Assurance reporting and the communication process: impacts on report users' perceptions and decision-making

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ASSURANCE REPORTING AND THE COMMUNICATION PROCESS: IMPACTS ON REPORT USERS' PERCEPTIONS AND DECISION-MAKING

A thesis submitted in fulfilment of the requirements for the Degree of Doctor of Philosophy

by

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This thesis investigates the effectiveness of communication between assurors and assurance report users, and the role that assurance reports play in this process. It comprises two behavioural experiments undertaken in the context of: (i) wording changes to the audit report (developed product) using shareholders as participants; and (ii) the role of assurance and type of assurance provider for corporate social responsibility reporting (evolving product), using financial analysts as participants. In both studies effectiveness of communication is examined in terms of report users' perceptions and investment decision-making.

The theoretical framework used in these studies is adapted from a communications model developed by Shannon and Weaver (1949), and supplemented by psychology research focused on source credibility (Birnbaum and Stegner, 1979). Two key elements of the communication process are recognised; the: (i) message transmitted; and (ii) source of the message. The first element is considered in the first experiment; the second element in the second study.

Useful feedback is provided to standard-setters. From the first study, report users' perceptions are not impacted by changes to the wording of the audit report. However, in the second experiment they are affected by differences in the source of the message. In terms of trustworthiness, financial analysts perceive the credibility of the source of corporate social responsibility information to be significantly greater when assured. For a company in an industry with stronger incentives to report positive corporate social responsibility information, they perceive the credibility (trustworthiness, overall credibility) of the source of the information to be significantly greater when assured. They also discern differences between types of assuror whereby the credibility (trustworthiness, expertise, overall credibility) of the source of information is perceived to be greater when assured by a professional accountant than a sustainability expert.

A contribution of these experiments is the analysis of report users' investment decision-making, as well as their perceptions. Differences in the message and source of the message for assurance reporting have no impact on report users' investment decisions. Differences in characteristics of report users (familiarity with reports, extent to which reports are understandable) appear to impact report users' perceptions and merits further examination.

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ABSTRACT

This thesis investigates the effectiveness of communication between assurors and assurance report users, and the role that assurance reports play in this process. It comprises two behavioural experiments undertaken in the context of: (i) wording changes to the audit report (developed product) using shareholders as participants; and (ii) the role of assurance and type of assurance provider for corporate social responsibility reporting (evolving product), using financial analysts as participants. In both studies effectiveness of communication is examined in terms of report users' perceptions and investment decision-making.

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DEDICATION

This thesis is dedicated to the memory of my beautiful sister Rae (1957 – 2006)

Taken too soon from this Earth …
… a loving wife and mother to Brian, Matthew and Lauren
… a cherished and caring daughter to Joyce and Ron
… a generous and wonderful sister to Lisa and Gary

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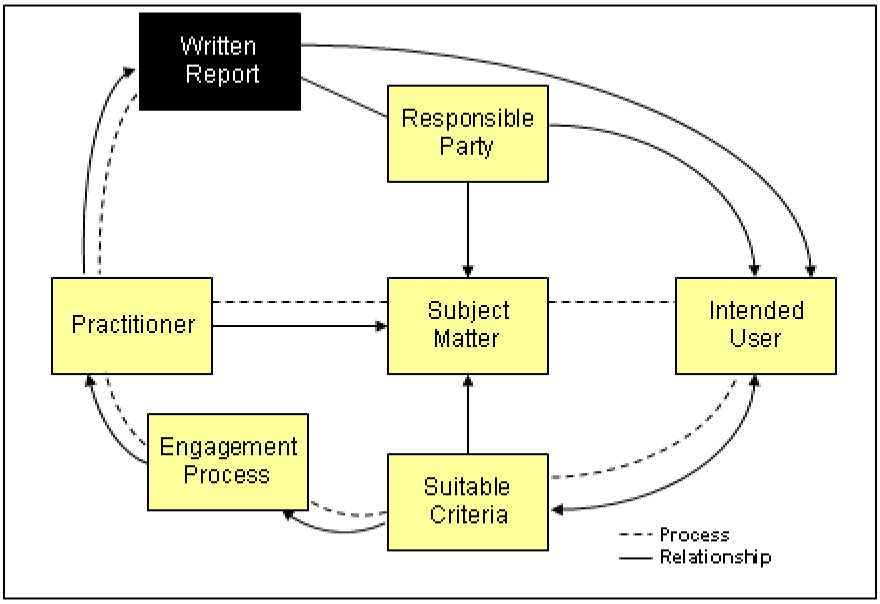
CHAPTER ONE: INTRODUCTION

An assurance engagement "means an engagement in which a practitioner expresses a conclusion designed to enhance the degree of confidence of the intended users other than the responsible party about the outcome of the evaluation of a subject matter against criteria" (IAASB, 2008: International Framework for Assurance Engagement, paragraph 7). This definition covers all assurance engagements, including audits of historical financial information, and assurance engagements for other information. The definition is depicted diagrammatically in Figure 1.1 below.

Figure 1.1: Assurance Engagement[1]



This diagram identifies the key elements of an assurance engagement, one of which is the written report, issued by the practitioner, and provided to the intended user. The written report is the means by which the practitioner communicates his or her view about the outcome of the assurance engagement, to the intended user. It is clear therefore, that the written report has a crucial role to play in the assurance process. In recognition of this importance, this thesis aims to examine a number of questions

[1] This diagram was adapted from Figure 1.1 of Gay and Simnett (2007), Revised 3rd Edition. It had been reproduced in Gay and Simnett with the permission of the Institute of Chartered Accountants in Australia and CPA Australia, and had been adapted from an exposure draft issued in April 1999, ("ED72 Assurance Engagement").

relating to how the written assurance report impacts upon intended users, in terms of their perceptions about the assurance process, and the decisions they make following receipt of the report.

The most commonly known and researched assurance engagement is the audit of historical financial information, whereby the practitioner (an auditor) is providing reasonable assurance that the financial statements are free from material error and fraud. The audit of historical financial information is mandated by legislation, for defined groups of financial statements' preparers (e.g., public-listed trading corporations) in most countries around the world and generally prescribes a specific group of practitioners that can perform the audit; namely the professional accountant (auditor). An emerging area of interest for practitioners and researchers is the assurance of non-financial information, especially "corporate social responsibility" reporting. Heightened interest in community issues and concerns has seen corporate reporting expanding into areas of "sustainability" (Kolk, 2003), which includes reporting on social, ethical and environmental matters. With increased reporting, and increased use of this type of information by financial market participants, a growing interest in the assurance of this information has emerged. In the absence of legislative mandates, assurance engagements for corporate social responsibility reporting have been performed by professional accountants (auditors) as well as other professionals (e.g., engineers, consultants, sustainability experts).

This thesis aims to investigate communication effectiveness and the role that written assurance reports play, more generally, in this process. It comprises two studies, examining several questions relating to how the written assurance report, provided by the practitioner to the intended user, impacts the intended user. Specifically, these two studies will examine the impact that: (a) changes to the wording and contents of audit reports (including audit opinions) for financial statement audits; and (b) assurance of corporate social responsibility reporting and the type of assuror; have on perceptions and decision-making judgements of the intended users of the written assurance reports. Although both studies focus on the communication effectiveness provided by written assurance reports, they have different contextual environments and focus on two different aspects of the communication process, that are unable to be addressed adequately in one study. The first study is primarily concerned with the actual message (i.e., the words) being provided in the report, while the second study focuses upon the information source (i.e., whether information has been assured and by whom). The theoretical framework within which the two studies are brought together is discussed in Chapter Two.

This Chapter continues with an introduction to the context of the first study, namely, the financial statement audit and the audit report. The broad objectives of the study are outlined. In the second section the context of the second study is described, introducing discussion about corporate social responsibility reporting and the assurance report. Again, the broad objectives of the study are outlined. The following section outlines specific motivations for the thesis, and includes a discussion of the importance of, and contributions made by, the thesis. The Chapter concludes by outlining the structure of the thesis.

1.1. The Financial Statement Audit and the Audit Report

Study One of the thesis examines questions pertaining to the financial statements audit and the audit report, with an emphasis on the message being sent to the intended user in the audit report. This section discusses these concepts and identifies the broad aim of the first study in terms of using these concepts in a behavioural experimental setting.

Financial statements are used by a variety of users for a range of purposes and decisions. Although financial statements are representations of management, the independent audit adds credibility to these statements (Watts and Zimmerman, 1983; Blackwell et al, 1998; Johnson et al, 2002; Mansi et al, 2004). Indeed, stated as the objective of the financial statement audit is that "(a)n audit allows creditors, bankers, investors, and others to use financial statements with confidence" (AuASB, 1990 in CPA Australia, 2008, p. 5). In essence, the auditor forms an opinion on the overall truth and fairness of the representations of management, as described in the financial statements. The audit report is the vehicle by which this opinion is communicated. Bankers, investors and others use it in making economic decisions with the knowledge that there is reasonable assurance that management's representations are free from material misstatement. Users obtain confidence about the auditor's report as a consequence of the auditor being “an independent and objective expert who is also knowledgeable of the entity’s business and financial reporting requirements” (AuASB, 1990 in CPA Australia, 2008, p. 11).

When the auditor concludes that the financial statements are free from misstatement and is satisfied with the “truth and fairness” of the statements, an unqualified opinion will generally be issued. The auditor may also choose to issue an unqualified opinion, but refer to a matter affecting the financial report which is included in a note to the financial report. When this occurs the auditor issues an unqualified opinion with an “emphasis of matter” paragraph. The auditor refers to the fact that the auditor’s opinion has not been qualified where an emphasis of matter paragraph has been included. Furthermore, circumstances may arise where the auditor chooses to express either a qualified or adverse opinion, or disclaim an opinion totally. Such circumstances include: a limitation on the scope of the work performed by the auditor; a disagreement with management regarding the acceptability of selected accounting practices; and a conflict between applicable financial reporting frameworks.

Both international and Australian auditing standards include standards dealing with audit reporting. Specifically, these standards are International Standard on Auditing (ISA) 700 “The Independent Auditor’s Report on a Complete Set of General Purpose Financial Statements” and Australian Auditing Standard (ASA) 700 “The Auditor’s Report on a General Purpose Financial Report”.[2] The relevant standards discussing modifications to the audit report are ISA 701 “Modifications to the Independent Auditor’s Report” and ASA 701 “Modifications to the Auditor’s Report”.

[2] As well as reports focused on audits of financial statements, reporting formats for other types of engagements, such as audit reviews, are covered in other standards. These other standards include: ISA 800/ASA 800 “The Auditor’s Report on Special Purpose Audit Engagements” and AUS 902 “Review of Financial Reports”.

The Australian Auditing and Assurance Standards Board (AuASB)[3] had a policy on harmonisation and convergence of Australian and international auditing standards. It noted that it was "aiming to ensure that compliance with AUSs will also ensure compliance with ISAs".[4] In 2007, under the direction of the AUASB, a set of Australian Auditing Standards (the "ASA" series) was introduced, which was internationally harmonised. The focus of this research is on the audit reports pertaining to financial statements audits at an international level.

This background is important as the first study of the thesis was conducted in 2004, prior to the issue of the new standards on audit reporting, and at a time when standard-setters had issued exposure drafts for discussion. In December 2003, the International Auditing and Assurance Standards Board (IAASB) issued an exposure draft (ED) seeking comments on a revised standard for the audit report. By attempting to achieve international agreement on the wording of the audit report, the IAASB was aiming to enhance transparency in reporting, and ensure that all users of the report could understand clearly that the auditor has performed the audit in accordance with international auditing standards (ISAs). In its report to the European Parliament, the Commission of European Communities noted that one of the key actions that must be completed before requiring that ISAs be used for all European Union statutory audits, was "the development of a common audit report" (Commission of the European Communities, 2003, p. 7).

Furthermore, the IAASB considered changes to wording with the aim of reducing the "expectations gap", which can be created by the use of "cryptic or coded language"

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[3] The AuASB was a committee of the Australian Accounting Research Foundation (AARF), which was founded jointly by CPA Australia (CPA) and the Institute of Chartered Accountants of Australia (ICAA). Auditing standards issued by the AuASB were essentially modelled on the standards prescribed by the International Federation of Accountants (IFAC), through its committee the International Auditing and Assurance Standards Board (IAASB). The Corporate Law Economic Reform Program (Audit Reform & Corporate Disclosure) Act 2004 established a "reconstituted" Auditing and Assurance Standard Board (AUASB) in 2005 as a standard-setter which came under the auspices of the Government and which was independent from the accounting professional bodies. It replaced the AuASB. References to the AuASB and AUASB in this thesis reflect the time period from which the reference was drawn, and/or in which the experimental research was conducted.

[4] AARF Policy Note – "Auditing & Assurance Standards Board (AuASB) Policy on Harmonisation and Convergence with International Standards on Auditing (ISAs)", 13 January 2003, p. 2.

(IAASB, 2002).[5] Gangolly et al (2002) highlights information asymmetry, information search and standard-setting costs as the key arguments supporting the harmonisation of audit reports at an international level. In 2003, the Australian Auditing and Assurance Standards Board (AuASB) approved a new audit report format for inclusion in the appendices to AUS702.

The emphasis of the changes of both of the 2004 proposed international and approved Australian reporting formats was the content of the report. This first study in this thesis attempts to focus on these changes, which can be broadly categorised under two main objectives. They are (i) changes to the wording of the report in relation to the responsibilities of management and the auditor; and (ii) the inclusion of a separately headed section within the report dealing with the independence of the auditor. The first study examines questions pertaining to perceptions and investment decision-making across different types of audit opinion, given that the wording changes proposed by standard-setters will be used for all audit reports, regardless of the opinion provided by the auditor. That is, the proposed wording changes will be equally relevant to all types of audit opinions issued by the auditor.

For the first of the two categories outlined above, the IAASB proposed changes aimed at providing clearer explanations of the responsibilities of management and the auditor. In its ED, the IAASB noted that it was "expanding and updating the wording of the auditor's report to enhance understanding of the auditor's role and the auditor's report" (IAASB, 2003, p. 6). The areas impacted by the proposed new wording include the auditor's and management's responsibilities, and an updated description of the audit process.

Secondly, specifically for the Australian report, a separate section dealing with the independence of auditors had also been included. This section is included by Australian standard-setters as a means of promoting auditor independence and complying with new legislative requirements implemented following several recent high profile corporate

[5] The "expectations gap" has been defined in many ways over the last thirty years. While many of these definitions have been quite narrow, one definition proposed by Porter (1993) provides a broad and workable definition that has provided a basis for, and been cited by, many subsequent studies. Porter defines the expectations gap as "the gap between society's expectations of auditors and auditors' performance, as perceived by society". This definition is then broken down into two components, which are described as: (i) the performance gap; and (ii) the reasonableness gap.

collapses. Although international standard-setters had not proposed such an inclusion for reporting under ISAs, it seemed relevant to consider this as a potential enhancement in light of the fact that the research was being conducted concurrently with the development of the new standards, and could therefore provide useful feedback.

There is strong evidence that the wording of the audit report, and the perceptions of intended report users, is still a topical issue. Following on from the IAASB project, which resulted in a revised standard (ISA 700) applicable for audit reports dated on, or after, 31 December 2006, further research was commissioned at a global level. Key regulatory and research bodies (IAASB, American Accounting Association (AAA) and American Institute of Certified Practising Accountants (AICPA)) commissioned research aimed at "better understand(ing) users' perceptions of the Auditor's Report on Financial Statements" (IFAC, 2006, p. 1). In commissioning the research, these bodies noted that "anecdotal evidence points to financial statement users not consistently understanding communications in an unqualified auditor's report, but there's little rigorous evidence to support the anecdotal observations" (IFAC, 2006, p. 1). The commissioned research aims to have a global focus, and will ultimately consider whether the audit report should be revised to "communicate more clearly and to address user misconceptions" (IFAC, 2006, p. 2). Four research proposals were supported at an Auditing Standards Board (ASB) meeting in May 2007 (ASB, 2007, p. 5).

1.2. Non-Financial Information and the Assurance Report

The contextual focus of *Study Two* is corporate social responsibility reporting and the assurance of that reporting, with an emphasis on the information source. These concepts and the broad aim of the second study are discussed.

The growing importance of corporate social responsibility reporting is evident in the results of several global surveys on the topic. For example, one survey conducted by the "Economist Intelligence Unit" highlights that in the five years since 2000 the proportion of executives participating in the survey who believe that corporate responsibility is a "central" or "important" consideration for their company has grown from 54 per cent to 88 per cent. As a greater amount of corporate social responsibility information is being provided by corporations, questions have been raised about the relevance and usefulness of this expanded corporate reporting regime. In particular, it is unclear which users benefit from the additional information being provided; and even for those who may be identified as benefiting, how the information is used and assessed in making resource allocation decisions. One of the key users of corporate reporting in the modern age is the financial analyst, who uses reported corporate information to form opinions, develop forecasts and make recommendations to others in relation to the current and perceived future value of the stock.

An important issue pertaining to corporate social responsibility reporting by corporations is the extent to which users believe it to be an accurate and reliable representation of the corporation. The role of financial statement auditing has developed over many years, such that it is generally agreed that having financial statements audited enhances users' perceptions about the credibility and reliability of those financial statements. Naturally, with the emergence of, and growth in, corporate social responsibility reporting, questions are being raised about the reliability of the information being provided and the need for it to be assured.

Within both practical and academic spheres there have been growing calls for further research into the impact upon users of having non-financial information, such as corporate social responsibility reporting, assured. Power (2003) notes that in recent times society has moved from a premise of trusting all and auditing little, towards trusting little and what he describes as "verification of everything" (Power, 2003, p. 387). Consequently, he concludes that there is a need for "detailed empirical and comparative studies on the extension of audit type practices into new areas, and their effects and consequences" (Power, 2003, p. 387). Global surveys are highlighting the growing trend of having corporate social responsibility reporting assured, and the importance of assurance in promoting an improvement in the credibility and reliability of the information being provided. The enhancement of reputation and credibility are important reasons for having this information independently verified (KPMG, 2005), according to around 70 per cent of funds managers, analysts and investor relations officers surveyed in 2003 (CSR Europe, 2003), and by 83 per cent of respondent companies surveyed in 2005 in Australia (Australian Government, 2005).

In 1993, Zmijewski (1993) highlighted that very little research had been conducted on the information and decision processes of financial analysts, which specifically aims to identify information used, and the manner in which it is used. Since that time, surveys and content analyses have been conducted (Previts et al, 1994; Bradshaw, 2002; Abdolmohammadi et al, 2006), in an attempt to identify the information used and reported by financial analysts. Furthermore, while acknowledging that empirical-archival studies have been able to demonstrate a link between corporate social performance and corporate financial performance, these studies have been deficient in demonstrating whether, and how, users of the information actually use corporate social responsibility measures in their decision-making.

Contents analyses and surveys essentially report use and have a self-reporting bias. As research methods, they lack the ability to examine the impact that differences (i.e., manipulations) in variables of interest, have upon outcomes of a dedicated experimental group. Hirst et al (1995) noted that while empirical-archival studies are able to explore the outcome of an investment decision through examining the stock returns, behavioural studies are able to obtain evidence about the judgments (e.g., how information was used and processed) that precede the investment decision. Notwithstanding these strengths of the behavioural experimental approach to research, few behavioural studies have been conducted to date that specifically examine questions pertaining to the assurance of corporate social responsibility reporting, and the type of assuror, and the impact upon the perceptions and investment decision-making of financial analysts. These questions are the key focus of the second study in this thesis.

1.3. Motivation of the Study

Given the significance to users of the assurance of information for economic decision-making, research into the impacts of assurance and how best to report (communicate) assurance, on perceptions and decision-making of users is important. Presumably, these impacts (and differences in the impacts) will occur as a result of the effectiveness of the communication of assurance being provided. Furthermore, with international and Australian standard-setters introducing changed audit report wording aimed at providing clarity and understanding, and thus by definition aimed at reducing the expectations gap, research into the success of their intentions is timely.

Therefore, this thesis, comprising two studies, aims to examine several questions relating to these areas of uncertainty, in particular the impact that; (a) changes to the wording and contents of audit reports (including audit opinions) for financial statement audits; and (b) assurance of corporate social responsibility reporting and the type of assuror; has on perceptions and decision-making judgements of information users. The perceptions assessed in this thesis relate to the credibility of the information provided, the independence of the auditor, and for the first study, the respective responsibilities of the auditor and management. Investment decisions focus on earnings growth (an accounting performance measure – Study One), share price growth (a market-based indicator – Study One and Study Two) and stock recommendations (also a market-based indicator – Study Two), and the risk associated with potential investments.

As noted previously, behavioural experimental designs are employed to examine these questions. However, the two studies address these questions in different contextual settings and focus on different aspects of the communication process. Study One utilises proposed wording changes to the audit report, while Study Two utilises corporate social responsibility reporting and the assurance of that reporting. While the first study focuses on the actual message (i.e., the words) being provided in the report, the second study focuses upon the information source (i.e., whether information has been assured and by whom). Assessing users' perceptions, as well their investment decisions are important aspects of these two studies. The link between differences in the perceived credibility and reliability of information presented and the different investment decisions made by experimental participants, has been demonstrated in previous research (Hirst et al, 1995; Hirst et al, 1999; Hodge, 2001; Frederickson et al, 2006), but not in the same auditing and assurance contexts that are employed in this thesis.

The focus on investment decisions and assurance reporting is an important contribution of this thesis, as it will be the first time that such issues have been extensively examined in this manner and, as such, will aim to fill a void in the academic literature in this field of endeavour.

1.3.1. Importance and Contributions of the Study

This research is important as it contributes to the field of auditing and assurance from practical and policy perspectives. It also contributes academically, by advancing research on this topic in a theoretical sense.

Practical Perspective

Study One

Firstly, the expectations gap has been a much discussed and much examined issue in auditing research. Professional bodies (e.g., Institute of Chartered Accountants in Australia (ICAA); CPA Australia; AICPA) are often reviewing the means by which the expectations of report users can be better managed with respect to financial statement audits. One way in which to reduce the expectations gap is through the provision of an expanded audit report (Trotman, 2003), and the minimisation of the use of "cryptic or coded language" (IFAC Website, 22 January 2004). The impact on users of proposed wording changes that form part of an expanded format is examined in this project.

Interested parties (standard-setters, auditors, investors) would derive comfort from the knowledge that there is a common understanding of the responsibilities of the key parties involved in the preparation and presentation of financial statements, including the manner in which it links to the audit reports and the opinions being provided. Also, this research aims to provide evidence of whether the communication process between auditors and shareholders (users of audit reports specifically targeted by the proposed wording changes) has been improved by the then proposed wording changes. That is, it aims to assess whether changes to the wording of the audit report assist shareholders (important users of financial statements and audit reports) in clearly understanding the respective responsibilities of the auditor and management, in interpreting the extent of work undertaken and the opinion formed in relation to the financial statements. It also aims to examine the impact this has on the decisions made based on the information provided (including the audited financial statements).

Study Two

There is growing promotion of corporate social responsibility reporting, "green" and "ethical" investments (socially responsible investment – SRI), as well as increasing awareness of the importance of good corporate social performance and its effects on corporate financial performance. Meta-analyses of the vast amount of research examining the link between these two concepts (Orlitzky et al, 2003; Margolis et al, 2007) report a positive association between them. Therefore, research that informs the general public's knowledge about the usefulness of corporate social responsibility information to investment decision-making, and how that usefulness may be enhanced through assurance of that information, will be of significance to financial analysts, shareholders, investors and regulators.

Preparers of corporate reports would receive important feedback by knowing that the corporate social responsibility information they are furnishing is being critically examined and considered by financial analysts, investors and potential investors, when making investment decisions. That is, it is important for information preparers to know that information users do not perceive corporate social responsibility information as being merely "greenwash".[6]

This research aims to provide evidence of whether the assurance of corporate social responsibility reporting impacts the perceptions and investment decisions of financial analysts, and if so, whether the provider of the assurance (i.e., a professional accountant or a sustainability expert) is important. This will be of interest to professional auditors, as they recover from a period where reputations have been severely tarnished as a result of being involved in several high profile corporate collapses. It will also be of interest to other "sustainability experts" (e.g., environmental engineers, human resource consultants) who may be hoping to "carve out" a niche in this area.

[6] Greenwash is defined by the American Heritage Dictionary as being: "The dissemination of misleading information by an organization to conceal its abuse of the environment in order to present a positive public image".

Policy Perspective

This thesis is important for standard-setters and regulators in their roles of revising existing standards and devising new standards, and prescribing levels of work and reporting formats. Evidence of the importance of this research to standard-setters is demonstrated by the AuASB providing financial support for the first study (and other associated research) in this thesis. Furthermore, the IAASB expressed interest in the results of the research. Both bodies received written reports, while the Australian standard-setter also received a verbal report at a board meeting. This is an example of where research can inform policy and the manner in which policy, and ultimately practice, is developed. Indeed, these are topical issues for both international and Australian standard-setting bodies, which have displayed an interest in this and other academic research as they propose and/or approve new reporting standards.

Furthermore, this research was conducted at the same time that standard-setting bodies were developing updated standards on audit reporting, including standards on modifications to the audit report. For both international and Australian standard-setters, insight into their success in creating communication that is better understood by users is important when defining work procedures and arrangements and proposing legislative requirements. In its proposed strategy for 2009-2011 the IAASB is suggesting that "research be conducted in two areas: first, whether there is anything in ISA 700 that creates a barrier to its adoption and, secondly, whether the matters communicated by the auditor's report should be revised" (IAASB, 2007, p. 16). Additionally, the first study provides a valuable contribution to research recently commissioned by key regulatory and research bodies (IAASB, AAA and AICPA) aimed at "better understand(ing) users' perceptions of the Auditor's Report on Financial Statements" (IFAC, 2006, p. 1).

Finally, the results of the second study in this thesis will inform the review process of those bodies currently reviewing assurance standards pertaining to corporate social responsibility information. The IAASB, through the IFAC Sustainability Experts Advisory Panel (SEAP) is currently undertaking a project aimed at developing a standard for assurance engagements on carbon emissions information.[7] Also, the

[7] Refer IAASB Main Agenda, December 2007, pp. 2007 – pp. 3369 to 3380 on IFAC website at: http://www.ifacnet.com/?q=seap&site=&utm_medium=searchbox, (Accessed May 2008).

Institute of Social and Ethical Accountability (AccountAbility), which issued the most widely recognised assurance standard not issued by a standard-setter or regulator (i.e., AA1000AS), is currently revising its standard for the assurance of corporate social responsibility information.

Theoretically

This research contributes to the broad theoretical knowledge in the following ways.

Study One

This study of the financial statement audit and the audit report draws on previous research that examines the impact that audit reports have on users of financial statements. In line with previous research, it examines the impact that audit reports and types of opinions have on the perceptions of users. It does this primarily by examining the wording of audit reports.

It contributes to the general body of literature in this field in three key ways. Firstly, it examines recently proposed changes to the wording of audit reports at the international level. The changes were designed with a specific objective of achieving a clearer and more understandable report that summarises the work undertaken and the link between that work and the opinion given. This study provides insight into the success of the standard-setting bodies in achieving this aim, by comparing shareholders' (audit report users') perceptions and investment decision-making in the presence of the proposed wording of the audit report with shareholders' perceptions and investment decision-making in the presence of the then current wording of the audit report.

Secondly, this study is one of the few recent experimental studies to examine the impacts that changes to the wording of audit reports and opinions have on actual investment decisions. Several previous behavioural studies have examined the impact of different audit opinions on lending decision made by bankers. Other studies have asked experimental participants for their views about the usefulness of information for decision-making, but have fallen short of requiring that an investment decision be made. Furthermore, many empirical-archival studies have examined the impacts of differences in audit opinions on investments in terms of the market's reactions through share price movement. However, little previous research has focused directly on the impact on investment decisions from a behavioural experimental research perspective.

Finally, the first study also utilises theory from other fields, namely psychology with respect to source credibility, and communication theories with respect to communication effectiveness, to propose and test hypotheses on the manner in which the audit report influences the perceptions and decisions of shareholders (users). In doing so, the study draws on both prior auditing research and studies from these other disciplines.

Study Two

The second study considers previous research that examines the importance of non-financial information in relation to stock returns and performance. In this regard, this study examines the decision-making process of financial analysts, one of the most important user groups of corporate reporting. The effects that the assurance of corporate social responsibility reporting have on the use of the reporting and the decisions made, as well as differences in the provider of the assurance, are examined. It achieves these aims using a behavioural experimental approach; to date used by few studies to identify the use of corporate social responsibility reporting by financial analysts. It has, however, been a research method used to examine important questions pertaining to the impact on decision-making of assurance of non-financial information more generally (e.g., Libby et al, 2004; Coram et al, 2007).

The study contributes to the general body of literature in this field in three key ways. Firstly, it contributes to the growing body of literature that is focused on the assurance of information other than financial information, the assurance report and the role of the professional auditor. In doing so, it can provide new insights and direct and inform future research in this area.

Secondly, this study is one of the few experimental studies to examine the utilisation of non-financial information (especially corporate social responsibility reporting) by an important group of information users, namely financial analysts. While economic-based studies have examined the associations between the provision of corporate social performance and corporate financial performance (e.g., earnings measures, stock returns), and survey research has elicited views about the use of non-financial information (e.g., quality of management, balanced scorecard indicators) more generally, little previous research has focused on these questions from an experimental research perspective, using the context of corporate social responsibility reporting.

Finally, similarly to *Study One* this study utilises theory from other fields, namely psychology with respect to source credibility, and communication theories with respect to communication effectiveness, to propose and test hypotheses in relation to the manner in which assurance reports and different providers of assurance influence the decisions of financial analysts (corporate reporting users). The study draws on both prior accounting research and studies from these other disciplines.

1.4. Structure of the Thesis

Chapter Two outlines the broad theoretical framework utilised in the thesis which supports and links the two studies. It considers prior research in the fields of auditing, psychology and communications. Chapter Three details the extant literature dealing with the impact that various types of audit reports and audit opinions have on users of financial statements, in relation to their perceptions of the message being conveyed and their investment decisions. The review covers both the wording and formats of audit reports and the various types of audit opinions issued and described in those reports. The following chapter, Chapter Four discusses the first of the two studies that comprise this thesis. Sub-sections within this chapter includes the following: (1) an introduction to the study; (2) the development of hypotheses by drawing on the literature review discussed in Chapter Three, in addition to other theoretical concepts discussed in Chapter Two; (3) the research approach taken in examining the stated hypotheses; (4 to 7) the results of the study; and (8) general conclusions of the study.

The following two chapters relate to the second study in the thesis. Chapter Five outlines a discussion of the literature pertaining to the reporting on non-financial information (and specifically corporate social responsibility reporting) and the use of this information by financial analysts. Furthermore, it includes details of the literature pertaining to the assurance of non-financial information, and assurance by different assurance providers. Chapter Six is structured in a similar manner to Chapter Four, but relates to the second study of this thesis. Like Chapter Four, the sub-sections within Chapter Six includes: (1) an introduction to the study; (2) the development of hypotheses by drawing on the literature review discussed in Chapter Five, in addition to other theoretical concepts discussed in Chapter Two; (3) the research approach taken in examining the stated hypotheses; (4 to 7) the results of the study; and (8) general conclusions that are drawn from the study. Finally, Chapter Seven summarises the key findings and results of both studies, as well as highlighting the limitations of the research and possibilities for future research that emanate from this thesis.

CHAPTER TWO: THEORETICAL FRAMEWORK

A theoretical framework adapted from communications theory (and a model of communication) has been enhanced and utilised to examine the effects of assurance and its reporting on receivers of communication. The means by which an assuror communicates to the users of the information being assured is through an assurance report; called an audit report for an audit of financial statements. The International Framework for Assurance Engagements (IFAE) notes that “(t)he practitioner provides a written report containing a conclusion that conveys the assurance obtained about the subject matter information” (IAASB, 2008, paragraph 56).

Separate standards exist detailing the contents and structure of the audit report (for audits of financial statements), and an assurance report for engagements other than audits or reviews of historical financial information. At the international level, the standard dealing with an audit report for financial statement audits is ISA 700. For assurance engagements other than for financial statements, the relevant standard is International Standard on Assurance Engagements 3000 (ISAE 3000) “Assurance Engagements Other Than Audits or Reviews of Historical Financial Information”. The Australian equivalents of these standards are ASA 700 and Standard on Assurance Engagement 3000 (ASAE 3000) “Assurance Engagements Other than Audits or Reviews of Historical Financial Information”, respectively.

Following the project to harmonise Australian standards with their international counterparts, there is now general conformity between the two sets of standards, except for some small differences which are highlighted within the Australian standards. It is claimed that being in compliance with the Australian standard means also being in compliance with the equivalent international standard. On this basis, the discussion that follows, while focusing upon the international standard, should be read as being a general discussion of the key aspects of the Australian standard as well.

ISA 700 notes that the purpose of the standard is to “establish standards and provide guidance on the independent auditor’s report issued as a result of an audit of a complete set of general purpose financial statements prepared in accordance with a financial reporting framework that is designed to achieve fair presentation" (ISA 700, p. 1). The standard prescribes that the audit report should include the following sections: (i) title (that clearly highlights that the assuror is independent of the information being assured); (ii) addressee (iii) introductory paragraph; (iv) management's responsibility for the financial statements;[8] (v) auditor's responsibility; (vi) auditor's opinion; (vii) other reporting responsibilities; (viii) auditor's signature; (ix) date of the auditor's report; and (x) auditor's address. The standard addresses each of the sections separately, discussing the requirements of each in some detail. It states that the auditor's report shall be in writing. Importantly, the standard also provides draft standard wording that it encourages to be used in order to enhance comparability.

In terms of assurance engagements other than audits or reviews of historical financial information, ISAE 3000 notes that the assurance report provided "should be in writing and should contain a clear expression of the practitioner's conclusion about the subject matter information" (ISAE 3000, p. 45). The standard does not prescribe a standardised format for the assurance report, but provides an effective structure for the report by identifying several "basic elements" that should be incorporated into the report. These basic elements include: (i) a title that clearly indicates the report is an independent assurance report; (ii) an addressee; (iii) identification and description of the subject matter information and, where appropriate, the subject matter; (iv) identification of the criteria; (v) where appropriate, a description of any significant, inherent limitation associated with the evaluation or measurement of the subject matter against the criteria; (vi) when the criteria used to evaluate or measure the subject matter are available only to specific intended users, or are relevant only to a specific purpose, a statement restricting the use of the assurance report to those intended users or that purpose; (vii) a statement to identify the responsible party and to describe the responsible party's and practitioner's responsibilities; (viii) a statement that the engagement was performed in accordance with ISAEs; (ix) a summary of the work performed; (x) the practitioner's conclusion (which may provide either reasonable or limited assurance, and therefore expresses a positive or negative opinion respectively); (xi) the assurance report date; and (xii) the name of the firm or the practitioner, and a specific location, which

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[8] In the Australian standard this section is entitled "The Responsibility of Those Charged with Governance for the Financial Report".

ordinarily is the city where the practitioner maintains the office that has responsibility for the engagement.

In recent years, for assurance engagements pertaining to the assurance of non-financial information, particularly corporate social responsibility reporting, several competing frameworks and standards have been developed by a number of bodies, including regulatory accounting and auditing standard-setting bodies. Much of this work has emanated from Europe, with at least two standards, and one guidance paper being issued by national regulatory bodies. In its discussion paper released in June 2006, the Fédération des Experts Compatables Européens (FEE) noted that guidance papers have been released by Swedish and French national authorities pertaining to the assurance of sustainability reports (FEE, 2006).[9] The Dutch auditing regulator, Royal NIVRA, issued its own assurance standard relating to sustainability reports in July 2007. It notes that the standard applies to assurance engagements providing reasonable (an audit engagement) as well as limited (review engagement) assurance. The standard, 3410N "Assurance engagements relating to sustainability reports", notes that the assurance report should contain "certain basic elements" (Royal NIVRA, 2007, p. 6), namely: (i) which parts of the sustainability report have been audited; (ii) any limitations to which the report is subject; (iii) any evidence of unsuitability of reporting criteria; and (iv) where it is a review engagement, that procedures are limited and the assurance less than that provided for an audit engagement.

Non-regulatory bodies have also published frameworks and standards for assurance. One standard issued by the Institute of Social and Ethical Accountability is called Assurance Standard AA1000 (AA1000AS).[10] In terms of the assurance statement proposed by this standard, it notes that the statement should "address the credibility of the Report[11] and the underlying systems, processes and competencies that deliver the relevant information and underpin the organisation's performance" (Institute of Social

[9] In 2004, the *Compagnie Nationale des Commissaires aux Comptes (CNCC)* in France issued a guidance note for auditors on specific environmental and social data and information processes included in sustainability reports. In the same year, the *Föreningen Auktoriserade Revisorer*, in Sweden, issued a non-mandatory standard entitled "Independent review of voluntary separate sustainability report".

[10] AA1000AS is currently undergoing revision, and the release of a second edition is pending, and expected to be released in October, 2008. Consultation workshops were being conducted in 2007 and 2008.

[11] That is, a Corporate Social Responsibility Report.

and Ethical Accountability, 2003, p. 23). Similar to the reporting prescribed by regulatory standard-setting bodies, the key elements proposed for inclusion in an assurance statement under AA1000AS are: (i) a statement outlining the fact that the AA1000 Assurance Standard has been used; (ii) description of the work undertaken; (iii) the assuror's conclusion about the quality of the information provided, the processes, systems and competencies – it recommends a positive assurance whereby the assuror would note that the information "provides a fair and balanced representation" (Institute of Social and Ethical Accountability, 2003, p. 23); and (iv) any additional commentary, which may include highlighting any progress made since the last assurance report, and any suggestions for improvement. The International Organization for Standardization (ISO) has also recently issued its own standard (ISO 14064-3, 2006) providing guidance on verifying greenhouse gas assertions.

Despite detailed prescriptions outlining the key requirements of audit and assurance reports, there still exist difficulties in effectively communicating to users of the information being assured, the roles and responsibilities of the assuror and the assurance process. Traditionally, in relation to the audit of financial statements, the major issue impacting auditing communication has been described as an "expectation gap": that is, "differences between what the public expects from an audit and what the profession understands the objectives to be" (Hasan et al, 2003). The existence of an expectations gap is evidence that the effectiveness of the communication of the work that has been performed and the conclusions reached, is somewhat impaired. Despite much work having been done over many years in an effort to reduce the gap, it is still an issue of concern for standard-setters and the accounting profession. Recently, the IAASB, AAA and AICPA commissioned research aimed at "better understand(ing) users' perceptions of the Auditor's Report on Financial Statements" (IFAC, 2006, p. 1).

It is with the notion of communication effectiveness in mind that this thesis aims to examine assurance, and in particular assurance (audit) reporting, and the impact this has on users of the information being assured (audited). This impact is measured in terms of: firstly, users' perceptions; and secondly, investment decision-making judgements.

When examining issues of communication effectiveness, a theoretical underpinning in communications theory is essential. A theoretical framework adapted from the work of

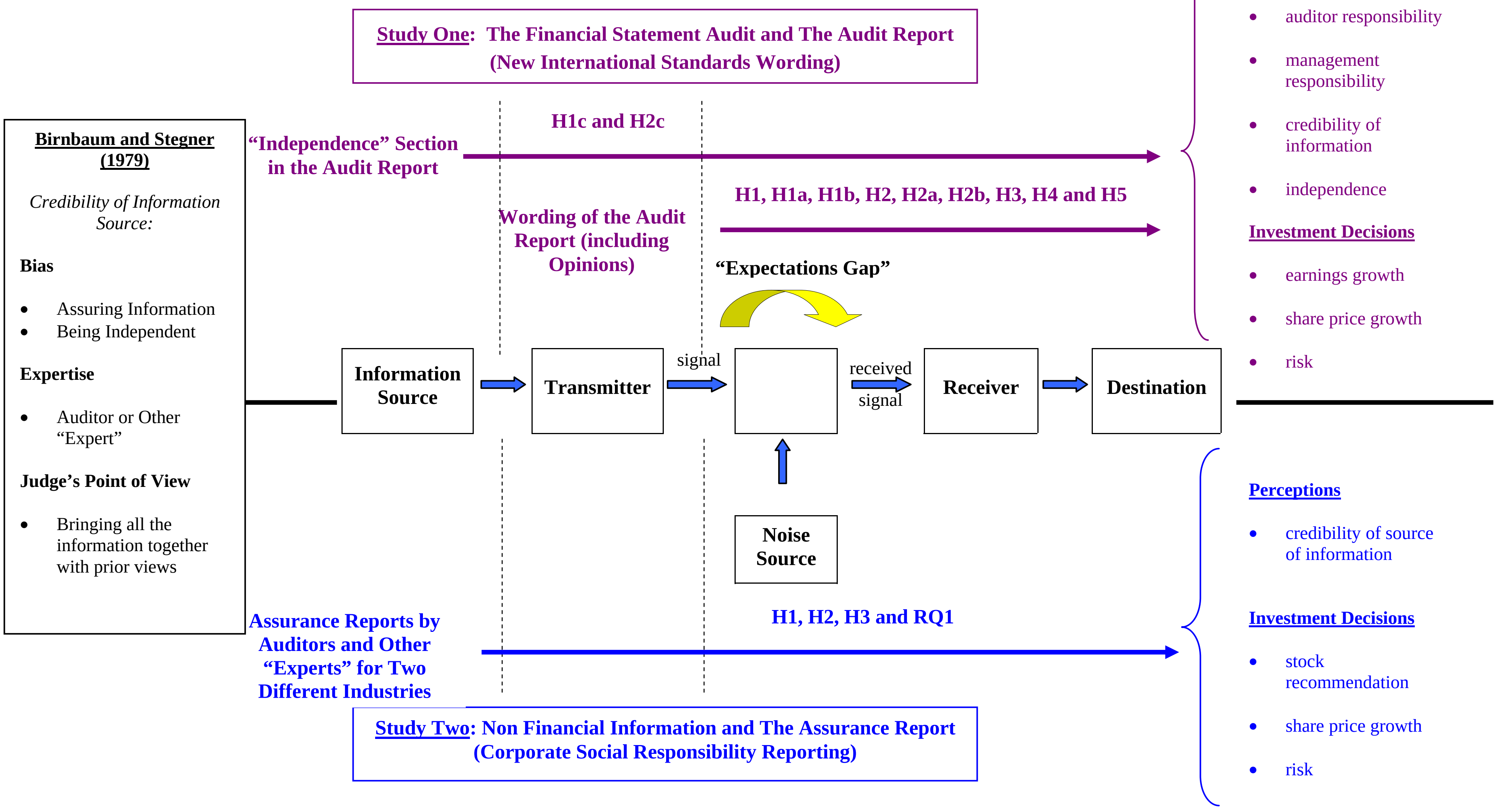
Shannon and Weaver (1949), and supplemented by the work in the field of psychology by Birnbaum and Stegner (1979), is used in this regard. The adapted theoretical framework used in this thesis is depicted in Figure 2.1, and is described below. Shannon and Weaver's model of communication falls within what is described as a "process" school of communication theory.[12] It is a linear model that depicts the process of communication as emanating from an "information source", and where a signal (message) is "transmitted" to a "receiver", who uses the information for some purpose; that is, the communication reaches a particular "destination". This linear model highlights that communications often suffer from three key problems, namely that: (i) the signal being sent may not be sent "accurately" – a "technical" problem; (ii) the transmitted symbols may not be precisely conveying the desired meanings – the "semantic" problem; and (iii) the received communication may not have the desired effect (as proposed by the source of the information) on those who receive the communication.

In testing this model within the broad context of "assurance", two separate studies are undertaken that aim to address the "technical" problem, as well as the third problem relating to the effect of the communication on receivers of the message. The studies examine the impact on information users that the words being used in the communication of the assurance, and assurance itself, has on the perceived credibility of the underlying "subject matter" and information source. Impacts on investment decision-making are also examined.

The *first study* focuses on financial statement audits and the audit report prepared by professional accountants (auditors). It is identified in the top half of Figure 2.1, and examines the impact that changes in the wording of the communication, and hence the message that is transmitted, has upon users. As such, it is an experimental form that has been used in many previous studies. Furthermore, it is based on an earlier model developed by Libby (1979) shown in Figure 2.2.

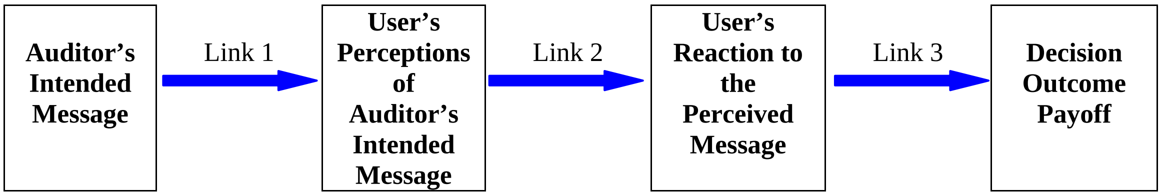
[12] The other major school of communications theory is the "semiotic" school of communication. The semiotic school adopts a broader view and focuses on the interaction between the reader and the message being received, in terms of generating meaning of the communication.

Figure 2.1: Theoretical Framework Adapted from Shannon and Weaver's Model of Communication



In this model the "expectations gap" is represented by "Link 1", being the difference between the auditor's intended message and the users' perception of that intended message. While being of importance in the two studies conducted in this thesis, examination of the "expectations gap" is only one part of this first study which examines experiment participants' perceptions and investment decision-making judgements.

Figure 2.2: The Impact of the Auditor's Report on Decision-making[13]



A significant contribution of the first study is that it examines Link 2 of the model, gauging users' reactions to the wording changes in the audit report, by requiring them to make investment decisions. Many previous studies in this area have examined either: the impacts of different audit reports (which were often audit reports with different audit opinions) on investment decisions; have merely asked users to indicate whether they thought the audit report was useful for making investment decisions; or asked whether a company would be a good investment. Often these studies required experimental participants to make decisions based solely on an audit report(s) provided to them. Furthermore, many previous studies employed loan officers (asking them to make lending decisions) or students (as proxies for investors) as experimental participants. However, the first study in the thesis examines the impacts on shareholders of wording changes proposed by standard-setters, and the potential investment decisions made by these shareholders, in a detailed case scenario. As well, it examines these issues across a range of different audit opinions.

Hypotheses 1, 1a, 1b, 2, 2a and 2b (H1, H1a, H1b, H2, H2a and H2b depicted in the top half of Figure 2.1) of the first study examine how changes to the wording of the sections detailing the auditor's and management's responsibilities affect the shareholders' (information users') perceptions about (understanding of) those responsibilities. Also assessed are shareholders' views on the information about the company described, from

[13] Refer Libby (1979), p. 100.

an investment perspective. This is judged by requiring shareholders to make investment decisions.

Hypotheses 1c and 2c (also depicted in the top half of Figure 2.1) involve examination of the impact on perceptions and decision-making of including a separately headed "Independence" section in the audit report. Finally, the first study includes an examination of the impact of the interactive effects of the proposed changes to the wording of the audit report and three different types of audit opinion, upon these perceptions and investment decisions (Hypothesis 3 (H3), 4 (H4) and 5 (H5) in the top half of Figure 2.1).

Testing of H1, H1a, H1b, H2, H2a and H2b utilises an experimental design that manipulates as independent variables, the wording of the auditor's and management's responsibilities section of the audit report. The wording used in the then current standard (i.e., ISA 700) represents one of the two versions of the wording for each of the sections, while the other version used in the experiment was drawn from the then proposed draft standard (IAASB, 2003). The proposed draft standard expanded upon, and clarified, the responsibilities of both sets of parties with the aim of making these responsibilities (essentially by enhancing the understanding of the auditor's role) much clearer to users of the report. The success of this aim is tested by comparing shareholders' views on their perceptions about (understanding of) the respective responsibilities (Link 1) across the different versions (wording) of the audit report, as well as the impacts on the investment decisions they would make (Link 2).

In testing Hypothesis 3, 4 and 5 a second independent variable was subjected to manipulation. This variable was the type of audit opinion furnished with the audit report. Three different types of opinions were used in the study, namely: (i) an unqualified opinion; (ii) a modified opinion, being a qualified opinion; and (iii) an unqualified opinion with an "emphasis of matter" paragraph. Wording for the opinions was drawn from the then proposed audit reporting standard ISA 700 for the unqualified opinion, and from the then current International Standard on Auditing 570 (ISA 570) "Going Concern" for the modified opinions (this being the context which allows for the audit reports to be meaningfully manipulated as an independent variable). At the time of conducting the experiment, the need for new wording of modified opinions was still to be addressed by the IAASB. However, the proposed wording changes made to the responsibilities section of the audit report was intended to be included in any new modified reports. The interactive effect of changes to the wording of the audit report and different types of audit opinions upon shareholders was examined by seeking their perceptions about the respective responsibilities as well as the investment decisions they would make.

Although previous studies have used this model and experimental approach to investigate how changes to the wording of audit reports impacts users of the information provided, this study is one of only a few to extend examination of the impact on users beyond their perceptions, and to their investment decisions. Furthermore, it was conducted at a time when the IAASB and the AuASB were examining reporting standards, and had released exposure drafts for comment. As such, it was a study that was able to inform standard-setters in their deliberations.

In examining the impact of the information source on users, theory from the field of psychology is utilised; in particular the breakdown of information source credibility into three constructs, being bias, expertise and the judge's point of view (Birnbaum and Stegner, 1979). These constructs, and the effect given to them in the two studies, are shown at the left hand side of the theoretical model (Figure 2.1). The foundation of these three constructs is found in psychology literature, namely integration theory, which aims to explain the manner by which users of information integrate information in making decisions and judgements, and which centres on the notion of "source credibility" (Anderson, 1971).

From the perspective of a financial statement audit, differences in information source credibility relate to whether users' perceptions about the assured subject matter are impacted by differences in their perceptions of the auditor. In this study, differences in the bias of the information source are examined through the use of wording that highlights the independence of the auditor in some audit reports, but not in others. Therefore, where the independence is highlighted to report users, it is expected that they will perceive the information source to be less biased, and hence the assured subject matter to be more credible.

An important feature of the experimental design of this first study was to examine this first construct of source credibility, while leaving the remaining two constructs constant. Therefore, differences in the levels of expertise are not examined in this study. The same auditor signs off on all audit reports across all experimental cells in the study. Differences in the "judge's point of view", which relates to how the user's own biases and preconceptions affect perceptions of information source credibility, are also not examined in the first study. This is because the user group employed as experiment participants (i.e., shareholders) and all background and case information are held constant across all experimental cells in the study. However, a feature of the experiment design of the second study is that it readily permits all three constructs to be examined.

Therefore, in testing the bias construct, Hypotheses 1c and 2c in the first study involve the examination of the impact on users' perceptions and decision-making, of the inclusion of a separately headed "Independence" section in the audit report. Highlighting the independence of the auditor goes some way to ensuring that users of the information perceive the information source and the assured subject matter to be more credible, by virtue of the assuror being perceived as being less biased. The independent variable subject to manipulation for the examination of this hypothesis involves the inclusion of a separately headed "Independence" section in the audit report for some experiment participants, and the absence of such a section for the remainder of participants. The wording of the "Independence" section included in the research instrument was drawn from the Guidance Note – "Improving Communication between Auditors and Shareholders", issued by the AuASB in July 2003. It states clearly under a heading of "Independence", that in conducting the audit, the auditor followed the applicable independence requirements of the accounting profession and legislative requirements (refer Appendix 6). The same questions relating to users' perceptions and investment decision-making, used to test other hypotheses, were also used to test these hypotheses.

In examining in more depth the three constructs that comprise information source credibility, the *second study* focuses on corporate social responsibility information and whether or not that information is assured. That is, assurance other than that provided for financial statements. The three hypotheses and research question shown in the bottom half of the theoretical model, (Hypotheses (H) 1, 2 and 3 and RQ 1) examine these three constructs. That is, H1 examines the "bias" construct, H3 examines the "expertise" construct, while H2 and RQ 1 both examine the construct entitled "judge's point of view".

The reporting by companies of non-financial information, especially corporate social responsibility and sustainability reporting, has shown significant growth in recent years. The information of interest in the second study is corporate social responsibility reporting. The choice of corporate social responsibility reporting and its assurance, is an important experimental design feature of the second study, which allows the three constructs of information source credibility to be readily examined. Financial statement audits are generally mandated by law and are required to be performed by a designated assuror (i.e., a professional accountant (auditor)). Therefore, the external validity of any experiment that proposes to examine the assurance (vs. non assurance) of financial statements and the impact of different assurors of financial statements would be severely diminished. Assurance of corporate social responsibility information is a context which allows for the examination of these questions in a way in which the external validity of the experiment is maintained and enhanced.

Examining corporate social responsibility reporting is both relevant and important in terms of the attention afforded it by financial analysts and other key users of corporate information. Recent studies (e.g., Deegan et al, 2006b; Simnett et al, 2007) have identified much diversity across countries and industries, on the proportions of corporate social responsibility and sustainability reports being assured. Furthermore, they have reported that assurance is provided by different types of assurors and in differing proportions across different industries and countries.

Testing the three hypotheses and the research question in the second study involves two "between-subjects" independent variable manipulations and one "within-subjects" manipulation in a behavioural experimental setting. For the bias construct, the "between-subjects" testing involves examining users' responses to the information presented, where the corporate social responsibility reporting provided is either assured or not assured. To examine how users of corporate social responsibility reporting react to any potential bias inherent in the source of the information being provided, some experiment participants receive corporate social responsibility reporting that is not assured; the others receive corporate social responsibility reporting and an accompanying assurance report. The presence of an assurance report, where the corporate social responsibility information presented in the case has been independently reviewed and an opinion given on how fairly the information has been stated is expected to heighten the perceived credibility of the subject matter. This is based on the notion that, when assured, the information source comprises a combination of the management presenting the information and the assuror undertaking the independent review. As such, the information would be seen as being less biased than information presented by management solely and which is not assured.

For the expertise construct, the "between-subjects" testing involves examining users' responses where the corporate social responsibility reporting is assured by two different types of assuror. To examine the "expertise" construct in this way it is necessary to develop an experimental context that allows for potential differences in assuror expertise to be identified, but at the same time ensure that a level of realism is maintained (to enhance and maintain the external validity of the experiment). This explains why the financial statement audit and the audit report could not be the context within which the second study is set, as audits are generally performed worldwide by one type of assuror, namely professional accountants (auditors). Using the corporate social responsibility reporting and the assurance report allows for this expertise construct to be examined.

In testing users' view of the expertise (and hence credibility) of the information source, experiment participants receiving assurance reports are split between those receiving an assurance report prepared by a professional accountant (auditor) and those receiving an assurance report prepared by a sustainability assurance expert. It is hypothesised that users will perceive corporate social responsibility reporting accompanied by assurance reports furnished by professional accountants (auditors) to be more credible than the same corporate social responsibility reporting accompanied by assurance reports furnished by sustainability assurance experts. The former type of assuror will be seen as having greater expertise in assurance. That is, given their expertise in the "process" of assurance, and their ability to acquire "subject matter" expertise as required, the information source (reporting plus assurance) is seen as being more expert when assurance is provided by the professional accountants (auditors). Arguably, while sustainability assurance experts may be seen as having "subject matter" expertise, they have a lower level of assurance "process" expertise than professional accountants (auditors).

The third construct, the "judge's point of view" utilises the "within-subjects" manipulation. Experiment participants receive information pertaining to two companies in different industries; the mining industry and the retailing industry. Given that this construct pertains to how the user's own biases and preconceptions affect perceptions of information source credibility, it is assumed that in industries where corporate sustainability reporting is far more prevalent, the assurance of this reporting will be of much greater significance. It will have far greater impact on users' perceptions and decision-making, than for industries where such reporting is less prevalent. Therefore, it is expected that the impact of assurance of corporate social responsibility reporting reported in the mining industry, will be greater than the impact of assurance of corporate social responsibility reporting in the retailing industry. This equates with the credibility of the information source being perceived as being greater for the mining industry, based on users' preconceptions and biases (i.e., that they see corporate social responsibility reporting, including assured information, more often for the mining industry) before any information is received. The research question examines the interaction between the type of assuror and the type of industry. The lack of theoretical direction and prior research on this topic prevents the development of an hypothesis.

