of sustainability in green economics and Buddhist economics. He also pointed out that the self and the transformation of nature go together. “Buddhism reiterates that other than homo sapiens our planet is inhabited by a countless number of living beings of different forms, shapes and sizes. It emphasises the intrinsic value and contribution of our planet and animal life in the preservation of ecological integrity and biodiversity. Further, it highlights the interrelationships and interdependencies between and among different ecosystems in maintaining the natural equilibrium so essential for environmentally sound and sustainable development.” (Wijayadasa 2007, p.4)

1.2 Sri Lankan Historical and Cultural Perspectives

Sri Lanka’s historical, religious, archaeological, literary, sociological and anthropological evidence and mythology, legends and folklore are abounding with examples of environmental concern. Sri Lanka’s ancient irrigation systems were associated with good land use practices; town planning included pleasure gardens and water gardens. The declaration of sanctuaries for wild life by ancient kings and the location of Buddhist monasteries and other religious sites provide ample evidence of a longstanding concern for the environment (Swan 1987). These concerns have been prominently portrayed in ancient literary works written in Ola leaf manuscripts and in ancient rock inscriptions.

1.2.1 Declaration of Royal Parks and Sanctuaries

Mihintale, the place where Buddhism was officially introduced to Sri Lanka, is the world’s first declared sanctuary dating back to the 3rd century B.C. The Mahameuna Uyana, Nandana Uyana and Ranmasu Uyana (‘Uyana’ denotes park/garden) at Anuradhapura (the first Kingdom of Sri Lanka) were declared royal parks by King Devanam Piyatissa (247 – 207 B.C.) (Ven. Sumangala 1952).
1.2.2 Ancient Land Use Patterns

Ancient land use patterns of Sri Lanka, that continued up to the advent of the British colonialists who introduced a dual economy (plantation agriculture for the export market along with subsistence peasant agriculture), were closely linked with the environment, with farmers giving due recognition and concern for the environment through practices aimed towards its protection and proper management.

Lowlands were devoted to paddy cultivation; in the highlands above the paddy fields were homesteads; forests and pasturelands were common property where people used the forests for timber, the gathering of forest products and grazing their cattle respectively. In the hill country of Sri Lanka paddy cultivation was restricted to narrow valley bottoms. In the mountainous areas, tracing contour lines, paddy was cultivated on terraced paddy fields, a unique way of managing the environment for productive purposes. Land use in the homesteads of the Central Highlands was practised whereby food crops, yams, fruit trees, medicinal plants, cash crops and timber were grown in the same plot of land. Various trees of different heights provided a multifarious canopy. This prevented soil erosion, surface run-off and was instrumental in maintaining wetness of the soil (Wijesekera 1987).

1.2.3 The Role of the Environment in Ancient Sri Lankan Villages

"Sinhala village derives its name in one of several ways. A characteristic feature of the environment or the nature of the situation may determine an appropriate name. Mountains, elevated areas, rivers, streams, tanks, woods suggested names of villages in the past. Out of a total about 20,000 villages and hamlets in Sri Lanka, the majority of them have been named in this manner. Being an agricultural community, the Sinhalese had naturally to settle down in an environment suitable for that purpose." (Wijesekera 1990, p.159)

"Whatever the site may be the house in most instances is determined by the natural environment and status of the owner. The construction may differ, yet the material used in its erection is more or less the product of the environment. It would be true to say that the
local site supplies everything from the commencement up to completion. The house is a direct product of the environment with the result that it agrees well and harmonises with the natural landscape. The timber, mud and thatch are obtained from the immediate vicinity.” (Wijesekera 1987, p.70)

1.2.4 Ancient Literature and the Environment

Sri Lanka has a written literature which dates back several centuries. “Writing appears to have been known in Sri Lanka from the very early days of her Aryan colonization, and it soon spread with the establishment of Buddhism in the Island.” (Godakumbura 1996, p.3)

From the ancient days, writers of both prose and verse included descriptions of nature and many elements of the environment in their literary works. Thus, forests, rivers, mountains, the dawn of the day, sunset and nightfall were treated artistically in describing the beauty of nature. The best example of such a work is Pansiya Panas Jataka Potha or Jataka Tales (stories of Lord Buddha’s previous births) (Godakumbura 1996).

Sri Lanka boasts an ancient literature eulogizing sacred trees. The sacred ‘Jaya Siri Maha Bodhi’ in Anuradhapura (the first Kingdom of Sri Lanka) is accepted as the oldest surviving angiosperm and human planted tree in the world. It was brought to Sri Lanka by Theri Sangamitta, daughter of Emperor Asoka of India, and was planted in the Mahameghana Gardens in Anuradhapura (the first Kingdom of Sri Lanka) in 249 B.C. by King Devanampiyatissa (247 – 207 B.C.). It is said to be the southern branch of the ‘Jaya Siri Maha Bodhi’ at Buddha Gaya in India under which Lord Buddha attained enlightenment. To date, Sri Lanka is home to this sacred Bo tree, revered by Buddhists the world over and marvelled by naturalists as the world’s oldest tree (2293 years) with a recorded planting date. Mahavamsa (1952), an ancient chronicle in Sri Lanka written in the 5th century A.D. describes in two chapters how the Bo sapling was brought to Sri Lanka from India and planted in the Mahameuna Gardens.
Furthermore, Sri Lankan culture is designated as a collectivist, oriented to high power distance and security, and is deemed to be concerned with spiritual and family values (Weathersby 1993). Thus, when comparing similar traits with other western countries, Sri Lanka sits virtually on the opposite end of the work related values that are the hallmarks of developed western cultures: individualism, moderate power distance and risk taking, achievement and materialism. Sri Lanka’s national and work culture is, therefore, more attuned towards a concept of social empathy. The significance of this research is paramount in laying the foundation for the exploration of SR in a scenario wherein social responsibility is part and parcel of a nation’s way of life.

1.3 Application of the Environmental Kuznets Curve

In the last few years, several studies have found an inverted-U relationship between per capita income and environmental degradation. This relationship, known as the Environmental Kuznets Curve (EKC), suggests that environmental degradation increases in the early stages of growth, but it eventually decreases as income exceeds a certain threshold level (Simone 1999).