Significantly, this second study is the first behavioural experiment of its kind to examine the impacts of the assurance of corporate social responsibility reporting and the type of assuror, on financial analysts' judgements. Furthermore, it is the first study to examine the issue of assurance within an adapted communications model and with a focus on source credibility. For each of the three hypotheses and the research question, the credibility of the information source is examined in terms of questions that directly seek experiment participants' perceptions of the credibility of the source of the information being presented. As well, questions are asked seeking their views about potential investment decisions.

2.1. User Groups Employed as Participants

For each of the two studies, a different yet important user group is employed as experiment participants. Shareholders are used as participants in the first study, while financial analysts are used as participants in the second study. Both groups are representative of investor groups. Given that a major contribution of the two studies relates to the examination of investment decisions – i.e., going beyond merely examining differences in perceptions – it is important to employ, as participants, user groups that make important investment decisions. Many of the previous behavioural experimental studies in this area utilised students and loan officers. The former group are merely proxies for investors (rather than being actual investors), while the latter group make very different decisions as lenders, than decisions made by equity investors. Therefore, each user group in this thesis is chosen for a specific purpose and is seen as being the most appropriate user group for the questions and scenarios being examined.

The *first study* examines the financial statement audit and the audit report; specifically in terms of proposed wording changes to the audit report. These changes were proposed at an international level by the IAASB, and were being considered concurrently by the Australian standard setter (AuASB). The AuASB noted that the proposed wording changes were specifically aimed at "seeking to enhance the communication process between auditors and shareholders" (AuASB, 2003, p. 4). Therefore, members of an association comprising individual shareholders (that is, the Australian Shareholders Association) are the most appropriate experimental participants to determine whether the aim of the AuASB had been achieved. While shareholders of this kind are generally perceived as being at the "unprofessional" end of the "investor spectrum", Frederickson et al (2006) highlight that within the United States, the SEC and many others have recognised the important role that non-professional investors play in the their markets.

Financial analysts, a number of whom were employed by major global investment banks, were the experimental participants in the *second study*. In recent years, an increasing focus on environmental and social performance has resulted in investors taking greater notice of the corporate social responsibility reporting of companies. The growth in " 'socially responsible investment' has now fully emerged from its niche and proved its worth as an investment strategy" (Jansen et al, 2006, p. 85). It is an area within which financial analysts must play an important role in order to respond to client demand. Furthermore, from an academic perspective, there has been a growing body of literature that has responded to calls for research into the process undertaken by financial analysts in making investment decisions. Significantly, using financial analysts, who are at the professional end of the "investor spectrum", as experimental participants assists in addressing the needs of policy makers in establishing assurance standards for corporate social responsibility reporting. It also addresses calls by academics to conduct research into the area of financial analysts' decision-making processes.

Presentation of the extant research literature pertaining to the various facets of the two studies depicted in Figure 2.1. is divided between Chapters Three and Five. The former outlines the extant literature pertaining to the first study in the thesis, while the latter Chapter describes the relevant research pertaining to the second study in the thesis.

CHAPTER THREE: SPECIFIC LITERATURE FOR STUDY ONE

Considerable research effort has been devoted to the communication aspects of auditing and assurance, and more specifically, the messages conveyed by audit and assurance reports and their impacts on users. The following discussion of the extant literature in the auditing field is specifically devoted to issues surrounding communication effectiveness in the context of the financial statement audit and the audit report.

A critical part of the research effort directed towards the communication aspects of auditing and assurance has been the study of the phenomenon called the “expectations gap”. Broadly defined as “significant differences between what the public expects from an audit and what the profession understands the objectives to be” (Hasan et al, 2003), the expectations gap has been examined in many different ways. These include: by examining differences in the perceptions of auditors and users of audit reports (e.g., Libby, 1979; Nair and Rittenberg, 1987; Gay and Schelluch, 1993; Monroe and Woodliff, 1994; Gay et al, 1998); and from a theoretical and critical perspective, recognising that meanings of words cannot be fixed (e.g., Houghton, 1987; Sikka et al, 1998).

Research has concluded with varying degrees of confidence whether the expectations gap continues to be a critical issue, and whether the range of changes made to the audit report over time have been successful in addressing gap concerns. While most of the changes to audit reports are argued to have been brought about in an effort to reduce or eliminate the expectations gap, Arnold et al (2001) posits an alternative view. They suggest that changes to the audit report are undertaken without any real changes being made to the services being provided by auditors. Rather cynically, they note that the changes to report formats are made simply to allow the profession to maintain (as long as possible) its self-regulatory powers.

Notwithstanding this competing view, recognition of the existence of the “expectations gap” is important in understanding the impact that audit reports, including audit opinions, have on the perceptions of users of the reports, and how these may differ from auditors and those charged with the responsibility for developing auditing standards. In turn, these perceptions influence the investment decisions made by users. The communication aspects of the message conveyed by audit reports are important parts of the “expectations gap” issue, which is still an important agenda item for the IAASB. It is on this basis that the first study is designed to examine the impact upon users’ perceptions and decision-making, of changes to the wording of audit reports where (i) greater detail about the responsibilities of the auditor and management is provided than in the then existing audit report, and (ii) a separately headed “independence” section is included in the audit report.

The following discussion is separated into the three broad areas of interest for this study, namely the impacts of different audit report formats on users’ (a) perceptions (b) investment decision-making, and (c) other relevant literature. The first broad area commences with a discussion of literature that examines differences in perceptions resulting from different types of audit reports (e.g., former “short form report” versus current “long form report”). Following is a overview of literature that examines the impact on perceptions of changes to the wording within an audit report (e.g., the introduction of a new section in the audit report providing more explicit coverage regarding the auditor’s independence). Thirdly, a discussion of literature that examines differences in perceptions of the same audit report across different user groups (specific “expectations gap” studies) is outlined. The review of literature in this area concludes with a focus on literature examining the impact of different types of audit opinions on users’ perceptions. The second broad area of interest includes a discussion of the extant literature pertaining to the impact of differences in audit reports on users’ investment decisions. Most studies in this field have assessed users’ decision-making in terms of the impact that different audit opinions have on investment decisions. The literature review concludes with a review of other literature relevant to this first study. Finally, the Chapter concludes with a summary of the implications arising for this first study of the thesis.

3.1. The Audit Report: Its Impact on Users’ Perceptions

This section reviews the extant literature pertaining to the impact that audit reports have on users’ perceptions. It is separated into four sub-sections. The first sub-section details those studies focused on the impact on users of receiving different audit reports, while the second focuses on the impact on users of differences in the wording of the audit report. The third sub-section outlines specific "expectations gap" studies which examine the impact of the same audit report on different user groups and the fourth sub-section outlines research examining the impact that modifications to, and changes in the wording of audit opinions have upon users.

3.1.1. Different Types of Audit Reports

A behavioural experimental approach has been used in a number of studies examining differences in perceptions for different audit report formats, not just between different audit report formats for a specific user group, but also in expectations gap studies, where differences between preparers and users of reports are examined. However, many of these studies that purport to examine the impact of different audit reports on users focus their attention on audit report differences relating to the audit opinion. That is, the impacts that differences in the audit opinion (e.g., unmodified versus modified audit reports) have on users' perceptions. Such studies are discussed in Section 3.1.4. Studies discussed in this section are summarised in Table 3.1.

Different Audit Reports for One User Group

In one of the earliest studies examining the impact on users' perceptions of different audit reports, Bailey (1981) uses communications theory to show that financial statements prepared in violation of accepted accounting principles say nothing about the credibility of the auditor. That is, a set of information which includes the financial statements and an audit report together convey information about the credibility of the auditor. Importantly, signals about the credibility of the auditor are sent through the audit report, rather than through the financial statements per se. Bailey's study utilised a professional group of financial statement users, financial analysts, in a case scenario and therefore provided strong results to support the view that the audit report plays an important role in conveying information about the credibility of the auditor.

The move by standard-setters towards a “long form” audit report in the latter part of the 1980’s (i.e., SAS 58 was introduced into the USA in 1988) prompted a number of academic studies. These studies sought to identify whether the move from a “short form” audit report to a long form audit report, which by implication provided more detail to report users about the respective responsibilities of the auditor and management and the audit process, affected users’ perceptions.

In 1993, Miller et al conducted a study that examined the impact of the then new long form audit report (SAS 58 in the USA) on the perceptions of loan officers. The study did not seek to place the importance of the audit report within a case scenario, but merely provided participants with one of four copies (short form/long form; two different types of opinion) of an audit report, and asked them to respond to a series of questions. They conclude that while the long form report assisted loan officers to more readily discern the respective responsibilities of the auditor and management, it did not significantly alter their views about the reliability of the financial statements, the scope of the audit, or the auditor’s likelihood of detecting fraud.

Kneer et al (1996) also used the short form report/long form report (SAS 58) comparison in their study, which also manipulated the type of audit opinion and the existence of potential “red flags”. Experiment participants were members of an investor club, who were asked to assume the role of jurors for the study. Therefore, the study was not examining the views of an investor group per se. Importantly, the study shows that the new long form report was successful in changing users’ perceptions, in that participants receiving it had a significantly lower belief that auditors should be held legally liable and be assessed damages in the given scenario.

Using MBA students as surrogates for investors, Hatherly et al (1998) show that a free form report, which is more detailed and not prescribed by authorities, generates a view among users of a more rigorous and useful audit, which in turn enhances the credibility of the auditor. The free form report used by Hatherly et al (1998) included a four page attachment to the audit report itself, which outlined at some length details of the audit matters arising, specific details of where audit judgements were used, specific reporting issues and the type and value of adjustments recommended and made. Although achieving changes in perceptions, the free form report used in this study is of a type that realistically one would never expect to be proposed in practice. However, it is worth noting that arguments for free form reporting have been made as early as 1982 by Estes, who suggested that investors potentially lose interest in audit reports and become "conditioned" to them, as they become more standardised.

Different Audit Reports across Different Preparer and User Groups

Studies undertaken to examine differences in perceptions across different preparer and user groups are focused largely on the examination of the expectations gap (refer Table 3.1). While a number of studies examined the question by looking at different audit reports, across different user groups, others have examined the expectations gap by focusing on one audit report across a number of different users (refer Section 3.1.3).

Nair and Rittenberg (1987) examine the messages conveyed to auditors and bankers by different audit reports, including reports covering an audit, a review and a compilation. The type of auditor (Big 8 or local) was manipulated across groups and a number of different audit opinions were also examined. Given that the impact of different audit reports was tested as part of a "within-subjects" design, comparisons of results between the different report formats must be considered with caution. They report that the most significant differences between auditors and bankers, in terms of their perceptions about the reliability of the information and the respective responsibilities of the auditor and management, occur for compilations and reviews, rather than for audit reports.

Several Australian studies in the 1990's identified the continued existence of an expectations gap. Although reporting that new and different audit reports have the effect of moving users' perceptions, they were not always moved in a direction which reduced the expectations gap. The introduction of the new long form report in Australia was the focus of the study by Gay and Schelluch in 1993. Using bank managers and MBA students (as proxies for investors and non-investors, based on their self rated experience) and basing the experiment on a case scenario, Gay and Schelluch (1993) report that the new report format significantly improves the perceptions of the participants in terms of the purpose and procedures of the audit and the responsibilities of directors.

In 1994, Monroe and Woodliff examined the impact of a then new Australian reporting standard that expanded the "scope" section of the report and which had the specific aim of reducing the expectations gap. This expanded format included greater detail of the responsibilities of management, as well an enhanced explanation of the audit objectives and procedures. Participants in the study were provided only with the two versions of the audit report and were required to provide a number of responses to gauge their perceptions. Results highlight that the expanded report format significantly altered the views of a range of users (including creditors, directors, shareholders and students), particularly in relation to the nature of the audit, and the respective responsibilities of the auditor and management. However, they find that while the expectations gap was eliminated in some areas, new and widening differences were apparent in other areas.

In a similar context to part of the work by Nair and Rittenberg (1987), Gay et al (1998) examined the differences in messages conveyed by review reports, vis-à-vis audit reports, in terms of perceived respective responsibilities and the reliability of the information presented. The existence of an expectations gap was evident from the conclusions reached. Auditors, shareholders and company secretaries had different perceptions in relation to the reliability of audited financial statements and the responsibilities of the auditor and management. Somewhat surprisingly however, their results indicate that shareholders and company secretaries place greater responsibility on management for internal controls and accounting records than auditors.

The existence of an "expectations gap" is consistent with the findings of Innes et al (1997), who report a number of differences in perceptions between auditors and MBA students (used as proxies for investors) across a large number of dimensions. These differences are apparent for both the then existing and a proposed new SAS 600 audit report issued in the United Kingdom by the Auditing Practices Board. However, the number of significant differences reduces marginally with the proposed report format. They also conclude that an expanded report format communicated the purpose of the audit report more clearly, and increases users' perceptions of the usefulness of the report. However, the research design in this study suggests that results must be interpreted with caution. Auditors' perceptions were examined only for the existing report and were compared separately to each of the two students groups; students perceptions for those receiving the existing report, and then students perceptions for those receiving the proposed new report.

The most recent studies discussed in this section were published in 1998. This is not surprising given that there have been no recent changes made to the auditor's report. The most recent changes involving the introduction of the "long form" audit report format are examined in the studies discussed in this section and are outlined in Table 3.1.

Table 3.1: Academic Studies on Impact on Users' Perceptions of Different Audit Reports

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Bailey (1981)	**Behavioural experiment (2x7) – mailed questionnaire**: Examine the information conveyed to financial statements users by different types of audit reports. Examine financial statement users' perceptions of credibility of management and auditors, as a source of information	358 chartered financial analysts	A set of financial statements together with an audit report convey information about the credibility of the auditor, but signals are not sent through the financial statements per se. The credibility of an auditor increases with the severity of the qualification, reaching its maximum value when the opinion is adverse
Nair and Rittenberg (1987)	**Behavioural experiments (2x2x9) (9 – within subjects) – controlled questionnaire:** Examine the agreement on messages conveyed in nine different types of reports (including compilations and reviews), prepared by two types of auditor (Big 8/Local) between auditors and users	40 auditors; 40 bankers	Communication effectiveness of limited assurance reports questioned in light of results which showed most differences between auditors and users for reviews and compilations, rather than the audit reports
Gay and Schelluch (1993)	**Behavioural experiment (2x3) – controlled experiment:** Examine the impact of the then new long form audit report (long form vs. short form) on the perceptions of financial statement users (bankers/investors/non-investors) about directors' roles, the auditor's role and the nature of the auditing process	60 bank managers; 120 MBA students	New report format significantly improved users' perceptions of purpose and procedures of audit and directors' responsibilities for financial report. Reaffirm previous studies showing long form reports clarify users' perceptions of role and responsibilities
Miller, Reed and Strawser (1993)	**Behavioural experiments (i) (1x2) and (ii) (2x2) – mailed questionnaire:** Examine the impact of: (i) then new audit report format (SAS 58 – longer form); and (ii) the new audit report opinions (SAS 58); on perceptions	231 loan officers	**Report Only**. Wording changes did not significantly alter perceptions of financial statements' reliability, scope of the audit, or perceptions about auditors' likelihood of detecting fraud. However, evidence that the new format better informed of manager and auditor responsibilities

Table 3.1 (cont'd): Academic Studies on Impact on Users' Perceptions of Different Audit Reports

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Monroe and Woodliff (1994)	**Behavioural experiment (2x5x6) (5 – within subjects) – mailed and delivered questionnaire:** Examines the existence and nature of the expectations gap in Australia (auditors/ several types of users) in terms of then proposed expanded form report (old/new report wording) across different report opinions	178 auditors; 142 accountants; 118 creditors; 181 directors; 214 shareholders; 183 undergraduate students	**Reports Only**. New reports had significant impact on users' beliefs of nature of audit and responsibilities of auditor and management; some movements reduced expectations gap, others increased it. New report reduced gap re future prospects of the company
Kneer, Reckers and Jennings (1996)	**Behavioural experiment (2x2x2) – controlled experiment:** Examine the impact of then new audit report format (SAS 58 – longer form) and existence of "red-flags" on perceptions of auditor culpability	81 investors' clubs members (role playing as a juror)	Lower belief that it is appropriate to hold audit firm legally liable and assessed damages with new audit report format (vs. previous format). Higher belief reported when "red-flags" exist regardless of type of audit report format
Innes, Brown and Hatherly (1997)	**Behavioural experiment (1x1x1) – mailed questionnaire and controlled experiment:** Examine the existence of the expectations gap (auditors/users) using the short form report, and whether the expanded new format (adapted SAS 58) changes users (only) perceptions of responsibilities, credibility and independence	254 auditors; 140 MBA students	Many significant differences existed between auditors and MBA students in terms of their perceptions (i.e., evidence of an expectations gap). The expanded report format highlighted mixed results with some differences increasing, and others reducing
Gay, Schelluch and Baines (1998)	**Behavioural experiment (2x3) – mailed questionnaire:** Examine messages conveyed (in terms of relative responsibilities/reliability/decision usefulness) by review reports and audit reports, across users, auditors and preparers	347 auditors; 104 company secretaries; 216 shareholders	**Report Only**. Existence of significant differences between users (shareholders)/preparers (company secretaries) and auditors (and between audit and review reports) on several key dimensions in respect to responsibilities, and reliability and decision-usefulness of the information
Hatherly, Brown and Innes (1998)	**Behavioural experiment (1x2) – controlled experiment:** Examine the impact that a "free-form" report (providing details of audit matters arising, specific details of where judgement used, reporting issues, adjustments made) (vis-à-vis the then existing long form SAS 600) has on users perceptions	100 MBA students	The free form report significantly changes users' perceptions, who felt that the audit process was more rigorous, and the total product provided was more useful

3.1.2. Different Wording Within Audit Reports

Relevant academic studies discussed in this section are summarised in Table 3.2. All of the behavioural experimental studies discussed in this section were undertaken with the expectations gap in mind and involved the use of differently worded audit reports across different preparer and user groups.

Being one of the first studies to consider the overall perceptions of preparers (auditors) and users (loan officers) of audit reports, Libby (1979) used what he called a "geometric distance model" to conclude that there are no consistent differences between preparers of audit reports (auditors) and users (loan officers) in terms of their overall perceptions. This conclusion was reached for reports presented with varying messages and language structures, drawn from audit reporting guides of major accounting firms and American auditing standards. The part of the experiment from which these conclusions were reached was undertaken as a "within-subjects" research design, so results examining comparisons across the different wordings must be interpreted with this in mind. Overall, Libby (1979) concludes that the "expectations gap" may not be a major issue.

In the early 1980's authorities in the United States issued and later withdrew an exposure draft outlining proposed changes to the audit report, aimed specifically at attempting to reduce the expectations gap. The changes involved clarification of the auditor's and management's responsibilities and an emphasis on the independence of the auditor.[14] Dillard and Jensen (1983) examined the withdrawal of the exposure draft, by looking at a range of responses to the proposed wording changes, which had been provided to the Auditing Standards Board. They conclude that the withdrawal was due to the high level of negative responses from users (primarily financial institutions), auditors and clients (largely industrial firms) and therefore, that despite the ambiguity created by the then current report, all parties appeared to be comfortable with its content.

Using recent graduates and undergraduate students as experimental participants, (as proxies for audit report users with different levels of audit report knowledge) Bailey et al (1983) conclude that proposed wording changes aimed at clarifying the responsibilities of auditors and management are successful in shifting readers'

[14] The major elements of these proposed changes included: (i) deletion of the word "fairly"; (ii) highlighting that the assurance provided was reasonable, but not absolute; (iii) highlighting that the financial statements are representations of management; (iv) deleting the word "consistency" as it relates to the application of generally accepted accounting principles; (v) adding the word "independent" to the title of the audit report; and (vi) highlighting that judgement is required by the auditor in the audit process.

perceptions about the responsibility of financial statement preparation away from auditors to management. They also note that different report users do not perceive the messages significantly differently. In a similar way to Libby (1979) part of the experiment was undertaken as a "within-subjects" research design, thus reducing the impact of the results when making comparisons across the different wordings.

Kelly and Mohrweis (1989) report that wording changes incorporated into the then new long form audit report (SAS 58) increases bankers' and graduate business students' understanding of the purpose of the audit and the responsibilities of management. However, it did not have the same effect in relation to the responsibilities of the auditor. While students' (used as a proxy for an investor group) perceptions of the responsibilities of the auditor remain unchanged with the new wording, bankers assume that auditors are taking on less responsibility.

The contention that the expectations gap may not be as big an issue as it is often purported to be was supported by Kinney and Nelson (1996), who attempt to "de-compose" the expectations gap. Their experiment focused on the words included in an audit report, but not from the approach of examining whether changes to the standard wording of a report affect preparers' (auditors) and users' (investigators at the US General Accounting Office) perceptions. Given a particular outstanding contingency, Kinney and Nelson (1996) examine whether the wording used by the auditors in an audit report, to describe how they dealt with the contingency impacts users' perceptions. The level of referencing in audit reports (by auditors), expected by investigators when uncertainties exist in a "worst case" scenario, is perceived to be appropriate in the circumstances.

Finally, Maleszka and Monroe (2004), examine the impact upon audit report users' (shareholders, analysts, fund managers, consultants and students) perceptions of having a dedicated section included in the audit report describing the auditor's independence. They report that inclusion of additional wording specifically discussing the independence of the auditor, does not affect users' perceptions of auditor independence. However, they note that a confounding factor in this study may have been the case scenario used in the experiment (i.e., examining the perceived impact on perceptions of a company where non audit services were also provided by the auditor).

Table 3.2: Academic Studies on Impact on Users' Perceptions of Different Wording of Audit Reports

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Libby (1979)	**Behavioural experiment (2x10) (10 – within subjects) – controlled experiment:** Examine the impact of differences in wording of the audit report (ten versions) on auditors and loan officers perceptions of the intended message of the auditor	30 audit partners; 28 loan officers	**Brief company description and audit reports only.** No large differences between the auditors' and loan officers' perceptions were noted
Bailey, Bylinski and Shields (1983)	**Behavioural experiments (i) (2x2x10) and (ii) (2x2x10) – controlled experiment:** Examine the impact of changes in report wording (proposed expanded wording), and audit opinion (reason for opinion) across two user groups	51 recent graduates; 28 undergraduate students	**Brief company description and audit reports only.** Wording changes moved perceptions of responsibility for financial statements towards management. More knowledgeable readers placed more responsibility on management
Dillard and Jensen (1983)	**Document analysis – responses received to introduction of expended wording in audit report:** Examine the responses to the proposed introduction of new expanded wording of the audit report, to assess reasons for the general opposition and subsequent withdrawal of the proposal	256 auditors; 101 industrial firms; 31 financial institutions	**Voluntary responses**. Three groups reacted differently to proposed changes, suggesting different views on levels of assurance, consistency and management's responsibilities. Ambiguity in current report contributes to maintenance of consensus for its use
Kelly and Mohrweis (1989)	**Behavioural experiment (2x2) – controlled experiment:** Examine the impact of the then new long form audit report (SAS 58) on users perceptions, in terms of the message conveyed in the report	50 bankers; 50 graduate business students	**Report only**. New report increased users' understanding of purpose of audit, and responsibility of management for the financial statements. It did not alter students' perceptions of responsibility assumed by auditors, but bankers perceived auditors as assuming less responsibility
Kinney and Nelson (1996)	**Behavioural experiment (2x3) – controlled experiment:** Examination of the impact that information about an outstanding contingency (pending/resolved with two different outcomes) has on different parties (auditors/users) in terms of requirements for audit report to include reference to the contingency	70 auditors; 69 investigators at GAO	Generally, auditors provide the number of references to uncertainties thought appropriate by users who possess knowledge that uncertainties were resolved unfavourably. (The "performance" dimension of the expectations gap)
Maleszka and Monroe (2004)	**Behavioural experiment (2x4) – mailed and distributed questionnaire:** (Secondary aim of study) Examine effect of additional wording (inclusion of "Independence Paragraph") in audit report on users' perceptions of auditor independence	54 auditors; 79 students; 54 shareholders; 46 sophisticated users (analysts/fund managers consultants)	No significant effect with modified wording, however, result may have been impacted by the case used in the study, which involved the provision of non-audit services (generally considered to be an indicator of impaired independence)

3.1.3. Other Expectations Gap Studies - Same Audit Report across Different User Groups

A smaller number of specific "expectations gap" studies have been conducted where the same audit report is provided to preparers and users, and assessments made about the relative perceptions of the different groups (refer Table 3.3). These studies were undertaken to form a conclusion about the existence of the expectations gap. It is worth noting that most of these studies sought experimental participants' views about the audit report, absent a case scenario. Participants were provided only with the audit report and asked their views on that report. Therefore, while providing insights into the respective perceptions of different groups, these studies may be questioned in terms of their external validity.

Schelluch (1996) reports that, the then new long form audit report in Australia may have been successful in reducing the expectation gap relating to report users' views of the auditors' responsibilities. However, while very few significant differences exist between auditors, company secretaries and shareholders in relation to the respective responsibilities of the auditor and management, large gaps are evident in relation to the perceived reliability of the financial statements, independence of the auditor and credibility of the information presented.

Manson and Zaman (2001) highlight differences in perceptions between auditors, and finance directors and analysts/bankers in relation to the responsibilities of auditors, the provision of details on audit findings, and the coverage of the audit. They used the SAS 600 audit report format in the UK as a focus of the study. The study was undertaken some years after the SAS 600 audit report format had been introduced (1993), and therefore they expect that the wider community would have had ample time to become familiar with the changed wording. They note that an expanded audit report is seen as being clearer in its communication of the purpose of the audit and in identifying the fact that judgements are made by auditors during the audit process.

Recent behavioural research studies of the expectations gap have been undertaken in countries other than the United States, United Kingdom and Australia, where much of the previous work in this area has been performed. Similar mixed results and evidence of the continued existence of an “expectations gap” are reported in studies undertaken in Malaysia (Fadzly and Ahmad, 2004) and Egypt (Dixon et al, 2006). Fadzly and Ahmad (2004) report significant differences between the perceptions of users (brokers, bankers, investors attending an investment fair) and auditors for questions concerning management’s and auditor’s responsibilities. Similarly, Dixon et al (2006) report significant differences between bankers, investors (analysts, brokers, general public) and auditors, in relation to auditors’ responsibilities and the degree of judgement used by auditors.

Table 3.3: Academic Studies on Impact on Preparers’ and Users’ Perceptions of Same Audit Reports

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Schelluch (1996)	**Behavioural experiment (1x3) – mailed questionnaire:** Examine the differences between auditors, financial statement preparers and users (i.e., expectations gap) in their perceptions of responsibilities and the audit process for the new long form audit report	173 auditors; 52 company secretaries; 117 shareholders	**Report only.** New long form report reduces the gap in relation to perceptions of auditor responsibilities. Gap still exists in terms of financial statement reliability, auditor independence and credibility
Manson and Zaman (2001)	**Behavioural experiment (1x3) – mailed questionnaire:** Examine the differences between auditors, financial statement preparers and users (i.e., expectations gap) in their perceptions of responsibilities and the audit process	163 auditors; 118 finance directors; 45 analysts/bankers	**Report only.** A range of differences exist between the perceptions of the various groups, in relation to auditor’s responsibilities, the inclusion of more details on audit findings and the coverage of the audit
Fadzly and Ahmad (2004)	**Behavioural experiments (i) (1x2) – mailed questionnaire; (ii) (1x2) – controlled experiment:** Examine whether an expectations gap (auditors/range of users) exists in Malaysia, and whether the use of reading material to educate users is effective in correcting misconceptions	(i) 92 auditors; 110 brokers; 62 bankers; 64 investors (ii) 70 investment course attendees	**Report only.** Wide expectations gaps exist in relation to the roles and responsibilities of the auditor and management. Gaps reduced when investors were given educational material, moving them closer to perceptions of auditors
Dixon, Woodhead and Sohliman (2006)	**Behavioural experiment (1x3) – mailed questionnaire:** Examine whether an expectations gap (auditors/bankers/investors) exists in Egypt	45 auditors; 34 bankers; 33 investors	**Report only.** Wide expectations gaps exist in relation to the responsibilities of the auditor, especially in relation to fraud detection and prevention

3.1.4. Audit Opinions

The audit opinion of financial statements "provides users with a high, but not absolute, level of assurance" (AuASB, 1990, included in CPA Australia 2008, p. 9).[15] This high level of assurance is provided only when an audit is undertaken. Reviews, for example, provide only a moderate level of assurance, while compilations provide no assurance (refer AuASB, 1990, included in CPA Australia 2008, p. 9).[16] An unqualified audit opinion is issued where an auditor concludes that financial statements provide a true and fair view of the entity's position and results. However, when warranted, additional information can be added to a report containing an unqualified opinion (e.g., an "emphasis of matter" paragraph) or a qualified audit opinion can be expressed.

Over the last two decades standard-setters have made many changes to the opinion section of the audit report. Some of these changes (e.g., removal of "subject to" opinions and creation of "emphasis of matter" paragraphs) have been motivated by users' inability to distinguish between, and clearly understand, different opinions (Robertson, 1988). These changes have initiated a large amount of research with often inconsistent results. A number of behavioural experimental studies have reviewed the impact of different opinions on the perceptions of a range of different users (refer Table 3.4), while others have focused primarily on investment decisions (refer Section 3.2.2).

Examining the messages conveyed by different audit reports, Libby (1979) notes large differences across a number of dimensions examined between the perceptions of auditors and bankers, across different types of audit opinions. That is, a disclaimer of opinion in an audit report is perceived very differently in terms of the messages being conveyed, than a qualified audit opinion, which in turn is perceived very differently from an unqualified audit opinion. Examining the perceptions of financial analysts in relation to the credibility of the auditor, Bailey (1981) used communication theory to show that financial analysts perceive auditors' credibility more in light of the audit

[15] The guide, "Understanding Financial Statement Audits" from which these words were taken, was issued in 1990. Since that time, within Australia, the levels of assurance relating to audits and reviews are generally spoken of as being reasonable, and limited, respectively.

[16] Refer Footnote 15.

report than the financial statements, and that the perceived credibility of the auditor increases the more adverse the audit opinion given.

The impact of different audit opinions on users' perceptions is not as apparent in subsequent studies. Robertson (1988) reports that the perceptions of financial analysts, in terms of the credibility added by the audit report, the reliability of the information, and whether the audit report satisfied their needs are not significantly different between an unqualified audit opinion and two types of modified audit opinions (i.e., modified "except for" and "except for").[17] However, differences in perceptions of credibility and reliability are reported between disclaimers of opinion and the "except for" and modified "except for" audit opinions.

Holt and Moizer (1990) provided experimental participants with eight different versions of an audit report. These "stylised" versions were audit reports expressing different audit opinions. Auditors are able to distinguish between the different versions in terms of what they indicate about the usefulness of the financial statements and whether directors had fully discharged their duties. However, various users' (stockbrokers, investors, bankers) perceptions are not significantly different across the range of different types of audit opinions. These results must be considered in light of the experimental design, which utilised a "within-subjects" design for the various audit reports and which provided the reports to experimental participants in a context free environment.

More recently, in a study examining the perceptions of finance industry officers in Australia, Bessell et al (2003) find that modified "emphasis of matter" and qualified audit reports provided "no incremental information" over unmodified audit reports in terms of finance industry officers' perceptions of risk of the company, and the ability of a company to service a loan. That is, there are no significant differences in perceptions between finance industry officers who received any of the three different audit reports. The study examines financially distressed companies displaying going concern

[17] The "except for" audit opinion in this study was an audit opinion that commenced with the wording "In our opinion, except for …..", and is therefore similar to the current qualified audit opinion. The 'modified "except for"' audit opinion used in this study detailed the same audit opinion paragraph, but included additional sentences in the scope and "middle explanatory" paragraphs to communicate the auditor's lack of audit evidence about a particular topic. The author noted that this type of opinion was not a "standard report according to auditing literature" (Robertson, 1988, p. 85).

uncertainties, which may have worked against finding differences across different opinions given the over-riding effect of the financial distress. Working in favour of finding a difference, however, was an internal validity concern with the experimental design, in that the case material did not appear to emphasise the going concern issue specifically, when an unmodified report was provided.

Table 3.4: Academic Studies on Impact on Users' Perceptions of Different Opinions in Audit Reports

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Libby (1979)	**Behavioural experiment (2x10) (10 – within subjects) – controlled experiment:** Examine the impact of differences in wording of the audit report (ten versions) on auditors and loan officers perceptions of the intended message of the auditor	30 audit partners; 29 loan Officers	**Brief company description and audit reports only.** Differences in perceptions noted between unqualified, qualified and disclaimer of opinions
Bailey (1981)	**Behavioural experiment (2x7) – mailed questionnaire**: Examine the information conveyed to financial statements users by different types of audit reports. Examine financial statement users' perceptions of credibility of management and auditors, as a source of information	358 chartered financial analysts	A set of financial statements together with an audit report convey information about the credibility of the auditor, but signals are not sent through the financial statements per se. The credibility of an auditor increases with the severity of the qualification, reaching its maximum value when the opinion is adverse
Robertson (1988)	**Behavioural experiment (1x6) – mailed questionnaire:** Examine whether analysts perceptions (of credibility added by the audit report, the reliability of the information, and whether the audit report satisfies investment analysis needs) differ across different audit opinions	176 financial analysts	No significant distinctions among unqualified, modified "except for", and "except for" audit opinions. Differences between these and disclaimers, and unaudited statements were evident
Holt and Moizer (1990)	**Interviews and behavioural experiment (2x8) (8 – within subjects) – mailed questionnaire:** Examine the impact of different "stylised" forms of the audit report (expressing different opinions) on auditors and users	193 auditors; 25 stockbrokers; 27 insurance companies; 23 investment trusts; 19 self-investing pension funds; 52 banks	**Report only.** Auditors were able to distinguish between all various forms of reports on at least one dimensions; users "found less distinguishability". Large numbers of significant differences existed between auditors and users across a number of dimensions (including the audit process; responsibilities; reliability; and future viability)

Table 3.4 (cont'd): Academic Studies on Impact on Users' Perceptions of Different Opinions in Audit Reports

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Bessell, Anandarajan and Umar (2003)	**Behavioural experiment (1x3) – mailed questionnaire:** Examine whether there are differences in the information content to users of different audit report opinions (unqualified/ EOM/qualified) for a financially distressed company	108 finance industry officers	"Emphasis of Matter" opinion added no incremental information content (re perception of risk and ability to service a loan) to users (over an unqualified report), in terms of a going concern issue with a financially distressed company. The same result held for a qualified report. **Unqualified had no mention of going concern**

3.2. The Audit Report: Its Impact on Investment Decisions

This section reviews the extant literature pertaining to the impact that different audit reports, changes to the wording of audit reports and the various modifications to audit opinions, have on users' investment decisions (refer Table 3.5). There has been limited behavioural research conducted in relation to the impact of different audit reports, and more specifically the impact of changes to the wording of audit reports, on the actual investment decisions of financial statement users.[18]

The following discussion highlights a number of studies that have considered the investment question from the perspective of whether differences in the wording and format of an audit report leads to differences in the perceived usefulness of the audit report for decision-making. In these studies, actual investment decisions are not required of experiment participants, and many of them are undertaken without a case scenario. That is, the experiment involves merely providing participants with one or more audit reports and seeking their views. Those studies requiring that actual investment decisions be made have generally focused on differences that arise when different audit opinions are provided, and have often used loan officers as experiment participants.

[18] There have however, been a range of capital market studies over many years that have focused on relationships between audit opinions and investment type measures (e.g., Baskin (1972); Firth (1978); Loudder et al (1992); Jones (1996); Chen and Church (1996); Melumad and Ziv (1997); Holder-Webb and Wilkins (2000); Taffler et al (2004); and Carey et al (2008)).

Of course, the examination of investment decisions made by shareholders in a case scenario is one of the key contributions of the first study in this thesis. It aims to investigate the second link of the Libby model, developed in 1979 (refer Figure 2.2), but which has been studied much less extensively than the first link examining users' perceptions. As noted in Chapter Two, the Libby (1979) model consists of three links, of which the second and third links pertain to the relationship between the message perceived by users of the report, their reaction to their perceptions and the decision outcome or payoff.

3.2.1. Perceptions of Investment with Different Audit Reports

In early studies, Libby (1979) and Bailey et al (1983) report that changes to the wording of the audit report do not give rise to differences in the perceived usefulness of the audit report in making investment decisions. Notably however, both studies seek views of participants by providing them with only a brief description of a company situation and a range of various audit reports. They do not provide a case scenario with detailed information and about which actual investment decision can be made. Furthermore, Bailey et al (1983) employed recent graduates and undergraduate students as proxies for financial statements users and investors.

A similar approach was undertaken by studies that followed and attempted to examine the impact of differences in audit reports on investment decisions. Monroe and Woodliff (1994) posed a question to auditors and a number of users (creditors, directors, shareholders, students) asking whether a company could be considered a "poor/good investment", across two different versions of an audit report (and across five different audit opinions – see discussion in Section 3.2.2). Again, participants were only provided copies of the audit reports. Generally, neither auditors nor users perceive differences in the potential for investment between the different audit reports.

Innes et al (1997) utilise a case scenario to elicit views about the usefulness of financial statements for investment decisions made by an investor. They report that when the financial statements are accompanied by an audit report using the expanded wording of the then new SAS 600 audit report in the UK, users perceive the financial statements to be significantly more useful than when accompanied by an audit report prepared using the SAS 600 short form wording. However, the user group in this study is MBA students, being used as proxies for investors. A similar result is obtained by Hatherly et al (1998) when using MBA students as proxies for investors, and comparing "free form" audit reports and the then SAS 600 audit report. Use of a free form report, which is more detailed and not prescribed by authorities, elicits a view that the audit report is significantly more useful in the process of determining whether or not a company is financially viable.

In a study comparing the impact of an audit report and a review report on auditors' and users' perceptions, Gay et al (1998) report no significant differences between the two reports for either auditors or company secretaries, in terms of whether they perceive the financial statements to be useful for making decisions. Importantly, however, shareholders (the same experimental user group in the first study of this thesis) do perceive that with an audit report the financial statements are significantly more useful for making decisions than when a review report is provided. This research was conducted free of any case context, and merely asked participants to provide perceptions based on the provision of the audit report and review report only.

Questions about the usefulness of audited financial statements have been included in recent overseas studies examining the expectations gap, and which focus on differences between different groups for the same audit report. Fadzly and Ahmad (2004) report no differences between auditors and a number of different financial statements users (brokers, bankers and investors) in Malaysia, for a question examining the usefulness for decision-making of audited financial statements. In this study however, report users find the audited financial statements to be significantly more useful in monitoring company's performance than auditors. Similar questions are posed by Dixon et al (2006) in an expectations gap study in Egypt. Mixed results are reported in terms of differences in perceptions of the usefulness for decision-making between auditors and bankers and investors.

3.2.2. Impact of Different Audit Opinions on Investment Decisions

In 1982, Estes noted that a number of studies conducted in the late 1970's reported inconsistent results with respect to whether different audit opinions result in significantly different investment outcomes such as share price movements, potential lending and net earnings movements. He makes reference to two studies by Estes and Reimer (1977 and 1979), which show contrary results for investment decisions made by two different groups of financial statements users. In the first of the two studies (in 1977), there are no differences in the maximum allowable amount of a loan decided by bankers for a scenario where unqualified and qualified audit opinions are provided. In contrast, the second study (in 1979) shows that financial analysts record a significantly lower mean price response when receiving information accompanied by a qualified audit opinion, compared with the receipt of information accompanied by an unqualified audit opinion. Two other studies cited by Estes (1982)[19] also indicate that differences in audit opinions do not appear to impact the investment decisions being made. Glazer (1978) reports that different audit opinions have no significant effect on financial analysts' views of investment returns and resource allocation recommendations, while Reckers and Gramling (1979) find no significant effect on financial analysts' forecasts of net earnings and share price movements.

Mixed results continued to be reported in studies conducted over the next decade. Houghton (1983) examined the lending decisions of loan officers and concludes that there are no differences between information accompanied by an audit report with an unqualified audit opinion, and a qualified audit opinion, in terms of making a decision to grant a loan. A similar result is obtained by Pringle et al (1990), who used intermediate financial accounting undergraduates as surrogates for investors. They report no significant differences between information accompanied by audit reports with "subject to" and "emphasis of matter" audit opinions in relation to the ranking of firms from the viewpoint of investment potential.

In comparison, a study conducted at around the same time by Holt and Moizer (1990) noted that a "subject to" opinion indicates a significantly more negative view about the

[19] Copies of the papers, Glazer (1978) and Reckers and Gramling (1979), which were cited in Estes (1982) could not be separately located.

future viability of a company than an “except for” opinion. In turn, the “except for” opinion indicates a significantly more negative view about the future viability of a company than an unqualified opinion. These results examine the perceptions of a range of different users, namely; stockbrokers, insurance companies, investment trusts, pension funds and banks. The same groups of users also find financial statements to be significantly more useful when accompanied by an audit report with an unqualified audit opinion, than either a “subject to” or “ expect for” audit opinion (although there are no differences reported between the latter two modified audit opinions). Like many studies of this kind, these results need to be interpreted in light of: (i) the within-subjects experimental design, whereby participants received all eight versions of the audit report; and (ii) the experimental design feature that saw participants receiving audit reports only in a context free environment.

Some later studies highlight differences in the investment decisions for different audit opinions. In a study where only the audit report was provided to experiment participants, Monroe and Woodliff (1994) note that it was the unanimous view of a range of users (creditors, directors, shareholders and students) that an unqualified audit opinion indicates a better investment prospect than a “subject to” or an “except for” opinion. Two further studies that followed soon after used loan officers and lending decisions as the basis of examination. Bamber and Stratton (1997) and LaSalle and Anandarajan (1997) both find significant differences in bank officers’ willingness to grant loans, when presented with audit reports with “emphasis of matter” and unqualified audit opinions, and “emphasis of matter” audit opinions and disclaimers of opinions, respectively. The willingness to grant loans is greater for unqualified audit opinions in the former and for “emphasis of matter” audit opinions in the latter.

More recently, Gómez-Guillamón (2003) undertook a survey of credit institutions and analysts. He concludes that the type of audit opinion strongly influences both groups in terms of their investment decisions. However, this study is a survey that has no experimental manipulation. Analysis is conducted on the basis of rejecting a null hypothesis and therefore forms no conclusion about the differential impacts on investment decisions of the different audit opinions.

Finally, in a study of finance industry officers for distressed firms displaying going concern uncertainties, Bessell et al (2003) conclude that there is very little difference between the lending decisions and risk analysis of users receiving information accompanied by an unmodified, modified "emphasis of matter" or qualified audit report. However, in this study it appears that case conditions (i.e., the information provided to experiment participants) are not held constant across all experiment cells, thereby bringing into question the internal validity of the experiment. There appears to be no mention of going concern issues when the information provided is accompanied by an unmodified audit report.

Table 3.5: Academic Studies on Impact on Users' Investment Decisions of Different Opinions in Audit Reports

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Estes and Reimer (1977)	**Behavioural experiment (1x2) – mailed questionnaire:** Examine the impact of differences in audit opinions (unqualified/qualified) on maximum allowable amount of a loan	222 bankers	The difference in opinion elicited no significant difference in maximum allowable amount of loan
Estes and Reimer (1979)	**Behavioural experiment (1x2) – mailed questionnaire:** Examine the impact of differences in audit opinions (unqualified/qualified) on analysts investment decisions	108 financial analysts	The mean price response for analysts receiving a qualified opinion was significantly lower than the mean price response for those receiving an unqualified audit opinion
Houghton (1983)	**Behavioural experiment (1x3) – mailed questionnaire:** Examine the impact on loan officers decision-making (decisions made and process undertaken) of different levels of audit report (no report/clean opinion/ qualified opinion)	173 loan officers	No differences in terms of loan decision between three variations. For use of audit report/opinion in decision-making (i.e., from users reporting of process undertaken), qualified opinion referred to in decision-making significantly more often than a clean opinion or no report. **Info provided different for qualified report**
Holt and Moizer (1990)	**Interviews and behavioural experiment (2x8) (8 – within subjects) – mailed questionnaire:** Examine the impact of different "stylised" forms of the audit report (expressing different opinions) on auditors and users	193 auditors; 25 stockbrokers; 27 insurance companies; 23 investment trusts; 19 self-investing pension funds; 52 banks	**Report only.** Auditors were able to distinguish between all various forms of reports on at least one dimensions; users "found less distinguishability". Large numbers of significant differences existed between auditors and users across a number of dimensions (including the audit process; responsibilities; reliability; and future viability)

Table 3.5 (cont'd): Academic Studies on Impact on Users' Investment Decisions of Different Opinions in Audit Reports

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Pringle, Crum and Swetz (1990)	**Behavioural experiment (1x2) – controlled experiment:** Examine impact of audit report format (going concern qualification/unqualified opinion and explanatory paragraph) on the way users evaluate companies	84 undergraduate students	No significant differences between report formats in terms of relative rankings of firms; hence reporting format not important to investment preferences
Monroe and Woodliff (1994)	**Behavioural experiment (2x5x6) (5 – within subjects) – mailed and delivered questionnaire:** Examines the existence and nature of the expectations gap in Australia (auditors/ several types of users) in terms of then proposed expanded form report (old/new report wording) across different report opinions	178 auditors; 142 accountants; 118 creditors; 181 directors; 214 shareholders; 183 undergraduate students	**Reports Only**. Unanimous view across all groups (including auditors) that company's future prospects are better with unqualified report, followed by "subject to", "except for", disclaimer and adverse reports
Bamber and Stratton (1997)	**Behavioural experiment (2x2x2) – delivered questionnaire:** Examine the impact of uncertainty-modified audit reports, and company size, on loan officers willingness to grant loans	77 loan officers	Uncertainty-modified audit report (vs. standard report) led loan officers to be less likely to grant loan, to charge an interest premium, have higher risk assessment, and weight the report more highly in terms of being relevant to the loan decision
LaSalle and Anandarajan (1997)	**Behavioural experiment (2x2) – mailed questionnaire:** Examine impact of type of opinion (unqualified modified/disclaimer of opinion) and type of uncertainty (litigation/going concern) on loan officers willingness to grant loans	490 loan officers	Willingness to grant loan, and ability of company to increase profitability, reduced with disclaimer of opinion. With both types of uncertainties
Bessell, Anandarajan and Umar (2003)	**Behavioural experiment (1x3) – mailed questionnaire:** Examine whether there are differences in the information content to users of different audit report opinions (unqualified/ EOM/qualified) for a financially distressed company	108 finance industry officers	No significant differences in willingness to grant loan, or loan amount approved, between unqualified opinion and either "emphasis of matter" or qualified opinion. **Unqualified had no mention of going concern**
Gómez-Guillamón (2003)	**Survey (1x2) – mailed questionnaire:** Examine the impact that different opinions have on decisions of whether to invest, and the quantity to invest	79 credit institutions; 33 analysts	Type of opinion strongly influences both sets of participants re investment decisions. **Analysis involved rejected a null hypothesis that there was no influence**

3.3. Other Literature Relevant to Study One

Several other studies are discussed that have relevance for the first study of this thesis. They are summarised in Table 3.6. Although they are studies that generally examine neither the impacts of changes to wording and formats of audit reports nor the expectations gap, they are relevant in assisting in the later development of hypotheses. Discussion of these studies is divided into two key areas, namely: (i) studies examining auditor independence; and (ii) studies examining information source credibility.

3.3.1. Independence

One of the aims of the first study in the thesis is to examine the impact on shareholders' perceptions and decision-making of the inclusion of a separately headed "Independence" section in the audit report. Only one study to date, Maleszka and Monroe (2004) has specifically examined this question (refer Section 3.1.2). However, many behavioural experimental studies have attempted to assess perceptions of auditor independence across different audit report wording and formats, as well as in different scenarios where an impairment of independence may be implied.

Most studies that have examined impacts on perceptions of different audit reports and audit report wording, have examined the independence of the auditor by seeking users' views about whether the auditor is "unbiased and objective". In none of these studies has the proposed wording changes, or new report format, included a separately headed "Independence" section. Gay and Schelluch (1993) report no significant difference between a short form and long form audit report, for either bank managers or MBA students, in terms of whether the auditor is "unbiased and objective". This is a similar result to that obtained by Hatherly et al (1998) when seeking the perceptions of MBA students of the independence of the auditor and examining differences between a "free form" report and the then current audit report. In contrast, Innes et al (1997) report that an expanded report format (SAS 600 report issued in the UK) moves MBA students' perceptions closer to those of auditors, which involved greater recognition of the independence of auditors. Gay et al (1998) report that shareholders perceive the auditor to be more independent when an audit report is issued, vis-à-vis a review report.

Several experimental studies examining perceptions of auditor independence have focused on differences in perceptions given a specific scenario; the most common of which is the provision of non-audit services (Shockley, 1981; Knapp, 1985; and McKinley et al, 1985). Shockley (1981) reports that loan officers and financial analysts perceive an impairment of auditor independence for smaller sized firms and when management advisory services are also provided. Loan officers were used by both Knapp (1985) and McKinley et al (1985) in reporting results that note respectively: (i) where issues are not dealt with specifically by technical standards, the client is more likely to get their preferred outcome; and (ii) loan decisions are unaffected by the provision of management advisory services.

Using a survey of "non-professional" investors (members of the National Association of Investors Corporations), Hodge (2003) reports that a reduction over time of the perceived independence of the auditor coincides with declines in the perceived earnings quality of public traded entities and the perceived reliability of audited financial information. This study was a survey that merely sought participants to provide their perceptions of how particular issues had changed between 1990 and 2000.

A detailed review of academic literature suggests that there has been little or no experimental research examining the interactions and/or impacts of independence and auditors' opinions upon users. However, a large volume of capital market studies has specifically examined auditor independence and relationships between proxies for independence and other variables, such as the level of non-audit services provided, the type of audit firm, the existence of an audit committee, auditor tenure and so on (e.g., Craswell, 1999; DeFond et al, 2002; Carey and Simnett, 2006). These studies are of little relevance to the first study in this thesis given that they are examining associations between figures being used as proxies for auditor independence and audit quality. Unlike this first study in the thesis, they are not examining the impacts of an independence statement in an audit report on report users' perceptions about the independence of the auditor.

3.3.2. Credibility and Reliability of Information

An important consideration when examining experiment participants' investment decisions is the perceived credibility of the information being provided to decision makers. By inference, information that is perceived to be more credible will be assumed to be more reliable for decision-making purposes. Both of the studies in this thesis test hypotheses that link the credibility of the information (the information provided and the information source) and decision-making. Given that the main objective of the audit process is for the auditor to add "credibility to management's financial statements" (AuASB, 1990, included in CPA Australia 2008, p. 4), the link between the credibility of the information and the investment decisions being made is important in an auditing context.

While the four studies discussed below have examined the link between credibility and reliability of information, and decision-making, only one has been framed in an auditing context (Hodge, 2001). It is not, however, framed from the perspective of examining differences between decisions arising from differences in audit reports and audit opinions. Three of the four studies utilise students as surrogates for investors, and the results must be interpreted in terms of this limitation.

Hirst et al (1995) examine investment decisions from the perspective of information contained in financial analysts' reports and find that reports from analysts with investment banking links (i.e., equated with lower credibility) unfavourably influence MBA students' (acting as proxies for investors) stock performance judgements. That is, the investment ratings provided by the students are lower. In a second study, Hirst et al (1999) examine investment decisions and their relationship with the accuracy of earnings forecasts. They find that graduate business students' (acting as a proxy for investors) earnings predictions for a company are significantly higher when prior forecasts of earnings by management are more accurate (i.e., are perceived as being of higher credibility). In 2001, Hodge investigated the impact on investment decisions from the perspective of the credibility of the information provided, based on whether or not that information had been audited. He finds that the more credible MBA students (as a proxy for investors) perceive an information set to be, the higher they judge a firm's earnings potential. The information set for this study relates to a company reporting average financial condition and performance, and which had announced a major expansion aimed at doubling capacity and significantly increasing sales. The results must be interpreted in light of what was a reasonably positive company situation.

Finally, rather than examining the link between the credibility of information and decision-making, Frederickson et al (2006) examines the likelihood of investment in a company based on the perceived reliability of the information: that is, the voluntary disclosure or recognition (expensing) of executive stock options. Alumni of a business school (acting as proxies for investors) indicate that voluntarily recognised amounts are considered more reliable than amounts that are merely disclosed. In turn, they report a higher likelihood of investment in a firm that chooses to voluntarily recognise stock options, despite the recognition requiring recognition of an expense and therefore lower reported earnings. These results are relevant to the first study in this thesis in terms of the development of hypotheses that examine the interactions between proposed new wording and different types of audit opinions, given that modified audit reports are ostensibly reinforcing the credibility (and hence the reliability) of information which provides a potentially "negative" outlook (vis-à-vis an unmodified audit report).

Table 3.6: Other Academic Studies Relevant to Study One

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Shockley (1981)	**Behavioural experiment (4x2) – mailed questionnaire:** Examine impact of variables (level of competition/size of firm/audit tenure/MAS provided) on perceptions of audit independence impairment	48 audit partners; 44 other CPAs; 45 loan officers; 39 financial analysts	Higher competition, provision of MAS and smaller sized firms are indicative of likelihood for independence to be impaired
Knapp (1985)	**Behavioural experiment (4x2) – mailed questionnaire:** Examine impact of variables (conflict issue/client financial condition/MAS provided/level of competition) on ability of auditor to resist management pressure	43 loan officers	Client in good financial condition, and where conflict issue not dealt with precisely by technical standards, client likely to obtain preferred outcome
McKinley, Pany and Reckers (1985)	**Behavioural experiment (2x3) – mailed questionnaire:** Examine impact of variables (MAS provided/firm size and type) on willingness to grant loan, and perceptions of reliability of financial statements and auditor independence	261 loan officers	Loan decisions unaffected by MAS provision or firm size/type. Big 8 auditors perceived as being more independent (vs. local firms) and financial statements audited by them more reliable
Hirst, Koonce and Simko (1995)	**Behavioural experiment (2x2x2) – controlled experiment:** Examine the impact that the type of financial analyst (investment banking related or not), the type of research report (favourable/unfavourable) and strength of arguments (strong/weak) has on investment decisions	291 MBA students	Investors react to analysts' research reports re type of analyst presenting report and conclusions reached. Investment ratings lower when unfavourable report received from investment banking analyst, and stronger arguments in report

Table 3.6 (cont'd): Other Academic Studies Relevant to Study One

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Hirst, Koonce and Miller (1999)	**Behavioural experiments (i) (2x2) – controlled experiment; (ii) (1x2 within subjects) – controlled experiment:** Examine impact of different levels of source credibility (high/low prior forecast accuracy of management) and form of forecasts (point/range forecast) on investors earnings prediction and confidence of decision-making	(i) 126 graduate business students (ii) 30 graduate business students	Where management displays higher prior forecast accuracy (higher level of credibility) earnings predictions are significantly greater. Higher source credibility and point form forecasts both significantly increase investors' confidence in the judgment results
Hodge (2001)	**Behavioural experiment (2x1) – controlled experiment:** Examine the impact that hyperlinked information (available online) has on users perception of information credibility and earnings potential in two situations ("audited" notification/"not audited" notification)	47 MBA students	More credible users believe an information set to be, the higher they judge the earnings potential. Users reduced credibility assessments, and earnings-potential judgements as they moved between audited/ unaudited information identified by the "audited/not audited" label
Hodge (2003)	**Survey – mailed and online:** Examine whether SEC's concerns about the perceived reduction in earnings quality and auditor independence, over time, has some validity	414 members of National Association of Investors Corporations	Perceived earnings quality, perceived auditor independence and perceived reliability of audited financial information have decreased over time. However, the perceived relevance of audited financial information has increased over time
Frederickson Hodge and Pratt (2006)	**Behavioural experiment (2x2) – mailed questionnaire:** Examine the impact of recognition choice (recognition/disclosure) and placement if financial reports (income statement/ pro-forma earnings) of stock option, on investors' perceived reliability of the information and investment decisions	174 alumni of business school	Voluntarily recognised amounts are considered more reliable than disclosed amounts. Investors more likely to invest in a firm which chooses to voluntarily recognise

3.4. Summary and Implications for Study One

This Chapter summarises the extant literature relevant to the first of two studies in this thesis. Specifically, it highlights research efforts directed towards examining the impacts on audit report users' perceptions and decision-making of different audit reports and different wording of audit reports. The discussion provided in this Chapter highlights particular shortcomings with prior research and identifies opportunities for making a contribution to the general body of knowledge in this field. It also highlights that little research has been undertaken in the last ten years that specifically examines the impacts of audit report wording and format changes on report users' perceptions and investment decision-making. This is not surprising given that there have been no recent changes made to the auditor's report, since the introduction of the "long form" audit report format in the 1990's. However, this current study is being undertaken at a time when audit reporting is back on the agenda of standard-setters and the professional accounting bodies.

Study One of this thesis examines the impact that changes in the wording of an audit report have on both the perceptions of shareholders, and their investment decision-making. It aims to provide contributions in several ways by endeavouring to adopt several opportunities presented by prior research.

Firstly, this study uses wording changes that were proposed by standard-setters, with a specific aim of improving the communication process between auditors and shareholders. They were changes which aimed to "explain in clearer language and in greater detail than at present, the respective responsibilities of management and the auditor as well as the role, scope and nature of an independent audit of a company's statutory financial report" (AuASB, 2003, p. 1). Therefore, the wording used in the research instrument for this first study was that which is proposed and approved by standard-setters. This is contrasted with several previous studies, which examined different wording or reports that were developed by the researcher or which related to reports that had already been adopted for use. Furthermore, this first study examines the impact on users' perceptions of a specific inclusion of additional wording centred on an important issue, namely auditor independence. This additional wording was also proposed by standard-setters (refer AuASB, 2003). Little research to date has examined the link between users' perceptions of auditor independence and the inclusion in the audit report of a separately headed "Independence" section, as required by Australian law (but which is not yet required by other jurisdictions).

Secondly, it is important to note that many previous studies described in this Chapter have utilised groups such as loan officers and students as experimental participants. Study One of this thesis uses the group that has been specifically targeted by standard-setters in proposing the changes to the wording of the audit report. That is, the first study uses shareholders as experimental participants.

Thirdly, this Chapter highlights that there has been little behavioural experimental research conducted that has specifically tested the investment decision-making judgements of users of audit reports, in terms of changes to the wording of the reports. Many studies have asked questions of experimental participants about their perceptions of the usefulness for and likelihood of, making investments based on the provision of an audit report (or number of audit reports). These experiments have not specifically required the making of investment decisions as often no other information, except the audit report(s), was(were) provided. Other studies examining the impact of different audit reports have focused on differences in audit opinions, and have used bank loan officers and finance industry officers as experimental participants. Rather than seeking decisions about an investment decision per se, these studies have generally sought to determine participants' likelihood of lending. Therefore, the first study of the thesis aims to examine the impact of audit report wording changes on shareholders' investment decisions by providing a decision-making context within which such explicit decisions can be made. Again, the user group employed in this study is the group explicitly identified by standard-setters as being the target group for the wording changes being made.

Finally, this first study was undertaken at a time when there was heightened interest in communication issues relating to the audit report. This is evidenced recently by the commissioning of research by key regulatory and research bodies (IAASB, AAA and AICPA) aimed at "better understand(ing) users' perceptions of the Auditor's Report on Financial Statements" (IFAC, 2006, p. 1). The commissioned research aims to have a global focus, and will ultimately consider whether the audit report should be revised to "communicate more clearly and to address user misconceptions" (IFAC, 2006, p. 2). Furthermore, in its proposed strategy for 2009-2011 the IAASB is proposing "research be conducted in two areas: first, whether there is anything in ISA 700 that creates a barrier to its adoption and, secondly, whether the matters communicated by the auditor's report should be revised" (IAASB, 2007, p. 16).

CHAPTER FOUR: <u>STUDY ONE</u>: THE IMPACT OF PROPOSED WORDING CHANGES TO THE AUDIT REPORT ON USERS' PERCEPTIONS AND INVESTMENT DECISION-MAKING

4.1. Introduction

Study One of this thesis examines questions pertaining to the financial statements audit and the audit report, with an emphasis on the message being sent to the intended user in the audit report. Specifically, it aims to assess whether changes to the wording of the audit report, proposed by international standard-setters, impacts shareholders perceptions and investment decision-making. These wording changes aim to provide clearer explanations of the responsibilities of management and the auditor and an updated description of the audit process. The IAASB hoped that the wording changes would "enhance understanding of the auditor's role and the auditor's report" (IAASB, 2003, p. 6). A further wording change required by Australian standard-setters is also examined. This involves assessing whether the inclusion of a separately headed "Independence" section within the audit report impacts shareholders' perceptions and investment decision-making.

This Chapter commences with a section (Section 4.2) outlining the development of hypotheses examined in this study. This section contains three sub-sections detailing, respectively: (i) the development of hypotheses pertaining to the impact of wording changes on shareholders' perceptions; (ii) the development of hypotheses pertaining to the impact of wording changes on shareholders' investment decision-making; and (iii) the development of hypotheses pertaining to the interactive effect of wording changes and different types of audit opinions, on shareholders' perceptions and investment decision-making. Section 4.3 discusses the research methodology employed. It outlines in detail the research design, the preparation and explanation of the research instrument, and the participants employed in the experiment. Sections 4.4 to 4.7 (inclusive) discuss the results of the experiment, while Section 4.8 details a summary and discussion of the study. Sub-sections discussing the results include: (i) responses received, tests for non-response bias and descriptive results (Section 4.4); (ii) testing of hypotheses pertaining to the impact of wording changes on shareholders' perceptions (Section 4.5); (iii) testing of hypotheses pertaining to the impact of wording changes on shareholders' investment decision-making (Section 4.6); and (iv) testing of hypotheses pertaining to the interactive effect of wording changes and different types of audit opinions on shareholders' perceptions and investment decision-making (Section 4.7). As well as providing a summary and discussion of results, Section 4.8 highlights some of the limitations of the study and the implications for future research.

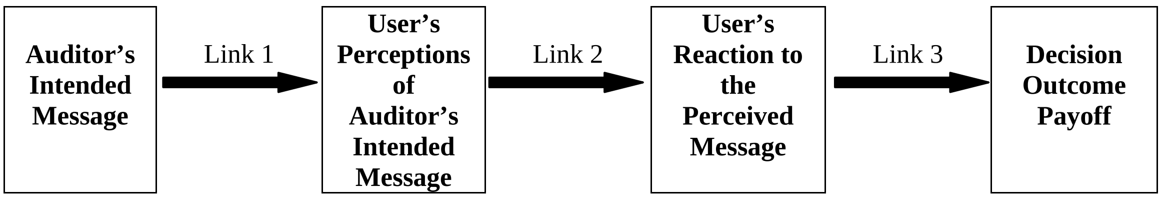
4.2. Development of Research Questions

As described in Chapter Three there has been considerable research effort directed towards examining the impact on a range of different users' perceptions, of changes to the wording and formats of audit reports. Many of these studies have been undertaken context free and have utilised different user groups as experimental participants. However, there is a dearth of prior behavioural experimental research with respect to the impacts of changes to the wording and formats of audit reports on the actual investment decisions made by users. The major contributions of this study are the examination of specific wording changes proposed by standard-setters (thereby providing input directly into the standard-setting process), utilising the group of report users specifically targeted by the changes and examining hypotheses in the context of a case scenario whereby actual investment decisions can be made. In doing so, the study draws on research from other disciplines (e.g., psychology and communication) and other related studies to develop the following hypotheses.

Using the model developed by Libby (1979), and enhancing it through communications theory and the results of research pertaining to the impacts of source credibility, a firm basis for the following hypotheses is presented. The Libby model is used in this study as it relates to an accounting context, and more specifically, to the audit report. Communications theory, namely a model developed by Shannon and Weaver (1949), provides the foundation for the hypotheses pertaining to changes in the wording of the management's and auditor's responsibilities sections of the audit report. Expanding this model by introducing studies focused on source credibility provides the derivation of the hypotheses pertaining to the inclusion of a separately headed "Independence" section in the audit report.

Libby (1979) developed the following model (refer Figure 4.1; also Figure 2.2) to examine the impact of the audit report on users' perceptions and investment decisions. The focus of his study was on the first link. Indeed, this link, which brings together the auditor's intended message and the users' perceptions of that intended message, is the most examined aspect of the audit communications process (specifically, the audit report). It is the difference between the intended message and perceptions of the intended message that gives rise to the "expectations gap". Links 2 and 3 are those which consider users' investment decisions, the examination of which is a major contribution of this study.

Figure 4.1: The Impact of the Auditor's Report on Decision-making[20]



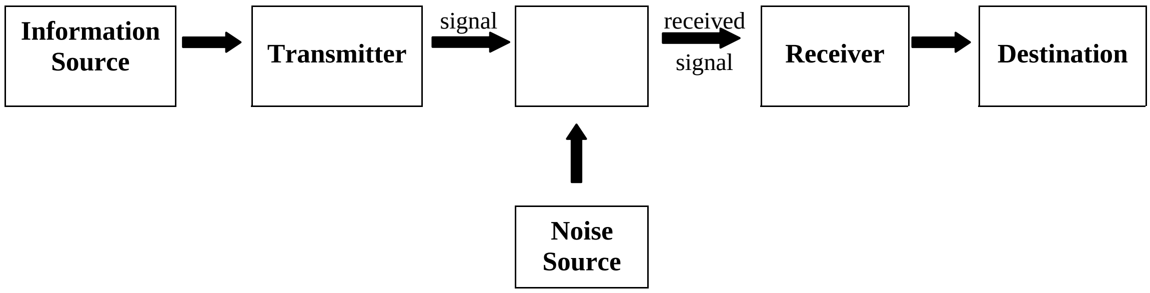
Hasan et al (2003) discusses the two schools of thought pertaining to the communication processes, as described by Fiske (1990). The first of these two schools of thought focuses on the channel of communication, and is called the "process" school. Hasan et al (2003) note that models from the process school of communications theory underpin previous research that has examined perceptions of audit report users in light of wording changes (Bailey et al, 1983; Houghton, 1987; and Hatherly et al, 1991;) and expanded report formats (Gay and Schelluch, 1993; Monroe and Woodliff, 1994; Innes et al, 1997). The aforementioned studies have relevance for this current study, which utilises a proposed report format that is both expanded (i.e., the inclusion of a separately headed "Independence" section) and uses changed wording in certain sections of the report (i.e., a report that provides a more detailed description of auditor's and management's responsibilities).

One model of communication which falls into the "process" school is a linear model originating in 1949 from the work of Shannon and Weaver. It is shown in Figure 4.2 below. This model depicts the communication process, which as Shannon and Weaver

[20] Refer Libby (1979), p. 100.

point out, suffers from three main problems. These three problems can be readily translated into an accounting context, and related to the Libby model.

Figure 4.2: Shannon and Weaver's Model of Communication[21]



The first two problems relate to how accurately the "signal" can be transmitted (described as a "technical" problem) and how precisely the transmitted symbols convey the desired meanings (described as a "semantic" problem). The focus of the first part of this study is on the technical problems, and how wording changes may potentially overcome these problems in relation to the perceptions of the receivers of the communication. The third problem, discussed later, relates to the effect that the received communication has on the conduct of those who receive the communication. Within this study, this third problem relates to the impact that the wording changes has on the investment decision being made.

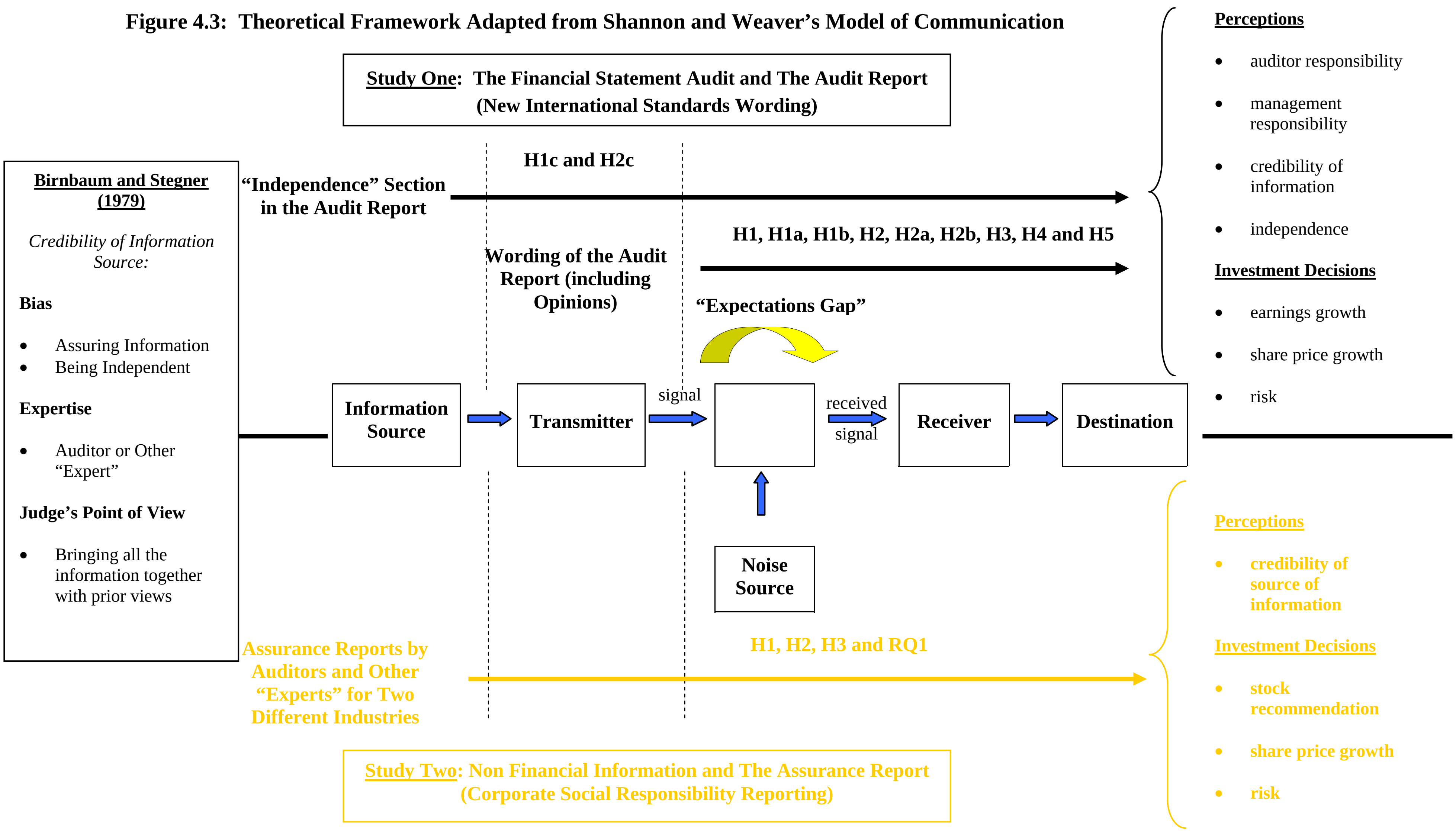
The adaptation of the Shannon and Weaver (1949) model, as the theoretical framework for this thesis, was shown in Figure 2.1. It is replicated as Figure 4.3, with the relevant hypotheses for the first study (in the top half of the framework model) highlighted.

4.2.1. Impact of Wording Changes on Users' Perceptions

In an accounting (auditing) sense, the technical problem identified by Shannon and Weaver (1949) is concerned with problems of the expectations gap, and the use of language that is both technical and unclear in its meaning to users. The process is further clouded by what Shannon and Weaver call "noise", which comes about in relation to audit reports as a consequence of words being used which may be perceived

[21] Refer Fiske (1990), p. 7.

Figure 4.3: Theoretical Framework Adapted from Shannon and Weaver's Model of Communication



to have different meanings in an accounting context, than in common day usage (e.g., true and fair view). Also, from the perspective of harmonisation of international standards, the view that words may have different meanings in different cultural contexts is relevant (Gangolly et al, 2002).

Chapter Three discusses a number of research studies that have examined these technical issues from an accounting (auditing) context[22], with research into the expectations gap producing inconsistent results. Studies have adopted different approaches to examining the expectations gap. A number of behavioural experimental studies have compared then current and proposed wordings of audit reports (Gay and Schelluch, 1993; Kneer et al, 1993; Innes et al, 1997). Other studies have examined the impacts of different wording of the same report (Bailey et al, 1983; Kelly and Mohrweis, 1989; Kinney and Nelson, 1996); or the impact of the same report on different groups of audit report users (Schelluch, 1996; Manson and Zaman, 2001). It is generally accepted and recognised by current research initiatives that the gap still exists as a problem today, especially in relation to the communications process in auditing and the audit report.

The major initiatives of the IAASB, with respect to the proposed audit report that is the main focus of this study, is the enhanced and expanded descriptions of both the auditor's and management's responsibilities. The aim of this initiative was that the IAASB believed that "expanding and updating the wording of the auditor's report …(will) … enhance understanding of the auditor's role and the auditor's report" (IAASB, 2003, p. 6). As such, directional hypotheses are generated using this stated policy as the driver of the hypotheses. Such hypotheses suggest that proposed new wording of the auditor's and management's responsibilities would mean that users more correctly perceive who, of the auditor and management, has particular responsibilities. As a consequence, users are more likely to correctly perceive responsibilities in line with what standard-setters know to be the responsibilities, for the proposed audit report vis-à-vis the existing (then "current") audit report.

[22] In terms of the "semantic" problem, studies such as Haried (1973) and Houghton (1987) have addressed these questions directly.

A similar argument is used to support a directional hypothesis relating to the potential enhancement of the audit report, which involves the inclusion of a section of the report detailing the independence of the auditor. Such hypotheses would be formulated in light of the results of Innes et al (1997), who report that an expanded report format moves users' perceptions towards those of auditors (i.e., reduced the expectations gap), but more importantly, towards a greater recognition by society of the independence of auditors. Empirically, this result is not supported by Maleszka and Monroe (2004), who report that an expanded report format which includes specific mention of auditor independence has no significant affect on users' perceptions of the independence of the auditor.

Notwithstanding the previous inconsistent results and the continued existence of the expectations gap (despite standard-setters' previous attempts to reduce it), Hypothesis 1 relating to the perceptions of users, has been structured in the form below.

H1 Proposed wording changes to the audit report will result in users' perceptions of management and auditor's responsibilities being more closely aligned with the intended messages of standard-setters.

This hypothesis is broken down into the following three sub-hypotheses to reflect the three wording changes that are proposed and examined in *Study One*. They are the changes to the wording of management's responsibilities, changes to the wording of the auditor's responsibilities, and the inclusion of a separately headed "Independence" section in the audit report.

H1a The proposed wording changes of management's responsibilities contained in the proposed audit report will result in users' perceptions of management and auditor's responsibilities being more closely aligned with the intended messages of standard-setters.

H1b The proposed wording changes of the auditor's responsibilities contained in the proposed audit report will result in users' perceptions of management and auditor's responsibilities being more closely aligned with the intended messages of standard-setters.

H1c The inclusion of a section entitled "Independence" in the proposed audit report will result in users' perceptions of management's and auditor's responsibilities being more closely aligned with the intended messages of standard-setters.

4.2.2. Impact of Wording Changes on Users' Investment Decisions

The third problem affecting the communication process outlined by Shannon and Weaver relates to how effectively the conduct of receivers of the communication is affected by the received meaning. Called the "effectiveness" problem, it focuses on whether the receivers' conduct is in line with the conduct desired by the information source. It is not obvious what the desired conduct of the communication receiver (i.e., the audit report user) might be for an audit report. The type of audit opinion, the users' reaction to reading the report, the users' financial position, the industry and economic conditions, are but a few factors that would impinge upon audit report users' conduct.

While the auditor (as the source of the communication process for an audit report) is not aiming to directly influence the investment decisions of audit report users in forming and reporting an opinion the auditor is passing comment on the validity of the information contained in the financial statements. Furthermore, in issuing an unqualified opinion with "emphasis of matter" paragraph or a qualified opinion the auditor is drawing to users' attention, matters relevant to the assessment of the truth and fairness of that information. By drawing users' attention to such matters, the audit report may impact the users' perceptions about the financial statement information (Link 1 of the Libby model; refer Figure 4.1). Of particular interest is the impact on users' perceptions of the credibility of the information being presented, given that "through the audit process, the auditor adds credibility to management's financial statements" (AuASB, 1990 in CPA Australia, 2008, p. 4). In turn, a change in users' perceptions about the perceived credibility of the information being presented may lead to a change in the reaction to the information received, and thus result in a change in the investment decision made (Links 2 and 3 of the Libby model; refer Figure 4.1).

Hodge (2001) reports that the more credible that investors perceive an information set to be, the higher they expect the earnings potential of the company to which the information set relates. Hodge's conclusions are drawn from a study which examines an "average performing" company with an optimistic outlook, and examines credibility of the information from the perspective of whether or not financial information is audited. In contrast, Birnbaum and Stegner (1979) and Bailey (1981) examine credibility from the perspective of the source itself. This notion is incorporated into the theoretical framework for this thesis, described in Chapter 2. Birnbaum and Stegner (1979) note that credibility of a source of information is determined by the combination of three constructs, namely: bias; expertise; and the judge's point of view. Relating the first two of these constructs[23] to the audit report, expertise is highlighted by the clear description of the responsibilities and procedures undertaken by the auditor. The bias construct is reinforced through the clear statement of independence. Eagly and Chaiken (1993) note that the greater the credibility of the source of a message, the greater the chance that the person receiving the message will accept it.

Several studies have examined the impact that different audit reports have on users' "perceptions of investment", rather than the impact upon actual investment decision-making. Two early studies (Libby, 1979; Bailey et al, 1983) report that changes to the wording of an audit report do not give rise to any differences in the perceived usefulness of the audit report in making investment decisions. A similar result is reported by Monroe and Woodliff (1994) when users considered a question about whether a company could be considered a "poor/good investment". In contrast, Innes et al (1997) and Hatherly et al (1998) both find that alternative audit reports (expanded report and "free form" report, respectively) are successful in moving users' perceptions about investment decisions. In the former study, users believe financial statements are more useful for investment decision-making, while in the latter the report is considered more useful for determining the financial viability of a company. Furthermore, a survey of "non-professional" investors reports that the perceived independence of the auditor has

[23] In auditing research it is common for only the first two of the three constructs to be used when describing the source credibility theory of Birnbaum and Stegner (1979) (refer DeZoort et al, 2003).

reduced over time, and has coincided with declines in the perceived earnings quality of public traded entities, and the perceived reliability of audited financial information (Hodge, 2003).

It appears that the majority of research examining the link between the audit report and investment decisions has focused on differences in the types of audit opinions and the impact on the decisions made (Estes and Reimer, 1977, 1979; Holt and Moizer, 1990; Bessell et al, 2003). Additionally, many studies have examined decisions made by lending officers (Houghton, 1983; Bamber and Stratton, 1997; LaSalle and Anandarajan, 1997). A contribution of this study is that it examines the decision-making of the group of investors specifically targeted by the wording changes proposed by standard setters (i.e., shareholders) and the investment decisions being made.

The credibility of information provided by the combination of the financial statements and the audit report relates to both the message being communicated and the credibility of the source of that information. Expanded descriptions and clarification of the responsibilities of the auditor and management will promote the enhancement of credibility in relation to the message being communicated. This in turn, will impact investment decision-making. Therefore, the following hypothesis is posited.

H2 Proposed wording changes to the audit report will result in users believing that the likelihood of growth in earnings and share price is greater.

In a similar manner to the first hypothesis, this second hypothesis is broken down into three sub-hypotheses to reflect the three wording changes proposed and examined in *Study One*. The three sub-hypotheses are as follows:

H2a The proposed wording changes of management's responsibilities contained in the proposed audit report will result in users believing that the likelihood of growth in earnings and share price is greater.

H2b The proposed wording changes of auditor's responsibilities contained in the proposed audit report will result in users believing that the likelihood of growth in earnings and share price is greater.

H2c The inclusion of a section entitled "Independence" in the proposed audit report will result in users believing that the likelihood of growth in earnings and share price is greater.

4.2.3. Interactive Effect of Wording Changes and Different Audit Opinions on Users' Perceptions and Investment Decisions

For a behavioural experiment examining the interactive effect of audit report wording changes and different types of audit opinions on users' perceptions and decision-making, it is important to construct a scenario in which different opinions may be issued by an auditor for an information set that remains the same across all different types of opinion. This is important to maintain the internal validity of the experiment. This is achieved in this first study by constructing a scenario for a company which has a potential going concern issue.[24]

In undertaking an audit of financial statements, an auditor must obtain sufficient evidence to ensure that it is appropriate for management to prepare the financial statements on a going concern basis. In making an assessment about going concern the auditor undertakes an initial risk assessment, and modifies audit procedures accordingly. Depending upon the auditor's assessment of the probability of the company continuing as a going concern, and the existence and disclosure of any mitigating circumstances, one of three types of audit opinions may be issued. They are: (i) an unqualified opinion where modified procedures indicate a reasonable expectation that the company will continue as a going concern and mitigating circumstances have been adequately disclosed (an unmodified audit report); (ii) an unqualified opinion with an "emphasis of matter" paragraph added where it is probable that the company will continue as a going concern and there has been adequate disclosure of a significant uncertainty concerning this issue (a modified audit report); or (iii) a qualified opinion where it is probable that

[24] Fuller description of the development of the research instrument is provided in Section 4.3.2.

the company will continue as a going concern, but there has not been adequate disclosure of a significant uncertainty concerning this issue (a modified audit report). A decision tree is included in Appendix 1 of ASA 570 "Going Concern" to assist auditors in making their choice of opinion, and is included at Appendix 1.

The emphasis of this study is on the impact that proposed wording changes to the management's and auditor's responsibilities sections of the audit report have on report users' perceptions and investment decisions. Standard-setters had not proposed wording changes to the audit opinion paragraphs at the time that the research was being conducted, although it was expected that any wording changes to these responsibilities section would be utilised for audit reports issued across different types of audit opinions. Therefore, it is not relevant to consider the main effects of differences in audit reports with different audit opinions, on users' perceptions and investment decisions. However, it is relevant and important to examine the interactive effects of the proposed wording changes across different audit opinions to determine whether these wording changes impact users in a context specific manner, in terms of the type of the audit opinion being issued. Examination of the interactive effect of the proposed wording changes and an adverse audit opinion could not be undertaken as this would have required that a different information set be provided to experimental participants receiving an adverse audit opinion, than that provided to experiment participants receiving audit report with the other audit opinions. This would have resulted in an impairment of the internal validity of the experiment. An attempt to test an adverse audit opinion, based on the information provided in the case, would have impaired the external validity of the experiment.

Acceptance by audit report users of the signals sent by the auditor is linked to the credibility of the information and the information source. One study that directly examined the link between auditor credibility and the opinion provided is Bailey (1981). He notes that financial analysts perceive that the credibility of the auditor increases as the "severity" of the audit qualification increases, reaching a peak at the point where an adverse opinion is provided. Subsequent studies have failed to find similar results. Robertson (1988) reports that there are no significant differences between unmodified and modified reports, in terms of financial analysts' perceptions about the credibility added by the audit report. While not addressing the credibility of the information specifically, Holt and Moizer (1990) and Bessell et al (2003) both report that perceptions of a number of different report users (stockbrokers, bankers, finance industry officers) do not differ across different audit opinions.

A key contribution of this study is to examine all of the links described in the Libby (1979) model which purports to depict the impact of the audit report on decision-making (refer Figure 4.1). The underlying premise of this model, and that which is adopted in this first study, is one which suggests that changes in report users' perceptions of the intended message being provided by the auditor (particularly the perception of the credibility of the information being provided) will impact upon the reactions of the report users' and hence their decision-making.

Applying the Libby model to these results suggests that the differences in the decisions made result from differences in users' perceptions. Given the role of auditing in enhancing the credibility of management's representations, it is the perception of the credibility of the information that will ultimately have the greatest impact on the decision-making of report users. Therefore, the combined effect of having the new wording (leading to greater perceived credibility of the information) and the work of Bailey (1981) which suggests that the credibility of the auditor is enhanced the more "severe" audit opinion that is provided, leads to the following hypothesis.

H3 Proposed wording changes to the audit report will result in greater differences in users' perceptions [of the credibility of the information] when a modified audit report is provided (vis-à-vis an unmodified audit report).

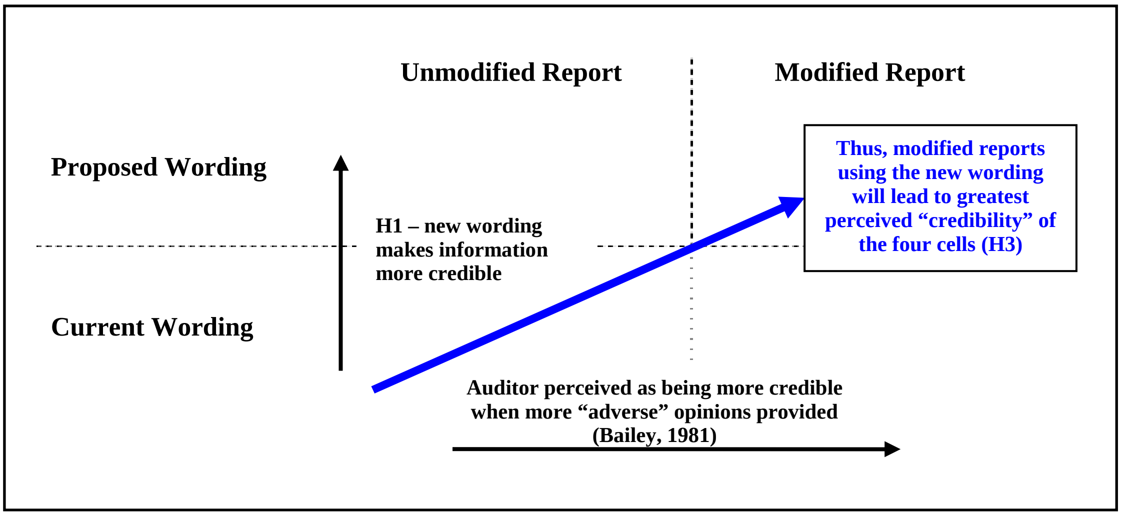
This study examines three types of audit reports: one which is unmodified and two which are modified. Therefore, two sub-hypotheses are prepared, which separately compare each of the modified reports (i.e., the unqualified opinion with 'emphasis of matter' paragraph, and the qualified opinion) with the unmodified report (i.e., unqualified audit opinion).

H3a Proposed wording changes to the audit report will result in greater differences in users' perceptions [of the credibility of the information] when a modified audit report with a qualified audit opinion is provided (vis-à-vis an unmodified audit report).

H3b Proposed wording changes to the audit report will result in greater differences in users' perceptions [of the credibility of the information] when a modified audit report with an unqualified audit opinion with "emphasis of matter" paragraph is provided (vis-à-vis an unmodified audit report).

This hypothesis is depicted diagrammatically in Figure 4.4.

Figure 4.4: Diagrammatic Representation of Hypothesis 3



Logic suggests that investors are less likely to invest in a company (or continue to maintain an investment in a company) about which the auditor has concluded there are going concern issues significant enough to bring to readers' attention. That is, investors are less likely to invest in a company issued with an unqualified "emphasis of matter" or qualified audit opinion, than a company issued with an unqualified audit report. This is consistent with the outcomes of Monroe and Woodliff (1994). Other studies have reported that bank loan officers are less willing to grant loans to companies with modified audit reports (vis-à-vis unmodified audit reports) (Bamber and Stratton, 1997; LaSalle and Anandarajan, 1997). Where an auditor signals that there are concerns about the truth and fairness of the information contained in the financial statements, differences are likely to exist between investment decisions for the different types of audit opinions. More generally, the results of several studies have linked the perceived credibility of information to the likelihood of investment and earnings potential (Hirst et al, 1999; Hodge, 2001), and have reported that when the perceived credibility of information is greater, earnings potential is also perceived to be greater.

Appropriately worded hypotheses (i.e., likelihood of investment decreases as the opinion moves from that provided in unqualified audit report to opinions provided in a modified audit report) could readily be formulated. Such hypotheses would be focused on the credibility of the information upon which the decisions are made. Hypothesis 3 of this study suggests that together, the proposed wording and audit report modification enhances the credibility of the information received. The wording change enhances the intended users' perceived credibility of the message being received, while the audit report modification enhances the intended users' perceived credibility of the auditor, as part of the source of the information being provided (the combination of management's financial statements and audit report). In Hypothesis 3 the focus on perceptions about the credibility of the information are formed free of any related investment decision.

However, a modification to an audit report indicates that the auditor is drawing report users' attention to a matter of interest or concern in the information being provided. Therefore, when the information set (the message and source taken together) is perceived as being more credible when a modified audit report is provided, reinforcement is provided to the report user that there is a matter of interest or concern which they need to consider in making an investment decision. That is, the credibility is enhanced in relation to the notion that the information being provided is potentially a "negative" and would detract from the potential for investment. In a study examining the disclosure (versus recognition) of stock options expenses, Frederickson et al (2006) reported that investors perceive voluntarily recognised amounts in an income statement as being more reliable than amounts that are merely disclosed in the notes. Even though these more "reliable" figures reduce total earnings (i.e., a "negative"), investors report a higher likelihood of investment in that company.

Therefore, the following hypothesis is posited.

H4 Proposed wording changes to the audit report will result in users' believing that the likelihood of growth in earnings and share price is greater when an unmodified audit report is provided (vis-à-vis a modified audit report).

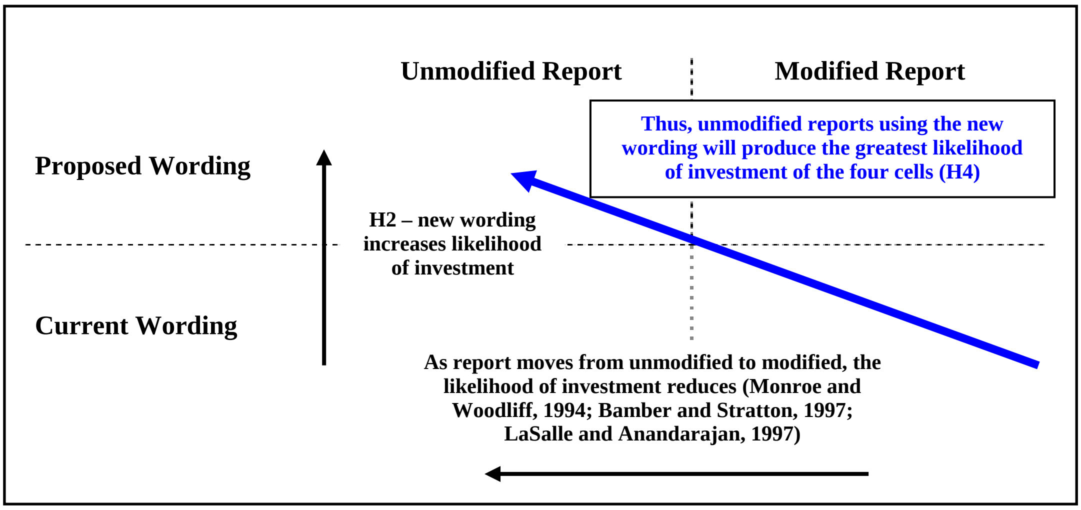
In the same manner that sub-hypotheses are generated for Hypothesis 3, two sub-hypotheses are generated for Hypothesis 4. These sub-hypotheses are prepared on the basis that three different types of audit reports (one unmodified and two modified reports) are examined in this study. The sub-hypotheses are:

H4a Proposed wording changes to the audit report will result in users' believing that the likelihood of growth in earnings and share price is greater when an unmodified audit report is provided (vis-à-vis a modified audit report with a qualified audit opinion).

H4b Proposed wording changes to the audit report will result in users' believing that the likelihood of growth in earnings and share price is greater when an unmodified audit report is provided (vis-à-vis a modified audit report with an unqualified opinion with "emphasis of matter" paragraph).

This hypothesis is depicted diagrammatically in Figure 4.5.

Figure 4.5: Diagrammatic Representation of Hypothesis 4



The three types of audit reports examined in *Study One* include an unmodified audit report (with an unqualified audit opinion) and two modified audit reports. The two modified reports include a report with an unqualified audit opinion with "emphasis of matter" paragraph, and a report with a qualified opinion. The key difference between a qualified audit opinion and an unqualified "emphasis of matter" audit opinion relates to the disclosure (or lack of disclosure) of an uncertainty (e.g., in this study, a going concern uncertainty) in the financial statements. That is, the auditor is either disagreeing with the lack of disclosure of an uncertainty (with a qualified audit opinion) or agreeing with the disclosure of an uncertainty (with the unqualified "emphasis of matter" audit opinion). In the former situation, the disclosure is ostensibly being made by the auditor (in their description in the audit report), while in the latter situation the disclosure is being made voluntarily by management. This implies that users of the information may perceive the information differently, depending upon who is responsible for the disclosure. Frederickson et al (2006) notes in a study that examines management's voluntary disclosure of stock options expense, that business school graduates perceive information to be more reliable when it is voluntarily disclosed.

However, one study specifically examining differences in users' perceptions and investment decision-making between modified "emphasis of matter"[25] and qualified audit reports, finds no significant differences across the two different audit reports (Bessell et al, 2003). There are no differences reported between the two types of opinions in terms of their incremental information content to finance industry officers, and in terms of their impact on the willingness to grant loans. On this basis, a null hypothesis is posited for the interactive effect of wording changes and these two types of modified audit reports.

<u>H5</u> There will be no difference between the modified "emphasis of matter" audit report and a qualified audit report, in the way that proposed wording changes to the audit report impact users' perceptions and investment decision-making.

[25] Previous auditing research has examined differences in perceptions and decision-making across different audit opinions, but many of these studies were conducted prior to the introduction of the "emphasis of matter" opinion which is an unqualified opinion with "emphasis of matter" paragraph.

4.3. Research Methodology

This section describes the research method used in examining the questions raised in the first study of this thesis. The research method is described in four parts. Firstly, the research design is described. Explanations and justifications are provided for the chosen design and the independent and dependent variables used. Secondly, the research instrument is described, with particular reference given to its development and the choices made in the wording and information provided. Given the importance of the wording of the audit report to achieving the aims of this study, separate sub-sections are included which describe the wording of the audit reports, and the wording of the audit opinions. The third part of this section discusses the participants used in the study, and an explanation of the reasons for choosing this particular participant group. Finally, this section concludes with a description of the manner in which the research instrument was distributed. It outlines the methods employed which aimed to enhance the response rates achieved.

4.3.1. Research Design

A behavioural experimental research approach is employed to examine the hypotheses in this first study. The research design is a "2x2x3 + 3" between-subjects experimental design. As per Trotman (1996), factorial designs allow for the examination of the "interactive effects of independent variables on the dependent variables" (Trotman, 1996, p. 18), as well as allowing tests of interactions between the independent variables.

The research design yields the fifteen experimental cells or treatment groups depicted in Figure 4.6. This figure shows the various manipulations of the independent variables of interest. They are: (i) the wording (current and proposed) of the management's responsibility section of the audit report; (ii) the wording (current and proposed) of the auditor's responsibility section of the audit report; (iii) the different types of audit opinions (unqualified, unqualified with "emphasis of matter" paragraph and qualified); and (iv) the inclusion of the separately headed "independence" section of the audit report using the proposed wording. The first three manipulations comprise the "2x2x3" component of the experimental design, while the last manipulation represents the "+3" component of the design.

Each of the independent variables is described in more detail in the following section.

Figure 4.6: Treatment Groups
(C = Current Report Wording; P = Proposed Report Wording)

	Management's Responsibility	Auditor's Responsibility
Group 1 - Unqualified Opinion Group 2 - Qualified Opinion Group 3- Emphasis of Matter	C	C
Group 4 - Unqualified Opinion Group 5 - Qualified Opinion Group 6- Emphasis of Matter	C	P
Group 7 - Unqualified Opinion Group 8 - Qualified Opinion Group 9- Emphasis of Matter	P	C
Group 10 - Unqualified Opinion Group 11 - Qualified Opinion Group 12- Emphasis of Matter	P	P
Group 13 - Unqualified Opinion Group 14 - Qualified Opinion Group 15- Emphasis of Matter	P + Independence Section	P + Independence Section

4.3.1.1. Independent Variables

The "2x2x3" component of the research design involves the manipulation of three independent variables, namely the wording (current wording vs. proposed wording) for each of the management's and auditor's responsibilities sections of the audit report, across three different types of opinion (unqualified; unqualified "emphasis of matter"; and qualified audit opinion). The wording of the responsibilities sections is varied between the then current ISA 700 wording (as at March 2004) and the wording included in the then proposed ISA 700.[26] These two variables are at the heart of the IAASB's initiatives in respect to proposing new audit report wording. That is, "expanding and updating the wording of the auditor's report to enhance understanding of the auditor's role and the auditor's report" (IAASB, 2003, p. 6). In total, this yields twelve different treatment groups (refer Figure 4.7 below).

Figure 4.7: Treatment Groups (For testing H1a, H1b, H2a and H2b)
(C = Current Report Wording; P = Proposed Report Wording)

	Management's Responsibility	Auditor's Responsibility
Group 1 - Unqualified Opinion		
Group 2 - Qualified Opinion	C	C
Group 3- Emphasis of Matter		
Group 4 - Unqualified Opinion		
Group 5 - Qualified Opinion	C	P
Group 6- Emphasis of Matter		
Group 7 - Unqualified Opinion		
Group 8 - Qualified Opinion	P	C
Group 9- Emphasis of Matter		
Group 10 - Unqualified Opinion		
Group 11 - Qualified Opinion	P	P
Group 12- Emphasis of Matter		

Sub-hypotheses H1a, H1b, H2a and H2b specifically examine the impact on perceptions and investment decision-making of changes in wording to either the management's responsibilities, or the auditor's responsibilities section of the audit report. In examining the impacts of the former, the results of Groups 1 to 6 (inclusive)[27] are aggregated and compared with the aggregated results of Groups 7 to 12. In examining the impacts of the wording changes to the auditor's responsibilities section of the audit report, the results of Groups 1 to 3 and Groups 7 to 9 are aggregated and compared with the aggregated results of Groups 4 to 6 and Groups 10 to 12.

[26] The proposed changes to the audit report were largely adopted in the revised ISA 700, applicable to all auditor's reports dated on or after 31 December 2006.

[27] In describing the analysis in this section, reference to the aggregated results of a number of groups should be read as being "inclusive" of the groups mentioned.

Analysis of results is considerably enhanced by separating the proposed wording changes into the two "responsibilities sections" in order to determine whether any differences arising in users' perceptions and investment decision-making are being driven by one of the two categories, or the proposed wording changes as a whole. However, standard-setters proposed wording changes were introduced for the entire audit report and not for the separate sections of the report. Therefore, H1 and H2 posit that differences in perceptions and investment decision-making will arise between report users who receive the overall current wording of the audit report and those who receive the overall proposed wording. The relevant treatment groups analysed in testing these hypotheses are described in Figure 4.8.

Figure 4.8: Treatment Groups (For testing H1, H2, H3, H4 and H5)
(C = Current Report Wording; P = Proposed Report Wording)

	Management's Responsibility	Auditor's Responsibility
Group 1 - Unqualified Opinion		
Group 2 - Qualified Opinion	C	C
Group 3- Emphasis of Matter		
Group 10 - Unqualified Opinion		
Group 11 - Qualified Opinion	P	P
Group 12- Emphasis of Matter		

In testing H1 and H2, the results of Groups 1, 2 and 3 are aggregated and compared with the aggregated results of Groups 10, 11 and 12. In further analysis (refer Sections 4.5.3.1 and 4.6.3.1) they are also analysed for each type of audit opinion separately. That is: the results for Group 1 are compared with the results for Group 10; the results for Group 2 are compared with the results for Group 11; and the results for Group 3 are compared with the results for Group 12.

These same groups are used in the testing of H3 and H4 (including sub-hypotheses) which predict an impact on report users' perceptions and investment decision-making as a consequence of the interactive effects of the changes to wording and the type of audit opinion. For example, in testing H3a and H4a, the results for Groups 1, 2, 10 and 11 are examined. Similarly, Groups 2, 3, 11 and 12 are used to examine the "null" hypothesis described in H5: that there will be no difference between the unqualified "emphasis of matter" and qualified audit opinions, in the way that proposed wording changes to the audit report impact users' perceptions and investment decision-making.

As well as these twelve versions of the report which focus on the current and proposed wording of the audit report, an additional report format which includes a potential enhancement is provided to three separate groups of subjects. This makes up the "+3" component of the research design. The enhancement is the inclusion of a section in the audit report, entitled "Independence". This enhancement is part of the approved Australian report format, whereby a separate section is included immediately prior to the opinion section. The aim of including this section is to promote the auditor's independence and comply with newly introduced legislative requirements in this regard. The relevant section is as follows:

> "In conducting our audit, we followed applicable independence requirements of Australian professional ethical pronouncements and the *Corporations Act 2001*."[28]

This enhancement, across all three types of audit opinions, is included for the proposed ISA 700 wording only, thus resulting in an additional three treatment groups (refer Figure 4.9) and allowing H1c and H2c to be tested.

Figure 4.9: Treatment Groups (For testing H1c and H2c)
(C = Current Report Wording; P = Proposed Report Wording)

	Management's Responsibility	Auditor's Responsibility
Group 10 - Unqualified Opinion	**P**	**P**
Group 11 - Qualified Opinion		
Group 12- Emphasis of Matter		
Group 13 - Unqualified Opinion	**P + Independence Section**	**P + Independence Section**
Group 14 - Qualified Opinion		
Group 15- Emphasis of Matter		

In testing these hypotheses, results for Groups 10, 11 and 12 are aggregated and compared with the aggregated results for Groups 13, 14 and 15. This analysis

[28] AuASB Guidance Note – "Improving Communication between Auditors and Shareholders", July 2003, p. 6.

determines whether the inclusion of a separately headed "Independence" section in the audit report impacts report users' perceptions and investment decision-making judgements. Elsewhere (refer Section 4.5.3.1 and 4.6.3.1 in this Chapter) results are also analysed for each type of opinion separately: the results for Group 10 are compared with the results for Group 13; the results for Group 11 are compared with the results for Group 14; and the results for Group 12 are compared with the results for Group 15.

4.3.1.2. Dependent Variables

The responses elicited from subjects relate to their perceptions of the audit report across a range of different dimensions, as well as their investment decisions.

Perceptions

Perceptions are examined through questions aimed at assessing views on the audit report itself. Questions examine participants' views on (but are not restricted to) the: (i) responsibility (i.e., who is responsible: management or auditors?) for selecting and applying relevant accounting policies, making accounting estimates, etc; (ii) responsibility for preparing the financial statements; (iii) responsibility for developing and maintaining internal controls; and (iv) perceived credibility of the information provided. The basis of these questions is found in Libby (1979). They have been used in a modified form in several subsequent studies (e.g., Bailey et al, 1983; Gay et al, 1998). For example, Gay et al (1998) use a number of questions that are broadly categorised as relating to either responsibilities, reliability or decision usefulness. In the first of these three categories ("responsibilities"), questions seek to elicit views about perceptions pertaining to the responsibility for a number of factors: fraud; internal controls; the production of the financial statements; and the exercise of judgement by the auditor. The reliability factor is assessed through questions that elicit users' perceptions in relation to matters such as the level of assurance provided and whether the extent of work performed is clearly communicated. Questions of this sort are included in the research instrument for this study. The final category, decision usefulness, seeks to elicit users' perceptions about the usefulness of information for investment decision-making. A major contribution of this first study is that it seeks that investment decisions be made, rather than merely examining users' perceptions.

The questions addressing perceptions, require participants to provide responses on an 11-point scale (refer copy of research instrument at Appendix 3). Although previous studies have used different scales in assessing these types of questions (Libby (1979) used a 10-point scale; Bailey et al (1983) used a 9-point scale; Gay et al (1998) used a 7-point scale), an 11-point scale is chosen for this study, in order to be consistent with the scales used in the research instrument employed by Hirst et al (1999). The research instrument used in Hirst et al (1999), which measures responses on an 11-point scale, forms the basis of the layout of the research instrument used in this first study. While not assessing report users' perceptions of an audit report, three of the four investment decision questions included in the research instrument for this study are based on the Hirst et al (1999) research instrument.

Investment Decisions

In assessing investment decisions, participants are asked to respond to four questions using an 11-point scaled response answer. Questions involve making judgements about the potential for profits to increase (or decrease), the potential for share prices to appreciate and the risk associated with an investment in the company's shares. These three investment decision questions are taken from the Hirst et al (1999) research instrument. However, while Hirst et al (1999) required participants to make a decision about the actual share price (a point prediction), for this first study the share price question seeks a directional response (that is, a response which indicated participants' view about the potential for the share price to rise). A directional response is preferred to a point prediction; as it assists in analysis of causal effects which Libby et al (2002) note are considered more likely to generalise across different settings, thereby improving the external validity of the experiment. A final investment decision question elicits participants' views about the continuation of the company as a going concern. It is important to include this question, given that the case scenario used in this study is based on a potential going concern issue for a fictitious company. The qualified and "emphasis of matter" opinions presented in this study discuss the topic of going concern. In obtaining participants' views on going concern, analysis could be undertaken to determine whether differences in participant's views about going concern were driving differences in investment decision-making.

Analysis of Dependent Variables

Perceptions

Differences between responses from participants in different treatment groups provides insight into the impact of the proposed wording changes to audit reports and the potential interactive impact between wording changes and different types of audit opinions. Furthermore, analysis of the results provides insight into whether the IAASB has been successful in reducing the expectations gap. The responses provided by participants to several of the perception questions are interpreted in light of the "correct" answers (i.e., the responsibility requirements described in auditing standards. For example, that it is management who is responsible for making necessary accounting estimates, and selecting and applying relevant accounting policies. Refer Appendix 4). Results which indicate that the expanded wording in the audit report has moved users closer to these correct answers (vis-à-vis the current wording of the audit report) suggest success in closing the gap on the part of the IAASB.

Investment Decisions

Analysis of differences between responses from participants in different treatment groups contributes to the largely under-explored area of interest of whether the audit report has an impact on investor decision-making. Where different decisions are made across different treatment groups, it can be inferred that the changes to the wording of the audit report (and hence the audit report itself) are of some relevance to the decisions being made.

4.3.1.3. Other Questions

In relation to the readership and understanding of the audit report, Estes (1982) cites several studies (dating to the 1970s) that highlight the uncertainty that exists about the significance of the communication provided by an audit report. The frequency with which users read reports, and how well users understand the report is open to question. At the time, it was thought that reports were generally neither well read, nor particularly well understood. Subsequent studies examining the audit report have generally not considered the extent to which the report users read or understand the audit report. Report users' characteristics such as these may be important in explaining the perceptions held by these users, and the investment decisions they make, given that report users are quite often broadly defined in experimental research. That is, conceivably within one group of report users (employed in experimental research) there may be a range of different user characteristics represented. Little recent research appears to have examined report user characteristics, which suggests that it is timely to consider issues in this area.

Therefore, additional questions examining readership, familiarity and understanding of the audit report are included in the research instrument. One question asks participants to indicate how often they read an audit report and other parts of the financial statements. For a number of parts of the financial statements participants are asked to indicate whether they read each part: never; rarely; sometimes; most of the time; or always. Two further questions seek participants': (i) self-rated level of familiarity with the audit report; and (ii) belief of the extent to which they find the audit report understandable. Both of these questions seek responses on an 11-point scale.

4.3.2. The Research Instrument

The research instrument is prepared with reference to the key principles of tailored design described by Dillman (2000). These principles include a range of matters, such as: (i) ensuring that potential participants know that the task they are completing is important; (ii) having the research sponsored by a legitimate authority; (iii) saying thank you; (iv) making the questionnaire interesting; (v) avoiding inconvenience; and (vi) minimising requests for personal information. Dillman (2000) argues that adherence to these principles increases the potential quality and quantity of responses to self-administered questionnaires. The first three points described above are addressed in the research instrument for this study by: (i) having it administered under a covering letter from the Chief Executive Officer of the association providing members as experiment participants for the study (i.e. the Australian Shareholders Association); and (ii) including a covering page signed by the researcher (refer Appendix 2). The other points are carefully considered when preparing the research instrument in an attempt to ensure that the research instrument is interesting, fully "self-contained" (i.e., does not require participants to seek out information beyond that provided in the research instrument) and does not ask for a great deal of personal information. It is emphasised that any information collected is to be kept in the strictest confidence.

A copy of the instrument developed by Hirst et al (1999) was obtained and used as a basis for the preparation of this research instrument. Two of the authors of the original instrument (Hirst and Koonce) were sent a copy of the instrument used in this study for their review and any comments. A response received from the former indicates that he has no issues or comments to raise about the draft research instrument.

Prior to being administered to participants, the instrument is pilot-tested by two academic colleagues at UNSW. It is also presented and discussed at an academic "brown bag" session at the Australian National University (ANU). Feedback is also received from the Australian Shareholders Association (ASA) (whose members are employed as experiment participants in this study) and members of the AuASB Board (who provide support for this study). The pilot-testing, reviews and feedback highlight matters of both a technical (e.g., how easy it is to understand the questions) and practical (e.g., length and presentation of the instrument) nature, however none of the matters raised highlight any major issues of concern. Minor amendments are made to the draft instrument in light of the pilot-testing, "brown bag" session and feedback from the ASA and AuASB. As the changes made are not significant, the instrument is not subsequently re-tested prior to being administered.

The final research instrument, included at Appendix 3 consists of four parts. The first part comprises background information about a fictitious company[29], selected financial information, extracts from the notes to the accounts and an audit report. The second part of the instrument contains a series of questions aimed at eliciting responses from

[29] Although a fictitious company, the situation was based on an existing company. Accounting figures and examples were manipulated to ensure that the identity of the company would be protected.

participants about their decisions and judgements as an investor, while the third part examines participants' perceptions about the audit report. Finally, demographic information is collected from the questions included in the fourth part of the instrument, as well as questions covering; (i) the participants' readership of the information provided with financial statements; (ii) a self-rated assessment of their level of familiarity with audit reports; and (iii) the extent to which they find audit reports understandable.

The background information describes a fictitious listed property investment and development company established four years ago. It has yet to record a profit, although results are improving each year, in line with management's expectations. The company remains heavily reliant upon its bankers, who provide a large proportion of the financing for its continued operations. In developing behavioural experiments it is important to ensure that demand effects are minimised, and therefore a balance must be achieved between ensuring that a case scenario is realistic and providing a situation that is not so obvious as to induce the responses desired by the researcher. Therefore, the case involves a potential going concern issue, which is necessary to allow for the three types of audit opinions, examined in this study, to be provided (refer Section 4.3.2.2). A going concern issue therefore requires that the company used in the case scenario not be a company which is performing outstandingly well.