Smulders and Bretschger (2000, p.1) note: “production often causes pollution as a by-product. Once pollution problems become too severe, regulation is introduced by political authorities which forces the economy to make a transition to cleaner production processes.” By modelling this transition, Smulders and Bretschger (2000) investigate the impact of a change in ‘general purpose technology’ and how it interferes with economic growth driven by quality-improvement, thus providing an analytical foundation for the claim that the rise and decline of pollution can be explained by policy-induced technology shifts.

Sri Lanka’s policy makers have in recent times made numerous references to the theoretical implications put forward by the EKC and have called for the adoption of better practices and technologies to move in tandem with progression of economic development, thereby overcoming the effects of the EKC to a large degree. As a developing nation, policy makers
have identified the need to take a quantum leap towards transfer of cleaner technology and for environmental quality. In response to this many commercial establishments have adopted cleaner technologies and environmental management practices (this was revealed to the researcher in an informal interview with a policy maker).

1.4 Environmental Legislation in Sri Lanka

Environmental Legislation in Sri Lanka dates back to ancient times. Kings of yore enacted various edicts related to the environment which have been found in rock inscriptions (Wickramasinghe 1994).

During the British colonial period various pieces of legislation related to the environment were enacted; this was continued after independence and continues today. At present Sri Lanka is a signatory to various (approximately 36) International Conventions on the environment, beginning with the International Plant Protection Convention signed in 1952. Others include the Stockholm Convention (1979), the Montreal Protocol (1989) and all its amendments, the Vienna Convention (1985), the Ramsar Convention (1990), the Kyoto Protocol (2002), and the Rotterdam Convention (2006) (EFL 2006).

There is a plethora of environment related legislation in Sri Lanka, which makes the country unique in environmental legislation. This legislation covers all aspects of the environment. The first references to environmental aspects in legislation can be found in two pieces of legislation enacted in 1840.

A law to incorporate and cover all aspects of the environment was made for the first time in Sri Lanka 1980. This is the National Environmental Act (NEA) No. 47 of 1980, the basic national decree for protection and management of the environment. The NEA established the Central Environmental Authority (CEA) in August 1981 as a policy making and coordinating body (Ananda, 2004). This Act was then amended in 1988 by Act No. 56 to transform the CEA into an enforcement and implementing agency. The Ministry of Environment and Natural Resources (MENR), which was established in December 2001,
has the overall responsibility in the affairs of the CEA, with the objective of integrating environmental considerations in the development process of the country. The CEA was given wider regulatory powers under the NEA (Amendment) No: 56 of 1988 and No: 53 of 2000. The main objectives of the CEA are to protect, manage and promote the enhancement of the environment, ensure the regulation, maintenance and control of the quality of environment and finally to undertake abatement and control of pollution (CEA 2011).

It was envisaged that the MENR would prepare a National Sustainable Development Strategy and that a National Council for Sustainable Development would be established, aiming at strengthening the capacity of relevant stakeholders in the decision making process (CBSL 2006).

In January 2008, various regulations were passed in the Parliament under the NEA legislation in relation to the requirement for licenses, the emission or disposal of waste, management of waste, tolerance limits of industrial wastes, and the setting up of an environmental fund amongst others.

However, there is no legal requirement for environmental, social and SR in annual reports or stand-alone reports in Sri Lanka. This kind of reporting is purely a voluntary reporting practice of Sri Lankan companies.

At present, environmental auditing has been introduced by the Auditor General’s Department of Sri Lanka. Two pilot waste management audits have been conducted in Colombo and Dehiwala Mount Lavinia Municipal Councils (Ananda 2004).

Ananda (2004) identified the following challenges in the environmental auditing process:

- the lack of specialised audit staff to carry out environmental audits;
- the lack of adequate funds to engage specialised staff in the environmental field; and,
- the lack of clearly defined environmental responsibilities for the central government and provincial agencies (p.28).
To face the above challenges senior officers were trained in performance auditing and these officials gained knowledge in this area by participating in seminars and workshops. Later this knowledge and training were transferred to departmental staff. A new Audit Act will be introduced in future (Ananda 2004).

1.5 Adoption of International Initiatives

1.5.1 Implementation of Agenda 21

Sri Lanka reaffirms the Rio Declaration and Agenda 21 which emphasised the need to eradicate poverty and reduce disparities in living standards to achieve sustainable development. With the Rio Summit, the government of Sri Lanka began to follow a more focused and a concerted policy towards sustainable development. The government pursued the objectives of accelerating economic growth, while ensuring equity and a higher quality of life, particularly for the poor, by the adoption of various strategies (DPCSD 2007).

1.5.2 Global Reporting Initiative's Sustainability Reporting Guidelines

In Sri Lanka, as in many countries, separate sections on environment and sustainability are included in the annual reports of companies. In addition, stand-alone corporate social disclosure reports, sustainability reports, corporate videos, newsletters, company brochures and other site reports reveal the embryonic stage of SR.

The only research study on SR available at present in Sri Lanka is the ACCA (2005) survey on environmental and social disclosures in annual reports. It targeted a total of top 100 Sri Lankan companies, including 75 that were listed and 25 non-listed. "The latest annual reports were considered as the primary source of information about SR for listed companies, whereas for non-listed companies published documents that were similar in nature to an annual report were used for analytical purposes. The annual reports were examined for the presence of specific sustainability-orientated issues rather than for the
quality of actual disclosures or veracity of sustainability performance. Each annual report was screened for disclosures based on a total of 16 specific economic, social or environmental issues based on the GRI (2002) definition” (ACCA 2005, p.7). Key findings of the ACCA (2005) survey were as follows:

- only 69% of the 75 listed companies included some form of disclosure on environmental and/or social issues, while about 31% did not report on these issues at all;
- notable reporting practices were found in a few areas related to the community related issues and employee satisfaction;
- the vast majority of companies failed to provide any information on bribery and corruption, energy, environmental management or procurement issues; and,
- very few quantified performance indicators were reported.

1.5.3 The Association of Chartered Certified Accountants: SR Awards

Voluntary SR has been encouraged by the Association of Chartered Certified Accountants (ACCA) through awards in countries which include Australia, Canada, Hong Kong, Ireland, Malaysia, New Zealand, Pakistan, Singapore, South Africa, Sri Lanka, the UK and the U.S. with similar awards, largely based on the ACCA criteria, existing in Belgium, Denmark, Finland, France, Germany, Holland, Italy, Luxembourg, Norway, Portugal, Spain, Sweden and Switzerland (Anonymous 2005; ACCA 2004; 2005). The ACCA award brand name is well-known and is currently being adopted by a range of developing countries, including Sri Lanka.

In November 2003, ACCA Sri Lanka launched the first environmental, social and SR awards in Sri Lanka, which provided an impetus to popularising the concept of SR in Sri Lanka. The first SR awards ceremony was held in 2004.
1.5.4 United Nations Global Compact: Sustainability Awards

On 14th December 2006, "the Chartered Institute of Management Accountants of Sri Lanka (CIMA SL) division and the Global Compact Office announced an agreement to collaborate on awareness-raising efforts with companies in Sri Lanka about the corporate citizenship initiative." (UNGCNSL 2007, p.6)

The CIMA SL has announced the first Global Compact Sri Lanka Network – CIMA Sustainability awards. The awards, the first of their kind globally, are intended to recognise and celebrate companies who demonstrate best practice in sustainability in Sri Lanka and a genuine commitment to ‘triple bottom line management’ by upholding the UNGC ten principles. The awards recognise outstanding, innovation and sustainable development practices and initiatives encompassing any of the 10 UNGC principles. The practices should demonstrate that the company has a sincere ongoing commitment to any one or more of the four areas of the Global Compact: human rights, labour, environment or anti-corruption. Award winners will be positioned globally as leaders in corporate responsibility in Sri Lanka and will serve as illustrative and inspirational examples for other Sri Lankan companies (CIMA 2007).
APPENDIX 2

THE SURVEY INSTRUMENT

THE AUSTRALIAN NATIONAL UNIVERSITY

THE FACTORS INFLUENCING SRI LANKAN MANAGERS’ INTENTION TO ENGAGE IN SUSTAINABILITY REPORTING

SURVEY
BRIEF INSTRUCTIONS

1. There are no CORRECT or INCORRECT answers to the questions included in this survey.

2. Although some questions may contain statements that appear similar to others, they do express somewhat different issues that are important to this study.

3. Please CIRCLE the response you most clearly identify with as accurately as possible.

4. Please make sure that you only circle ONE number on each rating question.

5. Any comments that you might have will be much appreciated. You can either write them at the end of the survey in the space provided or include them on a separate sheet.

Definition:

Sustainability reporting involves reporting on environmental, social and economic impacts of organizational performance:

- **Environmental** aspects include reporting on areas such as energy and water usage, wastage, recycling, greenhouse gas emissions, environmental impacts etc.
- **Social** aspects include reporting on areas such as workplace relationships, employee benefits, training and education, human rights, occupational health and safety procedures, donations to community etc.
- **Economic** aspects include reporting on expenditures, incomes, distribution to providers of capital, taxes etc.

In accordance with the Global Reporting Initiative (GRI) sustainability reporting guideline, the term ‘sustainability reporting’ is synonymous with Citizenship Reporting, Corporate Social Responsibility (CSR) Reporting, Social Reporting, Triple Bottom Line (TBL) Reporting and other terms that encompass the economic, environmental, and social aspects of an organization’s performance.
Q1. Please indicate the extent to which you agree or disagree with the following statements regarding *sustainability reporting (SR)* in your company:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is good for my company to engage in SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>It is rewarding for my company to engage in SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>It is valuable for my company to engage in SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>It is meaningful for my company to engage in SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is easy for my company to engage in SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>It is possible for my company to engage in SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>The decision to engage in SR is under my company's authority</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>The decision to engage in SR is under my company's control</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My company is committed to engage in or continue SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>My company plans to engage in or continue SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>My company has the intention to engage in or continue SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>My company is willing to engage in or continue SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most of my company’s stakeholders (shareholders, employees, community, etc.) think that my company should engage in SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Most of the internal stakeholders (employees and management) would approve my company engaging in SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Most organizations, whose opinions are valued by my company, engage in SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Many companies similar to my company engage in SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
Q2. Please indicate the extent to which you **agree** or **disagree** with the following statements regarding future consequences/outcomes when/if your company engages in **sustainability reporting** (SR):

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR will improve the reputation of my company</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>SR will improve monitoring of environmental impacts of my company</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>SR will enhance the accountability to stakeholders of my company</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>SR will improve stakeholder knowledge about my company’s activities towards sustainability</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>SR will improve my company’s reporting practices</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>SR will help my company to contribute to sustainable development</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>SR will give more information about my company’s activities for better decision making for stakeholders</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>SR will improve communication within my company</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>SR will improve integration of economic, environmental and social impacts within my company’s reporting system</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>SR will help to increase staff morale of my company</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>SR will help to attract competent employees for my company</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>SR will lead to cost savings for my company</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>SR will open my company to public criticism when reporting unfavourable organizational impacts on the environment</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>SR will lead to provision of inaccurate information due to poor environmental and social data analysis of my company</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>SR will increase complexity in reporting because of the need to restructure my company’s conventional reporting system</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>SR will lead to additional costs to my company</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
Question 2 asked your views regarding the future consequences/outcomes of your company engaging in sustainability reporting (SR); question 3 is about the desirability of such consequences/outcomes:

**Q3. Please indicate how desirable the future consequences/outcomes of sustainability reporting (SR) are for your company:**

<table>
<thead>
<tr>
<th>Description</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving the reputation of my company</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Improving monitoring of environmental impacts of my company</td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Enhancing the accountability to stakeholders of my company</td>
<td></td>
<td>2</td>
<td></td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Improving stakeholder knowledge about my company’s activities towards sustainability</td>
<td></td>
<td>2</td>
<td></td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Improving my company’s reporting practices</td>
<td></td>
<td>2</td>
<td></td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Helping to contribute to sustainable development by my company</td>
<td></td>
<td>2</td>
<td></td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Giving more information about my company’s activities for better decision-making for stakeholders</td>
<td></td>
<td>2</td>
<td></td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Improving communication within my company</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Integrating economic, environmental and social impacts within my company’s reporting system</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Increasing my company’s staff morale</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Attracting competent employees for my company</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Leading to cost savings for my company</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Opening my company to public criticism when reporting unfavourable organizational impacts</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Providing inaccurate company information due to poor environmental and social data analysis</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Increasing complexity in reporting because of the need to restructure my company’s conventional reporting system</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Leading to additional costs for my company</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
Q4. Please indicate the extent to which you believe the following stakeholders would approve or disapprove of your company engaging in sustainability reporting (SR):

<table>
<thead>
<tr>
<th></th>
<th>Strongly disapprove</th>
<th></th>
<th>Strongly approve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shareholders</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior management</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees (excluding senior management)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customers</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suppliers</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creditors or lenders</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government or regulators</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-governmental organizations (NGOs)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other stakeholders, please specify:</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Footnote: Question 4 asked your views regarding the stakeholders’ approval of your company engaging in sustainability reporting; question 5 is about the willingness of your company to comply with wishes of the stakeholders.