The financial information included in the research instrument is presented in a manner consistent with the research instrument upon which it is based (i.e., the research instrument used in Hirst et al 1999). It includes abridged Statements of Financial Performance (Income Statements) (for the last three years), abridged Statements of Financial Position (Balance Sheets) (for the last two years), selected figures from the Statement of Cash Flows (for the last two years) and selected financial ratios (for the last three years).[30] Importantly, this information is identical for all treatment groups in the experiment.

[30] This experiment was conducted prior to the introduction of the "fourth" key financial statement: "The Statement of Changes of Equity". Furthermore, it was conducted at a time in Australia when the terms Statement of Financial Position and Statement of Financial Performance were used for what are now again called the Balance Sheet and Income Statement.

The issue which gave rise to the ability to manipulate the audit opinions is the going concern. Extracts from the notes to the accounts detail several notes from "Note 1" of the financial statements (for all treatment groups). A note describing the Directors' views on concerns around the going concern of the company is included for the treatment groups receiving the unmodified audit report and modified "emphasis of matter" audit report. Wording identical to that contained in this "going concern" note is provided to other participants in the "Qualification" section of the audit report for those receiving the qualified audit report (refer discussion about the audit opinions provided in Section 4.3.2.2).

The wording used in the note, and the "Qualification" section of the audit report, is:

> The financial statements have been prepared on the basis that the consolidated entity is a going concern. The going concern basis assumes that the consolidated entity will be able to pay its debts as and when they fall due. The consolidated entity's current financing facilities are with its bank.
>
> The consolidated entity's ability to continue to operate as a going concern is dependent upon the continued support of its bankers, the continued support of its creditors and the generation of additional future sales at a level to support the consolidated entity's ongoing operations. In view of its loss making position and current level of borrowings, the company remains reliant on the continuing support of its bankers. The company's directors have been advised by the bank that it remains supportive for the time being, but given the company's financial position, the situation will remain under review.
>
> The directors believe that the nature of the consolidated entity's borrowings is long term, notwithstanding that all facilities are due for review in April 2004. For this reason, all borrowings from the bank have been classified as non-current liabilities.

From an internal validity perspective, it is important that participants in all treatment groups receive the same background information. The contents of the information package provided to participants in all treatment groups is the same.

Following the background information and introductory material, participants are asked to nominate the three main points of interest contained in the version of the audit report they received.[31] The reason for including this is to ensure that participants read the version of the audit report they are provided, for it is the wording of the audit report

[31] The responses to this question were not analysed for the intent of the question was merely to draw respondents' attention to the audit report they received. Of interest to the researcher was the fact that respondents had answered the question, thereby indicating that their attention had been drawn to the report, as desired.

which is the main independent variable being manipulated. If experimental participants do not read the audit report, the external validity of the experiment may be questioned (Gay and Schelluch, 1993; Schelluch and Gay, 2006). While it is acknowledged that drawing experimental participants' attention to a particular issue within a research instrument may create demand effects, the between-subjects research design, the provision of a case scenario with a range of relevant information, and the manner in which subsequent questions are asked, reduces the likelihood of participants becoming aware of the aims of the study (i.e., the manipulations of the wording of the audit report and the type of audit opinion).

After reading the background information and having answered the question about the audit report, participants are then asked to respond to four questions pertaining to their decisions as potential investors. These relate to expected profit, expected movements in share price, the level of risk associated with an investment in the company, and their views on the going concern of the company. The third section requires participants to answer a range of questions covering their perceptions of the audit report and the information provided. The investment decision questions are asked prior to questions about participants' perceptions for two important reasons. Firstly, a major contribution of this study is the examination of questions relating to the impact that changes in the wording of audit reports have on investment decision-making, rather than merely the perceptions of audit report users. Therefore, given the importance of these investment questions they are the first questions asked in the study. Secondly, if investment decision questions are asked after questions about participants' perceptions, particularly matters such as the credibility of the information and the independence of the auditor, the potential for demand effects is heightened. That is, if the order of the two sections of questions is reversed, it may be more evident to participants that the researcher is expecting investment decisions to be impacted by their perceptions of the audit report and the information provided.

The final section of the research instrument includes a question eliciting participants' readership "habits" in relation to the key financial statements, the notes to the accounts and other information, including the audit report. Two other questions seek to gain an insight into the extent to which the participant is familiar with the audit report, and the extent to which they find audit reports understandable. Several other questions collect demographic details of participants. These questions are used to test the random allocation of participants to treatment groups and allow for testing of potential demographic effects on responses.

4.3.2.1. Audit Reports

Fifteen different versions of the audit reports were used in this study (refer Figures 4.6 and 4.7). The reports attached to the research instrument (i.e., one report per instrument and one instrument per participant in line with the requirements of a between-subjects experimental design) are prepared on the basis of the ISA 700 as at March 2004, and the proposed ISA 700 detailed in the IAASB Exposure Draft, dated December 2003.

The wording for each of the two sections, “Auditor’s Responsibility” and “Management’s Responsibility” is taken directly from these two documents. A copy of the proposed audit report is included at Appendix 5, and shows that the proposed audit report also contained headings. The wording of the existing and proposed audit reports are detailed in Appendix 6, which clearly show the expanded descriptions for each of the responsibilities sections (and the added “Independence” section) included in the proposed audit report. The wording for the unmodified audit report (unqualified opinion) is extracted directly from the proposed audit report. However, as the proposed audit report only deals with unmodified reports, the wording for the modified audit reports (unqualified “emphasis of matter” and qualified opinions) are taken from (and tailored as required to match the circumstances of the case presented) details contained in ISA 570 “Going Concern”. The wording of each of the three audit opinions used in the research instrument are shown in Appendix 7.

Sub-headings are added to emphasise the opinions provided in the modified audit reports, in line with the Australian standard, AUS 708, “Going Concern” that existed in March 2004. Although international standards do not include sub-headings for modified audit reports, they are included in this first study as Australian audit report users are being used as participants. These participants would have been familiar with the requirements of the then current AUS 708 and would therefore have expected sub-headings to be used. [32]

The wording for the "Independence" section of the audit report, included as a potential enhancement, is extracted from the Guidance Note – "Improving Communication between Auditors and Shareholders", July 2003, issued by the AuASB.

4.3.2.2. Audit Opinions

From a methodological perspective, it is important that participants in all treatment groups receive the same information, with the only difference between the groups being the differences relating to the independent variables being manipulated. In this study, the manipulated variables relate to the wording of the management's and auditor's responsibilities sections of the audit report; the inclusion of a separately headed "Independence" section in the audit report; and the types of audit opinions provided.

The wording of the audit report, namely the "auditor's responsibility", "management's responsibility" and "Independence" sections of the report are readily varied between different versions of the report, with the same background and financial information being provided. For each of the different types of audit opinion the information package being presented must be the same. However, to enhance the external validity of the research experiment, the audit opinions presented must be opinions that can realistically be expressed by auditors in the circumstances provided. As described earlier, the case scenario included in the research instrument for this first study allows for both of the aforementioned criteria to be met.

The background information in this case suggests the possibility that the company may have a going concern issue. In situations where going concern issues may be evident, an auditor assesses the extent to which going concern problems are expected to arise,

[32] Neither the Australian nor international standards mandate the use of headings in the opinion section of the audit report. However, the Australian Standards ASA 570 "Going Concern" and ASA 701 "Modifications to the Auditor's Report" both include illustrative examples of modified auditor's reports, which are appended to the standard. These illustrative examples use headings within the opinion section of the report to emphasise the opinion being given. In practice, all major accounting firms use these headings in audit reports.

and the extent to which mitigating circumstances exist and have been disclosed. An appropriate audit opinion is determined in line with a flowchart provided in Appendix 1 of ASA 570[33], a copy of which is included at Appendix 1.

Once an auditor has made an initial risk assessment that concludes that the probability of going concern issues arising is greater than low, modified audit procedures are applied to determine whether there is a reasonable expectation that the entity will continue as a going concern. Where the auditor determines that the company will continue as a going concern, and mitigating circumstances exist which are adequately disclosed, an unmodified audit report (unqualified audit opinion) is issued. In this case, Note 1m "Going Concern Basis", contained in the selected extracts from Note 1 and included in the background information, is the disclosure of the mitigating circumstances (refer Appendix 1).

Where it is determined that there is significant uncertainty that the entity will continue as a going concern, the disclosure or absence of disclosure of the significant uncertainty determines the type of audit opinion issued. Adequate disclosure of the uncertainty in the form of a note to the accounts (i.e., Note 1m) is sufficient to allow the auditor to issue an unqualified audit opinion with an added "emphasis of matter" paragraph and is included for these treatment groups. If however, the auditor judges that the uncertainty has not been adequately disclosed, a qualified audit opinion should be expressed. To accord with this requirement, Note 1m is not included in the background information for those treatment groups receiving the audit reports with a qualified audit opinion. In order to preserve the requirement that the entire information package available to all experiment participants be the same, the qualification section of the audit report includes identical wording to that provided in Note 1m. An additional sentence that the information has not been adequately disclosed (thereby justifying the qualified audit opinion) has also been included.

While it is acknowledged that the location of the background information is not identical in all cases (i.e., in the Note 1 extract versus the audit report) the criterion of

[33] Appendix 1 of ASA 570 "Linking Going Concern Considerations With Types of Audit Opinions", is ostensibly the same as the flowchart that existed as Appendix 1 to AUS 708 "Going Concern" at the time that the experiment was conducted.

having the same information package in all cases is fulfilled. The case as presented, realistically allows for an auditor to provide any of the three different types of audit opinion being presented in this study.

4.3.3. Participants

The participants in this study are shareholders, representing users of audit reports. The shareholders are members of the Australian Shareholders Association (ASA) and have been used as participants in previous studies of this kind (Gay et al, 1998; Roebuck et al, 2000; Hasan et al, 2003). Shareholders are seen as being the most appropriate user group for the questions and scenarios being examined. This includes not just their perceptions of the audit report, but also their investment decisions. Most importantly, the proposed wording changes to the audit report being examined in this first study were specifically aimed at “seeking to enhance the communication process between auditors and shareholders” (AuASB, 2003, p. 4). An association comprising individual shareholders (that is, the ASA) is therefore the most appropriate group of experimental participants to determine whether the aim of the AuASB has been achieved. Although members of the ASA are considered to be the “unprofessional” end of the “investor spectrum”, Frederickson et al (2006) highlight that within the United States, the SEC and many others have recognised the important role that non-professional investors play in the their markets.

4.3.4. Distribution

The research instrument was distributed by post in March 2004. As a between-subjects experimental design, each potential experimental participant received one research instrument (described in Section 4.3.2), which includes one audit report. It was important that participants receive only one audit report to ensure that they are not sensitised to the experimental manipulation. The inclusion of a detailed case scenario and the attachment of only one audit report are important strengths of this study, and differentiate it from many previous studies in this field of research.

The envelope mailed to potential research participants includes the research instrument (which included the cover page signed by the researcher highlighting the importance of the research) and a covering letter signed by the Chief Executive Officer of the ASA encouraging members' participation. Pre-paid and addressed return envelopes are also included for participants to be able to readily return the completed research instruments. One month after the instrument was posted to potential participants, the Chief Executive Officer of the ASA forwarded a follow up e-mail to all ASA members sent a research instrument, reminding them of the research instrument and again encouraging participation.

As the membership lists of the ASA are regarded as confidential the research instruments are posted by a mailing house (being an agent for the ASA) under the instruction of the researcher. Based on previous response rates in studies using this participant group (Gay et al, 1998; Roebuck et al, 2000; Hasan et al, 2003) 2325 research instruments are printed and enveloped. This represents 155 instruments for each of the fifteen different versions of the instrument. With an expected response rate of 20 per cent, this would generate a desired cell size of approximately 30 responses per cell.

Before posting the instruments, they are sorted into random order following the order of output from a table produced from a random number generator. On advice from the ASA at the time of initial enquiries, Victorian State ASA members are chosen as potential participants. These members are suggested as potential participants for two reasons. Firstly, members from New South Wales had been used in a recently completed study (Hasan et al, 2003) and the Chief Executive Officer of the ASA thought that another questionnaire administered so soon after the previous study may adversely affect response rates. Secondly, the ASA was confident that there were sufficient numbers of Victorian State members to enable the instrument to be posted just to that State. When detailed numbers were finally provided at the time of posting, 2133 of the instruments are posted to Victorian State members of the ASA (representing the entire ASA population for Victoria). The remaining 192 instruments are posted to ASA members in Queensland. Given the anonymity of the participants in completing the instrument, it is not possible to statistically analyse differences between responses from members from the two different States. However, one of the strengths of behavioural experiment research is that randomly assigning participants to experimental cells (as is the case in this study – e.g., on average, just under 13 research instruments for each of the 15 treatment groups are sent to the 192 members in Queensland) alleviates problems relating to naturally occurring differences between participants.

Results

The results are presented in five sections. The first section (Section 4.4) details response rates, discusses tests for non-response bias and outlines the descriptive results. The second section (Section 4.5) details the analysis of data pertaining to the perceptions of respondents (the testing of Hypotheses 1, 1a, 1b and 1c), while the third (Section 4.6) section covers respondents' investment decision-making judgements (the testing of Hypotheses 2, 2a, 2b and 2c). Finally, the fourth section (Section 4.7) examines the interaction between the wording changes and the types of audit opinion (testing of Hypotheses 3, 4 and 5)

4.4. Responses, Tests for Non-Response Bias and Descriptive Results

4.4.1. Responses and Tests for Non-Response Bias

Of the 2325 research instruments posted, 5 were returned unopened ("addressee unknown" at that address). 428 responses were received, of which 45 responses were either unanswered or incomplete and therefore unusable, leaving 383 usable responses. This represented a usable response rate of 16.5 per cent (refer Table 4.1) slightly lower than the anticipated response rate of 20 per cent.

Although the response rate was comparable to other studies of this kind and is of sufficient numbers to allow for meaningful analysis of results, it is not as high as that achieved in Hasan et al (2003) for the same group of participants (i.e., members of the ASA). Hasan et al (2003) achieved a usable response rate of 27.8 per cent from a total of 2850 questionnaires posted.

Table 4.1: Total Responses

	Number	Percentage
Questionnaires Posted	2325	
Less Returned Letters	(5)	(0.2)
Responses Received	428	18.4
Less Incomplete and Unusable Reponses	(45)	(1.9)
Usable Responses	**383**	**16.5**

The reason for the lower response rate in this study may be related to the length of the current research instrument, which at nine pages is about fifty per cent longer than the instrument used in Hasan et al (2003). Another factor influencing the response rate may have been that the research instrument for this study was forwarded to participants who reside in States outside of the State in which UNSW is domiciled (i.e., New South Wales). Reasons for distributing the research instrument to members in States other than New South Wales are described in Section 4.3.4.

The response rates by treatment group are shown in Table 4.2. Responses ranged from 16 (10.3 per cent of the total of 155 questionnaires posted for the group) for Group 5 to 38 (24.5 per cent) for Group 1. Only one of the fifteen groups (i.e., Group 5) had less than 20 (12.9 per cent) responses. Chi-square tests for the proportions of responses across the 15 groups indicate that there are no significant differences between groups in terms of the proportions of responses received by group ($p = 0.315$).

Table 4.2: Responses by Individual Treatment Group

Group	Number Posted	Responses Received	Percentage
1	155	38	24.5%
2	155	27	17.4%
3	155	27	17.4%
4	155	24	15.5%
5	155	16	10.3%
6	155	27	17.4%
7	155	21	13.5%
8	155	22	14.2%
9	155	33	21.3%
10	155	25	16.1%
11	155	24	15.5%
12	155	29	18.7%
13	155	20	12.9%
14	155	28	18.1%
15	155	22	14.2%
Total	**2325**	**383**	**16.5%**

Table 4.3 details the response rates by the type of audit report highlighting some of the sample sizes upon which analyses are performed. The group sample sizes for the testing of Hypotheses 1 and 2 where the current wording (Groups 1, 2, 3) and proposed wording (Groups 10, 11, 12) are compared are 92 and 70 respectively.

Table 4.3: Responses by Type of Audit Report

Type of Audit Report	Number Posted	Responses Received	Percentage
Current Management's Responsibility/**Current** Auditor's Responsibility (Groups 1, 2 and 3)	465	92	19.8%
Current Management's Responsibility/**Proposed** Auditor's Responsibility (Groups 4, 5 and 6)	465	67	14.4%
Proposed Management's Responsibility/**Current** Auditor's Responsibility (Groups 7, 8 and 9)	465	76	16.3%
Proposed Management's Responsibility/**Proposed** Auditor's Responsibility (Groups 10, 11 and 12)	465	78	16.8%
Proposed Management's Responsibility/**Proposed** Auditor's Responsibility with **Independence** Section (Groups 13, 14 and 15)	465	70	15.1%
Total	**2325**	**383**	**16.5%**

Testing of sub-hypotheses 1a, 1b, 2a and 2b involves combinations of these sets of treatment groups, leading to the number of observations analysed in total being greater than 150. For example, when comparing the current and proposed wording of the management's responsibilities section of the audit report, results for Groups 1 to 6 (inclusive) are compared with the results of Groups 7 to 12 (inclusive). The cell sizes for this comparison are 159 and 154 respectively. For the testing of sub-hypotheses 1c and 2c treatment groups containing the results of Groups 10, 11 and 12 (size = 78), and the results of Groups 13, 14 and 15 (size = 70) are compared.

Testing of hypotheses 3a, 3b, 4a, 4b and 5 involves smaller cell sizes. They involve combinations of results obtained in several cells, depending upon the analysis being performed. However, to provide an insight into the response rates achieved across each of the different independent variables, Table 4.4 details responses by the different types of audit opinion.

Table 4.4: Responses by Opinion

Type of Opinion	Number Posted	Responses Received	Percentage
Unqualified Opinion (Groups 1, 4, 7, 10 and 13)	775	128	16.5%
Qualified Opinion (Groups 2, 5, 8, 11 and 14)	775	117	15.1%
"**Emphasis of Matter**" Opinion (Groups 3, 6, 9, 12 and 15)	775	138	17.8%
Total	**2325**	**383**	**16.5%**

Evidence that non-response bias is not an issue is that there are no differences in cell sizes across types of opinion. Non-response bias is tested by examining the differences in results arising from the use of the entire sample, and the sample excluding those responses received late. Several studies in this field have reported undertaking non-response bias checks on the basis of comparing "early" and "late" responses (Bailey, 1981; Innes et al, 1997; Gay et al, 1998; Maleszka and Monroe, 2004).

Late responses are initially considered to be those received more than one month after the questionnaire was posted.[34] However, only a small number of responses (i.e., 17 responses) were received over a month after the date of posting and therefore were considered to have been received late. As this number represents a small proportion of the total of 383 usable responses, it was not surprising that no significant differences were reported between the results obtained by using the two different samples for any of the participants' characteristics (reported p-values for demographics' questions were 0.897 and greater) or the dependent variables (reported p-values were 0.741 and greater).

[34] One month was chosen as an appropriate period for classifying late responses as the Chief Executive Officer of the ASA forwarded a follow-up e-mail reminder to ASA members one month after the research instrument had been posted. This is consistent with the non-response bias testing undertaken by Miller et al (1993) who tested for bias between those who responded immediately, and those who responded only after a follow-up reminder. Also, Hodge (2003) tested for "early" and "late" respondents by classifying "late" respondents as those who responded to a questionnaire only after an announcement was made about a randomly selected prize of $200.

Additional tests compare the results of the first third of usable responses received ("early" respondents) with the last third of usable responses received ("late" respondents); that is, the first 128 responses received with the last 128 responses received. Mann-Whitney U-tests (as used in Gay et al, 1998) show only one significant difference between these two groups in terms of the characteristics of the respondents. Those responding earlier indicate that they read the Chairman's/CEO's Report significantly more often than those responding later ($p = 0.073$). Also, there are significant differences between the responses of these two groups for two of the fifteen dependent variable questions asked. They are: C5 (To what extent does the audit cover the information contained in the notes related to the financial statements?) ($p = 0.030$); and C11 (How clear is the extent of work undertaken by the auditor in arriving at the opinion?) ($p = 0.010$).

With two-tailed testing of differences at a 90% level of confidence it is expected that some differences (i.e., one in five) will occur across a number of analyses.[35] Therefore, differences in one of nine demographic questions and two of fifteen dependent variable questions do not indicate the existence of a non-response bias.[36]

Overall, this analysis suggests that the timing of the responses is having no impact on the overall results, and that significant differences are occurring randomly. In concluding that there is no non-response bias, it implies that the results of this study are therefore generalisable.

4.4.2. Descriptive Results

Table 4.5 outlines some of the key demographic information about the respondents. Several interesting points are highlighted. They include that respondents in general are

[35] Mann-Whitney U-tests are considered tougher statistical tests to identify significant differences. Therefore, differences at the 10% level (2-tailed) are deemed significant with this testing (refer Section 4.5.2).

[36] Mann-Whitney U-tests for non-response bias when splitting the sample between the first half of responses ("early") and second half of responses ("late") also results in one significant difference in the demographic questions (i.e., readership of the Audit Report – earlier respondents more likely to read that later respondents – $p = 0.067$). Tests show two significant differences for the dependent variable questions, albeit not for the same two questions as when the first and last third of responses are analysed. This supports the view that these differences are occurring randomly, and the results from the study will therefore be generalisable.

only moderately familiar with audit reports, as evidenced by the average rating of 4.62 on an 11-point scale (of 0 to 10, with a score of 5 as the mid-point). Similarly, in general, respondents find audit reports to be only moderately understandable, with an average rating of 4.64 on the same 11-point scale.

Table 4.5: Demographic Characteristics of Respondents

Question	Mean	SD*	Range
Please indicate the degree to which you are familiar with audit reports (0 = Not at all familiar; 10 = Very familiar)	4.62	(2.61)	0 - 10
Please indicate to what extent you believe that the audit report is understandable (0 = Not at all easy to understand; 10 = Very easy to understand)	4.64	(2.42)	0 - 10
When I read a financial report for a company in which I have an investment, or am considering making an investment, I read:			
The Statement of Financial Position	3.06	(0.878)	0 – 4
The Statement of Financial Performance	3.17	(0.828)	0 – 4
The Statement of Cash Flows	2.70	(1.095)	0 – 4
The Notes to the Accounts	2.35	(1.064)	0 – 4
The Chairman's/CEO's Report	3.25	(0.914)	0 – 4
The Audit Report	2.44	(1.209)	0 – 4
(0 = Never; 1 = Rarely; 2 = Sometimes; 3 = Most of the time; 4 = Always)			
	Mean	**Median**	**Range**
What is your number of years of work experience?	38.05	40	4 – 70
Does the audit report cover all areas for which you require assurance from the audit? (Yes/No)	Yes – 24% No – 76%		
Memberships of professional bodies	48 respondents indicated that they are members of either (or both) of the three professional accounting bodies – CPA Australia, ICAA or NIA		

* SD = Standard Deviation

These descriptive results highlight an important issue for standard-setters in relation to their aim to enhance the communication between the auditor and shareholders (AuASB, 2003). This study uses shareholders as experimental participants; the key group being targeted by standard-setters in terms of the proposed audit report wording changes. Intuitively questions must be raised about the success of changing perceptions of shareholders through changes to the wording of audit report when shareholders indicate only a moderate level of familiarity with audit reports, and find them only moderately understandable. In terms of reading the audit report it is noted that this groups of respondents, on average, read the audit report much less frequently than the three key financial statements[37] and the Chairman's/CEO's report. A rating of 2.44 (i.e., between the rating of "2" for "Sometimes", and "3" for "Most of the time") is more in line with the rating of 2.35 received for the Notes to the Accounts, and is well below the ratings in excess of 3 (i.e., "3" being "Most of the time" and "4" being "Always") for the Statements of Financial Position and Performance, and the Chairman's/CEO's report.

Table 4.6 reports the results of analysis that examines whether respondents read the different parts of the financial report significantly more (or less) regularly when they have an investment in a company, or are considering an investment.

Table 4.6: Comparison of Regularity of Reading Different Parts of a Financial Report

"When I read a financial report for a company in which I have an investment, or am considering making an investment, I read":
(0 = Never; 1 = Rarely; 2 = Sometimes; 3 = Most of the time; 4 = Always)

	Statement of Financial Position (Mean = 3.06)	**Statement of Financial Performance** (Mean = 3.17)	**Statement of Cash Flows** (Mean = 2.70)	**Notes to the Accounts** (Mean = 2.35)	**Chairman's CEO's Report** (Mean = 3.25)
Statement of Financial Performance	**p = 0.000****				
Statement of Cash Flows	**p = 0.000****	**p = 0.000****			
Notes to the Accounts	**p = 0.000****	**p = 0.000****	**p = 0.000****		
Chairman's/CEO's Report	**p = 0.000****	**p = 0.071***	**p = 0.000****	**p = 0.000****	
Audit Report (Mean = 2.44)	**p = 0.000****	**p = 0.000**	**p = 0.000****	p = 0.123	**p = 0.000****

This table compares the responses for different parts of the financial report, using Wilcoxon Signed Ranks tests to determine whether different parts of the financial report are read significantly more or less often than other parts of the report.

**** Significant at the 5% level (2-tailed) * Significant at the 10% level (2-tailed)**

[37] This experiment was conducted prior to the introduction of the "fourth" key financial statement: "The Statement of Changes of Equity". Furthermore, it was conducted at a time in Australia when the terms Statement of Financial Position and Statement of Financial Performance were used for what are now again called the Balance Sheet and Income Statement.

Using Wilcoxon Signed Ranks tests of significance[38], results of this analysis show that significant differences exist between the different parts of the financial report for all but one comparison. The one non-significant comparison relates to the Audit Report and the Notes to the Accounts, where respondents do not read either of these items significantly more regularly than the other. However, the Audit Report is read significantly less often than each of the three key financial statements, and the Chairman's/CEO's Report. As noted earlier, the relatively low level of readership of the audit report has implications for standard-setters attempting to enhance the communications between the auditor and shareholders by making wording changes to the audit report (refer Section 4.8).The average number of years of work experience (i.e., 38.05 years – refer Table 4.5) is consistent with the demographic results reported by Hasan et al (2003), and is in line with the last ASA membership survey in 2002. Similarly, the proportion of respondents indicating that they are members of a professional accounting body[39] (i.e., 48 out of 383, or around 12.5 per cent) is in line with Hasan et al (2003) and the ASA membership survey. Both of these results support the view that there was no response bias on these dimensions.

Finally, just over three-quarters (76 per cent) of all respondents believe that the audit report does not cover all areas for which they require assurance (refer Table 4.5). Respondents were asked to provide details where they indicated that the audit report does not cover all areas for which they require assurance. Many of the responses relate specifically to the details of the case provided in the research instrument, and have been excluded from the summary provided in Table 4.7. The categories and frequencies outlined in Table 4.7 are derived following coding of the qualitative responses by the author of this thesis.[40]

The main criticisms of audit reports outlined by respondents include that they are lacking in detail, they are not written in plain English, and are in a standard form that follows prescribed, inadequate standards (mentioned on 43 occasions – refer Table 4.7).

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[38] Like the Mann-Whitney U tests, the Wilcoxon Signed Ranks test of significance is a tougher statistical test to identify significant differences. Therefore, differences at the 10% level (2-tailed) are considered significant.

[39] Professional accounting bodies in Australia being: CPA Australia (CPA), the Institute of Chartered Accountants in Australia (ICAA), and the National Institute of Accountants (NIA).

[40] Given the descriptive nature of the question, and the clarity and general objective nature of the responses, a second independent coder was not considered necessary.

Unfortunately, most respondents making these comments provide little more about the particular aspects of the reports they find to be wanting in this respect. More specific comments identify a lack of detail about the work performed by the auditors, the samples they choose, the figures used to quantify their opinions, and their skill (qualifications) more generally (mentioned 37 times).

Table 4.7: Reasons Why Respondents Believe the Audit Report Does Not Provide the Level of Assurance Required

Reasons Reported by Respondents	Frequency Mentioned	Proportion (%) of Total Responses (383)
The audit and the report merely follow prescribed (inadequate and insufficient) standards, with standard wording (lacking in detail and not in plain English)	43	11.23
Lacking in detail about the work performed by the auditor, the samples chosen and the auditors' skill	37	9.66
Lacking in detail about the independence of the auditor and the level and type of non-audit services provided	16	4.18
Lacking in detail about the decisions and competency of management, and the information provided to auditors	14	3.66
Does not provided a high enough level of assurance or critical enough assessment about the future of the company	8	2.09
Other	3	0.78

It is worth noting that auditor independence is mentioned 16 times (refer Table 4.7). It is mentioned specifically on 8 occasions, and in more general terms in relation to the lack of detail about the provision of non-audit services a further 8 times. While it is recognised that these numbers are small in relation to the overall number of responses received, comments of this nature do not reconcile with analysis of the differences in perceptions created by the inclusion of a separately headed section entitled "Independence" in the audit report (reported later in Section 4.5.2).[41] The inclusion of an "Independence" section does little to alter users' perceptions about management's and auditor's responsibilities. Similarly, it does little to alter their views on the degree to which the auditor is perceived to be independent of the firm being audited and the level of assurance that is being provided.

[41] However, it is acknowledged that only two of these sixteen comments came from respondents who received an audit report with a separately headed "Independence" section included.

4.5. Impact of Wording Changes on Perceptions (H1)

4.5.1. Descriptive Statistics

The descriptive statistics for the responses provided for questions about users' perceptions are detailed in Table 4.8. This table lists each question and the number of usable responses, as well as the mean outcome for each of the main treatment groups analysed when examining Hypotheses 1, 1a, 1b and 1c.[42] Scales for each question are also shown.[43]

Several interesting points are highlighted in this table. Firstly, responses to questions C6 through to C10 suggest that respondents, on the whole, are able to reasonably correctly identify the responsibilities of management. Furthermore, for each of these questions there is an improvement in the result with the proposed wording (Groups 10, 11, 12) from the result obtained with the current wording (Groups 1, 2, 3). That is, the proposed wording is causing respondents to "move in the correct direction". However, respondents' perceptions of the responsibility for the prevention and detection of fraud (Question C8) indicate that they see this as being more of a "joint" responsibility between management and the auditor (i.e., mean response for all groups of 3.99 on an 11-point scale, ranging from "0" to "10"), than other management responsibilities. Also, respondents are less clear about the responsibility for selecting and applying relevant accounting polices (Question C9 – mean response for all groups of 2.84) than management's other responsibilities, excluding that pertaining to the prevention and detection of fraud.

[42] Standard deviations are not reported, however, analysis of standard deviations shows that there are no significant differences in the standard deviations within questions, across the different treatment groups.

[43] The numbers of usable responses received from respondents reveal that a number of respondents did not answer the question relating to their perception about the independence of the auditor (C14). Only 341 usable responses out of a possible total of 383 were received compared with at least 363 for all other perception questions; 42 (around 11 per cent) chose not to answer this question. Most of the respondents failing to answer this question had a version of the audit report, which did not include a separately headed "Independence" section. Fourteen respondents who chose not to answer this question, made comments consistent with the view that there was neither enough information, nor any indication of the independence of the auditor; one respondent "presumed that they are" (independent).

Table 4.8: Perceptions – Descriptive Statistics

Question (The "correct" answer – expected by standard-setters – is in bold italics under the question. Where neither answer is bolded, it indicates that there is no "correct" answer, but is subject to the opinion of the respondent)	Current M/ Current A (Groups 1,2,3) n	Mean	Current M/ Proposed A (Groups 4,5,6) n	Mean	Proposed M/ Current A (Groups 7,8,9) n	Mean	Proposed M/ Proposed A (Groups 10,11,12) n	Mean	**Sub-Total** **n**	**Mean**	Independence (Groups 13,14,15) n	Mean	**Total** **n**	**Mean**
C5: To what extent does the audit cover the information contained in the notes related to the financial statements? *(0 = Does not cover any information in any of the related notes; **10 = Covers all the information in all of the related notes**)*	89	4.09	67	4.03	75	3.83	76	3.79	**307**	**3.94**	67	4.63	**374**	**4.06**
C6: Who is responsible for the information prepared and presented in the financial statements? *(**0 = Management solely**; 10 = Auditor solely)*	91	1.75	67	1.76	76	2.07	78	1.68	**312**	**1.81**	68	1.45	**380**	**1.75**
C7: Who is responsible for the development and maintenance of a sound internal control environment? *(**0 = Management solely**; 10 = Auditor solely)*	92	1.63	66	1.58	76	1.71	78	1.29	**312**	**1.55**	70	1.15	**382**	**1.48**
C8: Who is responsible for preventing and detecting fraud? *(**0 = Management solely**; 10 = Auditor solely)*	90	4.41	66	4.36	74	3.94	78	4.03	**308**	**4.19**	68	3.08	**376**	**3.99**
C9: Who is responsible for selecting and applying relevant accounting policies? *(**0 = Management solely**; 10 = Auditor solely)*	91	3.01	67	2.74	74	2.95	78	2.73	**310**	**2.87**	68	2.70	**378**	**2.84**
C10: Who is responsible for making necessary accounting estimates? *(**0 = Management solely**; 10 = Auditor solely)*	90	2.09	65	2.22	74	2.18	76	1.91	**305**	**2.09**	68	1.95	**373**	**2.07**
C11: How clear is the extent of work undertaken by the auditor in arriving at the opinion? *(0 = Totally unclear; 10 = Extremely clear)*	92	3.30	67	3.82	75	3.25	77	3.47	**311**	**3.44**	67	3.87	**378**	**3.52**
C12: How much judgement does the auditor exercise in the selection of audit procedures? *(0 = No judgement in respect to any procedures; **10 = Judgement exercised in all procedures**)*	84	5.57	66	6.17	71	6.08	77	6.27	**298**	**6.00**	65	6.16	**363**	**6.03**
C13: How much assurance does the auditor provide that the financial statements are free from material misstatement? *(0 = No assurance; 10 = Absolute assurance)*	91	4.33	67	3.90	76	4.09	77	3.95	**311**	**4.08**	68	3.88	**379**	**4.05**
C14: How independent of the company is the auditor? *(0 = Not at all independent; **10 = Totally independent**)*	77	6.38	61	6.41	68	6.38	71	6.21	**277**	**6.34**	64	6.49	**341**	**6.37**
C15: Given the audit report, how credible is the information provided? *(0 = No credibility; 10 = Totally credible)*	90	4.46	67	4.66	75	4.71	77	4.21	**309**	**4.50**	69	4.62	**378**	**4.52**

M = Management responsibilities; A = Auditor responsibilities

Secondly, respondents do not believe that the extent of work undertaken by the auditor in arriving at the opinion is very clear (Question C11) and that only a moderate degree of assurance is provided that financial statements are free from material misstatement (Question C13) (mean scores for all groups of 3.52 and 4.05 respectively, on an 11-point scale ranging from "0" to "10"). These results are consistent with responses to demographic questions regarding the areas in which assurance is (is not) provided, discussed in the previous section (refer Table 4.7).

Furthermore, there is some doubt in the mind of respondents as to the credibility of the information provided in the report (Question C15). It is possible that this is related to the views respondents have about the independence of the auditor (Question C14). They find audit reports moderately credible (mean score for all groups of 4.52) and at the same time do not regard the auditor as highly independent (mean score for all groups of 6.37).

The results for each of the four broad treatment groups, showing the different versions for the current or proposed management and auditor's responsibilities sections, are similar. However, as noted above, the movements are in the correct direction for the questions about management's responsibilities (i.e., Questions 6 to 10 inclusive) when comparing the proposed wording (Groups 10, 11, 12) and the current wording (Groups 1, 2, 3). In contrast, the proposed wording appears to make respondents believe that the auditor is less independent (Question C14), that the information provided is less credible (Question C15), and that a lower level of assurance is being provided (Question C13).

It is interesting to note the direction of the movements in perceptions for respondents receiving an audit report with a separately headed "Independence" section (Groups 13, 14, 15) from the perceptions reported for respondents receiving the same audit report, but with no separately headed "Independence" section (Groups 10, 11, 12). Most notable is that respondents receiving an audit report with a separately headed "Independence" section perceive the auditor to be more independent (Question C14), perceive the information provided is more credible (Question C15), and believe to a great extent that the audit covers the information contained in the notes to the accounts (Question C5).

4.5.2. Testing of Hypotheses

Before testing the hypotheses, the reliability of the scales used for the questions pertaining to the perceptions of participants was tested. To test reliability the Cronbach alpha coefficient test was used. The Cronbach alpha coefficient for the perception questions was 0.712, above the indicative reliability value of 0.7. Therefore the scales are considered reliable for the sample being examined.

The majority of the distributions of responses violate the assumption of normality, as revealed in histograms, "de-trended" normal probability plots and normality tests using the Kolmogorov-Smirnov statistic (Pallant, 2005). This is common when questions are asked in the form used in this research instrument. Analyses of "normality" were undertaken for all fifteen versions of the research instrument, for all eleven questions relating to respondents' perceptions. Of the 165 distributions, 109 (or around 66 per cent) appeared to violate the assumption of normality based solely on the Kolmogorov-Smirnov statistic. Given that the majority of the distributions do not appear to display normality, Mann-Whitney U (non-parametric) tests are used in the analyses of hypotheses. Although the Mann-Whitney U test compares medians instead of means, for the purpose of describing results (particularly movements between different versions and treatment groups) all tables depicted in the section will report means.

Independent samples t-tests were also performed for all hypotheses pertaining to perceptions (i.e., H1, H1a, H1b and H1c) while chi-square tests of proportions[44] were performed for H1 only. Results using these t-tests and chi-square tests were consistent with the results of testing using the Mann-Whitney U (non-parametric) tests. Therefore,

[44] As chi-square tests are performed only on categorical variables, the continuous variables (questions C5 to C15) are split into two groups. To achieve this, distributions of the responses were examined for the eleven questions and groups formed on the basis of where the most obvious split should be made. Decisions on where to "split" the samples were readily made based on observations of the distributions. For example, for all of the questions pertaining to management responsibilities (where "0 = Management Solely" was the correct answer), the categorical groups were formed as follows: Group One – all respondents who answered 0 or 1; Group Two – all respondents who answered 2 to 10 (inclusive).

only the results for Mann-Whitney U (non-parametric) tests will be reported and discussed.

Non-parametric tests such as the Mann-Whitney U test "tend to be less sensitive" (Pallant, 2005, p. 286) than parametric tests and "therefore fail to detect differences between groups that actually exist" (Pallant, 2005, p. 286). It is a tougher statistical test to identify significant differences as it is not considered as powerful as parametric testing (Siegel and Castellan Jr, 1988; Pallant, 2005). Therefore, differences at the 10% level (2-tailed) will be described in this Chapter as significant differences.

Overall Current Wording and Overall Proposed Wording (H1)

Hypotheses 1 posits that proposed wording changes to the audit report will move users' perceptions of management's and auditor's responsibilities towards the intended messages of standard-setters. That is, as the audit report moves from the overall current wording to the overall proposed wording, users' perceptions will move towards the "correct" answers for management's and auditor's responsibilities, as prescribed by the IAASB.

Table 4.9 shows the results of testing of Hypothesis 1. It shows that for each of the questions pertaining to management's responsibilities (Questions C6 to C10), the proposed wording moved respondents towards the correct answer. This is true also of the question relating to the judgement exercised by the auditor in the selection of audit procedures (Question C12).

However, none of these movements was significant. The table highlights that the proposed wording changes had no significant impact on any of the perceptions of audit report users examined in this study. The hypothesis is therefore not supported.

Table 4.9: Impact on Perceptions of <u>Overall Proposed Wording Changes</u> to the Audit Report

Question (The "correct" answer – expected by standard-setters – is in bold italics under the question. Where neither answer is bolded, it indicates that there is no "correct" answer, but is subject to the opinion of the respondent)	**Current vs Proposed Wording**
C5: To what extent does the audit cover the information contained in the notes related to the financial statements? *(0 = Does not cover any information in any of the related notes;* ***10 = Covers all the information in all of the related notes****)*	4.09 v 3.79 (p = 0.609)
C6: Who is responsible for the information prepared and presented in the financial statements? *(**0 = Management solely**; 10 = Auditor solely)*	1.75 v 1.68 (p = 0.728)
C7: Who is responsible for the development and maintenance of a sound internal control environment? *(**0 = Management solely**; 10 = Auditor solely)*	1.63 v 1.29 (p = 0.285)
C8: Who is responsible for preventing and detecting fraud? *(**0 = Management solely**; 10 = Auditor solely)*	4.41 v 4.03 (p = 0.281)
C9: Who is responsible for selecting and applying relevant accounting policies? *(**0 = Management solely**; 10 = Auditor solely)*	3.01 v 2.73 (p = 0.418)
C10: Who is responsible for making necessary accounting estimates? *(**0 = Management solely**; 10 = Auditor solely)*	2.09 v 1.91 (p = 0.967)
C11: How clear is the extent of work undertaken by the auditor in arriving at the opinion? *(0 = Totally unclear; 10 = Extremely clear)*	3.30 v 3.47 (p = 0.454)
C12: How much judgement does the auditor exercise in the selection of audit procedures? *(0 = No judgement in respect to any procedures;* ***10 = Judgement exercised in all procedures****)*	5.57 v 6.27 (p = 0.116)
C13: How much assurance does the auditor provide that the financial statements are free from material misstatement? *(0 = No assurance; 10 = Absolute assurance)*	4.33 v 3.95 (p = 0318)
C14: How independent of the company is the auditor? *(0 = Not at all independent;* ***10 = Totally independent****)*	6.38 v 6.21 (p = 0.995)
C15: Given the audit report, how credible is the information provided? *(0 = No credibility; 10 = Totally credible)*	4.46 v 4.21 (p = 0.501)

**** Significant at the 5% level (2-tailed) } Using Mann-Whitney U tests**
*** Significant at the 10% level (2-tailed) }**

Current Wording and Proposed Wording of Management's Responsibilities (H1a)

Table 4.10 reports the results of the testing of Hypothesis 1a, which proposes that the proposed wording changes of management's responsibilities contained in the proposed audit report will move users' perceptions of management's and auditor's responsibilities towards the intended messages of standard-setters.

Table 4.10: Impact on Perceptions of Proposed Wording Changes to <u>Management's Responsibilities Section</u> of the Audit Report

Question (The "correct" answer – expected by standard-setters – is in bold italics under the question. Where neither answer is bolded, it indicates that there is no "correct" answer, but is subject to the opinion of the respondent)	**Current vs Proposed Wording**
C5: To what extent does the audit cover the information contained in the notes related to the financial statements? *(0 = Does not cover any information in any of the related notes;* ***10 = Covers all the information in all of the related notes****)*	4.06 v 3.81 (p = 0.665)
C6: Who is responsible for the information prepared and presented in the financial statements? *(**0 = Management solely**; 10 = Auditor solely)*	1.75 v 1.87 (p = 0.585)
C7: Who is responsible for the development and maintenance of a sound internal control environment? *(**0 = Management solely**; 10 = Auditor solely)*	1.61 v 1.50 (p = 0.854)
C8: Who is responsible for preventing and detecting fraud? *(**0 = Management solely**; 10 = Auditor solely)*	4.39 v 3.98 (p = 0.175)
C9: Who is responsible for selecting and applying relevant accounting policies? *(**0 = Management solely**; 10 = Auditor solely)*	2.90 v 2.84 (p = 0.723)
C10: Who is responsible for making necessary accounting estimates? *(**0 = Management solely**; 10 = Auditor solely)*	2.14 v 2.04 (p = 0.971)
C11: How clear is the extent of work undertaken by the auditor in arriving at the opinion? *(0 = Totally unclear; 10 = Extremely clear)*	3.52 v 3.36 (p = 0.713)
C12: How much judgement does the auditor exercise in the selection of audit procedures? *(0 = No judgement in respect to any procedures;* ***10 = Judgement exercised in all procedures****)*	5.83 v 6.18 (p = 0.298)
C13: How much assurance does the auditor provide that the financial statements are free from material misstatement? *(0 = No assurance; 10 = Absolute assurance)*	4.15 v 4.02 (p = 0.657)
C14: How independent of the company is the auditor? *(0 = Not at all independent;* ***10 = Totally independent****)*	6.39 v 6.30 (p = 0.925)
C15: Given the audit report, how credible is the information provided? *(0 = No credibility; 10 = Totally credible)*	4.54 v 4.45 (p = 0.675)

**** Significant at the 5% level (2-tailed) } Using Mann-Whitney U tests**
*** Significant at the 10% level (2-tailed) }**

In testing this hypothesis, the results of the first two columns of Table 4.8 are combined and compared with the aggregated results of the third and fourth columns of the table. Table 4.10 shows that for four of the five questions relating to management's responsibilities (Question C7 to C10), the proposed wording changes to the management's responsibilities section of the audit report moved respondents towards the correct answer. Furthermore, respondents moved in the correct direction for the question pertaining to the extent of judgement exercised by the auditor in the selection of audit procedures (Question C12).

However, similar to the results for Hypothesis 1, these movements in the correct direction are not significant. Table 4.10 shows that the proposed wording changes to the management's responsibilities section of the audit report have no significant impact on report users' perceptions for any of the eleven questions. Therefore, Hypothesis 1a is not supported.

Current Wording and Proposed Wording of Auditor's Responsibilities (H1b)

Hypothesis 1b posits that the proposed wording changes of the auditor's responsibilities contained in the proposed audit report will move users' perceptions of management's and auditor's responsibilities towards the intended messages of standard-setters. In testing this hypothesis, the results of the first and third columns of Table 4.8 are combined and compared with the aggregated results of the second and fourth columns of the table.

The results of testing of this hypothesis are shown in Table 4.11 (on the following page) and which indicate that the hypothesis is not supported. There are no significant differences reported for any of the eleven questions being examined in this study.

Inclusion of a Separately Headed "Independence" Section (H1c)

The impact that the inclusion of a separately headed "Independence" section in the audit report has on users' perceptions is tested in Hypothesis 1c. In a similar vein to the previous hypotheses, the inclusion of the "Independence" section is expected to move users towards the "correct" answers prescribed by the IAASB in terms of management's and auditor's responsibilities. Furthermore, it is expected that report users would perceive the auditor to be significantly more independent when the "Independence" section is included.

Table 4.11: Impact on Perceptions of Proposed Wording Changes to Auditor's Responsibilities Section of the Audit Report

Question (The "correct" answer – expected by standard-setters – is in bold italics under the question. Where neither answer is bolded, it indicates that there is no "correct" answer, but is subject to the opinion of the respondent)	**Current vs Proposed Wording**
C5: To what extent does the audit cover the information contained in the notes related to the financial statements? *(0 = Does not cover any information in any of the related notes;* ***10 = Covers all the information in all of the related notes****)*	3.97 v 3.90 (p = 0.752)
C6: Who is responsible for the information prepared and presented in the financial statements? *(**0 = Management solely**; 10 = Auditor solely)*	1.90 v 1.72 (p = 0.994)
C7: Who is responsible for the development and maintenance of a sound internal control environment? *(**0 = Management solely**; 10 = Auditor solely)*	1.67 v 1.42 (p = 0.181)
C8: Who is responsible for preventing and detecting fraud? *(**0 = Management solely**; 10 = Auditor solely)*	4.20 v 4.18 (p = 0.910)
C9: Who is responsible for selecting and applying relevant accounting policies? *(**0 = Management solely**; 10 = Auditor solely)*	2.98 v 2.73 (p = 0.434)
C10: Who is responsible for making necessary accounting estimates? *(**0 = Management solely**; 10 = Auditor solely)*	2.13 v 2.05 (p = 0.957)
C11: How clear is the extent of work undertaken by the auditor in arriving at the opinion? *(0 = Totally unclear; 10 = Extremely clear)*	3.28 v 3.63 (p = 0.182)
C12: How much judgement does the auditor exercise in the selection of audit procedures? *(0 = No judgement in respect to any procedures;* ***10 = Judgement exercised in all procedures****)*	5.80 v 6.22 (p = 0.225)
C13: How much assurance does the auditor provide that the financial statements are free from material misstatement? *(0 = No assurance; 10 = Absolute assurance)*	4.22 v 4.42 (p = 0.311)
C14: How independent of the company is the auditor? *(0 = Not at all independent;* ***10 = Totally independent****)*	6.38 v 6.30 (p = 0.878)
C15: Given the audit report, how credible is the information provided? *(0 = No credibility; 10 = Totally credible)*	4.57 v 4.42 (p = 0.679)

**** Significant at the 5% level (2-tailed) } Using Mann-Whitney U tests**
*** Significant at the 10% level (2-tailed) }**

In testing this hypothesis, the results of the fourth column of Table 4.8 are compared with the results of the column headed "Independence". The inclusion of the "Independence" section results in two significant differences (vis-à-vis participants receiving an audit report without the separately headed "Independence" section) across the eleven questions pertaining to the perceptions of users (refer Table 4.12). It causes respondents to perceive significantly more strongly ($p = 0.080$; 2-tailed) that the coverage of the audit report extends to the notes to the financial statements

(Question C5). Furthermore, they perceive management to be responsible for the prevention and detection of fraud to a significantly greater extent (p = 0.052; 2-tailed) than respondents who receive an audit report without the separately headed "Independence" section (Question C8).

Table 4.12: Impact on Perceptions of Inclusion of Separately Headed "Independence" Section in the Audit Report

Question (The "correct" answer – expected by standard-setters – is in bold italics under the question. Where neither answer is bolded, it indicates that there is no "correct" answer, but is subject to the opinion of the respondent)	**No Indep. vs Independ Section**
C5: To what extent does the audit cover the information contained in the notes related to the financial statements? *(0 = Does not cover any information in any of the related notes;* ***10 = Covers all the information in all of the related notes****)*	**3.79 v 4.63 (p = 0.080*)**
C6: Who is responsible for the information prepared and presented in the financial statements? *(**0 = Management solely**; 10 = Auditor solely)*	1.68 v 1.45 (p = 0.163)
C7: Who is responsible for the development and maintenance of a sound internal control environment? *(**0 = Management solely**; 10 = Auditor solely)*	1.29 v 1.15 (p = 0.366)
C8: Who is responsible for preventing and detecting fraud? *(**0 = Management solely**; 10 = Auditor solely)*	**4.03 v 3.08 (p = 0.052*)**
C9: Who is responsible for selecting and applying relevant accounting policies? *(**0 = Management solely**; 10 = Auditor solely)*	2.73 v 2.70 (p = 0.668)
C10: Who is responsible for making necessary accounting estimates? *(**0 = Management solely**; 10 = Auditor solely)*	1.91 v 1.95 (p = 0.586)
C11: How clear is the extent of work undertaken by the auditor in arriving at the opinion? *(0 = Totally unclear; 10 = Extremely clear)*	3.47 v 3.87 (p = 0.412)
C12: How much judgement does the auditor exercise in the selection of audit procedures? *(0 = No judgement in respect to any procedures;* ***10 = Judgement exercised in all procedures****)*	6.27 v 6.16 (p = 0.787)
C13: How much assurance does the auditor provide that the financial statements are free from material misstatement? *(0 = No assurance; 10 = Absolute assurance)*	3.95 v 3.88 (p = 0.748)
C14: How independent of the company is the auditor? *(0 = Not at all independent;* ***10 = Totally independent****)*	6.21 v 6.49 (p = 0.676)
C15: Given the audit report, how credible is the information provided? *(0 = No credibility; 10 = Totally credible)*	4.21 v 4.62 (p = 0.311)

**** Significant at the 5% level (2-tailed) } Using Mann-Whitney U tests**
*** Significant at the 10% level (2-tailed) }**

However, it is interesting to note that the inclusion of a separately headed "Independence" section has no significant impact ($p = 0.676$) on users' perceptions of the independence of the auditor (Question C14).

Overall, Hypothesis 1c is not supported.

4.5.3. Other Analyses

The design of the experiment allows for additional analyses to be undertaken which examines one particular characteristic of the audit report and two characteristics of audit report users. In the case of the former, analysis can be undertaken across three different types of audit opinion to determine whether the proposed wording changes have an impact on users' perceptions when a particular type of audit opinion is issued.[45] In the case of the latter, users' familiarity with audit reports and the degree to which they find audit reports understandable can be used to determine whether the proposed wording changes differentially impact users with different "user characteristics". Furthermore, factor analysis is employed to determine whether the responses provide to the eleven perception questions load onto a smaller number of factors, thereby allowing a more focused analysis.

The following three sub-sections of this Chapter deals with each of these analyses separately.

4.5.3.1. Different Types of Opinions

Overall Current Wording and Overall Proposed Wording

Although no hypotheses were developed for the potential impact of wording changes given particular types of audit opinions, Table 4.13 reports the results of analysis of the impact of the overall proposed wording changes on report users' perceptions separately

[45] Analyses of the interaction between wording changes and the different types of audit opinion are described in Section 4.7. Analyses of these interactions are based on developed hypotheses.

for each of the three types of audit opinion used in this study: unqualified opinion; qualified opinion; and unqualified opinion with "emphasis of matter" paragraph.

Table 4.13: Impact on Perceptions of Overall Proposed Wording Changes to the Audit Report Across Three Different Types of Opinion

Question (The "correct" answer – expected by standard-setters – is in bold italics under the question. Where neither answer is bolded, it indicates that there is no "correct" answer, but is subject to the opinion of the respondent)	**Unqualified Opinion** **Current vs Proposed Wording**	**Qualified Opinion** **Current vs Proposed Wording**	**Unqualified "Emphasis of Matter" Opinion** **Current vs Proposed Wording**
C5: To what extent does the audit cover the information contained in the notes related to the financial statements? *(0 = Does not cover any information in any of the related notes;* ***10 = Covers all the information in all of the related notes****)*	3.70 v 2.46 (p = 0.101)	4.00 v 3.96 (p = 0.977)	4.78 v 4.79 (p = 0.787)
C6: Who is responsible for the information prepared and presented in the financial statements? *(****0 = Management solely****; 10 = Auditor solely)*	1.93 v 1.92 (p = 0.865)	1.37 v 1.38 (p = 0.715)	1.87 v 1.72 (p = 0.562)
C7: Who is responsible for the development and maintenance of a sound internal control environment? *(****0 = Management solely****; 10 = Auditor solely)*	1.57 v 1.36 (p = 0.575)	1.78 v 1.21 (p = 0.295)	1.57 v 1.29 (p = 0.878)
C8: Who is responsible for preventing and detecting fraud? *(****0 = Management solely****; 10 = Auditor solely)*	3.64 v 3.84 (p = 0.828)	5.08 v 4.08 (p = 0.180)	4.83 v 4.14 (p = 0.355)
C9: Who is responsible for selecting and applying relevant accounting policies? *(****0 = Management solely****; 10 = Auditor solely)*	2.88 v 3.28 (p = 0.810)	2.93 v 2.38 (p = 0.254)	3.28 v 2.55 (p = 0.677)
C10: Who is responsible for making necessary accounting estimates? *(****0 = Management solely****; 10 = Auditor solely)*	1.93 v 2.20 (p = 0.582)	2.22 v 1.50 (p = 0.468)	2.17 v 2.00 (p = 0.884)
C11: How clear is the extent of work undertaken by the auditor in arriving at the opinion? *(0 = Totally unclear; 10 = Extremely clear)*	2.54 v 3.12 (p = 0.280)	4.22 v 3.63 (p = 0.511)	3.46 v 3.64 (p = 0.773)
C12: How much judgement does the auditor exercise in the selection of audit procedures? *(0 = No judgement in respect to any procedures;* ***10 = Judgement exercised in all procedures****)*	5.16 v 6.00 (p = 0.287)	5.77 v 6.63 (p = 0.309)	5.94 v 6.20 (p = 0.635)
C13: How much assurance does the auditor provide that the financial statements are free from material misstatement? *(0 = No assurance; 10 = Absolute assurance)*	4.33 v 3.84 (p = 0.528)	**4.54 v 3.33** **(p = 0.076*)**	4.13 v 4.59 (p = 0.617)
C14: How independent of the company is the auditor? *(0 = Not at all independent;* ***10 = Totally independent****)*	6.23 v 5.74 (p = 0.592)	6.61 v 6.38 (p = 1.000)	6.35 v 6.50 (p = 0.740)
C15: Given the audit report, how credible is the information provided? *(0 = No credibility; 10 = Totally credible)*	4.26 v 4.04 (p = 0.664)	**4.74 v 3.54** **(p = 0.058*)**	4.44 v 4.93 (p = 0.437)

**** Significant at the 5% level (2-tailed) } Using Mann-Whitney U tests**
*** Significant at the 10% level (2-tailed) }**

There are two questions where respondents receiving an audit report with proposed wording and a qualified opinion have significantly different perceptions than those respondents receiving an audit report with the current wording and a qualified opinion. The former group perceive the level of assurance being provided (Question C13) is significantly less ($p = 0.076$; 2-tailed), and that the credibility of the information (Question C15) is significantly lower ($p = 0.058$; 2-tailed), than the latter group. These movements in perceptions are in the opposite direction to that which would be desired by standard-setters. However, it is acknowledged that statistically, with two-tailed testing of significance at a 90% confidence level across a large number of relationships (in Table 4.13, 33 relationships are being analysed), there is a likelihood that significant differences will arise in at least one in five of these comparisons by chance. The significant differences reported in Table 4.13 must be interpreted in this light.