Q5. Please indicate the extent to which you believe your company is willing to comply with the wishes of the following stakeholders with regards to engaging in sustainability reporting (SR):

<table>
<thead>
<tr>
<th></th>
<th>Almost never willing to comply</th>
<th></th>
<th>Almost always willing to comply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shareholders</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior management</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees (excluding senior management)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customers</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suppliers</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creditors or lenders</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government or regulators</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-governmental organizations (NGOs)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other stakeholders, please specify:</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q6. Please indicate the **influence** of each of the following **factors** in determining your company's ability to engage in **sustainability reporting (SR)**:

<table>
<thead>
<tr>
<th>Factor</th>
<th>Very.low/No influence</th>
<th>Very high influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of financial resources</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Availability of time</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Support from employees</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Support from top management</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Availability of SR guidelines (such as Global Reporting Initiative (GRI) SR guideline)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Availability of non-financial data collection procedures</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Existence of a stock of specialised employees’ knowledge, skills or expertise</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Easiness in accessing reliable data</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Easiness in changing the mindset of management</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Awareness of the potential benefits of SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Familiarity with SR practices</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Availability of accepted accounting standard for SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Concerns about company’s stakeholder accountability</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Other factors, please specify:</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
Question 6 asked your views regarding the factors that may determine your company’s ability to engage in sustainability reporting; question 7 is about the importance of such factors.

Q7. Please indicate the importance of each of the following factors in determining your company’s ability to engage in sustainability reporting (SR):

<table>
<thead>
<tr>
<th>Factor</th>
<th>Extremely unimportant</th>
<th>Extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of financial resources</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Availability of time</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Support from employees</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Support from top management</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Availability of SR guidelines (such as Global Reporting Initiative (GRI) SR guideline)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Availability of non-financial data collection procedures</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Existence of a stock of specialised employees’ knowledge, skills or expertise</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Easiness in accessing reliable data</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Easiness in changing the mindset of management</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Awareness of the potential benefits of SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Familiarity with SR practices</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Availability of accepted accounting standard for SR</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Concerns about company’s stakeholder accountability</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Other factors, please specify:</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
Q8. Please indicate the level of emphasis your company currently places on each of the three areas of sustainability reporting (SR):

<table>
<thead>
<tr>
<th>Environmental reporting aspects: (eg. energy and water usage, wastage, greenhouse gas emissions, environmental impacts etc.)</th>
<th>Low emphasis</th>
<th>High emphasis</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social reporting aspects: (eg. workplace relationships, employee benefits, training and education, human rights, occupational health and safety procedures, donations to community etc.)</th>
<th>Low emphasis</th>
<th>High emphasis</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Economic reporting aspects: (eg. expenditures, incomes, distribution to providers of capital, taxes etc)</th>
<th>Low emphasis</th>
<th>High emphasis</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

Q9. Please indicate the highest level of qualification achieved by each of member of the senior management team of your company.

<table>
<thead>
<tr>
<th>Role non-existent</th>
<th>Undergraduate degree or equivalent professional qualification</th>
<th>Master degree or equivalent professional qualification</th>
<th>Doctoral degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairman</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Chief Executive Officer (CEO)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Chief Financial Officer /Finance Director</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Managing Director</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Manager-Communications</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Manager-Environmental/Sustainability</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Manager-Human Resources</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Manager-Marketing</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Manager-Operations/Logistics</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Manager-Production</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Manager-Public Relations</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Other, please specify:</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

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NOW JUST SOME FINAL QUESTIONS ABOUT YOUR COMPANY AND DEMOGRAPHIC INFORMATION.

Q10. Please indicate whether your company publishes a separate report regarding sustainability/environmental/social issues (tick one):

Yes    No

Q11. Please indicate the industry sector, which your company belongs to (tick one):

<table>
<thead>
<tr>
<th>Bank, finance and insurance</th>
<th>Hotels and travels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beverage, food and tobacco</td>
<td>Information technology</td>
</tr>
<tr>
<td>Chemicals and pharmaceuticals</td>
<td>Manufacturing</td>
</tr>
<tr>
<td>Construction and engineering</td>
<td>Plantations</td>
</tr>
<tr>
<td>Diversified holdings</td>
<td>Power and energy</td>
</tr>
<tr>
<td>Health care</td>
<td>Telecommunication</td>
</tr>
<tr>
<td>Other, please specify:</td>
<td></td>
</tr>
</tbody>
</table>

Q12. Please indicate the type of your company (tick one per line):

My company is a listed company in the Colombo Stock Exchange

My company has a local ownership

My company is Board of Investment (BOI) approved

YES  NO

Q13. Please indicate the number of employees in your company (tick one):

<table>
<thead>
<tr>
<th>Up to 50</th>
<th>101 – 250</th>
<th>501 – 1,000</th>
<th>2,501 – 3,500</th>
</tr>
</thead>
<tbody>
<tr>
<td>51 – 100</td>
<td>251 – 500</td>
<td>1,001 – 2,500</td>
<td>Over 3,500</td>
</tr>
</tbody>
</table>

Q14. Please indicate the approximate annual sales turnover of your company in Rupees millions (tick one):

<table>
<thead>
<tr>
<th>Up to 100</th>
<th>501 – 1,000</th>
<th>5,001 – 10,000</th>
<th>30,001–50,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 – 500</td>
<td>1,001 –5,000</td>
<td>10,001 –30,000</td>
<td>Over 50,000</td>
</tr>
</tbody>
</table>
Q15. Please indicate your *job title*:

- Accountant
- Chairman
- Chief Executive Officer (CEO)
- Chief Financial Offi./Controller
- Company Secretary
- Managing Director
- Manager-Communications
- Manager-Environmental/Sustainability
- Manager-Health and Safety
- Manager-Human Resources
- Manager-Public Relations
- Other, please specify: _______________________

Q16. Please indicate the *highest* level of *academic qualification* you have achieved:

- Undergraduate Degree
- Masters Degree
- Doctoral Degree
- Other, please specify: _______________________

Q17. Please indicate *professional qualifications* you have achieved:

- Professional qualifications in Accountancy
- Professional qualifications in Banking
- Professional qualifications in Environmental Mgt.
- Professional qualifications in Finance
- Professional qualifications in HR Mgt.
- Professional qualifications in IT
- Professional qualifications in Law
- Professional qualifications in Marketing
- Other, please specify: _______________________

Q18. Please indicate your *religious* background:

- Buddhism
- Catholic or Christianity
- Hinduism
- Muslim
- Other
- N/A

Q19. Please indicate your *ethnic* group:

- Burgher
- Malay
- Moor
- Sinhalese
- Tamil
- Other

Q20. Please indicate your *age*:

- Under 25 years
- 26 – 29
- 30 – 39
- 40 – 49
- 50 - 59
- 60 plus

Q21. Please indicate your *gender*:

- Male
- Female
Q22. Please indicate how many years you have been in your current position:

Q23. Please indicate how many years you have been working in this company:

Any comments?

If there is anything you would like to tell me about this survey please do so in the space provided below or attach a separate sheet of paper.

Thank you for taking the time to complete this survey. Your contribution is very much appreciated.

As a token of appreciation for your contribution to this study a donation will be made to plant trees in Sri Lanka to combat climate change and deforestation.

Please return your completed survey in the enclosed reply-paid envelope to:
Prabanga Thoradeniya, 375/9, Old Kottawa Road, Nugegoda.
APPENDIX 3

THE SURVEY BOOKLET
APPENDIX 4

DOCUMENTS RELATED TO THE SURVEY

4.1 The Invitation Letter for the Survey

School of Accounting and Business Information Systems
The Australian National University
Canberra ACT 0200
E-mail: prabanga.thoradeniya@anu.edu.au

Name and address of the participant

5th of January 2009

Dear (Name of Participant)

THE FACTORS INFLUENCING SRI LANKAN MANAGERS’ INTENTION TO ENGAGE IN SUSTAINABILITY REPORTING SURVEY

I am writing to invite you to participate in a survey for my PhD project which is being conducted through the School of Accounting and Business Information System at The Australian National University. This doctoral research project investigates what factors influence managerial perceptions to engage in sustainability reporting. The results of this study will add to our knowledge about how decisions to report on sustainability are formed and potentially help managers to implement organizational changes that require a new reporting culture to demonstrate strategies for sustainable development.

You have been selected as a potential participant because, by virtue of your role and responsibilities within your company, you are likely to be able to assist in realising the objectives of the research project. Specifically, I am seeking your personal opinions regarding sustainability reporting. I would be very grateful if you can spend 20 to 30 minutes of your valuable time to complete the attached questionnaire and return it in the reply-paid envelop before 31st January 2009 or alternatively you can complete the web-based (on-line) survey by using the following URL - https://apollo.anu.edu.au/default.asp?pid=3302. A full description of this research project can be found in the attached information sheet. As a token of appreciation for your contribution to this study a donation will be made to plant trees in Sri Lanka to combat climate change and deforestation. Your response is vital to the success and credibility of this research project.

Thank you for your great assistance.
Yours sincerely,

(Prabanga Thoradeniya)
CRICOS Provider No. 00120C
4.2 Information Sheet of the Survey

INFORMATION SHEET

THE FACTORS INFLUENCING SRI LANKAN MANAGERS’ INTENTION TO ENGAGE IN SUSTAINABILITY REPORTING

Please read this sheet carefully and keep it throughout the period of this research project.

Period of Research: January 2009 to December 2010

Researcher: My name is Prabanga Thoradeniya. This research project is being independently undertaken by myself towards the Doctorate (PhD) degree, which is being conducted through the School of Accounting and Business Information Systems at The Australian National University.

Research Aims: This doctoral research project investigates what factors influence managerial perceptions to engage in sustainability reporting. The results of this study will add to our knowledge about how decisions to report on sustainability are formed and potentially help managers to implement organizational changes that require a new reporting culture with the hope of demonstrating strategies for sustainable development.

Research Activities: You have been selected as a potential participant of the questionnaire survey because, by virtue of your role and responsibilities within your company, you are likely to be able to assist me in realising the objectives of the research project. The questionnaire survey aims to find out your personal opinions regarding sustainability reporting. You have the option of completing the web-based (on-line) or paper-based questionnaire survey whichever convenient to you. By completing and returning or submitting the questionnaire survey, you will be indicating your consent to participate in the project. I would be very grateful if you could spend 20 to 30 minutes of your valuable time to complete the questionnaire and return it in the reply-paid envelop or alternatively you can complete the web-based (online) survey by using the following URL - https://apollo.anu.edu.au/default.asp?pid=3302. As a token of appreciation for your contribution to this study a donation will be made to plant trees in Sri Lanka to combat climate change and deforestation. Your response is vital to the success and credibility of this research project.

Participation: Your participation in this project is entirely voluntary and please be assured of complete confidentiality as far as the law allows. There are no known risks of participating in this project. There will be no adverse consequences if you decide not to participate. You may choose to withdraw your participation from the project at any time, and you do not need to provide any reason for doing so. If you decide to withdraw from the project I will not use any of the information you provided to me.
Use of Information: The aggregated results of this project will be presented to The Australian National University in a PhD thesis and will be published in academic journals. However, your name will not be reported in connection with any of the information obtained from you. No individual responses will ever be released and your organization’s name will never be placed on publications. As far as possible, I will protect your privacy and the confidentiality of the information you give me. If interested, I would be pleased to send you a summary of the results of this project. Please contact either myself or Ms. Roshini Galappatti (local contact) at the addresses given below to obtain a copy of the results.