Current Wording and Proposed Wording of Management's Responsibilities

Table 4.14 reports the results of analysis examining the impact of wording changes for each of the management's responsibilities and auditor's responsibilities sections of the audit report, separately for each of the three different types of audit opinion. The results indicate that the proposed wording changes of the management's responsibilities section of the audit report had no impact on report users' perceptions regardless of the type of opinion that was provided with the audit report.

Current Wording and Proposed Wording of Auditor's Responsibilities

In terms of the wording of the auditor's responsibilities section of the audit report, the proposed wording had the effect of significantly changing report users' perceptions for four of the thirty-three relationships examined (vis-à-vis the current wording of the auditor's responsibilities section) across the three different types of audit opinion. When the audit report includes an unqualified audit opinion, respondents receiving the proposed wording perceived that the extent to which the audit covered the notes to the financial statements (Question C5) was significantly less ($p = 0.004$; 2-tailed) than when the current wording was used. When the audit report includes a qualified audit opinion,

Table 4.14: Impact on Perceptions of Wording Changes to <u>Management's Responsibilities and Auditor's Responsibilities Sections</u> of the Audit Report Across Three Different Types of Opinion

Question (The "correct" answer – expected by standard-setters – is in bold italics under the question. Where neither answer is bolded, it indicates that there is no "correct" answer, but is subject to the opinion of the respondent)	Management Responsibilities			Auditor Responsibilities		
	Unqualified Current v Proposed (p value)	Qualified Current v Proposed (p value)	Emphasis of Matter Current v Proposed (p value)	Unqualified Current v Proposed (p value)	Qualified Current v Proposed (p value)	Emphasis of Matter Current v Proposed (p value)
C5: To what extent does the audit cover the information contained in the notes related to the financial statements? *(0 = Does not cover any information in any of the related notes; **10 = Covers all the information in all of the related notes**)*	3.12 v 3.13 (0.742)	4.50 v 3.86 (0.360)	4.84 v 4.27 (0.370)	**3.77 v 2.33** **(0.004**)**	3.88 v 4.50 (0.375)	4.24 v 4.84 (0.167)
C6: Who is responsible for the information prepared and presented in the financial statements? *(**0 = Management solely**; 10 = Auditor solely)*	1.95 v 1.87 (0.392)	1.33 v 1.82 (0.200)	1.86 v 1.92 (0.487)	1.89 v 1.96 (0.575)	1.79 v 1.33 (0.472)	1.99 v 1.79 (0.964)
C7: Who is responsible for the development and maintenance of a sound internal control environment? *(**0 = Management solely**; 10 = Auditor solely)*	1.74 v 1.52 (0.677)	1.70 v 1.62 (0.872)	1.40 v 1.39 (0.709)	1.62 v 1.68 (0.707)	1.91 v 1.35 (0.175)	1.52 v 1.26 (0.539)
C8: Who is responsible for preventing and detecting fraud? *(**0 = Management solely**; 10 = Auditor solely)*	4.02 v 3.96 (0.849)	4.88 v 4.13 (0.220)	4.42 v 3.89 (0.333)	3.80 v 4.22 (0.429)	4.67 v 4.28 (0.501)	4.20 v 4.07 (0.839)
C9: Who is responsible for selecting and applying relevant accounting policies? *(**0 = Management solely**; 10 = Auditor solely)*	3.03 v 3.09 (0.674)	3.05 v 2.86 (0.575)	2.62 v 2.63 (0.542)	2.87 v 3.28 (0.464)	3.13 v 2.73 (0.324)	2.97 v 2.27 (0.316)
C10: Who is responsible for making necessary accounting estimates? *(**0 = Management solely**; 10 = Auditor solely)*	2.16 v 2.46 (0.924)	2.40 v 1.89 (0.762)	1.92 v 1.84 (0.618)	2.23 v 2.36 (0.396)	2.27 v 1.98 (0.454)	1.91 v 1.83 (0.796)
C11: How clear is the extent of work undertaken by the auditor in arriving at the opinion? *(0 = Totally unclear; 10 = Extremely clear)*	2.77 v 3.24 (0.311)	4.21 v 3.63 (0.392)	3.84 v 3.25 (0.246)	2.84 v 3.12 (0.451)	3.97 v 3.85 (0.886)	3.17 v 3.93 (0.113)
C12: How much judgement does the auditor exercise in the selection of audit procedures? *(0 = No judgement in respect to any procedures; **10 = Judgement exercised in all procedures**)*	5.28 v 5.93 (0.222)	6.31 v 6.63 (0.748)	6.09 v 6.03 (0.953)	5.40 v 5.73 (0.678)	6.16 v 6.83 (0.224)	5.91 v 6.21 (0.520)
C13: How much assurance does the auditor provide that the financial statements are free from material misstatement? *(0 = No assurance; 10 = Absolute assurance)*	3.96 v 4.22 (0.733)	4.45 v 3.82 (0.261)	4.12 v 4.02 (0.953)	4.45 v 3.61 (0.168)	4.45 v 3.73 (0.151)	3.81 v 4.35 (0.382)
C14: How independent of the company is the auditor? *(0 = Not at all independent; **10 = Totally independent**)*	6.02 v 6.02 (0.945)	6.29 v 6.72 (0.430)	6.88 v 6.16 (0.274)	6.28 v 5.73 (0.457)	6.85 v 6.15 (0.445)	**6.09 v 6.94** **(0.090*)**
C15: Given the audit report, how credible is the information provided? *(0 = No credibility; 10 = Totally credible)*	4.04 v 4.28 (0.585)	4.60 v 4.49 (0.631)	5.07 v 4.56 (0.286)	4.37 v 3.88 (0.228)	**5.09 v 3.88** **(0.030**)**	**4.33 v 5.29** **(0.029**)**

**** Significant at the 5% level (2-tailed) } Using Mann-Whitney U tests**
*** Significant at the 10% level (2-tailed) }**

report users perceive that the information provided is significantly less credible (Question 15; $p = 0.030$; 2-tailed) for the proposed wording. Finally, when an unqualified opinion with "emphasis of matter" paragraph is provided, report users perceive the auditor to be significantly more independent (Question C14; $p = 0.090$; 2-tailed) and perceive the information to be significantly more credible (Question C15; $p = 0.029$; 2-tailed) when the proposed wording is provided (vis-à-vis the current wording).

Although the results for the unqualified opinion with "emphasis of matter" paragraph are encouraging, these few inconsistent significant results are difficult to interpret as meaningful. As noted in the preceding sub-section of this Chapter it is likely that significant differences will arise in at least one in five comparisons by chance, when two-tailed testing of significance at a 90% level of confidence is employed across a large number of relationships.

Inclusion of a Separately Headed "Independence" Section

Analysis of the impact on users' perceptions of the inclusion of a separately headed "Independence" section in the audit report, for different types of audit opinions, is reported in Table 4.15. Results show significant differences for six of the thirty three relationships examined. While encouraging, the occurrence of differences across the different types of opinions for different questions impairs the meaningful interpretation of the results. The one suggestive result relates to the responsibility for the prevention and detection of fraud, whereby it seems that highlighting the independence of the auditor may have some effect on report users' perceptions about this responsibility. The significant movement towards management as the party responsible for the prevention and direction of fraud is evident for two of the three types of opinion, and in the correct direction for the third.

Three of the six reported differences occur when an unqualified audit opinion is issued with the audit report. Table 4.15 shows that for this type of audit opinion, respondents receiving an audit report with a separately headed "Independence" section perceive that the extent to which the audit covers the notes to the financial statements (Question C5) is significantly greater ($p = 0.009$; 2-tailed) than when no "Independence" section is included. As would be expected, the inclusion of a separately headed "Independence" section causes report users to move significantly in the "correct" direction in terms of

Table 4.15: Impact on Perceptions of <u>Inclusion of Separately Headed "Independence" Section</u> in the Audit Report Across Three Different Types of Opinion

Question (The "correct" answer – expected by standard-setters – is in bold italics under the question. Where neither answer is bolded, it indicates that there is no "correct" answer, but is subject to the opinion of the respondent)	**Unqualified Opinion** **No Indep. v Independ. Section**	**Qualified Opinion** **No Indep. v Independ. Section**	**Unqualified "Emphasis of Matter" Opinion** **No Indep. v Independ. Section**
C5: To what extent does the audit cover the information contained in the notes related to the financial statements? *(0 = Does not cover any information in any of the related notes;* ***10 = Covers all the information in all of the related notes****)*	**2.46 v 4.68** **(p = 0.009**)**	3.96 v 4.17 (p = 0.792)	4.79 v 5.14 (p = 0.790)
C6: Who is responsible for the information prepared and presented in the financial statements? *(****0 = Management solely****; 10 = Auditor solely)*	1.92 v 1.97 (p = 0.845)	**1.38 v 1.05** **(p = 0.061*)**	1.72 v 1.50 (p = 0.589)
C7: Who is responsible for the development and maintenance of a sound internal control environment? *(****0 = Management solely****; 10 = Auditor solely)*	1.36 v 1.20 (p = 0.876)	1.21 v 0.88 (p = 0.141)	1.29 v 1.45 (p = 0.835)
C8: Who is responsible for preventing and detecting fraud? *(****0 = Management solely****; 10 = Auditor solely)*	**3.84 v 2.30** **(p = 0.050**)**	4.08 v 3.98 (p = 0.993)	**4.14 v 2.60** **(p = 0.051*)**
C9: Who is responsible for selecting and applying relevant accounting policies? *(****0 = Management solely****; 10 = Auditor solely)*	**3.28 v 1.80** **(p = 0.093*)**	2.38 v 2.69 (p = 0.817)	2.55 v 3.57 (p = 0.431)
C10: Who is responsible for making necessary accounting estimates? *(****0 = Management solely****; 10 = Auditor solely)*	2.20 v 1.53 (p = 0.355)	1.50 v 1.27 (p = 0.390)	2.00 v 3.24 (p = 0.280)
C11: How clear is the extent of work undertaken by the auditor in arriving at the opinion? *(0 = Totally unclear; 10 = Extremely clear)*	3.12 v 3.32 (p = 0.933)	3.63 v 4.35 (p = 0.332)	3.64 v 3.74 (p = 0.846)
C12: How much judgement does the auditor exercise in the selection of audit procedures? *(0 = No judgement in respect to any procedures;* ***10 = Judgement exercised in all procedures****)*	6.00 v 5.50 (p = 0.592)	6.63 v 6.70 (p = 0.832)	6.20 v 6.12 (p = 0.976)
C13: How much assurance does the auditor provide that the financial statements are free from material misstatement? *(0 = No assurance; 10 = Absolute assurance)*	3.84 v 3.75 (p = 0.755)	3.33 v 4.06 (p = 0.317)	4.59 v 3.79 (p = 0.354)
C14: How independent of the company is the auditor? *(0 = Not at all independent;* ***10 = Totally independent****)*	5.74 v 6.26 (p = 0.472)	6.38 v 7.35 (p = 0.410)	6.50 v 5.53 (p = 0.166)
C15: Given the audit report, how credible is the information provided? *(0 = No credibility; 10 = Totally credible)*	4.04 v 4.25 (p = 0.710)	**3.54 v 4.84** **(p = 0.039**)**	4.93 v 4.69 (p = 0.783)

**** Significant at the 5% level (2-tailed) } Using Mann-Whitney U tests**
*** Significant at the 10% level (2-tailed) }**

two of management's responsibilities. They are in relation to the responsibility for the prevention and detection of fraud (Question C8; p = 0.050; 2-tailed) and the responsibility for the selection and application of relevant accounting policies (Question C9; p = 0.093; 2-tailed).

For a qualified opinion, significant differences arise for two different questions; one of which relates to a management responsibility; and the other of which relates to the perceived credibility of the information provided. Respondents receiving an audit report with a separately headed "Independence" section perceive significantly more strongly (p = 0.061) that management is responsible for the preparation and presentation of the financial statements (Question C6), than respondents receiving an audit report without a separate "Independence" section. As well, the former group perceive the information provided to be significantly more credible (Question C15; p = 0.039; 2-tailed). Finally, with the unqualified opinion with "emphasis of matter" paragraph, the inclusion of a separately headed "Independence" section causes report users to move significantly in the "correct" direction in terms of recognising management's responsibility for the prevention and detection of fraud (Question C8; p = 0.051; 2-tailed).

Importantly, for none of the three audit opinions does the inclusion of a separately headed "Independence" section in the audit report cause respondents to perceive the auditor to be significantly more independent of the company.

4.5.3.2. Impact of User Characteristics: Familiarity and Understanding

The impact that wording changes and report users' characteristics have on users' perceptions is also examined. The two characteristics examined relate to the two demographic questions which ask respondents to identify the degree to which they are familiar with audit reports, and the extent to which they believe the audit report is understandable. Respondents present their assessments on an 11-point scale, ranging from "0" ("Not at all familiar"/"Not at all easy to understand") to "10" ("Very familiar"/"Very easy to understand"). The mean responses for these two questions, for all respondents, are 4.62 and 4.64 respectively (refer Table 4.5). Therefore, by splitting the sample at the mean, a "High" group of the sample is defined as those respondents who mark a response between "5" and "10" inclusive. The "Low" group represents those respondents who indicate responses between "0" and "4" inclusive. Partitioning along these lines results in the sample being split nearly equally into two halves. Splitting the sample of respondents on the basis of familiarity with audit report, and the extent to which they find audit reports understandable, is justified as it can be argued that proposed wording changes aimed at enhancing communications with shareholders is specifically aimed at those in the "Low" group for each of these two characteristics.

Table 4.16 shows that the mean response for the "High" Familiarity group is 6.84 and for the "Low" Familiarity group is 2.39, with sample sizes of 191 and 189 respectively. This indicates a wide distribution of self-rated familiarity with audit reports amongst respondents. It shows that responses are not clustered around the mean for the entire sample. Similarly, in term of the extent to which report users find the audit report understandable, the "High" group mean is 6.65, and comprises 191 respondents, while the "Low" group mean is 2.51, with 180 respondents. In a similar manner to the question on familiarity, these results indicate that the responses provided are not clustered around the mean and that a wide distribution of responses was received. The wide distribution of responses is an important factor to consider when analysing differences in perceptions between the two sub-samples. Differences that arise can therefore be attributed to the differences between respondents on the basis of these characteristics.

Table 4.16: Descriptive Statistics for Respondents' Characteristics – "High" and "Low" Familiarity and Understanding^

	"High" Group	**"Low" Group**	**Total***
Familiarity (Degree to which respondents are familiar with audit reports)	6.84 (n = 191)	2.39 (n = 189)	4.62 (n = 380)
Understanding (Extent to which respondents believe audit report is understandable)	6.65 (n = 191)	2.51 (n = 180)	4.64 (n = 371)

***** **As all respondents did not answer all questions, the total number does not equal 383 (the total number of usable responses) for these two questions**

^ **Correlation between familiarity and understanding is high (Pearson correlation co-efficient = 0.493 for entire sample; 0.527 for sample excluding audit reports with a separately headed "Independence" section)**

Before examining the interactive effect of these “High” and “Low” characteristic groups and the proposed wording changes, it is useful to examine the descriptive statistics and analyse the differences between the “High” and “Low groups for all respondents. Respondents’ levels of familiarity with the audit report, and the extent to which they find the audit report understandable, appear to be very important in shaping users’ perceptions. While there is only one difference between the “High” and “Low” groups for either characteristic, in relation to the questions pertaining to management’s responsibilities, there are significant differences between the two groups, for both characteristics, for all other questions (refer Table 4.17).

Where respondents are more familiar with the audit report (i.e., the “High” group), and find the audit report to be more understandable (i.e., the “High” group), they believe that the level of assurance provided by the auditor is higher (Question C13; $p = 0.000$; 2-tailed for both characteristics) and that the auditor has exercised a greater degree of judgement in selecting auditing procedures (Question C12; $p = 0.005$ and 0.000; 2-tailed for familiarity and understanding respectively). Furthermore, the extent of work undertaken by the auditor is clearer (Question C11; $p = 0.000$; 2-tailed for both characteristics). Together, these questions effectively represent the auditor’s responsibilities in the auditing process. The “High” group sample also perceive the auditor to be more independent (Question C14; $p = 0.000$; 2-tailed for both characteristics) and the information provided to be more credible (Question C15; $p = 0.000$; 2-tailed for both characteristics).

Furthermore, greater familiarity with the audit report, and a greater extent to which the audit report is believed to be understandable, is associated with users perceiving to a significantly greater degree that the audit covers the notes to the financial statements (Question C5 $p = 0.018$ and 0.000; 2-tailed for familiarity and understanding respectively). Finally, respondents with a higher level of familiarity with the audit report perceive to a significantly greater extent that management is responsible for the prevention and detections of fraud (Question C8; $p = 0.075$; 2-tailed). These results suggest the importance of taking into account users’ characteristics when analysing their perceptions about changes to the wording of the audit report, and ultimately in attempting to reduce the expectations gap.

Table 4.17: Descriptive Results – Perceptions – Differences between Respondents' Characteristics: "High" and "Low" Familiarity and Understanding for All Respondents

Question (The "correct" answer – expected by standard-setters – is in bold italics under the question. Where neither answer is bolded, it indicates that there is no "correct" answer, but is subject to the opinion of the respondent)	**Familiarity**[1] **Low v High** (p value)	**Understanding**[2] **Low v High** (p value)
C5: To what extent does the audit cover the information contained in the notes related to the financial statements? *(0 = Does not cover any information in any of the related notes; **10 = Covers all the information in all of the related notes**)*	**3.46 v 4.34 (0.018**)**	**3.34 v 4.46 (0.000**)**
C6: Who is responsible for the information prepared and presented in the financial statements? *(**0 = Management solely**; 10 = Auditor solely)*	1.92 v 1.71 (0.687)	2.00 v 1.65 (0.199)
C7: Who is responsible for the development and maintenance of a sound internal control environment? *(**0 = Management solely**; 10 = Auditor solely)*	1.54 v 1.53 (0.645)	1.42 v 1.63 (0.351)
C8: Who is responsible for preventing and detecting fraud? *(**0 = Management solely**; 10 = Auditor solely)*	**4.36 v 3.97 (0.075*)**	4.39 v 4.00 (0.330)
C9: Who is responsible for selecting and applying relevant accounting policies? *(**0 = Management solely**; 10 = Auditor solely)*	2.84 v 2.83 (0.939)	2.71 v 3.00 (0.430)
C10: Who is responsible for making necessary accounting estimates? *(**0 = Management solely**; 10 = Auditor solely)*	2.09 v 2.02 (0.723)	2.12 v 2.00 (0.510)
C11: How clear is the extent of work undertaken by the auditor in arriving at the opinion? *(0 = Totally unclear; 10 = Extremely clear)*	**2.90 v 3.94 (0.000**)**	**2.68 v 4.22 (0.000**)**
C12: How much judgement does the auditor exercise in the selection of audit procedures? *(0 = No judgement in respect to any procedures; **10 = Judgement exercised in all procedures**)*	**5.39 v 6.44 (0.005**)**	**5.13 v 6.63 (0.000**)**
C13: How much assurance does the auditor provide that the financial statements are free from material misstatement? *(0 = No assurance; 10 = Absolute assurance)*	**3.44 v 4.59 (0.000**)**	**3.19 v 4.80 (0.000**)**
C14: How independent of the company is the auditor? *(0 = Not at all independent; **10 = Totally independent**)*	**5.53 v 6.99 (0.000**)**	**5.43 v 7.07 (0.000**)**
C15: Given the audit report, how credible is the information provided? *(0 = No credibility; 10 = Totally credible)*	**4.02 v 4.87 (0.000**)**	**3.62 v 5.27 (0.000**)**

**** Significant at the 5% level (2-tailed) } Using Mann-Whitney U tests**
*** Significant at the 10% level (2-tailed) }**
1 Familiarity: Degree to which respondents are familiar with audit reports
2 Understanding: Extent to which respondents believe audit report is understandable

Interactive Effect of Wording Changes and Users' Characteristics

Table 4.18 describes results of analysis of the interactive effects of different levels of user characteristics and overall changes to the wording of the audit report. The first section of the table reports the results of the analysis using the familiarity characteristic, while the second section of the table uses the understanding characteristic.[46] Given the high level of correlation between these two variables (refer Table 4.16) it is not surprising that the results of the analysis for each of the two characteristics are very similar. This table reports only the results of ANOVA, and does not separately report the descriptive means.[47]

Results (not reported separately) suggest that for the proposed wording changes to each of the management's and auditor's responsibilities sections of the audit report, there are significant main effects for the each of the characteristics in all questions other than those which relate specifically to management's responsibilities. That is, there are significant differences for Questions C5 and Questions C11 through C15 inclusive. These differences are consistent with the differences previously discussed and described in Table 4.17. However, the impact on perceptions of differences users' characteristics is not as strong when the overall wording changes are analysed.

The major area of interest in this analysis however, is the interaction between the variables of interest. Table 4.18 indicates that there is a strong interactive effect for only one of the eleven questions for the familiarity characteristic: Question C8, which relates to the responsibility for the prevention and detection of fraud. In terms of the overall wording changes and each of the two responsibilities sections, the proposed wording moved report users' perceptions towards believing that management was responsible for the prevention and detection of fraud, for those with a "High" level of familiarity with audit reports. For those with a "Low" familiarity with audit reports, the movement was towards believing auditors were responsible. This interaction is difficult to explain and is somewhat counter-intuitive. One could have expected that for audit report users with a lower level of familiarity, the enhanced wording of responsibilities would have a greater "positive" impact (i.e., move them towards the "correct" answer in terms of the responsibility) than for those report users who have a higher level of familiarity.

[46] The interactive effects of users' characteristics and the inclusion of a separately headed "Independence" section are not analysed and discussed in this thesis.

[47] It was decided not to report the descriptive means in these tables, given (i) that these analyses do not form part of hypotheses testing; (ii) the large amount of information already provided in the tables; and (iii) the focus of the analysis – i.e., determining the existence of any interactions between the two variables. Descriptive means are however, discussed in the body of the thesis, where appropriate.

Table 4.18: Impact on Perceptions of Proposed Wording Changes and Differences between Respondents' Characteristics: "High" and "Low" Familiarity (Degree to which respondents are familiar with audit reports) and Understanding (Extent to which respondents believe the audit report is understandable) – Results of ANOVA (p values)

Question (The "correct" answer – expected by standard-setters – is in bold italics under the question. Where neither answer is bolded, it indicates that there is no "correct" answer, but is subject to the opinion of the respondent)	**Overall Wording** Current vs Proposed High vs Low **Familiarity**			**Overall Wording** Current vs Proposed High vs Low **Understanding**		
	Wording	Familiarity	Wording x Familiarity	Wording	Understand	Wording x Understand
C5: To what extent does the audit cover the information contained in the notes related to the financial statements? *(0 = Does not cover any information in any of the related notes; **10 = Covers all the information in all of the related notes**)*	0.496	0.768	0.997	0.437	0.197	0.825
C6: Who is responsible for the information prepared and presented in the financial statements? *(**0 = Management solely**; 10 = Auditor solely)*	0.799	0.519	0.916	0.932	0.961	0.767
C7: Who is responsible for the development and maintenance of a sound internal control environment? *(**0 = Management solely**; 10 = Auditor solely)*	0.160	0.232	0.413	0.213	0.150	0.291
C8: Who is responsible for preventing and detecting fraud? *(**0 = Management solely**; 10 = Auditor solely)*	0.404	0.173	**0.000****	0.280	0.336	0.202
C9: Who is responsible for selecting and applying relevant accounting policies? *(**0 = Management solely**; 10 = Auditor solely)*	0.500	0.865	0.169	0.602	**0.079***	0.666
C10: Who is responsible for making necessary accounting estimates? *(**0 = Management solely**; 10 = Auditor solely)*	0.588	0.377	0.622	0.743	0.615	0.799
C11: How clear is the extent of work undertaken by the auditor in arriving at the opinion? *(0 = Totally unclear; 10 = Extremely clear)*	0.781	**0.084***	0.538	0.702	**0.000****	0.589
C12: How much judgement does the auditor exercise in the selection of audit procedures? *(0 = No judgement in respect to any procedures; **10 = Judgement exercised in all procedures**)*	0.186	**0.038****	0.898	00134	**0.001****	0.081
C13: How much assurance does the auditor provide that the financial statements are free from material misstatement? *(0 = No assurance; 10 = Absolute assurance)*	0.330	0.138	0.378	0.469	**0.000****	**0.099***
C14: How independent of the company is the auditor? *(0 = Not at all independent; **10 = Totally independent**)*	0.570	**0.008****	0.419	0.794	**0.010****	**0.092***
C15: Given the audit report, how credible is the information provided? *(0 = No credibility; 10 = Totally credible)*	0.468	0.354	0.633	0.609	**0.000****	**0.060***

**** Significant at the 5% level (2-tailed) } Using ANOVA**
*** Significant at the 10% level (2-tailed) }**

For the understanding characteristic, there are three questions for which a significant interaction is reported. They relate to the level of assurance provided by the auditor (Question C13), the independence of the auditor (Question C14) and the perceived credibility of the information provided (Question C15). For the first question, the proposed wording changes affect the perceptions of the respondents in the "High" understanding group such that they believe a higher level of assurance is provided, while for those in the "Low" understanding group the opposite effect is evident. Similarly, the proposed wording changes affect the perceptions of the respondents in the "High" understanding group such that they believe the auditor to be more independent, while for those in the "Low" understanding group the opposite effect is again evident. Finally, for the question relating to the credibility of the information, those in the "High" understanding group are impacted by the proposed wording changes in a manner which saw them perceive the information provide to be more credible. For those in the "Low" understanding group, the proposed wording changes had the opposite effect. Again, these results are counter-intuitive to the argument that proposed wording changes would primarily assist those in the "Low" understanding group. That is, proposed wording changes have the desired impact on these two perceptions for those who believe that the audit report is more understandable. It suggests that work may need to be considered by standard-setters to make the audit report more understandable for report users.

Overall, these results are inconclusive in terms of a definitive interpretation; however the main effects reported for the users' characteristics proffer potential further areas of analysis and investigation (refer discussion at Section 4.8).

4.5.3.3. Factor Analysis

Principal components ("factor") analysis was undertaken to determine whether data received from the eleven questions pertaining to users' perceptions could be reduced to a fewer number of variables. Results of this analysis (not reported separately in a table) showed that five of the eleven questions reduced clearly into one component. Not surprisingly, the five questions relating to management's responsibilities (i.e., Questions C6 to C10 inclusive) were identified as belonging to one component.

On the basis of these results, a combined "Management Responsibilities" variable was created from these five questions. Mann-Whitney U tests were performed to determine whether the proposed wording changes had an impact on the perceptions of report users for this combined variable. Results of testing (not reported separately in a table) indicate that there are no significant differences between the proposed and current wording for: (i) the overall wording changes ($p = 0.169$); (ii) the management's responsibilities section of the audit report ($p = 0.200$); or (iii) the auditor's responsibilities section of the audit report ($p = 0.527$).

4.6. Impact of Wording Changes on Investment Decisions (H2)

Examining the impact of wording changes on investment decisions is an important contribution of this study, and one which aims to examine the latter links in the Libby (1979) model of the impact of the audit report on decision-making. This model suggests that it is through the report users' perceptions of the intended message of the auditor that they react and make decisions aimed at receiving an outcome payoff. That is, that changes to decisions will come about as a consequence of changes to those perceptions. Section 4.5 examined the impact of wording changes on the perceptions of report users. This section examines the impacts on investment decision-making.

4.6.1. Descriptive Statistics

As described in Section 4.3.2 of this Chapter, experiment participants are provided with a case scenario that includes selected background information including financial and other information upon which they could base investment decisions.

Table 4.19 details descriptive statistics for the investment decision questions, across all groups. The table shows each of the four investment questions, the number of usable responses and the mean outcomes for each of the main treatment groups.

The results of these groups are analysed when examining Hypotheses 2, 2a, 2b and 2c. Standard deviations are not shown however, analysis suggests that there are no significant differences between the standard deviations within questions, across the different treatment groups. Although not all respondents (i.e., 383 usable responses in total) answered all questions, the numbers reported in Table 4.19 indicate a very high level of response for each of the four questions. There was no evidence provided by respondents to indicate that they found it difficult to provide answers to these investment questions.

While respondents appear to be somewhat ambivalent about the future profit performance of the company (mean score of 4.16 for all respondents on an 11-point scale ranging from “0” to “10”), they are decidedly less enthusiastic about the potential for share price appreciation (mean score of 3.11 for all respondents) Furthermore, they perceive a generally high level of risk associated with the shares (mean score of 7.23 for all respondents), and a hold pessimistic view on the likelihood of the company continuing as a going concern (mean score of 3.73 for all respondents).[48]

It is worth noting that the directional movements in the investment decisions from the current wording to the proposed are as hypothesised. That is, the overall proposed wording changes leads to respondents believing that profit performance will improve, that the potential for share price appreciation is greater, that the company is less risky and the probability of continuing as a going concern is greater. It is also interesting to note the directional movements reported when a separately headed “Independence” section is included in the audit report. When this separate section is included, all but one of the movements are in the opposite direction to those described above (profit performance is not affected directionally).

[48] One might argue that the generally less than favourable outlook indicated by these figures relates to respondents receiving two modified audit reports for every one unqualified report. However, analysis later in this Chapter does not support this argument.

Table 4.19: Investment Decisions – Descriptive Statistics

Question	Current M/ Current A (Groups 1,2,3)		Current M/ Proposed A (Groups 4,5,6)		Proposed M/ Current A (Groups 7,8,9)		Proposed M/ Proposed A (Groups 10,11,12)		**Sub-Total**		Independence (Groups 13,14,15)		**Total**	
	n	Mean	n	Mean	n	Mean	n	Mean	**n**	**Mean**	n	Mean	**n**	**Mean**
B1: Prediction that performance (net profit) will … (0 = Decrease markedly; 10 = Increase markedly)	90	4.17	66	4.01	74	3.79	77	4.42	**307**	**4.10**	67	4.43	**374**	**4.16**
B2: Belief that potential for share price appreciation over next twelve month is … (0 = Extremely low; 10 = Extremely high)	90	2.99	67	3.25	73	3.14	78	3.40	**308**	**3.19**	68	2.74	**376**	**3.11**
B3: Belief that the level of risk associated with the shares is … (0 = Very low; 10 = Very high)	91	7.24	67	7.11	76	7.11	78	7.17	**312**	**7.16**	70	7.50	**382**	**7.23**
B4: Belief that the probability of continuing as a going concern is … (0 = Very low; 10 = Very high)	92	3.59	67	3.59	76	3.80	78	3.92	**313**	**3.72**	70	3.76	**383**	**3.73**

M = Management responsibilities; A = Auditor responsibilities

4.6.2. Testing of Hypotheses

The reliability of the scales used for the questions pertaining to investment decisions was tested. The same tests were applied as those used for the testing of the reliability of the scales for questions relating to perceptions. The Cronbach alpha coefficient for the investment decision questions was 0.660, which is below the indicative value 0.7. Values of greater than 0.7 indicate that the scales are considered reliable for the sample being examined. Testing showed that if Question B3 ("I believe that the level of risk associated with an investment in Astor's shares is (very low/high)") was deleted, the Cronbach alpha coefficient would be 0.773. This implies that the question should be deleted from analysis. However, the results of hypotheses testing using this question are incorporated in this section for information purposes. Therefore, any significant results relating to this question will need to be interpreted with caution.

In the same way that the distributions of responses for perceptions questions were subjected to tests of normality, responses for the investment decisions were likewise tested for normality. Analyses of "normality" were undertaken for all fifteen versions of the research instrument, for the four investment decision questions. 41 of 60 distributions (just over 68 per cent of distributions) appeared to violate the assumption of normality based solely on the Kolmogorov-Smirnov statistic. Reviews of histograms and "de-trended" normal probability plots confirmed this view. Mann-Whitney U (non-parametric) tests are again used in the analyses of hypotheses, although for the purposes of describing results (particularly movements between different versions and treatment groups) all tables depicted in the section will report means.[49]

Overall Current Wording and Overall Proposed Wording (H2)

Hypothesis 2 posits that the proposed overall wording changes to the audit report will positively impact investment decisions, specifically those decisions relating to share

[49] Independent samples t-tests and chi-square tests of proportions are also run, consistent with the tests run for hypotheses relating to perceptions (refer discussion in Section 4.5.2). Similar results to the Mann-Whitney U-tests are also obtained using these other tests. This is a similar outcome to the hypotheses testing for perceptions.

price appreciation and earnings (profit) performance.[50] Table 4.20 shows the results of the testing of this hypothesis. In testing this hypothesis, the results of the first column depicted in table 4.19 are compared with the results of the fourth column in the table.

Although the results are in the direction hypothesised, for none of the four investment questions does the overall proposed wording changes have an impact on the decision-making of report users. Given the lack of results for report users' perceptions, it is not surprising to find that the overall wording changes have no impact on investment decision-making. Hypothesis 2 is therefore not supported.

Table 4.20: Impact on Investment Decisions of <u>Overall Proposed Wording Changes</u> to the Audit Report

Question	Current vs Proposed Wording
B1: Prediction that performance (net profit) will … (0 = Decrease markedly; 10 = Increase markedly)	4.17 v 4.42 (p = 0.485)
B2: Belief that potential for share price appreciation over next twelve month is … (0 = Extremely low; 10 = Extremely high)	2.99 v 3.40 (p = 0.314)
B3: Belief that the level of risk associated with the shares is … (0 = Very low; 10 = Very high)	7.24 v 7.17 (p = 0.936)
B4: Belief that the probability of continuing as a going concern is … (0 = Very low; 10 = Very high)	3.59 v 3.92 (p = 0.418)

**** Significant at the 5% level (2-tailed) } Using Mann-Whitney U tests**
*** Significant at the 10% level (2-tailed) }**

Current Wording and Proposed Wording of Management Responsibilities (H2a)

The enhanced description of management's responsibilities (i.e., the proposed wording) was expected to move users' decision-making towards believing that the growth in profit and the potential for share price appreciation would be greater (Hypothesis 2a). Testing of this hypothesis involves a comparison of the aggregated results of the first two columns of Table 4.19 with the third and fourth columns of that table.

[50] While the hypotheses focus on these two dimensions analysis will cover all four investment questions. This includes the questions concerning the level of risk associated with an investment in the company, and the belief that the company is a going concern.

The results of testing this hypothesis are shown in Table 4.21. The hypothesis is not supported as there are no significant differences reported for any of the four questions.

Table 4.21: Impact on Investment Decisions of Proposed Wording Changes to Management's Responsibilities Section of the Audit Report

Question	Current vs Proposed Wording
B1: Prediction that performance (net profit) will … (0 = Decrease markedly; 10 = Increase markedly)	4.10 v 4.11 (p = 0.940)
B2: Belief that potential for share price appreciation over next twelve month is … (0 = Extremely low; 10 = Extremely high)	3.10 v 3.28 (p = 0.561)
B3: Belief that the level of risk associated with the shares is … (0 = Very low; 10 = Very high)	7.18 v 7.14 (p = 0.708)
B4: Belief that the probability of continuing as a going concern is … (0 = Very low; 10 = Very high)	3.59 v 3.86 (p = 0.301)

**** Significant at the 5% level (2-tailed) } Using Mann-Whitney U tests**
*** Significant at the 10% level (2-tailed) }**

Current Wording and Proposed Wording of Auditor's Responsibilities (H2b)

Table 4.22 reports the results for testing of Hypothesis 2b, which posits that the proposed wording of the auditor's responsibilities section of the audit report would move users' investment decision-making towards believing that the profit performance and share price appreciation will be greater.

Table 4.22: Impact on Investment Decisions of Proposed Wording Changes to Auditor's Responsibilities Section of the Audit Report

Question	Current vs Proposed Wording
B1: Prediction that performance (net profit) will … (0 = Decrease markedly; 10 = Increase markedly)	3.99 v 4.23 (p = 0.338)
B2: Belief that potential for share price appreciation over next twelve month is … (0 = Extremely low; 10 = Extremely high)	3.06 v 3.33 (p = 0.355)
B3: Belief that the level of risk associated with the shares is … (0 = Very low; 10 = Very high)	7.17 v 7.14 (p = 0.771)
B4: Belief that the probability of continuing as a going concern is … (0 = Very low; 10 = Very high)	3.69 v 3.77 (p = 0.892)

**** Significant at the 5% level (2-tailed) } Using Mann-Whitney U tests**
*** Significant at the 10% level (2-tailed) }**

In testing this hypothesis the aggregated results of the first and third columns of Table 4.19 are compared with the aggregated results of the second and fourth columns of that table.

The hypothesis is not supported. For none of the four questions is there a significant difference between decisions made with the proposed wording of the audit report and the current wording of the audit report.

Inclusion of a Separately Headed "Independence" Section (H2c)

Hypothesis 2c posits that the inclusion of a separately headed "Independence" section in the audit report will positively impact users' investment decision-making, by moving them towards believing that the likelihood of growth in earnings and share price is greater. Testing of this hypothesis involves a comparison of the results of the fourth column of Table 4.19 with the column headed "Independence". Results of the analysis are shown in Table 4.23.

Table 4.23: Impact on Investment Decisions of Inclusion of Separately Headed "Independence" Section in the Audit Report

Question	No Indep. vs Independ Section
B1: Prediction that performance (net profit) will … (0 = Decrease markedly; 10 = Increase markedly)	4.41 v 4.43 (p = 0.924)
B2: Belief that potential for share price appreciation over next twelve month is … (0 = Extremely low; 10 = Extremely high)	**3.40 v 2.74 (p = 0.029**)**
B3: Belief that the level of risk associated with the shares is … (0 = Very low; 10 = Very high)	7.17 v 7.50 (p = 0.327)
B4: Belief that the probability of continuing as a going concern is … (0 = Very low; 10 = Very high)	3.92 v 3.76 (p = 0.576)

**** Significant at the 5% level (2-tailed) } Using Mann-Whitney U tests**
*** Significant at the 10% level (2-tailed) }**

Although there is a significant difference for one of the four questions (Question B2), it is in the opposite direction to that hypothesised. That is, the inclusion of the separately headed "Independence" section in the audit report has the effect of making respondents believe that the likelihood of share price appreciation is significantly reduced. The hypothesis is therefore not supported.

4.6.3. Other Analyses

In the same way that other analyses were undertaken in relation to the perceptions of respondents, they are also performed for respondents' investment decisions. Specifically, these other analyses focus on: (i) different types of opinion;[51] (ii) report users' characteristics; and (iii) factor analyses. Each analysis is described separately in the following three sections.

4.6.3.1. Different Types of Opinion

Overall Current Wording and Overall Proposed Wording

Analysis of the impact of overall proposed wording changes on respondents' investment decisions is shown for each of the three types of audit opinions in Table 4.24 (on the following page). For none of the four investment decision questions, for any of the three types of audit opinion, is there a significant difference between the decisions made by respondents in receipt of an audit report with proposed overall wording and respondents in receipt of an audit report with the current overall wording.

Current Wording and Proposed Wording of Management's Responsibilities

Table 4.25 reports the results of analysis of the impact on investment decisions of wording changes to each of the management's and auditor's responsibilities sections of the audit report, across the three different audit opinions. In terms of proposed wording changes for the management's responsibilities section, the table highlights one significant difference in the twelve relationships examined. When an unqualified opinion is furnished, respondents receiving an audit report with the proposed wording of

[51] Refer Footnote No. 45. Analyses of the interaction between wording changes and the type of opinion have been hypothesised and are analysed in Section 4.7.

Table 4.24: Impact on Investment Decisions of Overall Proposed Wording Changes to the Audit Report Across Three Different Types of Opinion

Question	Unqualified Opinion Current vs Proposed Wording	Qualified Opinion Current vs Proposed Wording	Unqualified "Emphasis of Matter" Opinion Current vs Proposed Wording
B1: Prediction that performance (net profit) will … (0 = Decrease markedly; 10 = Increase markedly)	4.21 v 4.96 (p = 0.125)	4.04 v 4.17 (p = 1.000)	4.24 v 4.14 (p = 0.669)
B2: Belief that potential for share price appreciation over next twelve month is … (0 = Extremely low; 10 = Extremely high)	2.90 v 3.84 (p = 0.110)	3.04 v 3.31 (p = 0.716)	3.06 v 3.10 (p = 0.967)
B3: Belief that the level of risk associated with the shares is … (0 = Very low; 10 = Very high)	6.87 v 7.56 (p = 0.424)	7.54 v 6.52 (p = 0.178)	7.46 v 7.38 (p = 0.847)
B4: Belief that the probability of continuing as a going concern is … (0 = Very low; 10 = Very high)	3.63 v 4.32 (p = 0.144)	3.63 v 3.73 (p = 0.969)	4.32 v 3.72 (p = 0.974)

**** Significant at the 5% level (2-tailed) } Using Mann-Whitney U tests**
*** Significant at the 10% level (2-tailed) }**

management's responsibilities believe there is a significantly greater chance (p = 0.088; 2-tailed) of the company continuing as a going concern (Question B4), than when the audit report contains the current wording. While this would be an expected and therefore encouraging outcome for standard-setters, it must be noted that only one of twelve relationships examined is significantly different.

Current Wording and Proposed Wording of Auditor's Responsibilities

In terms of the wording of the auditor's responsibilities section of the audit report, Table 4.25 reports two significant differences out of the twelve relationships examined. The audit opinion for which significant differences occur is the unqualified opinion. When an unqualified opinion is included in the audit report, the proposed wording of the auditor's responsibilities section causes respondents to believe that the profit performance will be significantly greater (Question B1; p = 0.099; 2-tailed), and that the potential for share price appreciation is significantly increased (Question B2; p = 0.081; 2-tailed). Again, these are encouraging results and in the direction expected.

Table 4.25: Impact on Investment Decisions of Wording Changes to Management's Responsibilities and Auditor's Responsibilities Sections of the Audit Report Across Three Different Types of Opinion

Question	Management Responsibilities			Auditor Responsibilities		
	Unqualified Current v Proposed (p value)	Qualified Current v Proposed (p value)	Emphasis of Matter Current v Proposed (p value)	Unqualified Current v Proposed (p value)	Qualified Current v Proposed (p value)	Emphasis of Matter Current v Proposed (p value)
B1: Prediction that performance (net profit) will … (0 = Decrease markedly; 10 = Increase markedly)	4.28 v 4.44 (0.649)	4.00 v 4.00 (0.888)	3.98 v 3.94 (0.918)	**4.06 v 4.69** **(0.099*)**	3.94 v 4.08 (0.705)	3.98 v 3.94 (0.731)
B2: Belief that potential for share price appreciation over next twelve month is … (0 = Extremely low; 10 = Extremely high)	3.02 v 3.29 (0.696)	3.05 v 3.47 (0.383)	3.23 v 3.13 (0.783)	**2.79 v 3.52** **(0.081*)**	3.31 v 3.21 (0.745)	3.10 v 3.25 (0.825)
B3: Belief that the level of risk associated with the shares is … (0 = Very low; 10 = Very high)	6.90 v 7.67 (0.184)	7.48 v 6.86 (0.241)	7.29 v 6.96 (0.410)	7.20 v 7.26 (0.935)	7.40 v 6.86 (0.503)	6.98 v 7.25 (0.284)
B4: Belief that the probability of continuing as a going concern is … (0 = Very low; 10 = Very high)	**3.66 v 4.30** **(0.088*)**	3.63 v 3.70 (0.960)	3.48 v 3.65 (0.796)	3.86 v 4.02 (0.639)	3.64 v 3.69 (0.970)	3.55 v 3.60 (0.766)

**** Significant at the 5% level (2-tailed) } Using Mann-Whitney U tests**
*** Significant at the 10% level (2-tailed) }**

Inclusion of a Separately Headed "Independence" Section

The inclusion of a separately headed "Independence" section in the audit report appears to make an impact on investment decision-making, when an unqualified opinion with "emphasis of matter" paragraph is provided, but not when either an unqualified or qualified opinion is issued (refer Table 4.26).

Table 4.26: Impact on Investment Decisions of Inclusion of Separately Headed "Independence" Section in the Audit Report Across Three Different Types of Opinion

Question	Unqualified Opinion No Indep. v Independ. Section	Qualified Opinion No Indep. v Independ. Section	Unqualified "Emphasis of Matter" Opinion No Indep. v Independ. Section
B1: Prediction that performance (net profit) will … (0 = Decrease markedly; 10 = Increase markedly)	4.96 v 4.84 (p = 0.792)	4.17 v 4.63 (p = 0.316)	4.14 v 3.82 (p = 0.584)
B2: Belief that potential for share price appreciation over next twelve month is … (0 = Extremely low; 10 = Extremely high)	3.84 v 3.50 (p = 0.678)	3.31 v 2.67 (p = 0.145)	**3.10 v 2.14** **(p = 0.082*)**
B3: Belief that the level of risk associated with the shares is … (0 = Very low; 10 = Very high)	7.56 v 7.10 (p = 0.506)	6.52 v 7.04 (p = 0.439)	**7.38 v 8.45** **(p = 0.078*)**
B4: Belief that the probability of continuing as a going concern is … (0 = Very low; 10 = Very high)	4.32 v 4.10 (p = 0.650)	3.73 v 4.16 (p = 0.617)	3.72 v 2.95 (p = 0.205)

**** Significant at the 5% level (2-tailed) } Using Mann-Whitney U tests**
*** Significant at the 10% level (2-tailed) }**

Significant results are reported for two questions, which indicate that the inclusion of the "Independence" section and an unqualified opinion with "emphasis of matter" paragraph results in respondents' believing that there is significantly lower potential for share price appreciation (Question B2; p = 0.082; 2-tailed), and that the company is significantly more risky (Question B3; p = 0.078; 2-tailed). It is not clear why highlighting the independence of the auditor through a separately headed section in an audit report would be impacting only those respondents receiving an unqualified opinion with "emphasis of matter" paragraph.

However, as noted in Section 4.6.2 results relating to Question B3 must be interpreted with caution given that testing shows that the reliability of the scale may be questioned.

Also, when testing for two-tailed significance at a 90% level of confidence, there is a one in five chance that significant differences will arise, especially where large numbers of relationships are examined.

4.6.3.2. Impact of User Characteristics: Familiarity and Understanding

Analysis is undertaken on the impact on investment decisions of the interaction between wording changes and respondents' characteristics. Similar analysis is conducted to that which is described in Section 4.5.3.2 and deals with respondents' perceptions and their characteristics. The two characteristics examined are identified as "familiarity" and "understanding", and respondents are split into "High" and "Low" groups for each of these two characteristics (refer Table 4.16).

Table 4.27 reports descriptive results of analysis for the four investment questions, showing differences between the "High" and "Low" respondents' characteristics groups for all respondents.

Table 4.27: Descriptive Results – Investment Decisions – Differences between Respondents' Characteristics: "High" and "Low" Familiarity and Understanding for All Respondents

Question	**Familiarity**[1] **Low v High** (p value)	**Understanding**[2] **Low v High** (p value)
B1: Prediction that performance (net profit) will … (0 = Decrease markedly; 10 = Increase markedly)	4.09 v 4.28 (0.355)	4.10 v 4.29 (0.324)
B2: Belief that potential for share price appreciation over next twelve month is … (0 = Extremely low; 10 = Extremely high)	**2.91 v 3.32** **(0.070*)**	**2.80 v 3.40** **(0.005**)**
B3: Belief that the level of risk associated with the shares is … (0 = Very low; 10 = Very high)	7.31 v 7.13 (0.352)	7.26 v 7.13 (0.383)
B4: Belief that the probability of continuing as a going concern is … (0 = Very low; 10 = Very high)	3.72 v 3.77 (0.671)	**3.52 v 3.98** **(0.018*)**

**** Significant at the 5% level (2-tailed) } Using Mann-Whitney U tests**
*** Significant at the 10% level (2-tailed) }**
1 Familiarity: Degree to which respondents are familiar with audit reports
2 Understanding: Extent to which respondents believe audit report is understandable

Respondents with a higher level of familiarity with the audit report and respondents who believe to a greater extent that the audit report is understandable, believe that the potential for share price appreciation is significantly greater than for respondents in the "Low" characteristic groups. Furthermore, those respondents who believe to a greater extent that the audit report is understandable also maintain a significantly greater belief that the company will continue as a going concern.

These results suggest that user characteristics may be important when attempting to determine the impact of changes to the wording of the audit report on market related investment decisions.

Interactive Effect of Wording Changes and Users' Characteristics

Tables 4.28 reports the results of analysis of the interactive effects on investment decisions, of different levels of user characteristics and changes to the wording of the audit report.[52] This table is presented consistently with the table presented in Section 4.5.3.2 (Table 4.18) and therefore does not report descriptive information for each of the cells. The focus of the tables is on identifying significant interactions between the wording changes and the different levels of user characteristics. Therefore, only the results of ANOVA are reported. Overall, the results indicate that there is no impact on investment decisions, of the interactive effects of users' characteristics and wording changes.

4.6.3.3. Factor Analysis

Principal components ("factor") analysis was undertaken to determine whether data received from the four investment decision questions could be reduced to a fewer number of variables. Results of this analysis (not reported separately in a table) show that it is possible to reduce the variables into one component.

[52] As noted previously (refer Footnote No. 46), the interactive effects of users' characteristics and the inclusion of a separately headed "Independence" section are not analysed and discussed in this thesis.

Table 4.28: Impact on Investment Decisions of Proposed Wording Changes and Differences between Respondents' Characteristics: "High" and "Low" Familiarity (Degree to which respondents are familiar with audit reports) and Understanding (Extent to which respondents believe audit report is understandable) – Results of ANOVA (p values)

Question	**Overall Wording** Current vs Proposed High vs Low **Familiarity**			**Overall Wording** Current vs Proposed High vs Low **Understanding**		
	Wording	Familiarity	Wording x Familiarity	Wording	Understand	Wording x Understand
B1: Prediction that performance (net profit) will … (0 = Decrease markedly; 10 = Increase markedly)	0.466	**0.072***	0.194	0.542	0.688	0.535
B2: Belief that potential for share price appreciation over next twelve month is … (0 = Extremely low; 10 = Extremely high)	0.162	0.794	0.168	0.156	**0.085***	0.441
B3: Belief that the level of risk associated with the shares is … (0 = Very low; 10 = Very high)	0.824	0.615	0.476	0.987	0.765	0.448
B4: Belief that the probability of continuing as a going concern is … (0 = Very low; 10 = Very high)	0.250	0.621	0.273	0.286	0.586	0.648

**** Significant at the 5% level (2-tailed) } Using ANOVA**
*** Significant at the 10% level (2-tailed) }**

Interpretation of factor analyses is always open to question, however, it seems that the one component would exclude Question B3.[53]

On the basis of these results, a combined "Investment Decisions" variable was created from Questions B1, B2 and B4. Mann-Whitney U tests are performed to determine whether the proposed wording changes have an impact on the investment decisions of report users for this combined variable. Results of testing (not reported separately in a table) indicate that there are no significant differences between the proposed and current wording for: (i) the overall wording changes ($p = 0.261$); (ii) the management's responsibilities section of the audit report ($p = 0.631$); or (iii) the auditor's responsibilities section of the audit report ($p = 270$).

4.7. Impact of Interaction of Wording Changes and Types of Opinions on Perceptions and Investment Decisions

The experimental design of this study permits examination of the proposed changes to the wording of the audit report across several independent variables, one of which was the type of audit opinion. While the emphasis of this first study is on the impact of wording changes, the external validity and generalisability of the results are strengthened by hypothesising and analysing the interaction between the wording changes and the different types of opinion. The following three sub-sections separately analyse the impact of the interactions of: (i) wording changes and unmodified audit reports (unqualified opinion) versus modified audit reports (qualified opinion and unqualified opinion with "emphasis of matter" paragraph), on perceptions; (ii) wording changes and unmodified audit reports (unqualified opinion) versus modified audit reports (qualified opinion and unqualified opinion with "emphasis of matter" paragraph), on investment decisions; and (iii) wording changes and two types of modified audit report (qualified and unqualified opinion with "emphasis of matter" paragraph) on perceptions and investment decisions. In undertaking the testing of these

[53] In performing the factor analysis, the results of Question B3 were inverted to ensure that scales for all questions ran consistently from left (unfavourable/negative) to right (favourable/positive).

hypotheses, the wording changes examined will be only a comparison of the overall current wording and overall proposed wording.[54]

4.7.1. Impact of Interaction on Perceptions (H3)

Hypothesis 3 proffers that the proposed wording changes to the audit report will move users' perceptions of the credibility of the information to a greater extent when a modified audit report is provided, than when an unmodified audit report is provided. Although the hypothesis focuses specifically on one perception (the credibility of the information provided – Question C15), the following analysis and discussion will examine all of the eleven perceptions (Question C5 to C15) included in the research instrument for this study. Descriptive statistics pertaining to the following analysis are provided in Table 4.13.

The hypothesis proposes that one of the four cells (i.e., in a 2x2 matrix where wording changes (current vs. proposed) and type of opinion (unmodified vs. modified report) are manipulated) being examined will be significantly different from the other three cells. The cell which is expected to be significantly different from the other three cells includes the proposed wording changes and the modified report.

As discussed in Buckless and Ravenscroft (1990), contrast analysis is a more appropriate form of analysis than ANOVA to test such a hypothesis. However, it is first necessary to analyse the interactions using ANOVA in order to discount the existence of interactions that are not the same as that being hypothesised. Therefore, Table 4.29 details the results of ANOVA for the interactions hypothesised.

[54] To examine these hypotheses separately for the three types of proposed wording changes (as was done for H1a, H1b, H1c, H2a, H2b and H2c) would have created six sub-hypotheses for each of H3 and H4. Contrast analyses were undertaken to examine the impact of the interaction between the inclusion of a separately headed "Independence" section and the different type of audit opinions. The results are not separately tabulated and reported in this thesis, but are included in a separate paper being prepared by the author of this thesis and a colleague. It was interesting to note that significant interactions were reported for questions pertaining to auditor independence and the credibility of the information provided. When a qualified opinion is provided in an audit report which has a separately headed "Independence" section, respondents perceive the auditor to be significantly more independent and the information provided to be significantly more credible than respondents in the other three cells. These differences in perceptions did not translate into significant differences for the investment decisions.

Table 4.29: Impact on Perceptions of Interaction of Proposed Wording Changes and Different Types of Audit Opinion – Results of ANOVA

Question (The "correct" answer – expected by standard-setters – is in bold italics under the question. Where neither answer is bolded, it indicates that there is no "correct" answer, but is subject to the opinion of the respondent)	**Overall Current vs Proposed Wording Unqualified vs Qualified Opinion**			**Overall Current vs Proposed Wording Unqualified vs Unqualified "EOM" Opinion**		
	Wording	Opinion	Wording x Opinion	Wording	Opinion	Wording x Opinion
C5: To what extent does the audit cover the information contained in the notes related to the financial statements? *(0 = Does not cover any information in any of the related notes; **10 = Covers all the information in all of the related notes**)*	0.223	**0.087***	0.254	0.214	**0.001****	0.209
C6: Who is responsible for the information prepared and presented in the financial statements? *(**0 = Management solely**; 10 = Auditor solely)*	0.992	0.156	0.982	0.852	0.762	0.875
C7: Who is responsible for the development and maintenance of a sound internal control environment? *(**0 = Management solely**; 10 = Auditor solely)*	0.224	0.924	0.567	0.425	0.923	0.902
C8: Who is responsible for preventing and detecting fraud? *(**0 = Management solely**; 10 = Auditor solely)*	0.450	0.108	0.251	0.610	0.122	0.350
C9: Who is responsible for selecting and applying relevant accounting policies? *(**0 = Management solely**; 10 = Auditor solely)*	0.880	0.388	0.337	0.748	0.744	0.265
C10: Who is responsible for making necessary accounting estimates? *(**0 = Management solely**; 10 = Auditor solely)*	0.595	0.632	0.248	0.915	0.964	0.621
C11: How clear is the extent of work undertaken by the auditor in arriving at the opinion? *(0 = Totally unclear; 10 = Extremely clear)*	0.986	**0.025****	0.223	0.388	0.102	0.649
C12: How much judgement does the auditor exercise in the selection of audit procedures? *(0 = No judgement in respect to any procedures; **10 = Judgement exercised in all procedures**)*	0.177	0.323	0.993	0.354	0.409	0.620
C13: How much assurance does the auditor provide that the financial statements are free from material misstatement? *(0 = No assurance; 10 = Absolute assurance)*	0.101	0.772	0.486	0.978	0.609	0.378
C14: How independent of the company is the auditor? *(0 = Not at all independent; **10 = Totally independent**)*	0.523	0.367	0.822	0.774	0.450	0.584
C15: Given the audit report, how credible is the information provided? *(0 = No credibility; 10 = Totally credible)*	0.119	0.987	0.278	0.778	0.262	0.462

**** Significant at the 5% level (2-tailed) } Using ANOVA (p values)**
*** Significant at the 10% level (2-tailed) }**

It examines only overall wording changes and separately outlines the results of analyses comparing: firstly, an unqualified audit opinion and a qualified audit opinion (Hypothesis 3a); and secondly, an unqualified audit opinion and an unqualified opinion with "emphasis of matter" paragraph (Hypothesis 3b). The results described in Table 4.29 report no significant interactions between the wording changes and the type of opinion, using ANOVA. Consequently, it supports the use of contrast analysis to test these hypotheses.

Results of hypotheses testing using contrast analyses are not reported separately in a table. Of the twenty-two contrast analyses performed (i.e., eleven questions for each of the two sub-hypotheses) only one interaction is significant; for Question C5 (the extent to which the audit covers the information contained in the notes related to the financial statements) when comparing an unqualified opinion and an unqualified opinion with "emphasis of matter" paragraph ($F(1,111) = 4.03$, $p = 0.047$). This suggests that the impact on perceptions of changes to the wording of the audit report is not affected by the type of audit opinion being furnished. Importantly, there is no impact upon the perceived credibility of the information (Question C15) being provided.

The results indicate no support for either Hypothesis 3a or 3b.

4.7.2. Impact of Interaction on Investment Decisions (H4)

To test Hypothesis 4 the same procedure is undertaken as that which is performed for Hypothesis 3. Hypothesis 4 posits that wording changes to an audit report will move report users towards believing that the likelihood of growth in earnings and share price appreciation will be greater when an unmodified audit report is provided, than when a modified audit report is furnished. Table 4.30 reports the results of ANOVA, examining the impact on investment decisions of the interactive effects of the proposed wording changes and the different types of audit opinion.

The results identify only one interaction, relating to the question of risk (Question B3), for the interaction between the wording changes and the unqualified versus qualified audit opinion. This suggests that contrast analysis may not be the most appropriate analysis for this particular interaction. However, the absence of results for the other interactions provides support for the use of contrast analysis when examining these other interactions.

Table 4.30: Impact on Investment Decisions of Interaction of Proposed Wording Changes and Different Types of Audit Opinion – Results of ANOVA

Question	Overall Current vs Proposed Wording Unqualified vs Qualified Opinion			Overall Current vs Proposed Wording Unqualified vs Modified "EOM" Opinion		
	Wording	Opinion	Wording x Opinion	Wording	Opinion	Wording x Opinion
B1: Prediction that performance (net profit) will … (0 = Decrease markedly; 10 = Increase markedly)	0.231	0.190	0.397	0.407	0.320	0.282
B2: Belief that potential for share price appreciation over next twelve month is (0 = Extremely low; 10 = Extremely high)	**0.092***	0.583	0.356	0.185	0.432	0.232
B3: Belief that the level of risk associated with the shares is … (0 = Very low; 10 = Very high)	0.708	0.672	**0.052***	0.464	0.618	0.351
B4: Belief that the probability of continuing as a going concern is … (0 = Very low; 10 = Very high)	0.262	0.399	0.402	0.215	0.323	0.527

**** Significant at the 5% level } Using ANOVA (p values)**
*** Significant at the 10% level }**

The results of contrast analyses are reported in Table 4.31 and provide partial support for Hypothesis 4.

They show that respondents' views about the potential for share price appreciation (Question B2) are impacted by the interactive effect of the proposed wording changes and the type of opinion. That is, respondents receiving an audit report using the proposed wording with an unqualified audit opinion believe that the potential for share price appreciation is significantly greater than for respondents in any of the other three cells. This applies when the alternative modified audit report is either a qualified audit opinion (Hypothesis 4a; p = 0.078) or an unqualified opinion with "emphasis of matter" paragraph (Hypothesis 4b; p = 0.070).

When unqualified and qualified audit opinions are compared (Hypothesis 4a), respondents receiving an audit report using the proposed wording and having an unqualified opinion predict significantly higher profit performance (Question B1) than respondents in the other three cells (p = 0.061). These results provide support for H4a, which focuses on the first two investment decision questions (Questions B1 and B2) and partial support for H4b.

Table 4.31: Impact on Investment Decisions of Interaction of Proposed Wording Changes and Different Types of Audit Opinion – Results of Contrast Analyses[#]

H4a: Unqualified and Qualified Opinions	Value of Contrast	df	t	p
B1: Prediction that performance (net profit) will … (0 = Decrease markedly; 10 = Increase markedly)	**-2.4680**	**108**	**-1.891**	**0.061***
B2: Belief that potential for share price appreciation over next twelve month is (0 = Extremely low; 10 = Extremely high)	**-2.2677**	**108**	**-1.780**	**0.078***
B3: Belief that the level of risk associated with the shares is … (0 = Very low; 10 = Very high)	-1.7523	109	-1.130	0.261
B4: Belief that the probability of continuing as a going concern is … (0 = Very low; 10 = Very high)	-1.9696	110	-1.573	0.119
H4b: Unqualified and Unqualified Opinion with "Emphasis of Matter" Paragraph	**Value of Contrast**	**df**	**t**	**p**
B1: Prediction that performance (net profit) will … (0 = Decrease markedly; 10 = Increase markedly)	-2.2881	112	-1.610	0.110
B2: Belief that potential for share price appreciation over next twelve month is (0 = Extremely low; 10 = Extremely high)	**-2.4582**	**113**	**-1.831**	**0.070***
B3: Belief that the level of risk associated with the shares is … (0 = Very low; 10 = Very high)	-0.9693	115	-0.643	0.521
B4: Belief that the probability of continuing as a going concern is … (0 = Very low; 10 = Very high)	-2.1043	115	-1.576	0.118

The contrast analysis compares whether the results for the cell containing respondents that received an audit report with the "***proposed wording and unqualified opinion***" are significantly different from the other three cells.
**** = Significant at the 5% level**
*** = Significant at the 10% level**
 # - Assumes equal variances

It is interesting to note that while support was provided for Hypothesis 4, there is no support for Hypothesis 3. This implies either that: (i) changes to audit report users' decision-making do not arise as a result of changes to their perceptions about the credibility of the information; or (ii) changes to audit report users' decision-making arise from changes to perceptions that are not measured in this experiment. This is discussed further in Section 4.8.

4.7.3. Interaction of Wording Changes and Modified Audit Reports (H5)

Hypothesis 5 is a null hypothesis that proposes that there will be no difference between the qualified opinion and the unqualified opinion with "emphasis of matter" paragraph, in terms of the manner in which the proposed wording changes impact report users' perceptions and investment decision-making.

Mann-Whitney U tests comparing the two types of opinion, for all respondents, show no significant differences in any of the eleven perceptions questions or any of the four questions relating to investment decisions. ANOVA is performed to analyse the interaction between the two types of modified audit report and the overall proposed wording changes, as well as between the two types of modified audit report and the inclusion of the separately headed "Independence" section in the audit report (vis-à-vis no separate section). Of the thirty interactions examined (i.e., fifteen questions for each of the two interactions described above), only one significant interaction was reported. This significant interaction is that the overall proposed wording changes to the audit report caused respondents receiving a qualified opinion to perceive the information provided as being less credible, while those receiving an unqualified opinion with "emphasis of matter" paragraph perceived it as being more credible.

This null hypothesis could not be rejected on the basis of the analysis performed.

4.8. Summary and Discussion

The results of this study are summarised and discussed in this section. The impact of wording changes on users' perceptions, investment decisions and the interactive effects of wording changes and types of audit opinion are described separately in various sub-sections. Limitations of the study (and attempts to overcome them) and implications for future research are also highlighted in separate sub-sections.

The aim of standard-setters to enhance the communication between auditors and shareholders, by enhancing the description of the responsibilities of management and the auditor in the audit report, is not supported by the results of this study. These results indicate that changes to the wording of the audit report do not seem to be effective in addressing expectations gap issues. The lack of support for the developed hypotheses would not surprise a number of academics and practitioners who believe that the real use of an audit report comes not from the specific words contained within the report, but from the overall signal that it sends about the financial statements. This is consistent with the reported readership habits of the participants of this study; that is, that the audit report is read much less than other parts of the financial report.

A motivation for this study was to provide feedback to auditing standard-setting bodies on proposed audit reporting initiatives. This feedback was provided and one of the impacts of this study was to change the focus on the part of the IAASB working group committees reviewing aspects of the audit reporting process at the time. Reportedly, after receiving the feedback on the results of this study, these groups focused less on debating the merits of the specific words used in the report and more actively considered the impacts of the report more generally, the use of headings and consistency in types of audit opinions issued and so on. The supervisor of this thesis was a member of the IAASB task force examining audit reporting at the time. The IAASB also continued to focus on the other parts of its approach to addressing the expectations gap. These included increasing the requirements placed upon auditors as defined in standards and the major "clarification of auditing standards" project that aimed to clarify the wording and requirements of all of the auditing standards to ensure consistent application.

An important implication arising from this study for standard-setters and regulatory bodies, is the importance of educating report users. While significant differences between users did not arise as a consequence of the revised wording, several differences did arise between groups when the sample of participants was partitioned on the basis of their self-rated familiarity with audit reports and the extent to which they found audit reports understandable. These were defined in the study as user characteristics. Heightened familiarity and understanding leads to shareholders perceiving that the extent of work undertaken by the auditor is clearer, that the auditor has exercised a greater degree of judgement in selecting auditing procedures and that the level of assurance being provided by the auditor is higher. Furthermore, it led shareholders to perceive the auditor to be significantly more independent and to perceive that the information provided was significantly more credible. Indeed, for all questions other than those pertaining to management's responsibilities, users in the "High" familiarity and "High" understanding groups recorded significantly different perceptions to those respondents included in the "Low" familiarity and understanding groups.

Importantly, there were few significant interactions between the wording of the audit reports and the different levels of users' characteristics. Therefore, the wording changes were generally not impacting those in each of the different user characteristic groups differently.

These outcomes suggest that standard-setters and regulators may have an important role to play in attempting to ensure that users of audit reports are more familiar with the auditing and reporting processes. The benefits of audit education, through the provision to users of a brochure detailing information about the audit function and discussing common misconceptions among users, was shown to have a positive effect on perceptions of users in relation to understanding auditors' responsibilities (Fadzly and Ahmad, 2004). Different ways to achieve improved familiarity and understanding include providing fuller descriptions in the audit report of the audit work undertaken (rather than the approach examined here of merely amending the wording of the responsibilities of management and the auditors). Indeed, having fuller descriptions of the process is consistent with some respondents' desire to have more details about the risks identified and work performed.

There also appear to be benefits from updating and promoting existing material aimed at enhancing greater understanding of the audit process. This includes updating and widely distributing the document "Understanding Financial Statement Audits – A Guide for Financial Statement Users" (AuASB, 1990 in CPA Australia, 2008). The IAASB has reportedly discussed updating this document to incorporate and explain the approach contained in the recently revised audit risk standards. Such a revised document would be potentially useful for shareholders who are less familiar and have less understanding of the audit process.

Specific discussion of the results of this study in terms of the impact upon users' perceptions and investment decisions follows.

4.8.1. Users' Perceptions

In terms of the impact that changes to the wording of the audit report has on users' perceptions, several conclusions may be drawn from this study. Firstly, large expectations gap differences continue to exist when comparing shareholders' responses with expected (and desired) responses. A large number of respondents believe the report does not provide the level of assurance required, and a number outline the use of standard wording as being an issue. Other issues raised include the lack of detail about the work performed, the samples chosen and the skill of the auditors.

Secondly, the aim of standard-setters to improve communication between the auditor and shareholders, by producing audit reports with enhanced wording, has not been supported by the results of this study in Australia. Although there were movements in most of the perceptions in the direction hypothesised (and desired by standard-setters) these movements were not significant.

Essentially, the proposed overall wording had little impact on shareholders. For each of the management's responsibilities and auditor's responsibilities sections of the audit report, there was also little impact upon shareholders' perceptions. Additionally, the inclusion of a separately headed section in the audit report, entitled "Independence" (detailing the independence of the auditor), had little impact on shareholders' perceptions of the independence of the auditor. The lack of results was evident across all three types of different audit opinion (unqualified, qualified, and unqualified opinion with "emphasis of matter" paragraph) examined in the study.

Finally, an important consideration for the IAASB in attempting to improve the communication process surrounding the provision of audit reports is the education of users. That is, rather than concentrating solely on the wording of audit reports, efforts should also be directed towards ensuring that audit report users become more acquainted with the role and features of the audit report, as part of the financial reporting process. Shareholders' perceptions are impacted by the level of familiarity they have with audit reports, and the extent to which they believe the audit report to be understandable.

4.8.2. Users' Investment Decision-Making Judgements

In relation to users' investment decision-making, the following conclusions are reached.

None of the overall proposed wording changes, the proposed wording changes to the management's responsibilities section of the audit report, or the proposed wording changes to the auditor's responsibilities section of the audit report had a significant impact on the investment decisions made by shareholders. Furthermore, no impact on investment decisions was reported when a separately headed "Independence" section was included in the audit report. These results are not unexpected given that there was no support provided for the hypotheses examining the changes to report users' perceptions.

Generally, the lack of significant results was reported across all three types of audit opinions examined in the study. However, there were significant results when respondents received an unqualified opinion with "emphasis of matter" paragraph, and had the separately headed "Independence" section included. In these circumstances, respondents believe there is a higher level of risk associated with an investment in the company. Also, they perceive the potential for share price appreciation to be lower. An explanation for these particular results is not readily apparent. Finally, there are no significant interactions reported between the proposed wording changes and user characteristics.

4.8.3. Interaction between Wording Changes and Type of Audit Opinion

Interactions between the proposed wording changes and the types of audit opinions issued were hypothesised for both users' perceptions and investment decisions. While there were no significant results reported for the questions pertaining to perceptions, hypotheses relating to the investment decisions were partially supported.

The proposed overall wording changes impact investment decisions (profit performance and potential for share price appreciation) to a greater extent for an unqualified audit opinion, than for either of the two modified audit reports (qualified and unqualified opinion with "emphasis of matter" paragraph). This is an encouraging result and raises questions about the link between changes in shareholders' perceptions concerning the audit report and the investment decisions that they make.

The implications for standard-setters are important. These results suggest that the links depicted in the Libby (1979) model and upon which this study is based, may not describe the decision-making process appropriately. The decisions made by audit report users may be made independently of their perceptions about the audit report. The audit report may act as nothing more than an overall signal to shareholders and therefore it may be inappropriate to suggest that a change in perceptions (especially a perception about the credibility of the information provided when an audit report accompanies financial statements) will lead to a change in decision. Alternatively, the changes to the wording of the audit report may be creating differences in shareholders' perceptions, but not the perceptions that are measured in this study and have been typically studied over many years of examination of the expectation gap. Despite standard-setters proposition that the audit of financial statements adds credibility to management's representations (which assists with decision-making) it may be that other perceptions are of greater relevance for the decision undertaken in this study. It may be the perceived credibility of the source of the information, rather than the information (or message itself) which is of greater importance in making decisions of this nature.

Finally, a null hypothesis that suggested that shareholders perceive no difference between the qualified audit opinion and the unqualified opinion with "emphasis of matter' paragraph, in terms of the impact that proposed wording changes would have on their perceptions and investment decision-making, could not be rejected. That is, no evidence was provided to suggest that shareholders do not perceive the two types of audit opinion to be providing the same information.

4.8.4. Limitations

As with any "non-controlled" experiment of this kind (where questionnaires are forwarded to participants by post), several limitations exist that may potentially bring into question the validity of the results. They include that: (i) participants are free to consult additional materials and information; (ii) there is no guarantee that participants are working independently; (iii) there is no certainty that the person who completes the questionnaire is actually the claimed participant; and (iv) there is no guarantee that participants are correctly following instructions and are fully acquainted with the required tasks (refer Trotman, 1996, p. 92). In terms of the first two potential issues, one may argue that external validity would potentially be enhanced if participants did consult other materials and conversed with others, as this would be expected in situations outside of a controlled experimental setting. Furthermore, the experiment did not require the completion of a manipulation check and the instructions were stated clearly and unambiguously. Therefore, the chance of problems arising in relation to the last of the four potential problems is minimised.

Although members of the ASA are users of financial statements and audit reports, a significant proportion of respondents indicated that they generally do not read the financial statements (and audit reports) of companies in which they (intend to) invest. This potential problem was overcome by requiring respondents to answer the question that drew their attention to the audit report and which immediately followed the audit report in the research instrument. This question specifically asked respondents to describe the three main points of interest contained in the audit report.

Many respondents also suggested that they rely on the advice of financial advisers and investment brokers. Therefore, it is possible that the results obtained in this study are of a group of investors who may be considered less sophisticated than many other user groups, such as financial analysts, investment and financial advisers, and regulators. Importantly however, they are the group targeted by standard-setters with the proposed wording changes to the audit report. Therefore they are the most appropriate experiment participants to use in this case. Additionally, questions pertaining to user characteristics (familiarity and understanding) allowed for analysis to be undertaken on the basis of respondents' familiarity with the audit report, and the extent to which they find the report understandable.

The questionnaire was relatively lengthy at nine pages, and the background material included several types of information that needed to be read and considered together in making responses to the questions. This may have contributed to the lower response rate for this study compared with other studies using the same broad group of participants. Also, it may have introduced an aspect of respondent fatigue, whereby in answering the questionnaire, respondents' interest may have waned towards the end of the questionnaire, resulting in them providing less considered answers. However, these potential problems were addressed through the attention paid to preparing the research instrument in line with the techniques highlighted for tailoring questionnaires and surveys (Dillman, 2000). For example, support was provided by the Chief Executive Officer of the ASA, the importance of the research was highlighted to respondents and little private information was sought. Also, although the response rate was lower than some other similar studies, it is still respectable and sufficient to undertake meaningful analysis. Analysis shows there is no indication of response bias in the sample of data obtained.

Finally, the lack of results (i.e., failure to support hypotheses) in relation to the investment decisions may be due to the nature of the case used in the questionnaire (i.e., a company which had made losses, but which was moving towards making a profit) or due to other factors that cannot be controlled in an experimental setting of the kind used in this research (e.g., the respondents own risk aversion and/or their own personal investment strategies). The nature of the case was important in both enhancing and providing a suitable balance between the internal and external validity requirements for behavioural experiments. Indeed, one strength of this study is the ability to achieve this balance with a case scenario that permitted examination of key questions in a setting that was experimentally sound and reflected realism. The random assignment of participants to experiment cells also minimised the chances of differences between respondents' characteristics in different cells being responsible for driving results.

4.8.5. Implications for Future Research

Results from this study give rise to several areas of potential future research. Firstly, a key objective of a financial statement audit is to add credibility to management's representations. Therefore, one of the important perceptions examined in this study was credibility. It was examined primarily from the perspective of the perceived credibility of the information (message) being provided. The study examined the credibility of the source of information (the second major aspect of the perceived credibility of the information received) in only a limited way through the impact of the inclusion of a separately headed "Independence' section in the audit report. In doing this, only one of the three constructs of source credibility proposed in psychology research (Birnbaum and Stegner, 1979) was examined. The measurement of perceived credibility was also undertaken through the use of a single question, rather than using a well-tested model such as those that have been available in other fields of research for many years (e.g., in marketing research. Refer Berlo et al, 1969-70). The opportunity to examine credibility, in terms of the credibility of the source of information in an auditing context, is presented. Furthermore, research that examines all three constructs of source credibility (Birnbaum and Stegner, 1979) could be considered. This is a key foundation of the second study in the thesis.

Secondly, the importance of users' familiarity with audit reports (and the audit process) and the extent to which they find audit reports understandable suggest that further studies can refine the work undertaken in this study to examine the extent to which differences in users' perceptions and investment decisions are driven by differences in user characteristics. While this study focused on familiarity and understanding, it is conceivable that theories and research in psychology and sociology may give rise to other characteristics that are worthy of examination.

Thirdly, the context of this first study was the financial statement audit and the audit report. Given the prevalence of audit reporting as a consequence of being statutorily mandated in most jurisdictions, it is conceivable that report users pay little attention to the wording of the audit report. Estes (1982) suggests that investors potentially lose interest in audit reports and become "conditioned" to them as they become more standardised. This suggests that the report is not widely read and that it is nothing more than a signal to investors and potential investors (Estes, 1982). The results of this study support this view, by finding that investors (potential investors) read the audit report significantly less often than other parts of the financial statements (refer Section 4.4.2). Therefore, in an effort to encourage wider readership, other wording changes could be considered. These include simplifying the language used in audit reports, and including information that is specifically sought by report users (e.g., the types of risks identified and assessed by the auditor).

Furthermore, research into other types of assurance reporting (i.e., other than assurance of historical financial information) that is not mandated and maybe less prevalent in society, may prove insightful and informative to standard-setters. That is, if report users have become "conditioned" to the wording of the audit report due to its prevalence and the standardised wording used in the report, the importance of assurance in enhancing the credibility of disclosed information may be demonstrated via means other than the wording and contents of the report itself. Examining the impact of these other types of assurance on investment decisions may assist in better understanding the benefits of assurance and the communication process between assurors and investors.

Another area of potential research relates to the use and relevance of the audit report in the decision-making processes of financial statement users; whether as a mere signal or through the provision of detailed and important information. While it seems that the audit report may not be widely read, it is unclear how it is used by investors in forming their investment decisions.

Finally, the use of alternative participant groups with varying levels of sophistication and knowledge will assist in studies of this kind. This is related to the previous point. It may confirm the outcomes achieved (i.e., lack of significant differences between perceptions being driven by wording differences) in this study, or show that the impact of changes to the wording of audit reports affect different report users (investors and potential investors) differentially. Furthermore, it might highlight whether the importance of the audit report for investment decision-making varies across different types of financial statement users.

Examining whether the communication effectiveness of assurance reporting is impacted by perceived differences in the credibility of the source of the information being provided (including the assurance of that information), is a central premise of the second study of this thesis. Therefore, rather than focusing on the message being conveyed (the actual wording and contents of the assurance report), the second study will examine differences in the source of the information. To do this effectively, the context of the second study is an area of assurance other than the financial statement audit and the audit report. To address potential concerns pertaining to the standardised wording of the audit report and the view that report users may have become "conditioned" to it, the context of the second study is corporate social responsibility reporting and the assurance report. Furthermore, the second study is examining the importance of assurance to the investment decision-making of other important report users. The first study examined the perceptions and decision-making of shareholders, the group towards which the proposed wording changes of the audit report was directed. The second study examines the perceptions and decision-making of an important group of users of corporate reporting; namely financial analysts.

CHAPTER FIVE: SPECIFIC LITERATURE FOR STUDY TWO

While the first study in this thesis examines the financial statement audit and audit report in terms of proposed wording changes to the audit report, the second study focuses on the reporting of corporate social responsibility (CSR) information and the provision of assurance for that reporting. Although both studies examine the perceptions and investment decision-making of assurance (audit) report users, the first study focused on whether changes to the message being conveyed impact report users differentially. In contrast, the second study focuses upon whether changes to the source of the message being conveyed impact report users differentially. Changes to the source of the message conveyed are presented in terms of having CSR information assured (vis-à-vis not having it assured) by different types of assuror (a professional accountant and a sustainability expert).

Like the first study in this thesis, this second study aims to inform regulators and standard-setters at a time when debate is continuing about the development of relevant standards and guidelines pertaining to the assurance of CSR reporting. It aims to achieve its objectives by using as experimental participants, the most appropriate group of users of CSR information in making investment decisions, namely financial analysts.

Recently, there has been increasing research efforts devoted to the assurance of CSR reporting and its impact on corporate reporting users. This Chapter outlines the relevant literature pertaining to CSR reporting and its assurance. Given the focus of the thesis on the communications aspects of assurance reporting, the following discussion of the extant literature focuses on the communications effectiveness of the assurance of CSR reporting.

Reporting of non-financial information has for many years been seen as a largely voluntary exercise. However, recent regulatory initiatives across the world have made for increased and sometimes mandated reporting of non-financial information, including some aspects of CSR reporting (e.g., in France and the United Kingdom). With increased reporting has come greater use of non-financial information by important user groups, who previously relied almost solely on financial statements for making investment decisions. As these decision makers, including financial analysts, increasingly utilise non-financial information provided by corporations, matters such as the credibility of that information assume greater prominence. The majority of financial and non-financial information used by information users in making investment decisions is sourced from the corporation. While most financial information is subject to audit or review by professional auditors as a regulatory requirement, the assurance of non-financial information is for the most part at the discretion of the corporation providing the information. Consequently, matters pertaining to the assurance of CSR reporting, especially whether the information is assured and by whom, and the impacts of these decisions, are worthy of increased academic attention.

The following discussion is separated into four categories of interest. Firstly, there is discussion pertaining to the provision of non-financial information more generally by corporations. This includes reference to extant literature that examines analysts' use of non-financial information in decision-making, as well as studies examining the link between non-financial information and financial performance. The second category specifically covers CSR, including discussion of trends in such reporting, the various frameworks used in reporting, and extant literature examining the link between CSR reporting and financial performance. This is followed by two categories of discussion that outline, respectively, relevant literature pertaining to: (a) the assurance of non-financial information (with a focus on studies examining the assurance of CSR reporting); and (b) assurance provided by different types of assuror. The Chapter concludes with a summary of the implications for *Study Two*.

5.1. Use of Non-Financial Information by Analysts

In this section relevant literature pertaining to the reporting and use of non-financial information, at the broadest level, is discussed. It is summarised in Table 5.1. Firstly, studies that have examined the use of non-financial information by financial analysts are discussed. Financial analysts play a critical role in financial markets by processing all publicly available information relating to a corporation and providing that information in a synthesised form to existing and potential investors. Given the important role they play in financial markets, they have also been chosen as the experimental participants for the second study in this thesis. The section concludes with an outline of extant literature that examines the link between the disclosure and use of non-financial information and financial performance. Given that one of the key aims of the second study is to examine the investment decisions made and the impact that the provision of assured information has on these decisions, it is important to establish that a link exists between these two concepts.

The importance of combining non-financial information with financial information in order to enable better assessments of future performance is recognised by those charged with developing reporting policy (Wallman, 1996; Riley et al, 2003). The key reason that financial analysts are paid for the work they perform is due to the cost to individual investors of processing all publicly available information (Womack, 1996). This recognises that the market is unable to perfectly process all of this information and therefore investors rely on financial analysts to undertake the processing task. It is acknowledged that corporate financial reports by themselves are generally not sufficient in providing investors (and potential investors) with a full view of "value creation" within the company. Therefore, financial analysts have a role in providing investors with advice and recommendations in order to "fill the gap" where corporate reporting is deficient (Garcia-Ayuso, 2003). The need to conduct research into the decision-making processes of financial analysts and in particular the information used by them, has been recognised for some time (Zmijewski, 1993).

Over recent years, a great deal of academic research has been devoted to the role of accounting in the work undertaken by financial analysts. Much of this research has been empirical-archival and has examined a range of questions, including: the impact of voluntary disclosures of accounting information on forecasts (Lang and Lundholm, 1996; Botosan, 1997); whether financial analysts have the ability to recommend the sale, holding or acquisition of shares in a manner which generates excess returns (Stickel, 1995; Womack, 1996; Barber et al, 2001); whether the recommendations made by financial analysts provide views about the relative under, or over, valuation of the stock (Dechow et al, 1998); and whether the type of accounting information used and the manner in which it is processed, impacts the success of recommendations in attaining excess returns (Bradshaw, 2004).

Another field of research has centred on survey methods and content analyses of financial analysts' reports and has aimed to provide insights into the level and use of financial and non-financial information in the formulation of forecasts and recommendations (Previts et al, 1994; Dempsey et al, 1997; Barker, 1999; Block, 1999; Bradshaw, 2002; Abdolmohammadi et al, 2006). Previts et al (1994) note that while financial analysts base their recommendations primarily on accounting data they do extensively consider non-financial information, which centres on matters such as the competitive position and competitor's capabilities, market shares and economic and industry conditions. Dempsey et al (1997) report that financial analysts use a large number of non-financial measures (e.g., assessment of potential competition, experience and reputation of management, continuity of management) when making stock recommendations. They observe that such measures are used more widely than was otherwise thought, especially in relation to predictive models and assessments about future performance.

Block (1999) reports the results of a survey of financial analysts confirming the considerable use of accounting information and the application of that information in the forecasts made. Non-financial information pertaining to the quality of management and risks are considered "below" other variables (largely financial variables) in determining measures of performance. Finally, Barker (1999) and Bradshaw (2002) note that in making valuation decisions about stocks, financial analysts supplement their use of financial accounting information by incorporating into their decision-making, other non-financial factors (e.g., quality of management), while Nielsen (2006) reports that financial analysts place much less weight on, and report much less, non-financial information (e.g., social and sustainability, intellectual capital, and corporate governance information) than corporations disclose.

Using a verbal protocols technique Coram et al (2006) find that there is significant utilisation of non-financial performance indicators (in the form of a balanced scorecard) by financial analysts, when undertaking company valuations. Moreover, in support of an earlier study (Bouwman et al, 1995), Coram et al (2006) identify that financial analysts suggest that they would like to have more qualitative information when making firm valuations.

The type of industry is seen as being an important determinant of the degree to which non-financial information is mentioned in financial analysts' reports. Abdolmohammadi et al (2006) report that for those industries with higher levels of intangible assets a higher proportion of non-financial information (e.g., customer and product information) is mentioned in financial analysts' reports. That is, much more non-financial information is discussed in financial analysts' reports for industries which can be considered "intangible asset" industries (internet and telecommunications), than those considered "tangible asset" industries (textile and automobile manufacture). Furthermore, a great deal more of this non-financial information detailed in financial analysts' reports is not mentioned in companies' filings to the Securities and Exchange Commission (SEC). This result is consistent with an earlier study by Rogers and Grant (1997), who report that parts of the annual report other than the financial statements, including the "Management Discussion and Analysis (MD&A)", are considered much more important in providing information for financial analysts' reports.

To date, academic studies on this topic have focused largely on research methods other than behavioural experimental techniques, which can be important in analysing critical components of a decision-making process and which allow for causal links to be identified. The second study of this thesis, being a behavioural experiment, is therefore contributing to this area of research by aiming to determine the impact of CSR reporting and its assurance on financial analysts' decision-making.

5.1.1. Non-Financial Information and Financial Performance

Although many studies have examined the link between the disclosure of non-financial information and financial performance, the following discussion includes only a small number of studies to highlight the type of research undertaken. In one of the most noted papers on the topic, Amir and Lev (1996) utilise an empirical-archival approach to highlight that non-financial indicators (population size, customer penetration rate) are highly value relevant to investors when making security valuations of independent cellular companies. Ittner and Larcker (1998) also examine non-financial information pertaining to customers and report that one important non-financial measure, customer satisfaction, provides information to the market above that which is embodied in accounting book values. Additionally, they show that there is a generally positive and statistically significant relationship between the customer satisfaction measure and future accounting performance. This result is supported by Banker et al (2000), who examine customer satisfaction measures in the hospitality industry.

Another significant industry attracting academic interest is the airline industry, where several studies report significant associations between non-financial information (performance variables) and economic performance and stock returns (Behn and Riley, 1999; Liedtka, 2002; Riley et al, 2003). Behn and Riley (1999) report a positive association between factors such as customer satisfaction, load factors and market share, and operating revenue and profits. Similarly, Riley et al (2003) demonstrate a positive association between customer satisfaction, load factors and capacity, and stock returns. Taking a different focus, Liedtka (2002) identifies seven underlying non-financial constructs (e.g., service quality, passenger safety, labour efficiency) that purport to measure performance beyond that measured by traditional financial measures.

In 2003, Vanstraelen et al (2003) examined the relationship between the disclosure of non-financial information by corporations and the accuracy of financial analysts' earnings forecasts. Examining a large number of non-financial disclosures that fall within six broad categories, they report that higher levels of non-financial disclosures are positively associated with higher levels of accuracy in financial analysts' earnings forecasts.

In what appears to be one of the few studies that examines the link between non-financial information and financial performance using a behavioural experiment technique, Coram et al (2007) report that the disclosure of non-financial indicators, in the form of a balanced scorecard, have a significant impact on the stock price estimates made by financially literate users of financial statements; namely, accountants undertaking training courses as part of their professional training. In the second study of this thesis a similar question is examined, but focuses specifically on CSR reporting. Furthermore, it employs a more relevant group of corporate information users and investors for a stock recommendation decision; financial analysts.

Table 5.1: Academic Studies on Non-Financial Information: Its Use by Financial Analysts and Relationship to Financial Performance

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Previts, Bricker, Robinson and Young (1994)	**Content analysis:** Examine the information needs and use of sell-side financial analysts in preparing stock recommendations	479 financial analysts reports of 40 brokerage firms from *Investext* database in 1987/88, 1990 and 1991/92	Analysts extensively consider non-financial information (e.g., risks, competitive position, management, strategy) in making stock recommendations. No specific mention made of environmental/social issues
Bouwman, Frishkoff and Frishkoff (1995)	**Protocol analysis:** Examine the information usage by analysts when assessing a potential investment	12 buy-side analysts, members of *Financial Analysts Federation*	GAAP information used to quickly eliminate unattractive candidates. It plays much less important role in developing positive case for investing, where non-GAAP (including non-financial) measures become more important
Amir and Lev (1996)	**Logistical regression:** Examine the value relevance of financial and non-financial information (population size, customer penetration rate) of independent cellular phone companies	14 independent publicly held US cellular phone companies in May 1993	Non-financial indicators are highly value relevant. This result is expected in industry sectors that are high-growth, highly technical sectors
Dempsey, Gatti, Grinnell and Cats-Baril (1997)	**Survey – mailed:** Examine the use by financial analysts, of specific strategic performance variables in their long-term assessments of firm success	420 financial analysts	Although relying heavily on traditional financial measures, analysts use, and are interested in using, a broad range of non-financial information (e.g., market share, reputation of management, environmental performance) as well
Rogers and Grant (1997)	**Content analysis:** Examine the "relevance" of information provided in annual reports by examining financial analysts reports, and identifying the types of information conveyed by analysts, and the source of that information	187 randomly selected analyst reports (from One Source data base) for largest 1000 US firms (mainly manufacturing and retail firms) in 1993/94	Financial statements constitute a small proportion of information found in analysts' reports, while the "MD&A" section provides the largest proportion. Narrative sections of the annual report are important (twice as much provided than from financial statements), while over half financial and operating info cited by analysts are not found in the annual report
Ittner and Larcker (1998)	**Logistical regression:** Examine the value relevance (accounting measures/book values) of customer satisfaction measures, at the customer, business-unit and firm level	Various: one telecommunication company (customer level), 73 retail bank branches (business-unit level), 125 very large firms selling consumer products (firm level) in 1994-96	Relationships between customer satisfaction measures and future accounting performance are generally positive and significant. Economically relevant to stock market, but only partially reflected in current accounting book values
Barker (1999)	**Database analysis:** Examines the role of dividends in equity valuation by examining the practices of analysts and fund managers	149 sources of data collected from observation, questionnaires and structured interviews 1994-96	Analysts and fund managers both perceive their own assessment of quality of company management (being an important non-financial indicator) to be important

Table 5.1 (cont'd): Academic Studies on Non-Financial Information: Its Use by Financial Analysts and Relationship to Financial Performance

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Behn and Riley (1999)	**Logistical regression:** Examine whether timely non-financial performance information (customer satisfaction, load factor, market share) is useful predictor of financial performance in airline industry	7 largest airlines consistently appearing in *Air Travel Consumer Report 1988-96*, meeting certain criteria	Customer satisfaction, load factor, market share and available ton miles are all positively associated with operating profit and revenue. Customer satisfaction positively associated with expenses
Block (1999)	**Survey – mailed:** Examine what analytical techniques are used by financial analysts, and the importance of different variables in making stock recommendations	297 financial analysts	The quality of management and risks are considered below other variables (earnings quality, growth potential) in determining P/E. High marks are given to EVA approach to valuation
Banker, Potter and Srinivasan (2000)	**Logistical regression:** Examine the impact of non-financial measure (customer satisfaction – likelihood of return/customer complaints) in hotel industry, on firm performance	Monthly data for 18 hotels managed by one group	Non-financial measures of customer satisfaction significantly associated with future financial performance (revenue/cost/profit), and contain additional information not reflected in financial measures
Bradshaw (2002)	**Distribution analysis of documented information:** Examine analysts' reports to document frequencies with which analysts disclose target price information with stock recommendations	103 randomly selected analyst reports from *Investext* database 1996-98	Target prices frequently used to justify recommendations. Analysts use earnings forecasts in an unsophisticated manner, and while relying heavily on accounting numbers, recent studies show non-financial factors also used
Liedtka (2002)	**Exploratory and confirmatory factor analysis:** Examine whether nineteen non-financial publicly available performance measures provide information beyond that provided by financial performance measures	10 major airlines operating in US 1988-98	Nineteen non-financial performance measures measure seven underlying constructs (service quality/passenger safety/customer satisfaction/ labour efficiency/fixed asset efficiency/material efficiency/ passenger volume) which provide performance information not captured by common financial measures
Riley, Pearson and Trompeter (2003)	**Fixed effects panel data regression analysis:** Examine the "value relevance" of non-financial performance variables (customer satisfaction/revenue load factor/capacity) and accounting information, in the airline industry	7 largest airlines consistently appearing in *Air Travel Consumer Report* between 1988 and 1999	Accounting earnings and non-financial performance variables are significantly associated with stock returns. When included in the same model, non-financial performance variables exhibit incremental value relevance over traditional accounting measures

Table 5.1 (cont'd): Academic Studies on Non-Financial Information: Its Use by Financial Analysts and Relationship to Financial Performance

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Vanstraelen, Zarzeski and Robb (2003)	**Logistical regression:** Examine relationship between *Jenkins Committee* non-financial disclosure (six different disclosure categories) and financial analysts' earnings forecasts	120 companies in selected industries (providing significant detail in annual reports), tracked by *IBES*, in Belgium, Germany and Netherlands	Higher levels of forward looking non-financial disclosures are associated with higher accuracy in financial analysts' earnings forecasts. Larger companies and those with a global focus voluntarily provide higher levels of non-financial disclosures
Abdol-mohammadi Simnett, Thibodeau and Wright (2006)	**Content analysis:** Examines the nature of the information (financial/non-financial/other) disseminated in sell-side analysts' reports	64 analysts reports for brokerage firms on *First Call*, in 1999	Analysts' recommendations provide higher proportion of financial information and lower proportion of non-financial information for tangible asset intensive industries than intangible asset intensive industries
Coram, Mock and Monroe (2006)	**Verbal protocol:** Examine whether non-financial performance indicators (balanced scorecard/strategy/customer-related/internal business processes/learning and growth) impact analysts decision-making and judgements when assessing company performance	8 financial analysts	Significant utilisation of non-financial performance indicators by analysts when performing company valuations, particularly when the financial information was positive trending
Nielsen (2006)	**Content analysis:** Examine the information content of fundamental analyst reports to analyse the type of information considered by analysts, with a particular focus on non-financial information	12 analyst reports for one medico-tech company in Denmark	Analysts place less weight on, and disclose less, non-financial information (social and sustainability, intellectual capital and corporate governance information) than business reporting practices
Coram, Monroe and Woodliff (2007)	**Behavioural experiment (2x2 + control group) – controlled experiment:** Examine whether voluntary disclosures of non-financial performance indicators in a balanced scorecard, and the assurance of that information, impacts financial statement users price estimates	209 trainee accountants	Non-financial performance indicators in the form of a balanced scorecard have significant impact on stock price estimates

5.2. Corporate Social Responsibility Reporting

While the previous section highlighted the usefulness of non-financial information, the following discussion outlines current CSR reporting requirements across a number of jurisdictions and highlights recent studies that have examined the extent to which reporting takes place. This discussion is included under the first sub-section heading, "Corporate Social Responsibility Requirements and Frameworks". The second sub-section outlines key academic studies that have examined the link between corporate social performance and financial performance. The academic studies discussed in these two sub-sections are summarised in Table 5.2. Many recent studies examining the extent of CSR reporting have also considered the assurance of that information. These studies are discussed in Section 5.3, which contains a discussion of research literature pertaining to the assurance of non-financial information, including CSR reporting.

5.2.1. Corporate Social Responsibility Reporting Requirements and Frameworks

In a survey of corporate information users (shareholders, brokers, analysts, financial institutions, academics), Deegan and Rankin (1999) report that there is a strong view that environmental and social reporting should not be voluntary, but should be mandated by the accounting profession or governments. In recent years, many countries have mandated in various forms, the reporting of aspects of CSR information.

In its paper entitled "Corporate Social Responsibility", the Corporations and Markets Advisory Committee[55] (CAMAC, 2006) summarised the key reporting requirements in major jurisdictions throughout the world. CAMAC (2006) highlights that within Australia corporations are required to make reference to relevant non-financial information (specifically noting that this includes environmental and social matters) under the Corporations Act continuous disclosure provisions, where information would be thought to have a material affect on the price or value of securities. Within the Directors' Report (refer s299 of the Corporations Act) corporations must include all information that shareholders would reasonably require to make information decisions, including the corporation's performance in relation to relevant environmental regulation. More specifically, companies listed on the Australian Stock Exchange (ASX) are obliged to comply with listing rules which mandate a review of operations and activities. The guide provided for the listing rules recommends discussion concerning social and environmental factors. Similarly, Corporate Governance Council

[55] CAMAC is a body established to provide a source of independent advice to the Australian Government on issues that arise from time to time in corporations and financial markets law and practice.

principles, to which listed companies must comply on an "if not, why not" basis[56], suggest the inclusion of relevant non-financial information in reporting. Indeed, the Corporate Governance Council principles require listed companies to disclose a summary of their policies for the oversight and management of material business risks, including "operational, environmental, sustainability …..ethical conduct, reputation" risks (ASX, 2007, p. 32).

The extent of regulation in other jurisdictions varies, with the United States prescribing certain environmental disclosures as part of the Securities and Exchange Commission (SEC) listing rules. A 2003 directive of the European Union (EU) Commission sets minimum standards for member countries in relation to reporting and disclosure of the environmental and social impacts of operations and the manner in which such impacts are managed. While Germany has adopted the directive closely, other countries such as France and the United Kingdom (UK) have developed reporting requirements well beyond the scope of the directive. In France, legislation was enacted in 2001 prescribing in some detail the various information and indicators (including "how the company takes into account the social and environmental consequences of its activities" (CAMAC, 2006, p. 132)) to be included in annual reports. The UK used Companies Act legislation to require discussion of corporations' policies pertaining to key environmental, social, community and employee issues in the operating and financial review included in annual reports. Regulators in other developed countries, such as South Africa and Canada, prescribe various environmental and social reporting requirements; the former utilising the Global Reporting Initiative (GRI) framework and the latter requiring inclusion of discussion of relevant matters in the Management Discussion and Analysis section of the annual report.

As evidenced by the preceding discussion, most of the initiatives taken by regulators throughout the world promote increased disclosure of CSR matters, but generally within existing reporting frameworks. That is, persons charged with governance within a corporation are generally required to provide required environmental, social and sustainability disclosures within, for example, their annual reports.

[56] An "if not, why not" basis requires the corporations to provide discussion in their corporate governance statements that they have complied with the principles. Where they fail to comply with the principles, they are required to explain the reason for non-compliance.

The development of specific CSR reporting frameworks assists in promoting the publication of "stand-alone" CSR reports. Although no jurisdictions mandate the preparation and issue of "stand-alone" reports, the increasing number of firms providing such reports on a voluntary basis implies the perceived benefits of doing so, in terms of assisting investors and potential investors in making investment decisions of a financial, ethical and societal nature. In a survey of sustainability reporting practices of Australian reporting entities in 2005, Frost et al highlight the importance of separately prepared CSR statements, noting that discrete reports on sustainability provide far greater levels of information than sustainability information contained in annual reports. In terms of the amount and breadth of information provided, annual reports were seen as being the least valuable source of information.

One framework assisting to promote the production of consistent and comparable reporting in this area is the 'Global Reporting Initiative' (GRI).[57] The primary vision of the GRI is to improve the transparency and accountability of reporting on sustainability information, in the hope that companies will eventually make reporting of CSR as common as financial reporting. Essentially, the achievement of this vision is dependent upon the development and use of an accepted reporting framework, such as that provided by GRI.[58] The GRI is considered the most dominant of CSR regulations used, with over 1,000 companies across more than 60 countries registered and reporting under this framework in late 2006 (Ballou et al, 2006). It has received active support from accounting bodies such as the AICPA (Ballou et al, 2006) and is mentioned by several studies as a potential framework/criteria against which assurance can be performed (Deegan et al, 2006a; Simnett et al, 2007) (refer Section 5.3.2). The latest GRI reporting guidelines (G3) were developed with input from a sub-committee of the IAASB, whose primary aim was to review the disclosures being proposed and make

[57] GRI is a "large multi-stakeholder network of thousands of experts, in dozens of countries worldwide, who participate in GRI's working groups and governance bodies, use the GRI Guidelines to report, access information in GRI-based reports, or contribute to develop the Reporting Framework in other ways – both formally and informally" (Global Reporting Initiative, 2007).

[58] The key elements of this framework are: (i) the reporting guidance and principles, and protocols, which together help identify "how" the reporting should be structured; and (ii) the standard disclosures and additional sector information that comprise the "what" to report. Standard disclosures include information about the profile of the company, the management approach to sustainability and the performance indicators used in reporting.

suggestions that would increase their suitability as criteria for an assurance engagement (IAASB Annual Report, 2005).

In 2006 the United Nations (UN) issued its “Principles for Responsible Investment”, which highlighted the increase in CSR reporting in recent years. They note that although such reporting has been embraced by many companies worldwide, it seems that these companies had seen little in the way of reward for their efforts from the financial community. This is primarily due to there being an “absence of a set of guidelines that individuals and institutional investors can use to assess risks and opportunities fully” (United Nations, 2006, p. 1). With this in mind, the UN issued its six principles of responsible investment that aimed to “align investors with broader objectives of society” (United Nations, 2006, p. 4).

Despite increased reporting and disclosure requirements for CSR reporting (and the development of frameworks for reporting) a recent study by Cohen et al (2007) shows that amongst a sample of 50 publicly traded firms in the US, there is still a lack of what is described as “rigorous and expansive” disclosure with respect to CSR reporting. Non-financial information that is disclosed tends to be favourable to the entity disclosing the information (Cohen et al, 2007). Furthermore, the volume of CSR information being disclosed tends to be greater for larger firms (Cormier and Magnan, 2003; Nielsen, 2004; Cohen et al, 2007). It is arguable therefore, whether the CSR information is being disclosed for the benefit of investors (existing and current) or the company.

The reporting of CSR information appears to differ across different industries. Current information pertaining to CSR reporting by industry type presents mixed signals. A major issue impeding the consistent reporting of non-financial information across industries is recognition that the information being reported is “inherently idiosyncratic” to particular industries (Upton, 2001). Typically, however, companies in environmentally, politically and socially sensitive industries are those which are perceived to benefit most from CSR reporting (Kolk, 2003; Cohen et al, 2007). In a survey of the top 250 global firms (G250) in 2005, the proportion of companies within industry groups that prepare a separate CSR report, or included a report as part of an annual report, was very high among mining, forestry, construction, chemicals and pharmaceuticals, with 100 per cent of companies within those industry groups preparing such reports (KPMG, 2005). This proportion falls to just over 90 per cent for utilities and electronics, between 80 and 85 per cent for the automotive and oil and gas industries, and around 50 per cent for finance, metals and communications.[59] In nearly all of these industries, the proportion of companies providing CSR reporting increased over the three years from 2002. In the same study, reported proportions are not as large for the group of companies that includes the top 100 companies across each of 16 countries. However, the largest and only proportions of, or greater than, 50 per cent of the population sample are: utilities (61 per cent); oil and gas, chemicals and mining (all 52 per cent); and forestry, pulp and paper (50 per cent). CSR reporting by different types of industry is considered in the development of hypotheses for the second study in this thesis (refer Section 6.2.).

5.2.2. Corporate Social Responsibility Reporting and Financial Performance

A major aim of the second study of this thesis is to analyse the use and impact of the assurance of CSR reporting on the investment decision-making judgements of financial analysts. It is therefore important to discuss extant literature that examines the link between CSR reporting and financial performance. Patten (1990) notes that "ultimately, the goal of social responsibility accounting has to be the provision of social information that is useful in making business and economic decisions" (Patten, 1990, p. 584).

A recent meta-analysis (Margolis et al, 2007) highlights that there have been 167 studies that have examined links between corporate social performance and corporate financial performance in the 35 years from 1972. From these 167 studies, Margolis et al (2007) note that "192 effects" have been examined; 45 of which relate directly to environmental performance, and 13 of which relate directly to corporate policies/social performance. Clearly, the following discussion does not cover all of the studies noted in the meta-analysis; however a few studies are separately identified to provide the reader with an insight into the type of research undertaken in this area of interest.

[59] These proportions should be interpreted with caution given that there are many more companies in the finance, and trade and retail, industries than other industries included in the survey.

From their large meta-analysis, Margolis et al (2007) conclude that, overall there appears to be a positive relationship between good corporate social performance and corporate financial performance. They note that the strongest link appears for environmental performance, while the weakest is for corporate policies. Furthermore, they consider financial performance from the perspectives of both accounting and market-based measures of performance. They report that the positive link between corporate social performance and accounting measures is much stronger than the link to market-based measures. A meta-analysis conducted several years earlier by Orlitzky et al (2003) covering 52 studies also report a similar positive overall link, and a link that is stronger for accounting-based measures than market indicators. However, in contrast to Margolis et al (2007) they report that the positive link is much stronger for social responsibility reporting than environmental reporting.

A selection of studies over the last 35 years demonstrates the range of issues that academics have considered in examining this link between corporate social performance and corporate financial performance. In line with the results of the meta-analysis by Margolis et al (2007) the following studies all report a positive relationship between the two variables of interest. Several studies have considered corporate financial performance from the perspective of the link between financial performance and disclosures of pollution control expenditures issued by a public authority and pollution control rankings (Belkaoui, 1976; Jaggi & Freedman, 1982; Shane & Spicer, 1983). Other studies have examined the link in terms of: social responsibility and whether companies signed a set of principles pertaining to their relationships with South Africa (Patten, 1990); and the extent of environmental disclosures prior to a major environmental catastrophe (Blacconiere and Patten, 1994). More recently, the reporting of more extensive quantifiable environmental disclosures (Al-Tuwaijri et al, 2004) has been used as a measure against which financial performance is compared.

A recent phenomenon in world markets is the growth of socially responsible investment (SRI) and SRI funds which invest exclusively in corporations that are seen to be good corporate citizens. Essentially, SRI aims to “combine investors’ financial objectives with their commitment to social concerns” (Jansen et al, 2006. p. 85). Barnett and Salomon (2006) report that SRI funds which “screen” their investments for environmental and labour relations issues perform less well financially than funds which “screen” their investments on the basis of community relations. Overall, in terms of the performance of these SRI funds, Jansen et al (2006) note that “(t)he evidence collected to date (and there has been a considerable amount of research undertaken) is inconclusive; some SRI funds outperform, others underperform” (Jansen et al, 2006, p. 87). This research, conducted by a sell-side equities analyst, implies that the reporting of CSR information is of increasing importance. However, it is unclear how financial analysts incorporate the information into decisions that achieve the aims of SRI.

Notwithstanding the results of the meta-analyses and the raft of studies that have demonstrated a positive link between corporate social performance and corporate financial performance, some still argue that such a link has yet to be clearly shown (Gond and Herbach, 2006). Gond and Herbach (2006) suggest that part of the reason may stem from the fact that a reliable definition of CSR reporting does not exist (also noted in CAMAC (2006)). On a practical note, a 2005 survey of executives and investors notes that a large majority (84 per cent) of respondents feel that a direct link between CSR and profits is “proving elusive” (Economic Intelligence Unit, 2005).