Questions and Concerns: If you have any questions or concerns about any part of this research project, please feel free to contact either myself or Ms. Roshini Galappatti or Dr. Janet Lee at the addresses below:

Ms. Prabanga Thoradeniya,
375/9, Old Kottawa Road,
Nugegoda,
Sri Lanka.
Phone: 2836838
E-mail: prabanga.thoradeniya@anu.edu.au

Ms. Roshini Galappatti,
15/10U, Manchester Grove,
Madiwela, Pita Kotte,
Sri Lanka.
Phone: 2799103
E-mail: roshini.galappatti@yahoo.co.uk

Dr. Janet Lee,
School of Accounting and Business Information Systems,
College of Business and Economics,
The Australian National University,
ACT 0200, Australia.
Phone: +61 2 61254336
E-mail: janet.lee@anu.edu.au

If you have concerns regarding the way the research was conducted please contact the ANU Human Research Ethics Committee at the address below:

Human Ethics Officer,
ANU Human Research Ethics Committee,
Research Office,
The Australian National University,
ACT 0200, Australia.
Phone: +61 2 6125 7945
Email: human.ethics.officer@anu.edu.au
4.3 First Reminder Letter of the Survey

School of Accounting and Business Information Systems
The Australian National University
Canberra ACT 0200
E-mail: prabanga.thoradeniya@anu.edu.au

Name and address of the participant

19th of January 2009

Dear (Name of Participant)

THE FACTORS INFLUENCING SRI LANKAN MANAGERS’ INTENTION TO ENGAGE IN SUSTAINABILITY REPORTING

About two weeks ago I have mailed you a letter inviting you to participate in a survey for my PhD project which is being conducted through The Australian National University on factors influencing managerial perceptions to engage in sustainability reporting. This study has been sent to a carefully selected sample of top level managers in Sri Lankan companies.

If you have already completed and returned the survey, please accept my sincere thanks and ignore this letter. Otherwise, please continue reading.

I appreciate that you may not have had the opportunity to complete the survey yet, but I would be very grateful if you could spare about 20 to 30 minutes of your time to do so or alternatively you can complete the web-based (online) survey by using the following URL - https://apollo.anu.edu.au/default.asp?p_id=3302.

The period for returning the survey has been extended to 15th February 2009. This extension is provided to offer additional flexibility to respondents and to ensure the study is representative by enabling more participants like you to express their views.

As a reminder, in appreciation for your contribution to this study a donation will be made to plant trees in Sri Lanka to combat climate change and deforestation. Your response is vital to the success and credibility of this research project.

If you have any questions regarding this project please contact me by e-mail at prabanga.thoradeniya@anu.edu.au.

Thank you for your great assistance.
Yours sincerely,

(PrabangaThoradeniya)
CRICOS Provider No. 00120C
4.4 Second Reminder Letter of the Survey

Name and address of the participant

Dear (Name of Participant)


About a month ago I have mailed you a letter inviting you to participate in a survey for my PhD project which is being conducted through The Australian National University on factors influencing managerial perceptions to engage in sustainability reporting. This study has been sent to a carefully selected sample of top level managers in Sri Lankan companies.

If you have already completed and returned the survey, please accept my sincere thanks and ignore this letter. Otherwise, please continue reading.

I appreciate that you may not have had the opportunity to complete the survey yet, but I would be very grateful if you could spare about 20 to 30 minutes of your time to do so or alternatively you can complete the web-based (online) survey by using the following URL - https://apollo.anu.edu.au/default.asp?pid=3302. I am sending you a second copy of the survey in case the previous one was misplaced (I am also enclosing a self-addressed, reply-paid envelop and information sheet for your convenience).

The period for returning the survey has been extended to 1st March 2009. This extension is provided to offer additional flexibility to respondents and to ensure the study is representative by enabling more participants like you to express their views.

As a reminder, in appreciation for your contribution to this study a donation will be made to plant trees in Sri Lanka to combat climate change and deforestation. Your response is vital to the success and credibility of this research project.

If you have any questions regarding this project please contact me by e-mail at prabanga.thoradeniya@anu.edu.au.

Thank you for your great assistance.
Yours sincerely,

(Prabanga Thoradeniya)
CRICOS Provider No. 00120C
APPENDIX 5

DOCUMENTS RELATED TO SEMI-STRUCTURED INTERVIEWS

5.1 Semi-structured Interview Protocol

INTERVIEW PROTOCOL

Introduction:

Sustainability reporting involves reporting on environmental, social and economic impact of organizational performance. Environmental aspects include reporting on areas such as energy and water usage, wastage, recycling, greenhouse gas emissions, environmental impacts etc. Social aspects include reporting on areas such as workplace relationships, employee benefits, training and education, human rights, occupational health and safety procedures, donations to community etc. Economic aspects include reporting on expenditures, incomes, distribution to providers of capital, taxes etc. In accordance with the Global Reporting Initiative (GRI) sustainability reporting guideline, the term “sustainability reporting” is synonymous with Citizenship Reporting, Social Reporting, Triple Bottom Line (TBL) Reporting and other terms that encompass the economic, environmental, and social aspects of an organization’s performance.

Section 1: Introductory questions:

1. Please provide some background information about your company.

2. Please describe your role within the company.

3. Does the term ‘sustainability reporting’ mean anything to your company? Please explain.

4. The following questions will be asked only if the participant’s company is engaging in sustainability reporting:

   a. To what extent is your company involved in sustainability reporting? Please explain.
   b. Does your company have an environmental/ sustainability policy or plan? Please explain.
   c. What areas of sustainability reporting (i.e., environmental, social and economic dimensions) does your company concentrate mostly? Please explain.
d. Are there any particular reasons for not equally concentrating and integrating all three areas (environmental, social and economic) of sustainability reporting? Please explain.

e. What is the importance placed by your company on international initiatives like Global Reporting Initiative (GRI) sustainability reporting guidelines? Please explain.

f. Does your company pay attention/adhere to GRI sustainability reporting guidelines and other initiatives like United Nations Global Compact principles when engaging in sustainability reporting? Please explain.

g. Does your company participate or has ever participated in sustainability reporting awards competitions? Please explain.

h. Are there any initiatives taken by your company to improve sustainability reporting? Please explain.