Table 5.2: Academic Studies on Corporate Social Responsibility Reporting: Its Relationship to Financial Performance

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Belkaoui (1976)	**Logistical regression:** Examine the impact of disclosure of pollution control expenditures on stock prices	2 groups of 50 “matched pair” companies in US in 1970 – one of the pair having disclosed pollution control information in annual report	Companies disclosing pollution control expenditures show significant change centred on date of disclosure, verifying existence of “ethical investor”. Assertion that in long run, pollution control expenditure may lead to better income and less EPA scrutiny
Jaggi and Freedman (1982)	**Logistical regression:** Examine the informational content of pollution disclosures, focusing on investor reaction, particularly in companies belonging to high polluting industries	105 companies in selected industries (chemical/paper and pulp/oil/steel) in 1973/74	Investors react positively to disclosure of pollution control expenditures, with significantly larger abnormal returns for companies disclosing such. Rules for disclosure are likely to assist investors in evaluating risks and returns

Table 5.2 (cont'd): Academic Studies on Corporate Social Responsibility Reporting: Its Relationship to Financial Performance

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Shane and Spicer (1983)	**Logistical regression:** Examine whether companies' security price movements are associated with the release of publicly available (external) information about their performance in pollution control	72 companies in industries affected by *Council on Economic Priorities (CEP) Reports* in 1970-75	Companies with low pollution control rankings have significantly more negative returns on day information published. Results consistent with view that investors use publicly available information to discriminate between companies with different pollution control records
Patten (1990)	**Logistical regression:** Examine the link between social responsibility information disclosures and market reaction, in terms of unexpected trading volumes	Originally 37 companies signing *Sullivan Principles*, then exclusions of 10 based on three criteria	Evidence that investors use CSR information. Non-disclosure of positive information (i.e., being agreement to certain principles relating to treatment of labour) was construed negatively by market and created higher unexpected trading volumes
Blacconiere and Patten (1994)	**Logistical regression:** Examine impact (market reaction) of environmental disaster (Bhopal chemical leak) on industry of firms, and the effect of environmental disclosures	47 firms in relevant industries, meeting selected criteria	All firms experienced negative market reaction following catastrophe. Firms with more extensive environmental disclosures in financial reports experienced significantly less negative reaction
Deegan and Rankin (1999)	**Survey – mailed:** Examine the relative importance (relative views of preparers of reports – companies – and a range of report users) of various items of environmental and social performance information to users' decision-making, to determine the existence of a "reporting" expectations gap	116 of the top 500 companies in Australia, 60 shareholders; 16 brokers and analysts; 24 accounting academics; 6 financial institutions; 12 review organisations	An "expectations gap" does exist. Users (relative to preparers) are more likely to consider environmental and social information important to decision-making. Also, users disagree that disclosures should be voluntary, and believe that the accounting profession or government should provide reporting guidelines
Cormier and Magnan (2003)	**Logistical regression:** Examine the determinants of corporate environmental reporting using a costs/benefits framework	50 non-financial French companies in Datastream financial information database in 1997	Firm size (i.e., larger firms), as well as proprietary costs, information costs and media visibility important determinants of corporate environmental reporting
Orlitzky, Schmidt and Rynes (2003)	**Meta-analysis:** Examine the link between corporate social performance (CSP) and corporate financial performance (CFP) by undertaking a meta-analysis of relevant studies on the topic	52 studies located on two search criteria in period 1970-2002	Overall effect of link between CSP and CFP is positive, association for environmental responsibility weaker than social responsibility. Overall, a stronger link found with accounting-based measures, than market indicators

Table 5.2 (cont'd): Academic Studies on Corporate Social Responsibility Reporting: Its Relationship to Financial Performance

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Al-Tuwairji, Christensen and Hughes (2004)	**Simultaneous equations – taking into account endogeneity of variables:** Examine the relationship between environmental disclosure, environmental performance and economic performance	198 firms listed in *1994 IRRC Environmental Profiles Directory* meeting specific requirements	"Good" environmental performance significantly associated with "good" economic performance, and with more extensive quantifiable environmental disclosures
Frost, Jones, Loftus and Van der Laan (2005)	**Content analysis:** Examine the nature and extent of sustainability reporting practices of publicly listed companies in Australia	25 companies issuing discrete reports on sustainability issues in Top 500 ASX listed companies as at Sept. 2003	The annual report is found to be the least valuable source of information regarding corporate sustainability. Greater levels of information are found in "stand-alone" reports and on websites
Barnett and Salomon (2006)	**Logistical regression:** Examine the social performance – financial performance link for mutual funds that practice socially responsible investing, taking into account different types of "social screens" (i.e., types of social responsible investment)	61 socially responsible mutual funds tracked by *Social Investment Forum*, subjected to further criteria	As social screening increases, financial performance declines at first, then rebounds as number of screens reaches maximum. Financial performance increases for community relations screens, but decreases for environmental and labour relations screens
Cohen, Holder-Webb, Nath and Wood (2007)	**Content analysis:** Examine the type and quantity of non-financial information (industry cohort/ governance/CSR) presented to investors, the forms in which information is presented, and sector specific differences	863 documents drawn from stratified sample of 50 publicly traded firms across 5 industries	Type and quantity of information disclosed varies across industry: oil companies provide high quantities of information on environmental programs. Disclosure of non-financial information tends to be favourable to the reporting company
Margolis, Elfenbein and Walsh (2007)	**Meta-analysis:** Examine the link between corporate social performance (CSP) and corporate financial performance (CFP) by undertaking a meta-analysis of all located studies on the topic. CSP broken into nine types (e.g., environmental performance, corporate policies)	167 studies located on five search criteria in period 1972-2007	Overall effect of link between CSP and CFP is positive, but small. Amongst strongest association is environmental performance; amongst weakest was corporate policies. Overall, a stronger link found with accounting measures, than market measures

5.3. Assurance of Non-Financial Information (including Corporate Social Responsibility Reporting)

This section commences with a general discussion of the role and importance of assurance. It proceeds to discuss in two separate sections: firstly, extant literature pertaining to the assurance of non-financial information more generally; and secondly, research examining the assurance of CSR reporting. Relevant academic studies in this area of interest are summarised in Table 5.3.

Traditionally, audit services provided by professional accountants have focused on the audit of financial statements. However, with increased reporting of non-financial information by companies, there has being growing recognition of the important role assurance plays in enhancing the credibility of this information. However, for many types of non-financial information, including CSR reporting, the assurance of such information is voluntary; a choice to be made by those companies providing such reporting. Therefore, given that the second study of this thesis centres on the impact of assurance of CSR information on the perceptions and investment decisions made by information users, it is important to highlight relevant research that has been undertaken on voluntary assurance.

As outlined earlier in Chapter One, the International Framework for Assurance Engagement (IFAE) defines an assurance engagement as one in "which a practitioner expresses a conclusion designed to enhance the degree of confidence of the intended users other than the responsible party about the outcome of the evaluation or measurement of a subject matter against criteria" (IAASB, 2008, paragraph 7). Important in this definition is the notion that assurance enhances the degree of confidence, which can be provided at different levels of assurance. Furthermore, there is an assumption that it is an aim to enhance the confidence of intended users other than the responsible party, and that an evaluation is undertaken against "criteria". It is the lack of an agreed framework or criteria for reporting non-financial information (especially CSR information) which has been the focus of much of the recent debate pertaining to the assurance of non-financial information. Despite growing regulatory requirements, and organisations such as GRI and the United Nations developing guidelines or frameworks for the presentation of CSR reporting, this debate continues (Simnett and Nugent, 2007).

It is generally accepted that the function of assurance (an audit) in relation to financial reporting, is to add credibility to the information provided by the issuers of the financial report (Watts and Zimmerman, 1983; Blackwell et al, 1998; Johnson et al, 2002; Mansi et al, 2004). This increased credibility is evidenced by the fact that firms who have their financial statements audited generally pay lower levels of interest rates on borrowings than firms who do not (Blackwell et al, 1998). Also, the market places a price premium on independently audited information (Dopuch et al, 1986; Willenborg, 1999; Copley and Douthett, 2002). An audit is also important for companies who are attempting to raise capital from potential investors (Bhattacharjee et al 2005). Overall, investors consider audited information to be more credible than information which is unaudited, which in turn can create perceived higher earnings potential (Hodge, 2001). An audit of financial information is similarly important for financial analysts. Financial analysts note the importance of the role of auditors in ensuring that negative earnings surprises are minimised (Previts et al, 1994), and find audit reports useful in their decision-making process (Gómez-Guillamón, 2003).[60]

Based on the premise that is driven by relationships of accountability between parties, Pentland (2000) suggests that society entered an era late last century whereby it moved from a paradigm of trusting most things and therefore auditing little, to a situation where there is little trust and everything is audited. This equates with a movement towards making things "auditable", and is consistent with the views of Elliott (2002), who in conjecturing about the future of assurance, posits that society is moving away from the "traditional financial information assurance" towards an assurance regime that will examine levels below the financial statement level and include non-financial information.

5.3.1. Assurance of Non-Financial Information

This section outlines literature focused on the voluntary assurance of information, including the assurance of non-financial information. Unlike the information provided in financial statements where audits or reviews are generally mandated by law, the assurance of non-financial information is generally left to the discretion of the companies providing that information. Voluntary assurance has been the focus of few empirical studies, with most researchers devoting their attention to the statutory audit

[60] The study by Gómez-Guillamón is a survey of credit institutions and analysts that has no experimental manipulation and which concludes, by rejecting a null hypothesis, that the type of audit opinion strongly influenced both groups in terms of their investment decisions. On this basis, the conclusion is reached that audit reports are useful for those making investment decisions.

mandated by law in most developed countries for the greater part of last century (Simnett et al, 2007). However, evidence in the last few years suggests that users of non-financial information are in favour of and are demanding, assurance of non-financial information provided voluntarily (Hasan et al, 2003; Simnett et al, 2007).

Of the empirical-archival studies that have examined voluntary assurance, results are generally supportive of the view that voluntary assurance relates to addressing issues of information asymmetry and loss of control, and enhanced credibility of information. Studies have shown that with the costs and problems associated with the separation of ownership and control (as espoused by agency theory), there is a need for those in control to demonstrate to those in ownership appropriate stewardship and accountability. This in turn leads to increased demand for assurance (Chow, 1982; Abdel-khalik, 1993; Blackwell et al, 1998; Carey et al, 2000).

Behavioural experimental studies also support the view that users of information consider the voluntary assurance of non-financial information to be important. Fargher and Gramling (1996) use investment managers, fund sponsors and offices providing assurance services, to report that investment managers acquire assurance services (to attest to reported performance measures) as they believe it signals to users a higher quality of performance. This study however, focuses on performance measures that are prescribed by an industry regulator. In a study with a similar context (i.e., the attestation of performance measures required by an industry regulator), Fargher and Gramling (2003) note that pension fund sponsors perceive that assurance increases the credibility of performance measures only when those performance measures report above average performance. This is consistent with the view that if companies are reporting bad news voluntarily, they will not perceive assurance as being as important as when good news is being reported.

In a study examining the impact of electronic commerce assurance on earnings forecasts and stock price estimates of financial analysts, Hunton et al (2000) report that assurance of this kind reduces the risk perceived by analysts and enhances perceptions about firms' performance and value. Using a behavioural experiment, Libby et al (2004) show that assurance increases MBA students' (being used as a proxy for managers) usage of balanced scorecard (i.e., non-financial) measures in evaluating managements' judgements. Coram et al (2007) report that for "balanced scorecard" non-financial performance indicators, assurance has a significant positive effect on stock price estimates and earnings' forecasts provided by trainee accountants, undertaking training courses as part of their professional qualification program (being used as proxies for a investors). Like Fargher and Gramling (2003), Coram et al (2007) note that the significant positive effect is only evident when the information disclosure is positive. Using a verbal protocol technique, Coram et al (2006) report that "there was some evidence" (Coram et al, 2006, p. 2) that financial analysts made use of assurance reports pertaining to non-financial performance indicators (e.g., balanced scorecard) when undertaking company valuations and assessment of performance. However, "there was no significant association found between provision of assurance reports and utilization of nonfinancial performance indicators" (Coram et al, 2006, p. 2).

None of these studies specifically focus on CSR reporting. Furthermore, several studies use non-professional investors as experimental participants. However, generally they highlight the perceived importance of assurance of voluntarily provided non-financial information.[61] This is important for the second study of the thesis, which specifically aims to address the impact of assurance of CSR reporting on the decisions made by a professional group of investors.

In terms of providing a framework for the assurance of non-financial information, the IAASB issued ISAE 3000 for applicable assurance engagements undertaken after 1 January 2005.[62] The standard notes that it should be read in conjunction with the International Framework for Assurance Engagements, and as such implies that where an auditor undertakes assurance work on non-financial information, the framework and general approach is governed by the same arrangements as for audit engagements of financial information. The standard has been written to apply to assurance engagements other than audits and reviews of historical financial information covered by other standards and would apply to assurance engagements for CSR reporting. Although the

[61] An alternative view of the importance of assurance of voluntarily provided information is offered by Stocken (2000). Using a "repeated-game setting" research method, Stocken (2000) suggests that independent verification of voluntarily disclosed information is not required, as managers have sufficient concern about the credibility of their reporting that they will nearly always ensure that disclosed information is truthful.

[62] Australia adopted this standard as Australian Standard on Assurance Engagements (ASAE) 3000, "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information".

standard does not prescribe a standardised format for reporting, it details a number of basic elements that should be included in an assurance report.[63]

5.3.2. Assurance of Corporate Social Responsibility Reporting

This section outlines extant literature describing and examining the assurance of CSR reporting. As noted in Section 5.2.1, there is a growing trend towards mandating CSR reporting, generally within existing reporting frameworks. Where information is provided in this format, it may be subject to varying levels of assurance. For example, within Australia, auditors are required to examine information provided in a company's annual report to ensure it is not inconsistent with the information provided in financial statements. For example, auditors are required to review the Directors' Report provided by a company and ensure that information about the corporation's performance in relation to relevant environmental regulation (refer s299 of the Corporations Act) is not inconsistent with the information presented in financial statements on which an opinion is provided.

Despite the growing interest in the assurance of CSR information, most academic research to date has focused on descriptive analyses of the trends in this area; for example, the proportion of companies providing separate CSR reports, the proportions having such reports assured, the types of assurors used and so on. The second study of this thesis contributes to the current body of literature by undertaking a behavioural experiment that considers the impact of the assurance of CSR reporting on the investment decision-making of financial analysts.

It is noted that "(t)he practice of having third party assurance statements accompanying stand-alone social and environmental reports is fairly recent. As such, the assurance of TBL (triple bottom line) reports is in the early stages of its evolution" (Deegan et al, 2006b, p. 333). "The assurance process continues to evolve as do the corporate

[63] The standard notes that "reasonable" and "limited" assurance engagements exist, with the former implying that a positive opinion is given in reporting, and the latter suggesting a negative form of expression in the conclusion. Also, qualified and adverse audit opinions, and disclaimers of opinion are permitted under the standard.

responsibility reports themselves" (KPMG, 2005). Consequently, most of the pertinent research in this area has occurred in the last few years.

Recent global surveys report an increase in the number of companies having CSR reporting assured. In the three years from 2002, a KPMG survey of over 1600 companies across 16 countries (i.e., the top 100 companies in each of sixteen countries) reports an increase from just over one quarter to nearly one-third, in the proportion of companies getting assurance statements for such reporting. Specific results by industry from the same survey shows that the utilities and mining industries are the only two industries where more than half of the CSR reports include an assurance statement (KPMG, 2005). In an investigative study examining 130 sustainability reports issued worldwide, Mock et al (2007) report that around two-thirds of assured sustainability reports are issued in the European Union, with the utilities, mining and oil industries being the industries providing the most assured reports.

At a practical level, there is increasing recognition of the importance of the role of assurance and acknowledgment that the key test of credible and useful information is the extent to which it is utilised by stakeholders "to inform judgements and actions" (Institute of Social and Ethical Accountability, 2003). In response to a questionnaire forwarded to shareholders, a majority of respondents indicate that environmental and sustainability reporting is something that requires assurance (Hasan et al, 2003). Enhancement of reputation and credibility is most often cited as the primary benefit of independent verification of CSR reporting (Australian Government, 2005). The implication is that assurance enhances credibility and usefulness, and therefore may provide to those who receive a third party assurance, a "significant leg up over their competitors" (Deloitte, 2007, p. 1).

Prior to the recent development and issue of appropriate assurance frameworks and standards for CSR reporting, several commentators criticised previous assurance practices and identified impediments to effective assurance. Arguably, these recent developments (i.e., the issue of frameworks and standards) have gone some way to overcoming these impediments. In reviewing CSR reporting and assurance practices for the period 2000-2003, Deegan et al (2006a) note that within Australia assurors do not seem to be embracing, as criteria against which assurance may be performed, frameworks of the two major international initiatives (GRI and Fédération des Experts Compatables Européens (FEE)) focused on CSR reporting.[64] Consequently, Deegan et al (2006a) note that there is a range of different practices being employed in undertaking assurance. The lack of a suitable framework for reporting and an agreed approach to assurance led some commentators to argue that the assurance of CSR reporting was worthless (Gray, 2000). Gray (2000) notes that there is a perception that the assurance of CSR information is subject to "management capture". That is, management provides a very narrow brief for assurance engagements and therefore dictates the outcome of the assurance. This view, shared by others, includes a belief that the assurance of CSR information is largely a "consultancy-based" approach designed to benefit management (Ball et al, 2000).[65] Some commentators argue that it is little more than a controlled public relations exercise (Owen et al, 2000). This consultancy focus impacts negatively upon the perceived independence of the assuror (O'Dwyer and Owen, 2005), an issue that is reported by Deegan et al (2006b) in their analysis of a database of information examining assurance of CSR reports issued in Europe and the UK.

In a critical research paper in 2003, Dando and Swift discuss problems associated with the assurance of CSR reporting that existed at that time. They identify the need for a universal standard pertaining to the assurance of CSR reporting, in order to close the credibility gap between preparers and users of that information. Additionally, in a critical paper focused on the possibility of developing a new auditing system for CSR reporting, Morimoto et al (2005) note that difficulties arise due to there being a lack of one broadly accepted definition of CSR, as well as difficulty in getting all relevant stakeholders involved. Finally, a survey of the top 300 listed companies and 200 other companies[66] in Australia in 2005 report "cost and resource constraints" as being the biggest impediment to having CSR reports independently verified (Australian Government, 2005).

Much of the literature which argues that there is no accepted approach to the assurance of CSR reporting, pre-dates several important developments in this area. Firstly, there

[64] GRI and FEE are the Global Reporting Initiative (GRI) (G3) and the Fédération des Experts Compatables Européens (FEE) "Providing Assurance on Sustainability Reports", respectively. Arguably however, the FEE provides only guidance, rather than a framework.

[65] Of course, under the International Framework for Assurance Engagements (IFAE) assurors should not accept such engagements.

[66] The top 100 private companies, and top 100 unlisted companies.

have been frameworks issued recently for the reporting of CSR information (refer Section 5.2.1). Furthermore, as mentioned in Section 5.3.1, the IAASB issued ISAE 3000 for applicable assurance engagements undertaken after 1 January 2005. Assurance of CSR reporting falls within the gamut of this standard. Other assurance frameworks have also been developed and issued for the assurance of CSR reporting. In 2003, The Institute of Social and Ethical Accountability (AccountAbility) launched an assurance standard (AA1000AS) aimed at providing guidance to assurance providers in relation to assurance of CSR reporting. During 2007-2008 AccountAbility is undertaking a collaborative re-drafting of this standard. It describes the process of re-drafting as being a "broad based multi-stakeholder process" (Institute of Social and Ethical Accountability, 2008, p. 4) involving face-to-face consultations across 20 countries and a series of public reviews and invitations for comment. AccountAbility aims to have the new standard available as a live online document in October 2008. In developing AA1000AS, AccountAbility recognises that there is a need to close the credibility gap that exists between those who provide and present CSR reports, and those who are receiving and hopefully, using the information. The standard is designed explicitly for use by those providing assurance on CSR reporting "in guiding the manner in which their Assurance assignments are designed and implemented" (Institute of Social and Ethical Accountability, 2003, p. 7). It provides guidance on the principles to be adopted, the broad outline of the report to be furnished and the personal characteristics with which the assuror should comply.[67]

A briefing paper prepared jointly by AccountAbility and KPMG Sustainability, The Netherlands in 2005 investigates consistency between the two standards: ISAE 3000 and AA1000AS. They conclude that both standards are thought to have "considerable, but very different types of legitimacy" (Institute of Social and Ethical Accountability, 2005, p. 7). Combined use of the two standards is recommended as they are seen as

[67] The key principles described in AA1000AS pertain to materiality, completeness and responsiveness. The key elements of the assurance report include basic descriptions of the work undertaken, acknowledgement of the use of the standard, conclusions about fair and balanced representation, and recommendations for improvement and so on. The standard also discusses the need for the assuror to be competent, independent and impartial.

being technically complementary and "not in conflict".[68] Finally, as noted in Chapter Two there has been a great deal of work emanating from Europe, in relation to providing guidance on assurance of CSR reporting. In its discussion paper released in June 2006, the FEE notes that guidance papers have been released by Swedish and French national authorities pertaining to the assurance of sustainability reports (FEE, 2006)[69], while the Dutch auditing regulator, Royal NIVRA, issued its own assurance standard relating to sustainability reports in July 2007.

Table 5.3: Academic Studies on Assurance of Non-Financial Information (including Corporate Social Responsibility Reporting)

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Fargher and Gramling (1996)	**Survey – mailed (Note: This was the second of two analyses in the paper – and the study of interest):** Examine the market for assurance services (for performance presentation standards for investment managers), in light of expected growth in this area, and the voluntary nature of many non-audit attestations	142 investment managers; 19 offices providing assurance services; 52 fund sponsors	Investment managers purchase assurance as they believe it signals higher quality, and more reliable investment results
Ball, Owen and Gray (2000)	**Contents analysis:** Examine the extent to which assurance statements in published environmental reports promote "organisational transparency and empowerment of external parties"	79 companies short-listed for *Association of Chartered Certified Accountants Environmental Reporting Awards* in seven years to 1998	Generally, a "consultancy-based" approach to verification implies a lack of transparency, and a process which is mainly for the benefit of company management (a managerial aid), but which is made available to external parties
Gray (2000)	**Critical – discussion:** Review current and then recent developments in social and environmental reporting, with an emphasis on assurance implications	n/a	There is need for clarification of terminology in the field of social and environmental audits. At same time, there are serious weaknesses in assurance practices, foremost of which is the fact that they are subject to management capture (i.e., a restrictive brief from management)

[68] While acknowledging that the two standards have different foci in terms of scope and materiality, it is felt that there is potential to further investigate the possibility of a "productive convergence" between the two standards (Institute of Social and Ethical Accountability, 2005). Professional accounting bodies and regulatory standard-setters are on the whole, less optimistic about the prospect of such convergence.

[69] In 2004, the *Compagnie Nationale des Commissaires aux Comptes (CNCC)* in France issued a guidance note for auditors on specific environmental and social data and information processes included in sustainability reports. In the same year, the *Föreningen Auktoriserade Revisorer*, in Sweden, issued a non-mandatory standard entitled "Independent review of voluntary separate sustainability report".

Table 5.3 (cont'd): Academic Studies on Assurance of Non-Financial Information (including Corporate Social Responsibility Reporting)

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Hunton, Benford, Arnold and Sutton (2000)	**Survey (i) and behavioural experiment (ii) (2x2) – controlled experiment:** Examine whether the assurance of electronic commerce impacts earnings forecasts and stock price estimates of financial analysts	Financial analysts (i) 37 (ii) 87	Assurance significantly increases earnings forecasts and stock price estimates in a "high risk" condition, being where vendor risk and outcome based risk are high
Owen, Swift, Humphrey and Bowerman (2000)	**Critical – discussion (based on series of interviews and literature review):** Critically appraise then current developments in social audit movement	n/a	Without changes to corporate governance structures, social audit will become monopolised by consultants and corporate management, and will become little more than a controlled public relations exercise
Pentland (2000)	**Critical – analytical discussion:** Examination of the current and future status of auditing, trust and accountability in a society where it seems there is an increasing desire to "audit" all things	n/a	Key relevant conclusions include: (i) the explosive growth of audit as a mechanism for control; (ii) the move towards "trusting nothing and auditing everything"; and (iii) as various kinds of "auditing" are done by persons who are not accounting professionals, it may be unwise to define auditing in terms of practitioners
Stocken (2000)	**Repeated game setting:** Examine the credibility of manager's disclosure of voluntary information	One firm and two long-run, risk-neutral players (corporate manager and investor)	Manager's concerns about reporting credibility is such that he will almost always truthfully disclose information provided voluntarily
Wallage (2000)	**Critical – discussion:** Discussion of initial experiences with assurance service of CSR reports	n/a	New verification procedures and auditor's report required for assurance of CSR reporting
Elliott (2002)	**Discussion paper – future directions of assurance:** Examine the possibilities for the accounting profession, in terms of the future of assurance services and the profession's interaction with its evolving environment	n/a	Future assurance services likely to broaden beyond traditional opinion on financial statements to assurance on information chosen by the user. CPA firms are effective service developers, and can be successful in moving into new areas of assurance
Dando and Swift (2003)	**Critical – discussion:** Review current arrangements for presentation and assurance of CSR reporting, with a focus on perceptions of credibility by users	n/a	Need for universal standard pertaining to provision of assurance for CSR reporting, to close credibility gap. AA1000AS may go some way as a tool to address the gap
Fargher and Gramling (2003)	**Behavioural experiment (2x2 between subjects; 1x2 within subjects) – mailed questionnaire:** Examine whether assurance of asserted compliance with specified standards (performance presentation for investment managers) influences users' perceptions of the assertion credibility	60 US Pension Fund sponsors	Assurance by independent third party makes pension fund managers perceive assertion is more credible, only when investment managers report above average performance

Table 5.3 (cont'd): Academic Studies on Assurance of Non-Financial Information (including Corporate Social Responsibility Reporting)

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Hasan, Roebuck and Simnett (2003)	**Behavioural experiment (5x1) – mailed questionnaire:** Examine whether four different reporting forms (opinion on procedures/negative assurance/positive assurance/positive assurance with limitations paragraph), being used in the provision of assurance on environmental and sustainability reports, convey to report users, a lower level of assurance than a traditional high assurance report	792 shareholders	Lower level of assurance perceived by users for moderate assurance reporting formats, than for high assurance report. Majority of respondents indicated that environmental performance was a subject matter requiring assurance
Libby, Salterio and Webb (2004)	**Behavioural experiment (2x2x2 1x2 within subjects) – controlled experiment:** Examine whether improving perceived quality of balance scorecard measures through independent third-party assurance increases managers usage of performance measures in evaluations	227 MBA students	Provision of an assurance report on the balanced scorecard increases the use of unique measures in managerial evaluation judgements
Morimoto, Ash and Hope (2005)	**Critical – framework development (literature analysis and interviews using grounded theory):** Examines the possibility of developing a new CSR auditing system	Interviewees: Government } Private sector } 10 Academics } NGOs }	Developing applied assurance procedure will be difficult, as: (i) lack of formal study on project; (ii) lack of one broadly accepted definition of CSR; and (iii) difficulty in involving all stakeholder groups
O'Dwyer and Owen (2005)	**Contents analysis:** Critically analyse the assurance statements provided by companies that were short-listed for awards under an ACCA (UK) awards scheme	81 companies short-listed for *Association of Chartered Certified Accountants UK and European Sustainability Reporting Awards* in 2002	There appears to be a large degree of management control over the assurance process, raising questions about the independence of the assurance exercise
Coram, Mock and Monroe (2006)	**Verbal protocol:** Examine whether the assurance of non-financial performance indicators (balanced scorecard/strategy/ customer-related/internal business processes/learning and growth) impacts analysts decision-making and judgements when assessing company performance	8 financial analysts	Assurance reports were read by all analysts provided with such reports, and there was evidence of further processing of non-financial information when assurance reports were provided
Deegan, Cooper and Shelly (a) (2006)	**Content analysis:** Examine the contents and features of assurance statements for CSR reports, issued in Australia	33 Australian CSR reports included in *CPA Australia* database, collected 2000-2003	Australian assurance statements do not generally appear to follow recommended guidelines of GRI and FEE. Assurance provider needs to be qualified and independent, and report should be unambiguous
Deegan, Cooper and Shelly (b) (2006)	**Content analysis:** Examine the contents and features of assurance statements for CSR reports, issued in UK and Europe	100 UK and European TBL reports included in *CPA Australia* database, collected 2000-2003	Perceived independence of assurors questionable in certain circumstances. There is great variability and ambiguity in assurance practices. Accounting firms are preferred assurance provider in Europe (around 60%), but not UK (under 25%)

Table 5.3 (cont'd): Academic Studies on Assurance of Non-Financial Information (including Corporate Social Responsibility Reporting)

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Coram, Monroe and Woodliff (2007)	**Behavioural experiment (2x2 + control group) – controlled experiment:** Examine whether voluntary disclosures of non-financial performance indicators in a balanced scorecard, and the assurance of that information, impacts financial statement users' price estimates	209 trainee accountants	The value of assurance of non-financial performance indicators was context specific (i.e., only added value when the non-financial performance information was positive)
Mock, Strohm and Swartz (2007)	**Logistic regression:** Examine which countries and industries are more likely to have an assurance statement, what levels of assurance are provided, and what factors affect the level of assurance provided	130 entities worldwide which issued assured CSR reports between 2002 and 2004	Around two-thirds of assured sustainability reports are published in the European Union. Utilities, mining and oil industries provide the most assured reports. Over half of the assurance reports did not specify an assurance framework used
Simnett, Vanstraelen and Chua (2007)	**Logistical regression:** Examine factors associated with decisions made by companies preparing stand-alone CSR reports, to have reports assured, and choice of assurance provider	2141 stand-alone CSR reports located on various databases, primarily *Corporate Register*	Companies in industries confronting greater social and environmental risks are more likely to have stand-alone reports assured

5.4. Assurance by Different Types of Assuror

This section outlines relevant literature focused on the impact that different types of assurors have on perceptions and decision-making of users of information. It also discusses descriptive analyses completed in recent years that detail differences in the types of assuror chosen by companies for the assurance of CSR reporting. A major contribution of the second study in this thesis pertains to the examination of whether differences in users' perceptions and decision-making arise as a consequence of having CSR information assured by either a professional accountant or a sustainability expert. It is also a topic that has policy implications for regulators and standard-setters in developing arrangements for the reporting and assurance of CSR information. Relevant studies are summarised in Table 5.4.

Communications theory highlights that the extent to which people believe a message depends on their perception about the source of the message. Maines (1996) reported that MBA students' (as surrogates for investors) judgements are sensitive to the perceived reliability of information sources, and hence the perceived accuracy of the information provided (forecasts provided by sell-side analysts). The importance of the credibility of the source of information has been incorporated into auditing research for some time, especially as it relates to the main form of communication and message sent by an assuror; the assurance report (Bailey, 1981; Hasan et al, 2003). This has implications for the assurance provided on CSR reports. Perceptions that users of CSR reports have about the usefulness of the reports will not only be impacted by whether or not the report is assured, but also by whom it is that provides the assurance.

In most academic literature, research on assurance has generally focused on one group: professional accountants (auditors). This is because the audit of financial statements has been designated as being solely within the domain of the accounting profession, who have a mandate from society, through legislation, to perform that role. Indeed, the focus of auditing research identifying different assurors has generally examined differences in perceptions and/or audit quality that exist between assurance provided by large accounting firms (Big 4, Big 5, Big 6 and so on depending upon when the research was conducted) and medium-sized and smaller accounting firms. However, for CSR reporting alternative assurors (other than professional accountants (auditors)) are available and often used. These other assurors include bodies such as environmental engineers, environmental and engineering consultants, environmental research organisations and social and ethical performance consultants.[70]

A distinction can be drawn between professional accountants and sustainability experts in relation to the assurance of corporate sustainability reporting. The former group may be seen as having expertise in the "assurance process", while the latter group may be perceived as "subject matter" experts. Academic research has used this distinction to argue either in favour of or against, the promotion of professional accountants as assurors of CSR reporting. There have been calls for research into stakeholders' expectations of the assurance of CSR reporting, and the type of assuror that is best suited to the task since at least the year 2000 (Wallage, 2000). The profile of the assuror is viewed as a salient factor that is linked to the credibility of the assurance and the non-financial information disclosure itself (Dando and Swift, 2003). O'Dwyer and Owen (2005) suggest that in relation to providing assurance on CSR reports, auditors tend to take a more cautious approach than consultants. On the other hand, consultants

[70] For the purposes of this thesis, these alternative assurors will be described as "sustainability experts".

take a more evaluative approach and provide a higher level of assurance. O'Dwyer and Owen (2005) reach this conclusion on the basis that professional accountants are more likely to spell out the exact level of assurance being provided, which often includes discussion about the limitations of the degree of assurance offered.

In discussing the increasing role of auditing and verification, especially as it extends beyond the traditional financial statements audit, Pentland (2000) warns against defining the practice of auditing in terms of a group of practitioners called auditors. He suggests that to define the practice in such a manner is inconsistent with the reality that various kinds of auditing are being done by individuals who are not members of the accounting profession. However, as noted by Arnold et al (2000), a concern for the accounting profession is that other potential assurors, such as information systems professionals who provide website assurance such as "WebTrust™", may be seen as being more desirable and/or cost effective by users.

A major argument in support of professional accountants (auditors) performing assurance on CSR reports centres on the view that professional accounting firms are "effective service developers" (Elliott, 2002) and as such their work can be readily applied to a wide range of subject matter assurance services. They have in place a strong framework encompassing quality control mechanisms and standards that promote high quality assurance standards, which other potential assurors may not have in place (Simnett et al, 2007; Simnett and Nugent, 2007). Under this framework, professional accountants must have the required expertise in order to accept the engagement. Furthermore, a professional accountant can "buy in" subject matter expertise as required, to assist in the completion of an assurance engagement. In recognition that auditors can acquire this expertise as required, there exists an auditing standard specifically dealing with auditors' use of work performed by an expert; ISA 620 "Using the Work of an Expert".[71]

Research supporting professional accountants as preferred assurors includes Fargher and Gramling (1996), who report that when assurance was voluntary, in relation to the assurance of reported performance measures by investment managers, accounting firms were chosen as the preferred assuror over non-accounting firms. Using a single period

[71] The Australian equivalent standard is ASA 620 "Using the Work of an Expert".

economic modelling technique, King and Schwartz (1998) found that auditors who do supply assurance services will ensure that the services provided are of the highest quality, as they are cognisant of the negative reputation effects of not maintaining high quality. This conclusion is supported in a later experimental markets (laboratory) study by Arnold et al (2000), who suggest that an assurance services market would only support high quality services, and that accounting professionals would necessarily follow reporting models that distinguish between levels of assurance quality.

The IAASB supports the role of the auditor in assuring CSR reports through the standard ISAE 3000 (refer Section 5.3.1). Furthermore, Deloitte (2007) notes that third party assurance requires a combination of two different skill sets, one of which is an understanding of the rigour of the assurance process. This implies that professional auditors are best placed to provide such assurance.

Countering the argument that the professional accountant (auditor) is best placed to provide assurance on CSR reports is the view that financial auditing is essentially little more than a "loose assembly" of tools and techniques, which has yet to be proven can be readily extended into other areas of assurance, such as environmental auditing (Power, 2003). While such an extension may readily be achieved in some jurisdictions, the rendering of one body as experts at the expense of another body, is not always clear cut (Power, 2003).

One study that sought the views of report users about the type of assuror of CSR reports shows overwhelming support for independent professional parties, other than professional accountants (auditors), to provide assurance on reports other than financial statements (Hasan et al, 2003). Over 86 percent of shareholders participating in this study indicate that parties other than professional accountants should provide assurance on matters relating to environmental performance. Only just over 5 per cent believe that professional accountants are the most suitable assuror.[72]

This result is echoed in other studies. O'Dwyer, Unerman and Bradley (2005) conducted interviews with senior representatives of environmental and social NGOs in Ireland. They report mixed views about the assurance of environmental and social

[72] The remaining respondents – i.e., over 8 percent – provided a neutral response.

matters and find that financial auditors are regarded with suspicion given that they do not have a “social sciences” background. In a survey that followed these interviews, O’Dwyer, Unerman and Hession (2005) report that for a group of social and environmental NGOs operating in Ireland, over half expressed the view that they disagreed, or strongly disagreed, with the suggestion that the credibility of CSR information would be enhanced if a financial auditor is used to verify the information. In a survey of 42 Dutch firms, Knechel et al (2006) find that only one out of every seven firms responding to the survey indicate that an accountant would be a preferred assuror of non-financial environmental measures; about half of all respondents chose an engineer or consultant as the preferred assuror.

One study suggests that the choice of type of assuror may not always be an important issue. In a situation where assurance of performance measures reported by investment managers was voluntary, Fargher and Gramling (2003) used a behavioural experiment and report that there were no differences in the perceptions of pension fund sponsors between assurance provided by a “Big 6” auditor and assurance services performed by a financial services firm.

There appears to be a dearth of detailed research that specifically examines the impact on information users’ perceptions and decision-making of using different types of assurors for the assurance of CSR reports. While surveys suggest that professional auditors may not be the assuror of choice, it is important that the question be examined more rigorously before definitive conclusions are reached, so that standard-setters may be better informed. This is an important aim of the second study of the thesis.

5.4.1. Descriptive Studies of Choices between Different Types of Assuror

Based on data available for the four years to 2003, Deegan et al (2006a) report that 5 out of 33 (around 15 per cent) Australian assurance reports are furnished by professional accountants (auditors). This proportion is around 23 per cent in the United Kingdom in the seven year period to 1998 (Ball et al, 2000) and in the four year period to 2003 (Deegan et al, 2006b). These proportions compare with around 60 per cent for the rest of Europe in the four years to 2003 (Deegan et al, 2006b). A 2005 global survey of over

1600 companies (i.e., the top 100 companies across 16 different countries) reports that major accounting firms still "dominate the assurance market" for CSR reports with close to 60 per cent of all assurance being performed by these firms (KPMG, 2005). The next largest group of assurors are described as "certification bodies". These certification bodies are not defined in the survey, but are reported separately from groups described as "technical experts" and "specialist" firms.

Other descriptive analyses have shown that the type of assuror for CSR reports varies in different jurisdictions. Simnett et al (2007) analyse over 660 assurance reports for "stand-alone" CSR reports issued in 31 countries for the three year period 2002 to 2004. They show that about 42 per cent of the assurance reports are prepared by professional accountants (auditors). A smaller study (of 130 entities issuing assured sustainability reports) over the same period shows that about one-third of reports are issued by "Big 4" accounting firms, and the remainder by other assurors, including local and national accounting firms (also professional accountants) and consultants (Mock et al, 2007).

Table 5.4: Academic Studies on Assurance Provided by Different Types of Assuror

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Fargher and Gramling (1996)	**Survey – mailed (Note: This was the second of two analyses in the paper – and the study of interest):** Examine the market for assurance services (for performance presentation standards for investment managers), in light of expected growth in this area, and the voluntary nature of many assurances	142 investment managers; 19 offices providing attestation services; 52 fund sponsors	Most assurance, when voluntary, is performed by accounting firms
King and Schwartz (1998)	**Single period economic modelling:** Examine the strategies used by an auditor to assess risk when planning the provision of a type of assurance service, and to determine whether risk assessment strategies employed in traditional auditing services carry over to an assurance service	n/a	Economic incentives dictate that auditors will not compromise reputations as high-quality auditors, when providing assurance services
Arnold, Lampe, Masselli and Sutton (2000)	**Experimental laboratory markets (7 markets x 15 agents – 3 vendors and 12 buyers):** Examine the impact of a two-tier reporting model on the market demand for assurance services (not an audit of financial statements)	105 graduate and undergraduate accounting and business students	Support for King and Schwartz that assurance services market would only support high-quality services. Accounting professionals providing assurance services should follow reporting models that distinguish between quality levels

Table 5.4 (cont'd): Academic Studies on Assurance Provided by Different Types of Assuror

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Wallage (2000)	**Critical – discussion:** Discussion of initial experiences with assurance service pertaining to assurance of CSR reports	n/a	Assurance of CSR reports is very challenging assurance service for financial auditors
Fargher and Gramling (2003)	**Behavioural experiment (2x2 between subjects; 1x2 within subjects) – mailed questionnaire:** Examine whether assurance of asserted compliance with specified standards (performance presentation for investment managers) influences users' perceptions of the assertion credibility	60 US Pension Fund sponsors	No difference in perception between assurance by a "Big 6" auditor, and financial services firm
Hasan, Roebuck and Simnett (2003)	**Behavioural experiment (5x1) – mailed questionnaire:** Examine whether four different reporting forms (opinion on procedures/negative assurance/positive assurance/positive assurance with limitations paragraph), being used in the provision of assurance on environmental and sustainability reports, convey to report users, a lower level of assurance than a traditional high assurance report	792 shareholders	Majority of respondents indicated that environmental performance was a subject matter requiring assurance. There was overwhelming support for view that other independent professionals (not professional accountants) were most appropriate for such assurance
Power (2003)	**Critical – analytical discussion:** Paper from presentation at 2000 *AOS Conference* – examines the contributions of contextual and critical research methods in terms of producing legitimacy for auditing, and assurance more generally	n/a	The role of auditing in the production of legitimacy is under studied and under documented, including in new areas of audit-type practice
O'Dwyer and Owen (2005)	**Contents analysis:** Critically analyse the assurance statements provided by companies that were short-listed for awards under an ACCA (UK) awards scheme	81 companies short-listed for *Association of Chartered Certified Accountants UK and European Sustainability Reporting Awards* in 2002	Auditors appear to take a more cautious, limited approach, while consultants take a more evaluative approach and provide higher levels of assurance (but at blurring of independence)
O'Dwyer, Unerman and Bradley (2005)	**Interviews:** Examine stakeholders' perceptions about current and emerging CSR (in Ireland)	8 senior representatives of environmental and social NGOs	Unanimous view that assurance of CSR information essential to ensure "true" accountability. Mixed views about who should assure; financial auditors considered "with suspicion" as they do not have "social sciences" background
O'Dwyer, Unerman and Hession (2005)	**Survey – mailed:** Examine and analyse the views of (Irish) stakeholders regarding the adequacy and potential of CSR	28 social and environmental NGOs representing "less economically powerful" stakeholders	Strong views from stakeholders that CSR reports should be assured. Financial auditor was by far least preferred type of assuror, with strong preference for independent social/ environmental auditors

Table 5.4 (cont'd): Academic Studies on Assurance Provided by Different Types of Assuror

Paper	Research Method, Aim and Variables	Participants/ Sample	Key Findings
Knechel, Wallage, Eilifsen and van Praag (2006)	**Survey – mailed:** Examine the desirable attributes of assurance providers, according to senior accounting and financial officers	42 randomly selected (of 350) firms on Dutch *REACH Database*	Expertise and objectivity are perceived as more important attributes for an assurance provider, while cost is considered the least important. Only one in seven chose an accountant as a preferred assuror of non-financial environmental measures, with nearly 50% specifically choosing an engineer or consultant
Mock, Strohm and Swartz (2007)	**Investigative – using correlation matrix and logistic regression:** Examine which countries and industries are more likely to have an assurance report, what levels of assurance are provided, and what factors affect the level of assurance provided	130 entities worldwide which issued assured CSR reports between 2002 and 2004	Around two-thirds of assured sustainability reports are published in the European Union, and around the same proportion are assured by non-Big 4 firms (including other members of the accounting profession)
Simnett, Vanstraelen and Chua (2007)	**Logistical regression:** Examine factors associated with decisions made by companies preparing stand-alone CSR reports, to have reports assured, and choice of assurance provider	2141 stand-alone CSR reports located on various databases, primarily *Corporate Register*	Companies in industries confronting greater social and environmental risks are more likely to have stand-alone reports assured. No support found for prediction that auditing profession would be assuror of choice for these companies however; other factors (e.g., size, legal environment) may have an impact on choice

5.5. Summary and Implications for Study Two

This Chapter summarises the extant literature relevant to the second study in this thesis. It highlights particular shortcomings with prior research and identifies opportunities for making a contribution to the general body of knowledge in this field. The impact on information users' perceptions and investment decisions of the provision of assured CSR reports and different types of assuror is the focus of *Study Two*. The provision of non-financial information as part of the total information set available to users has increased in recent years. This information is perceived to be used more widely by all user groups, including financial analysts, who incorporate such information into their decision-making about stock recommendations and company valuations.

This Chapter highlights several opportunities for research consistent with the questions examined in the second study. Examination of these questions provides a contribution to the growing interest in and ongoing discussion in this field. Importantly, it is the first study to specifically examine the impacts on financial analysts' perceptions and investment decision-making, of having CSR reports (provided as part of an information set within a detailed case scenario) assured. The impacts are also assessed across two different types of assuror (a professional accountant and a sustainability expert).

Much of the research examining the assurance of CSR reports has been descriptive in nature or has been based on critical discussion and analysis. Descriptive studies have centred on identifying the levels of assurance being provided and the proportions being provided by different groups of assurors. Critical studies have presented normative arguments about the benefits of, and problems associated with, the assurance of CSR reports. However, neither type of research has attempted to examine the means by which the choices made about assurance have on users of that information. This is where the behavioural experiment employed in the second study is best suited to examine the impact that these factors have on the decision-making process of an important group of information users; financial analysts. Valuable insight is provided by using financial analysts, who are a critical group towards which companies direct their reporting. They are asked to provide their perceptions and make investment decisions in a specific case scenario, where a range of relevant information is provided.

Another issue highlighted in this Chapter is that prior research into voluntary assurance centres on contexts other than CSR information. They have focused on matters such as assurance of performance measures, electronic commerce and balanced scorecard indicators. By being the first study to specifically examine the voluntary assurance of CSR reporting in a decision-making context, the second study of this thesis contributes to the literature on a topic of current interest. Indeed, the results of this study can potentially assist standard-setters and professional bodies in the development of appropriate assurance standards and frameworks in this area.

While academic research has primarily focused on the assurance provided by professional auditors and different accounting firms (e.g., Big 4 versus non-Big 4), very little research has been conducted into the provision of assurance by groups other than professional accountants. The assurance of CSR reports by these different groups is one area that lends itself to such scrutiny and therefore is a primary focus of Study Two. Again, the results of the study will be of particular interest to standard-setters and professional bodies in the development of appropriate assurance standards and frameworks in this area. Further contributions can potentially be made by the examination of assurance across two distinct industries. This will provide an insight into whether financial analysts perceive the importance of the assurance and type of assuror of CSR reports to context specific. That is, whether assurance is more important for one industry than another, and whether a particular type of assuror is preferred for a particular industry. Finally, this Chapter highlights that most studies examining the importance of assurance of CSR reporting across different industries, to date, have been largely descriptive in nature.

CHAPTER SIX: <u>STUDY TWO</u>: THE IMPACT OF ASSURANCE OF CORPORATE SOCIAL RESPONSIBILITY INFORMATION ON FINANCIAL ANALYSTS' PERCEPTIONS AND DECISION-MAKING JUDGEMENTS

6.1. Introduction

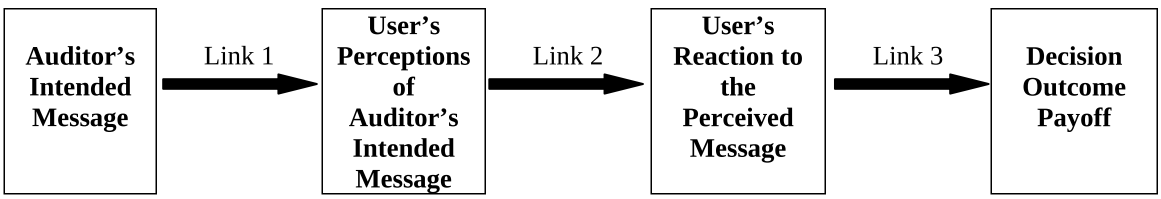
Study Two of this thesis examines questions pertaining to the assurance of corporate social responsibility (CSR) information. The first study of the thesis emphasised the message being sent by an audit report for a financial statements audit, and how this message is perceived and acted upon when the message itself is altered through changed audit report wording. This second study extends the examination undertaken in the first study in two ways. Firstly, it examines questions relating to the perceived credibility of the source of the information being provided (rather than the message itself) and how differences in perceived credibility of the information source potentially impacts users' (financial analysts') decision-making. Secondly, it examines assurance within the context of CSR; a subject matter for which assurance is topical and of growing interest for standard-setters, professional accounting bodies and academic researchers. The second study draws on the current debates surrounding the need and usefulness of assuring CSR reports and the type of assuror that is preferred by information users.

This Chapter adopts a similar structure to Chapter Four. It commences with a section outlining the development of hypotheses and the research question examined in this study. In developing these hypotheses, the credibility of the source of the information is assessed in terms of three constructs developed in psychology literature by Birnbaum and Stegner (1979). The section contains four sub-sections: (i) the development of hypotheses pertaining to the impact on financial analysts' perceptions and decision-making of having CSR reports assured (described as examination of the "bias" construct of information source credibility); (ii) the development of hypotheses pertaining to the interactive effect of assurance of CSR and the type of industry, on financial analysts' perceptions and decision-making (described as examination of the "the judge's point of view" construct of information source credibility); (iii) the development of hypotheses pertaining to the impact on financial analysts' perceptions and decision-making of having CSR reports assured by different types of assurors (described as examination of the "expertise" construct of information source credibility); and (iv) the development of research questions pertaining to the interactive effect of the type of assuror of CSR information and the type of industry, on financial analysts' perceptions and decision-making (also described as examination of the "the judge's point of view" construct of information source credibility). Section 6.3 discusses the research methodology employed. It outlines in detail the research design, the preparation and explanation of the research instrument and provides a description of, and justification for the use of, the participants employed in the experiment. It also discusses the manner in which the experiment was administered. Sections 6.4 to 6.7 discuss the results of the experiment, including: (i) tests of non-response bias and manipulation checks (Section 6.4); (ii) descriptive results (Section 6.5); (iii) testing of hypotheses and research question (Section 6.6); and (iv) additional analysis examining increased salience of CSR reporting (Section 6.7). The last section (Section 6.8) provides a summary and discussion of the results, as well as outlining the limitations of the study and the implications for future research.

6.2. Development of Research Questions

As an extension of the first study of this thesis, *Study Two* also uses a combination of the Libby (1979) model of audit reporting and the Shannon and Weaver (1949) model of communication as the basis for the development of hypotheses and research questions. In terms of the Libby (1979) model (Figure 6.1; also Figure 2.2), the second

Figure 6.1: The Impact of the Auditor's Report on Decision-making[73]



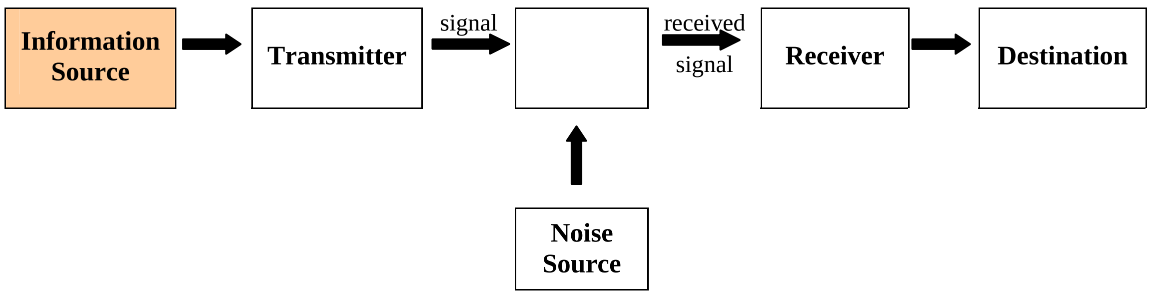
study is drawing on the notion that changes in the perceptions of the intended message by report users will potentially lead to changes in the report users' reaction to the

[73] Refer Libby (1979), p. 100.

message and hence the ultimate decision outcome payoff. It examines report users' perceptions and decision-making. However, rather than focusing on an audit report, the focus shall be on assurance reporting for CSR reports.

The "process" school of channels of communication (Fiske, 1990; Hasan et al, 2003), and the Shannon and Weaver (1949) model of communication (refer Figure 6.2; also Figure 4.2) puts into context the foci of the hypotheses and research question being addressed in this second study. The model describes the communication process as originating with an information source and involving the transmission of a signal to the receiver of that information. Two aspects of communication, the information source and the message itself, are important to the receipt of the communication by the information receiver. The first study of this thesis focused on the message itself and attempts to improve the accuracy of the signal being transmitted. This second study however, examines the information source and how differences in the source of the information affect the perceptions and decisions made by those receiving the communication. Therefore, the first box in the model depicted in Figure 6.2 has been shaded to highlight the focus of the second study.

Figure 6.2: Shannon and Weaver's Model of Communication[74]



To examine the effect of differences in the information source on perceptions and decision-making, this second study employs a research design that transmits a message to all experimental users that remains unchanged, insofar as it relates to the provision of the same financial and CSR information. Differences in the source of the information are created in terms of whether or not the CSR information is assured and by whom it is assured.

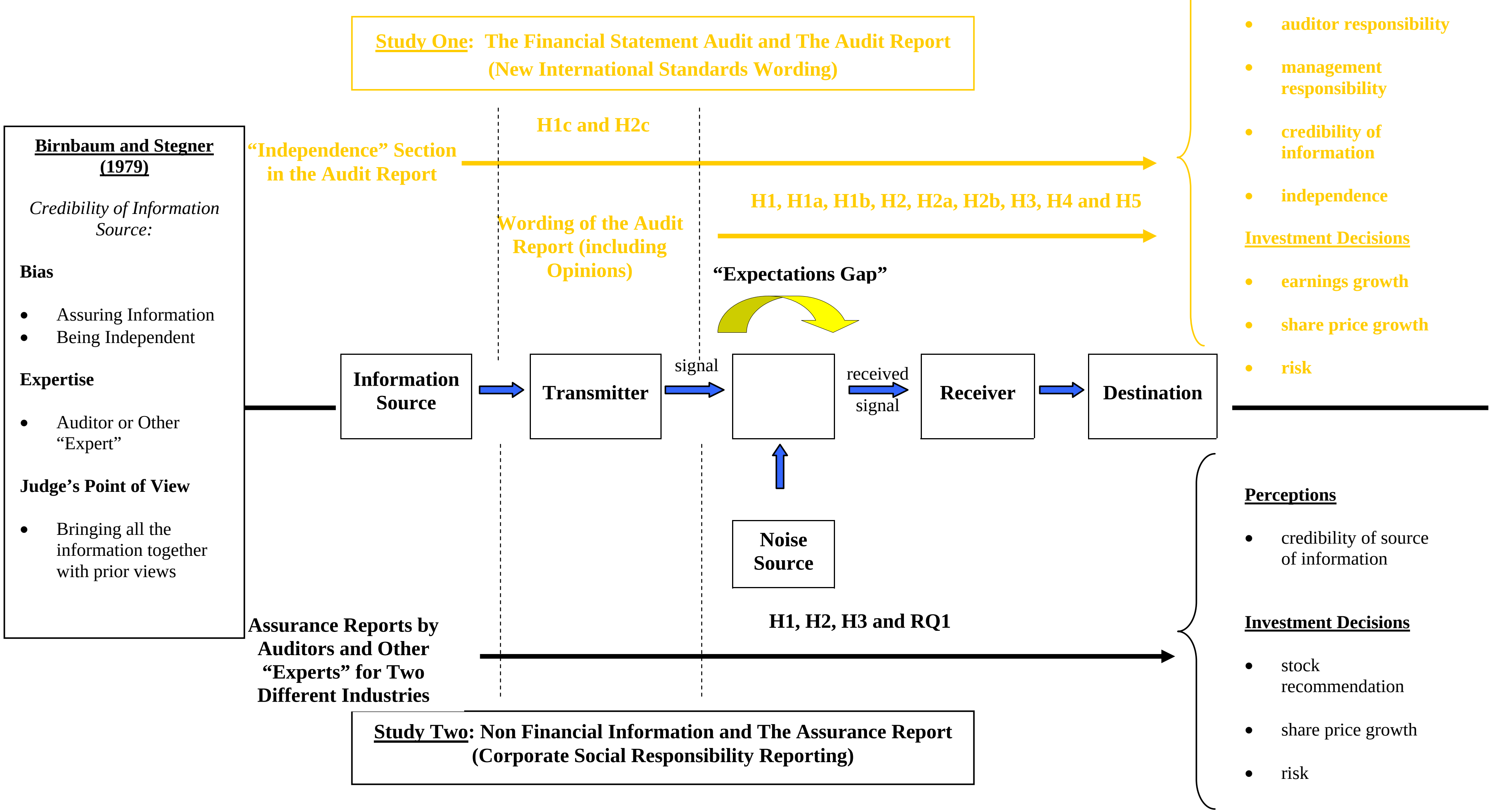
[74] Refer Fiske (1990), p. 7.

Examination of these differences in the source of the information will be modelled around research in psychology (Birnbaum and Stegner, 1979) which describes three constructs of information source credibility (bias, expertise and the judge's point of view). The adaptation of the Shannon and Weaver (1949) model, incorporating the three constructs of Birnbaum and Stegner (1979), was described as the theoretical framework for this thesis in Chapter Two and was shown in Figure 2.1. It is again replicated as Figure 6.3, with hypotheses examined in the second study (in the bottom half of the framework) highlighted.