5. The following questions will be asked only if the participant’s company is not engaging in sustainability reporting at present:

a. Are there any initiatives taken by your company to engage in sustainability reporting? Please explain.

b. Does your company planning to introduce an environmental/sustainability policy or plan? Please explain.

c. Does your company planning to engage in sustainability reporting in future? Please explain.

6. Does the Sri Lankan government’s ten-year vision (2006-2016), which has placed priority on the protection of the environment to ensure environmental sustainability, have any impact on your company? If so, please explain.

Section 2: The following questions will be asked to elicit perceived consequences (behavioural outcomes) of sustainability reporting behaviour.

1. What do you believe are the advantages of sustainability reporting? Please explain.

(Possible prompts; It increases the reputation of the company, enhances the transparency and accountability, improves monitoring of environmental and social impacts, improves stakeholder knowledge about the company’s activities towards sustainability, more information for better decision making, improves communication within the company, it helps to increase staff morale and attract competent employees, lead to cost savings, etc.)

2. What do you believe are the disadvantages of sustainability reporting? Please explain.

(Possible prompts; It leads to an additional costs for the company, poor environmental and social data analysis leads to the provision of inaccurate information, increases complexity in reporting because of the need to restructure the conventional accounting and
reporting system, opens the company to public criticism when reporting unfavourable organizational impacts on environment, etc.)

3. What other things do you associate with sustainability reporting? Please explain.

Section 3: The following questions will be asked to elicit the identity of relevant referent individuals and groups (stakeholders) of sustainability reporting.

4. Are there any stakeholders (i.e., groups, organizations or individuals) who would approve your company’s decision to engage in sustainability reporting? Please explain.

(Possible prompts; Community, shareholders, government or regulators, environmental NGOs, senior management, employees, customers, suppliers, creditors, research community, etc.)

5. Are there any stakeholders (i.e., groups, organizations or individuals) who would disapprove your company engage in sustainability reporting? Please explain.

(Possible prompts; senior management, employees, competitors etc.)

Section 4: The following questions will be asked to elicit the factors that may facilitate or impede sustainability reporting.

6. What factors or circumstances would enable your company to engage in sustainability reporting? Please explain.

(Possible prompts; Availability of financial resources, availability of time, knowledge, skills or expertise of employees, support from the top management, support from the employees, availability of Global Reporting Initiative (GRI) sustainability reporting guidelines and UN Global Compact sustainability principles etc.)

7. What factors or circumstances would make it difficult for your company to engage in sustainability reporting? Please explain.

(Possible prompts; Resistance from employees, resistance from top management, difficulty in accessing reliable data, lack of non-financial data collection procedures, unavailability of an accepted accounting standard, unfamiliarity with sustainability reporting practices, need to restructure the current accounting and reporting system, difficulty in changing the mind set of management, less concern about the company’s stakeholder accountability, unawareness of the potential benefits of sustainability reporting, lack of knowledge, unaware of the components of a sustainability report and what to report; unaware of the availability of GRI sustainability reporting guidelines etc.)

8. Are there any other issues that come to your mind when you think about the ease or difficulties of your company engage in sustainability reporting? Please explain.
5.2 Invitation E-mail to Interviewees

To: E-mail address of participant

Subject: Invitation to participate for an interview

Dear (Name of participant)

PROJECT TITLE: THE FACTORS INFLUENCING SRI LANKAN MANAGERS' INTENTION TO ENGAGE IN SUSTAINABILITY REPORTING

I am writing to invite you to participate in an interview as part of my doctoral studies (PhD), which are being conducted through the school of accounting and business information systems at the Australian National University. This doctoral research project investigates what factors influence managerial perceptions to engage in sustainability reporting. The results of this study will add to our knowledge about how decisions to report on sustainability are formed and potentially help managers to implement organizational changes that require a new reporting culture to demonstrate strategies for sustainable development.

You have been selected as a potential participant because, by virtue of your role and responsibilities within your company, you are likely to be able to assist in realising the objectives of the research project. Specifically, I am interested in your personal opinions regarding sustainability reporting. I would be very grateful if you can spare 30 to 60 minutes of your valuable time for an interview. The project information sheet, a consent form and a list of broad themes of sustainability reporting indicating the matters to be discussed at the interview are attached for your kind perusal. A full description of this research project can be found in the attached information sheet. Your participation is vital to the success and credibility of this research project.

Thank you in advance for your great assistance.

Yours sincerely,

Prabanga Thoradeniya.
5.3 Consent Form

CONSENT FORM

Project Title: The Factors Influencing Sri Lankan Managers’ Intention to Engage in Sustainability Reporting.

Researcher: Ms. Prabanga Thoradeniya, School of Accounting and Business Information Systems, The Australian National University.

1. I………………………….(please print) consent to take part in the research project entitled “The Factors Influencing Sri Lankan Managers’ Intention to Engage in Sustainability Reporting”. I have read the information sheet for this project and understand its contents. The information provided explains the nature and purpose of the research project, so far as it affects me, to my satisfaction. My consent is freely given.

2. I understand that if I agree to participate in the research project I will be asked to take part in an interview, which should last for no more than an hour; and in preparation for the interview I will be sent a list of broad themes of sustainability reporting indicating the matters to be discussed.

3. I understand that while information gained during the research project may be published in the form of a PhD thesis and in academic journals, my name will not be used in relation to any of the information I have provided.

4. I understand that personal information, such as my name and work contact details, will be kept confidential so far as the law allows. This form and any other identifying materials will be stored separately in a locked filing cupboard. Data entered onto a computer will be kept in a computer accessible only by password by the researcher.

5. I understand that I may withdraw from the research project at any stage, without providing any reason and that this will not have any adverse consequences for me. If I withdraw, the information I provide will not be used by the project.

Signed ........................................ Date ..........................  

Audio Recording

I consent to have my interview audio-taped by the interviewer. I understand that the audio records will be stored securely and will be erased five years after the conclusion of the study.

Signed........................................Date ..........................  

Researcher to Complete

I ............................................... certify that I have explained the nature and procedures of the research project to ..................................................and consider that she/he understands what is involved.

Signed ........................................ Date ..........................
5.4 Information Sheet of the Interviews

INFORMATION SHEET

THE FACTORS INFLUENCING SRI LANKAN MANAGERS' INTENTION TO ENGAGE IN SUSTAINABILITY REPORTING

Please read this sheet carefully and keep it throughout the period of this research project.

Period of Research: January 2009 to December 2010

Researcher: My name is Prabanga Thoradeniya. This research project is being independently undertaken by myself towards the Doctorate (PhD) degree, which is being conducted through the School of Accounting and Business Information Systems at The Australian National University.

Research Aims: This doctoral research project investigates what factors influence managerial perceptions to engage in sustainability reporting. The results of this study will add to our knowledge about how decisions to report on sustainability are formed and potentially help managers to implement organizational changes that require a new reporting culture with the hope of demonstrating strategies for sustainable development.

Research Activities: You have been selected as a potential participant for interviews because, by virtue of your role and responsibilities within your company, you are likely to be able to assist me in realising the objectives of the research project. I will spend time at your office interviewing you, if you agree to take part in an interview. An interview will last for no more than an hour at a time convenient to you. Every possible effort has been made to keep your investment of time to a minimum. In preparation for the interview I will be sent a list of broad themes of sustainability reporting indicating the matters to be discussed at the interview. Specifically, I am interested in your personal opinions regarding sustainability reporting. I may record the interview, only with your consent. Your contribution is vital to the success and credibility of this research project.

Participation: Your participation in this project is entirely voluntary and please be assured of complete confidentiality as far as the law allows. There are no known risks of participating in this project. There will be no adverse consequences if you decide not to participate. You may choose to withdraw your participation from the project at any time, and you do not need to provide any reason to me. If you decide to withdraw from the project I will not use any of the information you provided to me.
Use of Information: The aggregated results of this project will be presented to The Australian National University in a PhD thesis and will be published in academic journals. However, your name will not be reported in connection with any of the information obtained from you. No individual responses will ever be released and your organization’s name will never be placed on publications. As far as possible, I will protect your privacy and the confidentiality of the information you give me. If interested, I would be pleased to send you a summary of the results of this project. Please contact either myself or Ms. Roshini Galappatti (local contact) at the addresses given below to obtain a copy of the results.

Questions and Concerns: If you have any questions or concerns about any part of this research project, please feel free to contact either myself or Ms. Roshini Galappatti or Dr. Janet Lee at the addresses below:

Ms. Prabanga Thoradeniya,
375/9, Old Kottawa Road,
Nugegoda,
Sri Lanka.
Phone: 2836838
E-mail: prabanga.thoradeniya@anu.edu.au

Ms. Roshini Galappatti,
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If you have concerns regarding the way the research was conducted please contact the ANU Human Research Ethics Committee at the address below:

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E-mail: human.ethics.officer@anu.edu.au
APPENDIX 6

SUB-SAMPLE ANALYSIS FOR PAPER-BASED AND WEB-BASED RESPONSES

Figure A6.1: The Structural Model of Paper-based Responses (173)

Notes: ***p<0.001 (one-tail); **p<0.01 (one-tail) and *p<0.05 (one-tail)
Solid lines represent significant paths
Figure A6.2: The Structural Model of Web-based Responses (60)

Notes: ***p<0.001 (one-tail); **p<0.01 (one-tail) and *p<0.05 (one-tail)
Solid lines represent significant paths
APPENDIX 7

HISTOGRAMS FOR STUDY VARIABLES

7.1 Behavioural Beliefs Variable

![Histogram for Behavioural Beliefs Variable](image)

*Figure A7.1: Histogram for Behavioural Beliefs Variable*

7.2 Normative Beliefs Variable

![Histogram for Normative Beliefs Variable](image)

*Figure A7.2: Histogram for Normative Beliefs Variable*
7.3 Control Beliefs Variable

![Figure A7.3: Histogram for Control Beliefs Variable](image)

7.4 Attitude Variable

![Figure A7.4: Histogram for Attitude Variable](image)
7.5 Subjective Norm Variable

Figure A7.5: Histogram for Subjective Norm Variable

7.6 Perceived Behavioural Control Variable

Figure A7.6: Histogram for Perceived Behavioural Control Variable
7.7 Intention Variable

Figure A7.7: Histogram for Intention Variable

7.8 SR Behaviour Variable

Figure A7.8: Histogram for SR Behaviour Variable
7.9 Managers’ Level of Education Variable

Figure A7.9: Histogram for Managers’ Level of Education Variable
APPENDIX 8

AN ADDITIONAL TEST WITH RELIGION AS AN EXTERNAL FACTOR

(To examine the effects of Buddhism on managers’ behavioural beliefs and attitude)

Figure A8: The Structural Model with Buddhism as an External Variable

Notes: ***p<0.001 (one-tail); **p<0.01 (one-tail) and *p<0.05 (one-tail)
Solid lines represent significant paths
APPENDIX 9

SUB-SAMPLE ANALYSIS FOR BUDDHIST AND NON-BUDDHIST RESPONDENTS

Figure A9.1: The Structural Model of Buddhist Respondents (163)

Notes: ***p<0.001 (one-tail); **p<0.01 (one-tail) and *p<0.05 (one-tail)
Solid lines represent significant paths
Figure A9.2: The Structural Model of Non-Buddhist Respondents (70)

Notes: ***p<0.001 (one-tail); **p<0.01 (one-tail) and *p<0.05 (one-tail)

Solid lines represent significant paths
APPENDIX 10

SUB-SAMPLE ANALYSIS FOR LISTED AND NON-LISTED COMPANIES

Figure A10.1: The Structural Model of Listed Companies (76)

Notes: ***p<0.001 (one-tail); **p<0.01 (one-tail) and *p<0.05 (one-tail)
Solid lines represent significant paths
Figure A10.2: The Structural Model of Non-listed Companies (157)

Notes: ***p<0.001 (one-tail); **p<0.01 (one-tail) and *p<0.05 (one-tail)
Solid lines represent significant paths
REFERENCES


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Gray, R., and D. Collison. 2002. Can't see the wood for the trees, can't see the trees for the numbers? Accounting education, sustainability and the public interest. Critical Perspectives on Accounting 13 (5-6):797-836.