The three constructs described by Birnbaum and Stegner (1979) are examined in the context of the psychology literature that discusses integration theory; a theory which aims to explain the manner by which users of information integrate information in making decisions and judgements and which centres on the notion of "source credibility" (Anderson, 1971). The confidence that people have in the persuasiveness of a message and the deemed validity of the information source (i.e., the extent to which communication receivers "accept" a message) are impacted by users' perceived credibility of the source of the information (Fragale and Heath, 2004; Tormala et al, 2006).

Consequently, it is expected that variations in the degree of acceptance of the communication will lead to variations in the perceptions and decision judgements of users of the information in this study. In essence, information users (e.g., financial analysts) will weight information relative to its perceived credibility (Birnbaum et al, 1976; Birnbaum and Stegner, 1979; Hirst et al, 1995; Maines, 1996; Hirst et al, 1999; Hodge, 2001). Furthermore, information sources that are perceived to provide higher quality information will be used more than information sources of perceived lower quality (O'Reilly III, 1982). In terms of CSR information, recent meta-analyses (Orlitzky et al, 2003; Margolis et al, 2007) identify a positive association between the provision of good corporate social performance and corporate financial performance. CSR information that is perceived to be more credible will have an impact on this association, and therefore would be expected to impact the investment decision-making of financial analysts.

Figure 6.3: Theoretical Framework Adapted from Shannon and Weaver's Model of Communication



As indicated, Birnbaum and Stegner (1979) decompose source credibility into three constructs: (i) bias, (ii) expertise; and (iii) the judge's point of view. Within the assurance process, source credibility *bias* relates to how biased the provider(s) of information is perceived by the information user. Independent (third party) assurance implies that information is jointly sourced by the preparer (management) and the assuror, as part of an "information set". Assurance therefore would lead information users to perceive the information source to be less biased. In terms of *expertise*, independent assurance by someone perceived to be more expert would lead to the information source being perceived by users as being more credible than when information is assured by someone perceived to be less expert. Finally, the *judge's point of view* is equated with what expectations the information user (the "judge") has about the information being received, prior to its receipt. That is, the impact of assurance on perceptions and decision-making may differ across different contextual situations, depending upon the "judge's" prior views and understanding of those situations. Information users may deem assurance of CSR information to be much more important in industries where such reporting is more prevalent and where greater political, social and environmental costs are evident. They may also judge a particular type of assuror to be more important in one industry than another.

It is in the context of these three constructs that the following discussion and hypotheses development is detailed. As the third construct, the judge's point of view, involves examining interactions between the assurance of CSR and the type of industry, and the type of assuror and the type of industry, two of the following four sections address that construct. To present the development of hypotheses and research questions in the most logical sequence (and facilitate the most logical presentation of analyses in later sections – refer Section 6.6) the following four sections are ordered as follows: (i) firstly, the development of hypotheses pertaining to the "bias" construct (H1); (ii) secondly, the development of hypotheses pertaining to the "judge's point of view" construct and which involves the interaction between the assurance of the information and the type of industry (H2); (iii) thirdly, the development of hypotheses pertaining to the "expertise" construct (H3); and (iv) finally, the development of research questions pertaining to the "judge's point of view" construct and which involves the interaction between the type of assuror and the type of industry (RQ1).

6.2.1. Assurance of Corporate Social Responsibility Information – *'Source Credibility – Bias'*

The International Framework for Assurance Engagements (IFAE) notes that the objective of an assurance engagement is to enhance the degree of confidence that intended users of particular subject matter, issued by a party other than the intended user or assuror, will have in that subject matter (refer IFAE, paragraph 7, described on p. 1). Enhanced credibility is provided as a consequence of the auditors being technically and ethically competent in their role (Pflugrath et al, 2007). An important aspect of this competence is the independence of the auditor, which "remains the cornerstone on which the assurance function is based" (Gay and Simnett, 2007, p. 10). Therefore, assured information is seen as being more credible than information which is not assured, which equates with the information source being perceived as being "less biased". In assessing the credibility of the source of this type of information, it is important to acknowledge that it is the subject matter and the assurance report together that comprise an "information set". The assurance report is viewed as contributing to the perceptions formed by report users, rather than merely being considered a "rubber stamp". Bailey (1981) shows support for the notion that the assured information and the assurance report are part of one "information set" for the report user, sourced jointly by company management and the auditor (refer Section 3.1.1). The notion of a "joint statement" and hence one "information set" is supported in later research (Antle and Nalebuff, 1991).

Assurance of information is expected to have an impact on both the perceptions and decision-making of users of assurance reports. The key perception which is expected to be affected by the process of assurance is the credibility of the information provided. Research has shown that assured (audited) information is generally perceived to be far more credible than information which is not assured (Libby, 1979; Pany and Smith, 1982; Johnson et al, 1983; Hodge, 2001). From a decision-making perspective, research in behavioural research settings have shown that changes in perceived earnings potential are positively related to the perceived credibility of an information set (Hodge, 2001) and even electronic commerce assurance (Hunton et al, 2000).

Consequently, on the assumption that the CSR information being used in this study provides a positive outlook for the company (refer Section 6.3.2) the following hypothesis is posited. It is important that the information being provided presents a positive outlook, given that previous research (Fargher and Gramling, 2003; Coram et al, 2007) has shown that voluntary assurance of information appears to impact users' perceptions and decision-making only when the disclosed information is positive.

H1 Financial analysts receiving assured CSR information will consider the company in a more favourable way than financial analysts who receive CSR information that is not assured.

In testing this hypothesis, the notion of "in a more favourable way" has been operationalised in four ways. This leads to four "sub-hypotheses". H1a examines the financial analysts' perception of the credibility of the source of the information provided. H1b to H1d (inclusive) examine the impacts on various aspects of the financial analysts' decision-making.

With regards to perceptions, the greater the perceived credibility of the information source, the more favourable financial analysts will consider the company. Perceived credibility has been used as an important measure in many previous studies (Bailey, 1981; Miller et al, 1993; Hodge, 2001; Hodge et al, 2006). The following sub-hypothesis is posited:

> **H1a** Financial analysts receiving assured CSR information will consider the source of the information provided to be more credible than financial analysts who receive CSR information that is not assured.

Secondly, with regards decision-making, "in a more favourable way" is operationalised in the form of a stock recommendation, whereby a "buy" recommendation would be perceived as more favourable than a "hold" recommendation, and a "hold" recommendation as more favourable than a "sell" recommendation. Seeking participants' stock recommendations has been used in previous behavioural experimental research (Hunton and McEwen, 1997). Also, potential for share price appreciation is examined. Greater potential for positive share price appreciation is seen as being more favourable than smaller potential positive movements, or prospects of a negative appreciation (i.e., depreciation) of the share price. Investment questions pertaining to the potential for share price appreciation have also been used in previous research (Hirst et al, 1995; Hirst et al, 1999). Finally, perceptions of risk are assessed to determine the extent to which financial analysts consider the company in a favourable way, with an inverse relationship between perceived riskiness and the "more favourable way". Measures of risk have also been used in previous behavioural experimental studies within an accounting context (Hirst et al, 1995; Hirst et al, 1999; Martinov-Bennie, 2006). Operationalising "in a more favourable way" in these three ways leads to the development of the following three sub-hypotheses.

H1b Financial analysts receiving assured CSR information will provide a more favourable stock recommendation than financial analysts who receive CSR information that is not assured.

H1c Financial analysts receiving assured CSR information will believe the potential for share price appreciation is greater than financial analysts who receive CSR information that is not assured.

H1d Financial analysts receiving assured CSR information will perceive the company to be less risky than financial analysts who receive CSR information that is not assured.

6.2.2. Interactive Effect of Assurance and Type of Industry for which Corporate Social Responsibility Information is Provided – '*Source Credibility – The Judge's Point of View*'

The source credibility construct entitled "the judge's point of view" relates to the bias that the "judge" (in this case, the user of the CSR information) may have about the information that is received. In discussing source credibility, Birnbaum and Stegner (1979) separate this bias on the part of the judge from the bias and expertise of the source of the information itself. The example provided in their paper implies that the judge's bias relates to the judge's own perceptions about the topic and the provider of the information, prior to receiving the information. Importantly, information received that is consistent with their preconceptions will be received in a more favourable light than information which is not.

Over the years, research in psychology has examined the manner in which information expectancy, source credibility and behaviour have been linked. The credibility of the source of the information impacts upon the level of confidence in that information which is either in accordance with, or not in accordance with, expectations (Sternthal et al, 1978; Briñol et al, 2002; Trumbo and McComas, 2003). One study linking perceived credibility and the perception of risk notes that for matters where there is high prior knowledge, high credibility sources of information may encourage greater thinking and attitude change (Trumbo and McComas, 2003).

Intuitively, this suggests that where information users receive CSR information in an area or industry where they commonly receive such information (and therefore have greater knowledge about the information provided in that industry), assurance of that information will equate with higher perceived credibility of the source of the information. This in turn leads to greater differences in perceptions and ultimately decision-making. Evidence of a significant interaction between the type of industry for which the CSR information is provided and the assurance of that information would highlight that financial analysts perceive the importance of assurance to be context specific. Hypotheses of interactions of this kind are formed on the basis that financial analysts' expectations about the assurance of CSR reporting would align with what is happening in practice. For example, financial analysts will perceive assured CSR information to be more credible for companies within industries where CSR reporting is more prevalent and where incentives are greater to present the information in the most favourable manner.

In industries where the reporting of CSR is more prevalent, and politically, socially and environmentally sensitive, there will be incentives for companies to ensure that they are seen in the most favourable light. The notion of "greenwash" (referred to previously in Chapter One, p. 12) comes to mind. Arguably, assurance of CSR information is viewed as being more important and expected by information users in such situations. Simnett et al (2007) highlight that companies in industries which face greater social and environmental risks are those companies that are more likely to have CSR information assured, in order to enhance credibility and reputation. Industries facing such risks include mining, utilities and finance industries.

Several descriptive analyses highlight proportions of CSR reports that are assured according to the type of industry within which firms operate. Simnett et al (2007) report that in a sample of 666 assured stand-alone sustainability reports over 43 percent of mining companies have their reports assured. This number drops to just over one-third for companies in the finance and utilities industries and just over one-quarter for companies in production and "other" industries. These results are similar to results of a major global survey of CSR reporting in 2005 that shows that over half of CSR reports in the utilities and mining sector are assured, while over one-third are assured in the finance sector. The proportion of CSR reports assured in the trade and retail sector is only just over 21 per cent (KPMG, 2005). Furthermore, Mock et al (2007) reported in a study of 130 stand-alone sustainability reports issued in the three years to 2004, that the industries with the most assured reports (representing over one-third of the sample) are electricity and utilities, and mining and oil industries.

Consequently, the mining and retailing industries have been chosen for this study. The former industry is representative of an industry in which companies are more likely to present CSR information and which have incentives (political, social and environmental) to present such information in the most favourable way. For companies in this industry the assurance of CSR information is viewed as being relatively more important. The latter is an industry which is less likely to present CSR information, has fewer incentives to report favourably and therefore would view assurance as relatively less important. In line with this argument, the following hypothesis is proposed:

H2 There will be a greater favourable impact of assurance of CSR information on the perceptions and decision-making of financial analysts for a company in the mining industry than a company in the retailing industry.

In the same way that Hypotheses 1 is divided into four sub-hypotheses, so is this second hypothesis. The first sub-hypothesis (H2a) relates to users' perceptions about the credibility of the source of the information provided, and is described below:

H2a There will be a greater favourable impact of assurance of CSR information on financial analysts' perceptions of the credibility of the source of the information for a company in the mining industry than a company in the retailing industry.

Like the previous hypotheses, the sub-hypotheses dealing with investment decisions consider: (i) the form of a stock recommendation for the company; (ii) the potential for share price appreciation; and (iii) the perceived riskiness of the company. H2b, H2c and H2d are presented as:

H2b There will be a greater favourable impact of assurance of CSR information on financial analysts' stock recommendations for a company in the mining industry than a company in the retailing industry.

H2c There will be a greater favourable impact of assurance of CSR information on financial analysts' belief in the potential for share price appreciation for a company in the mining industry than a company in the retailing industry.

H2d There will be a greater favourable impact of assurance of CSR information on financial analysts' perceptions of the risk of an investment in a company in the mining industry than a company in the retailing industry.

6.2.3. Type of Assuror of Corporate Social Responsibility Information – *'Source Credibility – Expertise'*

One of the major contributions of this second study is to examine the impacts on financial analysts' perceptions of having assurance provided by different types of assurors. There is a dearth of accounting and auditing research to date that addresses the impacts on perceptions of credibility and investment decision-making of having different types of assurors provide assurance. That is, research to date has predominantly focused on one "type" of assuror, being the professional accountant (auditor) from a recognised accounting firm. Studies examining differential audit quality have generally distinguished between professional accountants (auditors) from the major global accounting firms (i.e., the Big 4, Big 5, Big 6 and so on depending upon the date of the research) and those from the medium and small ("second and third tier") accounting firms.

The contextual basis of this second study is therefore critical in allowing for examination of the potential impact of differences in the type of assuror. It permits examination of questions relating to assurance provided by a professional accountant (auditor) as well as another important assurance provider (a sustainability expert (consultant)) for CSR reporting. The internal validity of the experiment is readily maintained by manipulating the independent variable pertaining to the type of assuror. That is, some experiment participants receive an assurance report prepared and signed by one type of assuror (e.g., professional accountant), while other experiment participants receive an assurance report prepared by the other type of assuror (e.g., the sustainability expert). The external validity of the experiment is enhanced, given the topical nature of the issue. The respective roles and benefits of different types of assurors of CSR reports are currently being researched and debated, with recent studies showing that less than a half of stand-alone sustainability reports are being assured by professional accountants (refer section 5.4.1).

It is not clear whether, in the context of CSR reporting, a professional accountant (auditor) or a sustainability expert (consultant) has greater experience and expertise relevant to providing assurance on that information. Arguments are based on the notions that a professional accountant is viewed as a "process" expert, while a sustainability expert is viewed as a "subject matter" expert. The former has greater experience and expertise in the process of assurance and can acquire "subject matter" expertise as required to undertake and complete assurance engagements. In contrast, the latter may be seen as have greater expertise and experience in matters pertaining to sustainability, but lack the level of experience and expertise in the process of assurance for which professional accountants (auditors) are noted.

Therefore, the professional accountant (auditor) will be more experienced in the process of providing assurance and in verifying and confirming the truth and fairness of information, by virtue of the experience gained in financial statements' audits and other assurance services provided. They are sometimes perceived as being the means by which the greatest level of credibility is obtained where assurance is voluntary (Fargher and Gramling, 1996), as is the case with most CSR reporting. This is consistent with the argument that professional accountants are "effective service developers", providing a service which can readily be applied to other than financial statements' audits (Elliott, 2002). Furthermore, when undertaking assurance engagements, they also have their reputation as assurance providers at stake (King and Schwartz, 1998).

These ideals are confirmed in the auditing profession's quality control and other professional standards. For example, detailed requirements about the need for quality control policies and procedures, and ethical standards are contained in International Standard on Quality Control (ISQC) 1 and ISA 220 "Quality Control for Audits of Historical Financial Information".[75] Furthermore, professional standards recognise that auditors may need to acquire subject matter expertise to complete an assurance engagement and have in place ISA 620 "Using the Work of an Expert".[76] Although these standards relate to financial statements' audits, they are applied to assurance engagements, as appropriate.

In support of the case for sustainability experts as the preferred assurance provider, it is argued that when matters of a specific environmental or social nature are being assessed, sustainability experts would generally be viewed as having greater knowledge,

[75] The Australian equivalents of these standards are Australian Professional and Ethical Statement (APES) 320 "Quality Control for Firms" and ASA 220 "Quality Control for Audits of Historical Financial Information".

[76] The Australian equivalent of this standard is ASA 620 "Using the Work of an Expert".

experience and expertise within the areas where assurance is required. Also, sustainability experts have access to a number of publicly available assurance standards (e.g., ISAE 3000; AA1000AS). However, they arguably do not have the same quality control requirements, nor the equivalent depth and breadth of assurance experience as professional accountants (auditors).

In practice, both professional accountants (auditors) and sustainability experts (consultants) provide assurance services for CSR reporting; although the relative importance varies across jurisdictions. Recent research confirms this variability, with one global survey indicating that around 60 per cent of all assurance is done by professional auditors (KPMG, 2005) and another reporting somewhere in the vicinity of 42 per cent (Simnett et al, 2007). This is consistent with a 60 per cent figure for Europe noted in Deegan et al (2006b), but is very different from the 15 per cent reported in Australia and around 23 per cent in the United Kingdom (Deegan et al 2006a, Deegan et al, 2006b).

Given the generally high level of assurance reports provided by professional auditors (reported in research studies in recent years), the assurance "process" expertise of professional accountants (and the ability to acquire "subject matter" expertise as required), and the familiarity of financial analysts with assurance reports provided by professional accountants (auditors) (i.e., audit reports) the following hypothesis is proposed.

H3 Financial analysts receiving CSR information assured by a professional accountant (auditor) will consider the company in a more favourable way than financial analysts who receive CSR information assured by a sustainability expert (consultant).

As detailed previously for Hypotheses 1 and 2, in testing this hypothesis the notion of "in a more favourable way" has been operationalised in four ways creating four sub-hypotheses. The first of these relates to users' perceptions of the credibility of the information source and is described in H3a.

H3a Financial analysts receiving CSR information assured by a professional accountant (auditor) will consider the source of the information provided to be more credible than financial analysts who receive CSR information assured by a sustainability expert (consultant).

The remaining three sub-hypotheses (H3b to H3d) detailed below operationalise "in a more favourable way" in terms of: (i) the form of a stock recommendation for the company; (ii) the potential for share price appreciation; and (iii) the perceived riskiness of the company.

H3b Financial analysts receiving CSR information assured by a professional accountant (auditor) will provide a more favourable stock recommendation than financial analysts who receive CSR information assured by a sustainability expert (consultant).

H3c Financial analysts receiving CSR information assured by a professional accountant (auditor) will believe the potential for share price appreciation is greater than financial analysts who receive CSR information assured by a sustainability expert (consultant).

H3d Financial analysts receiving CSR information assured by a professional accountant (auditor) will perceive the company to be less risky than financial analysts who receive CSR information assured by a sustainability expert (consultant).

6.2.4. Interactive Effect of Type of Assuror and Type of Industry for which Corporate Social Responsibility Information is Provided – '*Source Credibility – The Judge's Point of View*'

An interaction between the type of assuror and the type of industry for which CSR information is provided would suggest that financial analysts believe that the preferred assuror of CSR information is context specific. That is, it is possible that financial analysts may prefer to see assurance provided by a professional accountant (auditor) for one industry, but a sustainability expert (consultant) for another industry.

Previous research and descriptive analyses of the assurance of CSR reporting do not provide details or analyses of assurance by industry and type of assuror. There is insufficient background information to suggest that financial analysts may have preferences for one type of assuror in a particular industry. Although Hypothesis 3 posits that CSR information users would generally prefer to have assurance provided by a professional accountant (auditor) rather than a sustainability expert (consultant), it is not clear that such an argument would apply consistently to all industries and situations. For example, the mining industry is an example of an industry where CSR report users may believe that greater "subject matter" experience and expertise is required, in order to effectively assure information describing industry specific environmental and social impacts and concerns.

The lack of theoretical direction and prior research on this topic prevents the development of hypotheses. Therefore, the following research question is posed.

RQ1 Will there be a difference in the impact of CSR information assured by a professional accountant (auditor), vis-à-vis a sustainability expert (consultant), on the perceptions and decision-making of financial analysts between a company in the mining industry and a company in the retailing industry?

To be consistent with previous hypotheses, this research question is divided into four sub-parts. Again, the first part relates to analysts' perceptions of the credibility of the information source. It is presented as follows:

RQ1a Will there be a difference in the impact of CSR information assured by a professional accountant (auditor), vis-à-vis a sustainability expert (consultant), on financial analysts' perceptions of the credibility of the source of the information between a company in the mining industry and a company in the retailing industry?

The sub-parts dealing with investment decisions also operationalise "in a more favourable way" in terms of: (i) the form of a stock recommendation for the company; (ii) the potential for share price appreciation; and (iii) the perceived riskiness of the company. The following questions are presented:

RQ1b Will there be a difference in the impact of CSR information assured by a professional accountant (auditor), vis-à-vis a sustainability expert (consultant), on financial analysts' stock recommendations between a company in the mining industry and a company in the retailing industry?

RQ1c Will there be a difference in the impact of CSR information assured by a professional accountant (auditor), vis-à-vis a sustainability expert (consultant), on financial analysts' belief in the potential for share price appreciation between a company in the mining industry and a company in the retailing industry?

RQ1d Will there be a difference in the impact of CSR information assured by a professional accountant (auditor), vis-à-vis a sustainability expert (consultant), on financial analysts' perceptions of the risk of an investment in a company in the mining industry and an investment in a company in the retailing industry?

6.3. Research Methodology

This section describes the research method used in examining hypotheses and the research question raised in this study. The research method is described in four parts, commencing with a description and justification of the research design and the independent and dependent variables used in the study. Secondly, the research instrument is described. Specific details and explanations are provided of the choices made in respect to the case information, the wording used and the manner in which the information is presented in the research instrument. As the assurance report is the focus of the key independent variable manipulation in the study, a separate sub-section is included which describes the choice and development of the assurance report. The third part of this section discusses the participants used in the study and provides an explanation of the reasons for choosing this particular participant group. Finally, the section concludes with a description of the manner in which the research instrument was administered, including methods employed to enhance the number of responses received, and a description of the demographics of participants..

6.3.1. Research Design

The research design is a “3 x 2” behavioural experimental design and is depicted in Figure 6.4. It involves a “between subjects” manipulation (the “3” being the assurance of the CSR information) and a “within-subjects” manipulation (the “2” being the type of industry).

Figure 6.4: Treatment Groups

Within Subjects

Between Subjects

		Type of Industry	
		Mining	**Retailing**
Assurance of Corporate Social Responsibility Information	**Not Assured**	**Cell 1(a)**	**Cell 1(b)**
	Assured by Auditor	**Cell 2(a)**	**Cell 2(b)**
	Assured by Expert	**Cell 3(a)**	**Cell 3(b)**

6.3.1.1. Independent Variables

All experiment participants receive the same background information, audited financial information extracts accompanied by an unqualified audit report on the financial information, and selected CSR information (in the form of an extract of key achievements from a CSR report). The “between-subjects” independent variable manipulation involves: firstly, one-third of experiment participants receiving CSR information that is not assured (Cell 1); secondly, one-third of experiment participants receiving CSR information that is assured by a professional accountant (auditor) (Cell 2); and thirdly, one-third of experiment participants receiving CSR information that is assured by a sustainability expert (consultant) (Cell 3).[77]

The "within-subjects" independent variable manipulation ("x2") relates to the provision of case information for two companies in different industries, namely the mining industry and the retailing industry.[78] This research design increases the number of observations in each cell for a given number of subjects, but has the potential to create demand effects and therefore lessen the internal validity of an experiment. This would be the case when hypotheses and research questions are based solely on comparisons between cells in the "within-subjects" design. However, in this second study the "within-subjects" manipulation is not being examined directly as a research question (or hypothesis), but is being used in examining interactive effects. Therefore internal validity is maintained and the potential for demand effects is reduced as experiment participants will receive similar information about each of the two companies. For example, experiment participants in Cell 1 receive information about a company in the mining industry and will receive no assurance report for the CSR reporting. They also receive information about a company in the retailing industry with no assurance report accompanying the CSR information. In Cells 2 and 3 experiment participants receive the same information about the two companies as in Cell 1, but for both companies an assurance report will accompany the CSR information. As hypotheses and the research question centre on the interaction between the industry and the assurance of CSR reporting, experiment participants will not become aware of the purpose of the research experiment.

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[77] A "between-subjects" research design enhances the internal validity of the experiment and ensures that experiment participants do not become aware of the manipulation of the independent variable, and hence the purpose of the experiment. In whichever cell they are placed, experiment participants would not be aware of the entire information package received by other participants in other cells.

[78] To enhance the internal validity of the experiment, the information provided for each of the companies is consistent in nature. That is, similarly structured background information, audited financial information extracts accompanied by an unqualified audit report on the financial information, and selected CSR information (assured in line with the "between subjects" manipulation) is provided for each company in the different industry.

The hypotheses and research question described in Section 6.2 are tested in the following manner. Firstly, to test Hypothesis 1 (including H1a, H1b, H1c and H1d), the results of Cells 1(a) and 1(b) are aggregated and compared with the aggregated results of Cells 2(a), 2(b), 3(a) and 3(b). For the testing of Hypothesis 3 (including H3a, H3b, H3c and H3d), the aggregated results of Cells 2(a) and 2(b) are compared with the aggregated results of Cells 3(a) and 3(b). Interaction hypotheses and research questions involve examination of the results of all six cells for Hypothesis 2 (with the results of Cells 2(a) and 3(a) being aggregated, and the results of Cells 2(b) and 3(b) being aggregated) and of Cells 2(a), 2(b), 3(a) and 3(b) for the testing of Research Question 1.

6.3.1.2. Dependent Variables

The research instrument requires experiment participants to respond to questions pertaining to their perceptions of the credibility of the source of the information provided and several investment decisions.

Perception of Credibility of the Source of the Information Provided

To identify participants' perceptions about the credibility of the source of the CSR information, a list of six 7-point semantic differential scales is used. These scales have been used widely over many years in marketing research and assess participants' views about the perceived credibility of the source of the information being presented, including its perceived trustworthiness and expertise (Berlo et al, 1969-1970; Dholakia and Sternthal, 1977; Harmon and Coney, 1982; Grewal et al, 1994). Measures from marketing research are employed in this study given the specific focus on measuring participants' perceptions of the credibility of the source of the information. Studies examining this topic in an accounting and auditing context have generally not attempted to assess perceptions of source credibility, but have manipulated source credibility as an independent variable (Goodwin and Trotman, 1996; Goodwin, 1999; DeZoort et al, 2003).

The six semantic differential scales are: not trustworthy/trustworthy; not open-mined/open-minded; good/bad; expert/not expert; experienced/not experienced;

trained/untrained. The first three of these scales purport to represent “trustworthiness”; while the last three purport to represent “expertise”. The deconstruction of the perception of source credibility into these two dimensions provides greater insight when analysing results, allowing conclusions to be drawn on whether differences in perceived credibility relate to the perceived trustworthiness of the source or the perceived expertise. Factor analysis is performed on the data received in this study to ensure that these two dimensions are evident (refer Section 6.6). Consistent with prior research, 7-point scales are used for this question (Dholakia and Sternthal, 1977; Harmon and Coney, 1982; Grewal et al, 1994; Gay et al, 1998).

Investment Decisions

Three questions centre on investment decisions being made by the participating financial analysts and are used to test the hypotheses relating to investment decisions. The responses elicited from participants pertain to the following dependent variables.

Firstly, participants are asked to make a stock recommendation: buy; hold; or sell. A recommendation of this type is the primary outcome of the analysis and review of company information, made by financial analysts: “(f)inancial analysts see their role as processing sound information to offer clear analysis – with the end result being straightforward advice: buy, hold or sell” (PwC, 2005, p. 24). It has also been used in previous research investigating factors that impact the decision-making of financial analysts (Hunton and McEwen, 1997).

The final two “investment decision” questions elicit participants’ views about the belief that the company’s share price would increase (decrease) and the perceived level of risk of an investment in the companies detailed in the study. These question are similar to questions asked in previous studies (Hirst et al, 1995; Hirst et al, 1999; Hodge, 2001) and are similar to questions used in the research instrument utilised in the first study of this thesis (refer Appendix 3). As noted in Section 4.3.1.2 however, while Hirst et al (1999) required participants to make a decision about the actual share price (a point prediction), this share price question seeks a directional response (that is, a response which indicates participants’ view about the potential for the share price to rise). Libby et al (2002) note that a directional response is preferred to a point prediction, as it improves the external validity of the experiment by assisting in the analysis of causal effects which are considered to be more likely to generalise across different settings. Also, in the research instrument for this second study, the question relating to the perceived level of risk was modified from asking about risk more generally, to asking about risk in terms of volatility relative to the market.[79] To provide consistency throughout the research instrument for this second study, a 7-point scale is also used for these investment decision questions.

6.3.2. The Research Instrument

The research instrument was developed by the author of the thesis utilising the experience gained in the development of the research instrument for the first study in this thesis and giving consideration to the key principles of tailored design, as described by Dillman (2000). For example, information is provided to experiment participants in a covering page accompanying the research instrument, ensuring that they are aware of the importance of the research. The research received the support of senior management at two global investment banks which provided participants for the research experiment. These senior executives played important roles in the administration of the research instrument (refer Section 6.3.3.1) and highlight to experiment participants the legitimacy of the research. Furthermore, when preparing the research instrument, careful thought is given to ensuring that the experiment is interesting and relevant to the participant group, that it is easy for them to complete (e.g., is "self-contained" and does not create the need to reference other materials) and that it does not require participants to provide detailed personal information. Indeed, experiment participants are informed that any information provided to the researcher as part of the experiment is retained in secure storage and kept in strictest confidence. Completion of the research instrument is on an anonymous basis.

Prior to being administered to participants the draft research instrument was pilot-tested by three academic colleagues at UNSW. It was also reviewed by the Global Co-Head, Global Data Services of one of the investment banks providing participants for this

[79] This change was made on the suggestion of the Global Co-Head, Data Services of a large global investment bank and academic colleagues who reviewed the research instrument prior to being administered.

study. Some amendments and additions were made to the instrument based on their feedback and advice, and prior to it being the subject of a "brown-bag" session conducted with senior academics at the School of Accounting, UNSW and a prominent accounting research academic from the United States. Extensive discussion of the research instrument ensued at this "brown bag" session and a number of minor amendments to the draft instrument were made. As there were no substantive changes, further pilot-testing was not considered necessary prior to the administration of the experiment.

The final research instrument, included at Appendix 8, comprises general instructions and three subsequent parts. The general instructions describe the three parts of the research instrument and ask experiment participants to work independently and complete all of the questions. The three subsequent parts of the research instrument include: (i) for each of the two fictitious companies[80], background information, selected audited financial information, an audit report on the financial report with an unqualified audit opinion, selected CSR information and an assurance report (for those participants in the relevant experimental cells); a series of questions aimed at confirming their understanding of the salient points of the cases (i.e., "case information" questions); and a series of questions aimed at eliciting responses from participants in relation to their perceptions and decisions as financial analysts; (ii) a series of questions aimed at eliciting responses in relation to participants' perceptions about information used in their decision-making judgements more generally; and (iii) a series of questions collecting demographic information.

A manipulation check question is included as part of the five "case information" questions, consistent with the approach used by Maines et al (1997).[81] Manipulation checks are critical in behavioural experimental research to ensure that the internal and external validity of an experiment is not threatened. They "provide some evidence of the validity of the manipulated variables" (Trotman, 1996, p. 89) and ensure that the

[80] Although the companies in the study are fictitious companies, the information included in the research instrument is based on existing companies. Accounting data, examples and other information is factored by a multiple to ensure that the identities of the companies are protected.

[81] The manipulation check question was amended for participants completing the research instrument in the online format and for the last six paper-based completions. The need to amend the question slightly arose as a result of a higher than expected manipulation check failure rate. This is discussed in Section 6.4.2.

information being provided to experiment participants (in this case no assurance report, or an assurance report, accompanying the CSR information) has been recognised by them (refer Question 4 of the Case Information in Appendix 8).

The reason for including the manipulation check prior to the questions relating to the dependent variables in this study is to ensure that participants are aware of the level of assurance provided, and the type of assuror. It is necessary that those who do not receive an assurance report for the CSR information are not mistaken in a belief that indeed it has been assured. The inclusion of such a question among five "case information" questions is a means of ensuring that the manipulation is noted, but in a way which is unobtrusive and would not create a demand effect (refer Maines et al, 1997). Furthermore, as the experiment is not administered in a controlled setting and there is no guarantee that participants would strictly follow instructions, it is important that the manipulation check question be asked in this way rather than after the dependent variable questions have been answered, as is more common in behavioural research.[82]

The research instrument included a "Part A" separately for each company, which provided background information on each of the companies. Each of the two Part A's describes fictitious companies that have been established for many years, and both of which have been listed on the Australian Stock Exchange for more than forty years. The first company is a mining company which mines iron ore in the Pilbara region of Western Australia and has proven and provable reserves to ensure continued operations at current levels for the next two decades. It has a stable management team. The second company is a large diversified retailer, also with a stable management team, operating across 100 stores situated predominantly in Australia and New Zealand. To identify whether differences in industry impact the decisions made by experiment participants in relation to the assurance of CSR reporting, one of companies described in

[82] Typically in behavioural research experiments, a manipulation check question is asked in the latter stages of the experiment following the completion of the primary sections of the research instrument (the sections in which dependent variable questions are asked and information pertaining to the independent variables is included). Generally, once the primary section of the research instrument has been completed, participants are required to seal it in an envelope or return it to the researcher, so that they cannot access the background information when answering the manipulation check question. This experiment is not being run in a controlled setting and therefore it could not be guaranteed that experiment participants would strictly follow all instructions (e.g., seal up Part A in an envelope before continuing onto Part B).

the research instrument is part of an industry (i.e., mining industry) where CSR reporting is quite common (KPMG, 2005; Simnett et al, 2007). The other company belongs to an industry (i.e., retailing) where such reporting occurs less often.

The two companies purport to represent companies that would be considered "hold" stock recommendations, as determined by financial analysts' reviews. To achieve this aim, the financial information contained in the research instrument is based on financial information for two companies (as noted previously in Footnote 80) for which hold recommendations were issued by a major global investment bank.[83] Industry figures are drawn from relevant industry data. One of the companies used as the foundation of this research instrument also currently provides assured CSR reports, and is included in a list of over 700 companies that formed the basis of analysis of a current academic working paper (Simnett et al, 2007). The use of a company that provides CSR information as a foundation of the research instrument assists in enhancing the external validity of the experiment. Immediately below the title of the pages presenting the financial information is a comment to the effect that the financial information has been drawn from audited financial statements and that a copy of the audit report is attached.

The financial information provided includes a five-year summary of key financial data for each company grouped under five separate headings: (i) Income Statement; (ii) Balance Sheet; (iii) Cash Flow Statement; (iv) Financial Ratios; and (v) Stock Market Ratios. Although primarily based on the content of five year financial summaries typically provided by companies of this type, consideration was given to previous research and items included in other research instruments (e.g., Hunton et al, 2000). A projected earnings figure (for the mining company) and turnover figure (for the retailing company) for the next year are provided in the background information. These figures are an extrapolation of the previous four years, taking into account each company's performance to ensure that they are not dramatically under, or over, performing.

[83] In hypothesis 1b, described in Section 6.2.1, it is posited that the assurance of CSR information will cause financial analysts to make a more favourable stock recommendation. Given that the companies described in the research instrument represent companies for which "hold" recommendations were issued by an investment bank, an alternative view is that the assurance of CSR information may reinforce that particular type of recommendation. Results of testing of hypotheses and research questions (Section 6.6) should be considered in light of this alternative view.

Industry data included in the summary of key financial data are prepared in a similar manner. The industry share price and industry indexes are based on actual figures reported for that period of time. Immediately following the financial information is an unqualified audit report in a format consistent with the example attached to ASA 700.[84] To maintain and enhance the external validity of the experiment it is important to ensure that the audit report attached to the financial information is in a format with which financial analysts are familiar. If the format of the audit report is "non-standard", it may be an unnecessary distraction for experiment participants and produce confounding effects for the results of the experiment.

Within the background information for each company (included in the separate Part A for each company) a summary of key CSR information is included on a page entitled "Corporate Social Responsibility – Key Achievements 2007". To maintain and enhance internal validity, the CSR information described in the research instrument is presented consistently for each of the two companies. To enhance external validity, the CSR information is in a form that exists within a practical setting. To achieve these aims, the CSR information is structured in line with the ten principles of the United Nations Global Compact.[85] These ten principles are divided into four key headings: (i) human rights; (ii) labour; (iii) environment; and (iv) anti-corruption; and are presented in the following table (refer Figure 6.5). The information included under these headings in the research instrument is drawn from a combination of: (i) the CSR reports of one of the two companies (i.e., the retailing company) upon which the instrument is based; (ii) the reports of other companies in the same industries; and (iii) information included in an investment bank research report discussing sustainable development in the mining industry (Jansen et al, 2006). Again, using information that is typically presented in reports of this kind strengthens the external validity of the experiment.

In line with common practice the CSR information presented in both of the cases is generally positive. As noted previously (refer Section 6.2.2), in industries where the reporting of CSR information is more politically, socially and environmentally

[84] The format of the ASA 700 audit report is consistent with the example auditor's report contained in the body of the ISA 700 standard.

[85] The Global Compact, which was launched operationally in July 2000, aims to "advance universal social and environmental practices" (United Nations, 2004) and encourages companies to "embrace, support and enact, within their spheres of influence, a set of core values in the areas of human rights, labour standards, the environment and anti-corruption" (United Nations, 2004).

sensitive, there will be incentives for companies to ensure that they are seen in the most favourable light. Also, they are the companies that are more likely to have CSR information assured, in order to enhance credibility and reputation (Simnett et al, 2007). This is consistent with findings in previous studies which show that assurance of voluntarily disclosed information has a greater impact on users' perceptions when the information being presented is positive in nature (Fargher and Gramling, 2003; Coram et al, 2007). In contrast, voluntarily disclosed information which is negative in its outlook is perceived as being more reliable and therefore does not require assurance to establish reliability (Frederickson et al, 2006).

Figure 6.5: The Ten Principles of The Global Compact of the United Nations

Human Rights	
Principle 1	Businesses should support and respect the protection of international human rights within their sphere of influence; and
Principle 2	make sure they are not complicit in human rights abuses.
Labour	
Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
Principle 4	the elimination of all forms of forced and compulsory labour;
Principle 5	the effective abolition of child labour; and
Principle 6	the elimination of discrimination in respect of employment and occupation.
Environment	
Principle 7	Businesses should support a precautionary approach to environmental challenges;
Principle 8	undertake initiatives to promote greater environmental responsibility; and
Principle 9	encourage the development and diffusion of environmentally friendly technologies.
Anti-Corruption	
Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery.

To heighten the relevance of the assurance of the CSR information in the experiment, comments are included in the background information for each company to the effect that the company had a potentially damaging environmental (for the mining company) or labour (for the retailing company) problem two years earlier. The inclusion of this comment is aimed at ensuring that experiment participants are aware that each of the companies has incentives to report favourable CSR information, and in turn implicitly heightens the importance and relevance of the assurance of that information (Fargher and Gramling, 2003; Coram et al, 2007). Drawing participants' attention to the incentives to disclose favourable CSR information was done in a manner which was unobtrusive and which would not reduce the internal validity of the experiment by creating unnecessary demand effects.[86]

Immediately below the title of each of the pages presenting the CSR information is a comment to the effect that the information is drawn from the company's CSR report that had been prepared by management. For the participant groups receiving an assurance report, an additional comment is included indicating that the information has been assured and that an assurance report is attached. For those participants who are not receiving an assurance report, the additional comment reads "This information has not been assured". It is important in designing behavioural experimental research that experiment participants respond to the cues that are provided in relation to the manipulation of the independent variables. Therefore, participants in this study are explicitly made aware of whether the CSR information has been assured or not assured. The need to highlight to experiment participants whether information has, or has not, been assured has been recognised for many years (Bailey, 1981; Bailey, 1982). More recently Hodge (2001) took such a direct approach when testing the potential for error identification, the credibility of information and the earnings potential judgements of participants in a study examining the impact of "hyperlinking" non-financial information. That is, Hodge (2001) specifically examines the impact that the differential labelling of hyperlinked information with either of the terms "Audited" or "Not Audited", has on participants' judgements. This is not inconsistent with the objectives of this study.

Following the background information and introductory material, the rest of Part A for each of the two companies contains "case information" questions and questions relating to the financial analysts' investment decisions. They include questions pertaining to stock recommendations, the potential for appreciation of the company's share price, perceived risk of an investment in each company and the perceived relevance of, and credibility of the source of, the information being presented (refer Questions G1 to G9 and R1 to R9 in Appendix 8). To assess the perceived relevance of the information

[86] Following suggestions made at a seminar discussing preliminary results, at a leading business school at a US university, two additional cells were created and tested in additional analysis which attempted to provide a greater focus on the negative events that occurred in each of the two companies two years previously. This was done in an attempt to make it more apparent to experiment participants that the companies had incentives to report favourable CSR information. The development, administration and results of this additional analysis are discussed in Section 6.7.

presented in making assessments about investments in the shares of the companies, participants are asked to rate the perceived relevance on a 7-point scale, ranging from "Very Irrelevant" (0) to 'Very Relevant" (6). Questions of this type are common in behavioural studies in auditing research, which examine the impact of differences in presented information upon perceptions of experimental participants (Innes et al, 1997; Gay et al, 1998; Chong and Pflugrath, 2008).

Part B of the research instrument contains questions aimed at identifying financial analysts' views about the type of information that is important to them when assessing company performance and in making stock recommendations. These do not directly form part of the data used in testing hypotheses. However, as well as potentially providing further explanation of differences identified in hypotheses testing, the data gathered from these questions can assist in supporting previous research examining information used by analysts (Previts et al, 1994; Barker, 1999; Block, 1999; Abdolmohammadi et al, 2006). These questions ask participants to rate on a 7-point scale, the importance of a range of separate pieces of information in formulating stock recommendations (refer Question B1 in Appendix 8). Further questions elicit experiment participants' views about important considerations when making assessments about companies' shares and the type of additional information that would be requested from companies (refer Questions B2 and B3 in Appendix 8). Finally, several questions used in a recent survey by PricewaterhouseCoopers, that aim to seek financial analysts' views on the importance of social, ethical and environmental information to their analysis, are included (PwC, 2005) (refer Questions B4 to B7 in Appendix 8).

The final section of the research instrument includes demographic questions relating to the participants' general experience as a financial analyst and their self-rated knowledge of financial statements, CSR reporting, and audit and assurance reporting (refer Part C in Appendix 8). As noted previously, the design of this research instrument means that the manipulation check question is one of the five "case information" questions in each of the two companies' Part A sections of the research instrument. Therefore, the manipulation check question is not positioned in a more typical position in the latter part of the research instrument.

6.3.2.1. The Assurance Report

The assurance report pertaining to the CSR information, in the research instrument, is an abbreviated version of a report used in practice by one of the “Big 4” accounting firms. A similar report is also used by an assuror other than a professional accounting firm (i.e., sustainability consultant). The wording of the report used in the research instrument reflects the content and wording of the report upon which it is based. By including in the research instrument an assurance report that is effectively used in practice by both types of assuror, the external validity of the experiment is enhanced.

The primary reason for choosing this form of assurance report is that it makes reference to both the assurance standard that would be used by professional accountants (ISAE 3000) and one of the standards (AA1000AS) which could be (and is often) used by assurors other than professional accountants. This is an important design feature of this experiment, which has as a primary aim the examination of the impact on perceptions and decision-making of the assurance of CSR information, and of different types of assuror. Therefore, to include in the research instrument an assurance report that is used by both types of assuror that form part of the independent variable manipulation, strengthens the research instrument and supports the critical design features of the experiment. The internal validity of the experiment is maintained and enhanced as the wording of the reports prepared by each of the two parties is identical. Copies of the assurance reports incorporated into the research instrument are included at Appendices 9 and 10.

6.3.3. Participants and Administration of the Research Instrument

The participants for this study are financial analysts. A number of these financial analysts work for one of three large global financial institutions offering brokerage, investment banking and asset management services to individual clients and corporations. Participants from these three institutions completed the research instrument in a paper form. The remaining experiment participants completed the research instrument online. Financial analysts are based in Australia, the United Kingdom (UK) and the United States (US) and are randomly allocated to the various cells of the experiment. Having a sophisticated group of users of corporate reporting information such as financial analysts as participants, is favoured in experimental research of this nature and has been used in previous studies (e.g., Previts et al, 1994; Bradshaw, 2002).

As research instruments from the participants at these three financial institutions were being returned to the researcher it became apparent that cell sizes would not be of a sufficient size to enable analysis of all of the hypotheses and research question with appropriate statistical power. This concern was exacerbated by the relatively high proportion of manipulation check failures (refer Section 6.4.2). Exhaustive but unsuccessful efforts were made to secure larger numbers of participants to complete the instrument in the paper format. The opportunity was then presented to utilise a resource recommended by two leading accounting professors in the US. This resource provides potential participants for the completion of both online questionnaires and interviews. In recognising that differences in the format of the research instrument may impact and confound results, analyses of the hypotheses and research question controlled for potential differences by including “format” as a fixed factor variable in performing ANCOVA (refer Section 6.6).

There has to date been few behavioural experiments examining questions pertaining to the use of non-financial (especially CSR) information and the impact of assurance of that information on financial analysts’ perceptions and decision-making. Using financial analysts as experimental participants in this second study assists in addressing: (i) the needs of policy makers in establishing assurance standards for CSR reporting; and (ii) calls by academics to conduct research in the area of financial analysts’ decision-making processes (e.g., Bradshaw, 2004). Also, in recent years with the increasing focus on environmental and social performance by investors, financial analysts are playing an increasingly important role in responding to client demand in this area.

6.3.3.1. Administration of the Research Instrument

The research instrument was completed by 106 experiment participants in either a hard copy ("paper") or an online format. The hard copy research instruments were administered primarily in the last quarter of 2007[87], while the online instruments were completed in the second quarter of 2008. Differences in the timing of the administration of the instruments (i.e., six months between the administration of the first "paper" format instruments and the administration of the online format) is not expected to affect the results.[88] However, as noted in Section 6.3.3, analyses of hypotheses and research questions controlled for potential differences pertaining to the format of the instrument by including "format" as a fixed factor variable in performing ANCOVA (refer Section 6.6). Details of the manner in which the experiment was administered for each of these two formats is described below.

Hard Copy ("Paper") Format

In total, forty (40) financial analysts, predominantly at the three investment banks[89], completed the research instrument in the hard copy ("paper") format (of 97 instruments that were distributed).[90] The financial analysts are based in Australia and the UK. Given the difficulty of securing participants of this kind, the experiment was not conducted as a controlled experiment whereby groups of participants complete the instrument in the presence of the researcher. Instead, research instruments were provided to executive staff contacts of the participating investment banks[91] who distributed the instruments to the financial analysts. The research instruments included clearly labelled envelopes requesting participants to return the completed instruments to the respective contacts. The order of the experiments was randomised before being

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[87] The distribution to the third investment banking contact – the second of the two contacts in the UK – was made in the first quarter of 2008 and included the updated manipulation check question – refer Section 6.4.2.

[88] Although CSR reporting and its assurance are topics of increasing interest and importance, no prominent events occurred during that six month period in which the instrument was administered that would be expected to unduly influence participants' responses.

[89] Three financial analysts were undertaking the Executive Master of Business Administration (MBA) Program at UNSW.

[90] 41 research instruments were returned to the researcher, however one of these returned instruments did not provide usable responses.

[91] Research instruments were also provided to a work colleague (for the three financial analysts undertaking the MBA)

provided to the contacts at the respective investment banks, as well as the work colleague. Therefore, experiment participants were randomly allocated to the three "between-subjects" conditions of the experiment. Completed instruments were in turn, returned to the researcher.

Instructions provided to executive staff and the work colleague, who assisted in the distribution and collection of instruments, are included in Appendix 11. Instruments were collected from these contacts six to eight weeks after distribution and after "follow-up" requests had been made of potential experiment participants by these contacts.

Online Format

The online format of the research instrument was "hosted" by a provider of online research services in the US. It was a company that specialises in online research of the kind being undertaken in this study, and which was recommended to the author by two leading accounting academic professors from the US. The online research instrument was "launched" on 17 April 2008 and was available online for a little over four weeks (until 16 May).

A total of 66 participants completed the research instrument using the online format (of a total of 101 who initially met the suitability criteria as experiment participants).[92] The respondents comprised financial analysts from the US, the UK and Australia.[93]

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[92] Suitability criteria were defined in terms of having two or more years experience as financial analysts. Participants completing the research instrument in a paper format ranged in years of experience from less than 1 year to 21 years. While preparing the instrument for completion online, the principal of the company providing the online research services strongly recommended, based on his previous experience, to set a lower limit of 2 years to ensure the quality of the responses. Analysis was performed excluding participants with less than two years of experience, and only one difference in the reported results is evident. Reported results indicate no significant difference in stock recommendations for assurance by different types of assuror (refer Section 6.6.2). When participants with less than two years experience are excluded, participants make more favourable stock recommendations ($p = 0.058$; 2-tailed) when CSR information is assured by a sustainability expert (mean = 1.07) than when it is assured by a professional accountant (mean = 0.64). [Note: Years of experience was controlled for in undertaking analyses of hypotheses and research questions by including it as a covariate in ANCOVA (refer Section 6.6)].

[93] As noted previously in Footnote 86, following suggestions made at a seminar discussing preliminary results, at a leading business school at a US university, two additional cells were created and tested in additional analysis which attempted to provide a greater focus on the negative events that occurred in each of the two companies two years previously. These two additional cells were administered in an online format. 31 participants completed the research instruments for these two additional cells, of a

The wording of the research instrument was transferred directly from the hard copy format to the online format, with minor formatting adjustments required to present the instrument appropriately on screen. Once it was confirmed that a potential respondent met the requirements of experiment participants, the respondent was randomly directed to one of the three versions of the research instrument for completion.[94]

6.3.3.2. Titles and Experience of Participants

Table 6.1 outlines the positions held by the participants and the industry sectors in which they are predominantly involved in researching and covering stocks.

Table 6.1: Participants' Position Title and Industries in Which They Are Predominantly Involved in Researching and Covering Stocks (n = 106)

Position Title	
Associate/Equity Researcher/Other	26
Analyst/Senior Analyst/Finance Analyst/Research Analyst	48
Managing Director/Director/Vice President/President/C-level#	32
Total	**106**
Industry Sectors In Which Predominantly Involved	**No of Analysts***
Diversified financials, banks, insurance	39
Metals, mining, oil and gas, energy, steel	24
Building materials and construction	20
Telecommunications	19
Property	16
Engineering and industrials	13
Leisure and gaming	12
Healthcare	11
Infrastructure	8
Utilities	7
Transport	6
Other^	17

 # C-level refers to positions that incorporate "Chief" in their titles: Chief Executive Officer (CEO); Chief Financial Officer (CFO); Chief Operating Officer (COO) and so on

*** The total number will add to greater than 106, as analysts were asked to list up to three (3) sectors in which they are predominantly involved**

^ Industry sectors mentioned less than three times

total of 65 participants who initially met the suitability criteria as participants. The development, administration and results of this additional analysis are discussed in Section 6.7.

94 Refer Footnote 86, an additional two cells were later created and tested in additional analysis. The development, administration and results of this additional analysis are discussed in Section 6.7.

The table shows a wide range of experience for experiment participants, with around 30 per cent of participants (32 of 106) holding senior positions (e.g., Managing Director, Director, President) within the organisations that they work and just under one-quarter (26 of 106) holding junior positions (e.g., Associate). Furthermore, participants' experience in terms of the range of industry sectors in which they are predominantly involved in researching and covering stocks is quite diverse. Three industry sectors are mentioned by twenty or more participants. They include: (i) diversified financials, banks, insurance; (ii) metals, mining, oil and gas, energy, steel;[95] and (iii) building materials and construction.

The wide range of experience of participants is supported by the demographic characteristics of participants reported in Table 6.2. This table shows that the average number of years of experience of participants in researching and covering stocks is just under 7 years, and ranges from less than one year to 21 years.

In terms of their self-rated knowledge with respect to the meaning and interpretation of key aspects of corporate reporting, it is interesting to note that participants rated themselves, on average, as having a high knowledge with respect to the meaning and interpretation of financial statements (an average rating of 4.50 on a 7-point scale, ranging from 0 to 6, with 3 as the mid-point). However, self-rated knowledge of the meaning and interpretation of CSR reporting and auditing and assurance are lower than that recorded for financial statements; they are around "average" at 3.46 and 3.57 respectively (on a 7- point scale, ranging from 0 to 6, with 3 as the mid-point).[96]

[95] To account for potential confounding effects on results of analysis of hypotheses and research questions, a control variable pertaining to experience (no experience) in researching and covering stocks in the mining industry was included in the ANCOVA. When this variable is included as a fixed factor in the analysis, only one different result was reported, pertaining to the perceived credibility of the source of the information, in terms of trustworthiness, between the different types of assuror (refer Section 6.6.2).

[96] Two participants recorded "zeros" (i.e., "Very Low") for all three self-rated knowledge questions. A review of these two participants' responses to the dependent variable and qualitative questions indicate that their responses appear reasonable. Excluding them from analyses did not affect the results. Therefore the data received from these participants are included in analyses of hypotheses.

Table 6.2: Participants' Years of Experience and Self-Rated Knowledge (n = 106)

Question	Mean	SD*	Range
What is your **number of years experience** in researching and covering stocks?	6.94	(5.17)	<1 – 21
How would you rate your **knowledge with respect to the meaning and interpretation of financial statements**? *(0 = Very Low; 3 = Average; 6 = Very High)*	4.50	(1.26)	0 – 6
How would you rate your **knowledge with respect to the meaning and interpretation of corporate reporting more generally, including corporate social responsibility reporting**? *(0 = Very Low; 3 = Average; 6 = Very High)*	3.46	(1.33)	0 – 6
How would you rate your **knowledge with respect to the meaning and interpretation of auditing and assurance**? *(0 = Very Low; 3 = Average; 6 = Very High)*	3.57	(1.37)	0 – 6

* SD = Standard Deviation

6.4. Tests for Non-Response Bias and Manipulation Checks

This section describes in two separate sub-sections: (i) the response rates and tests of non-response bias; and (ii) discussion of manipulation check failures, and measures taken to overcome them.

6.4.1. Tests for Non-Response Bias

As noted previously, in Section 6.3.3.1, research instruments were completed by experiment participants in both a hard copy ("paper") and online format.

Hard Copy ("Paper") Format

Of the 97 research instruments distributed to the researcher's contacts, 41 (42.3 per cent) were returned. All but one of these returned instruments included usable responses. The breakdown of these responses shows that of 44 research instruments sent to the first investment bank based in the UK, 17 completed instruments were returned (38.6 per cent). From the second senior investment bank, based in Australia, 15 instruments were returned of 42 instruments distributed (35.7 per cent). The third investment bank contact, also based in the UK, was responsible for distributing 7 research instruments, of which 6 were returned (85.7 per cent). The remaining three completed research instruments were distributed by an academic colleague. He distributed instruments to three of his students, who were financial analysts and had volunteered to undertake the experiment. The hard copy research instruments were primarily administered in the last quarter of 2007. Instruments distributed to the third investment banking contact were completed in the first quarter of 2008.

Online Format

The online format issued "invitations to participate" to approximately 45500 potential participants, across the three versions of the research instrument used in analysing the stated hypotheses and in an additional two versions created to undertake further analysis described in Section 6.7. Of this number, 5876 people responded to the invitations (12.9 per cent). Potential participants were then screened on the basis of their experience. That is, if potential participants did not indicate that they were financial analysts with at least two years of experience in researching stocks, they were unable to proceed with the instrument. The total number of potential participants who met the suitability criteria for the experiment was 408, or around 6.9 per cent of respondents. The drop-out rate (i.e., those respondents who met the suitability criteria and commenced, but did not complete, the instrument) was 4.1 per cent (242 respondents), leaving 166 (2.8 per cent of respondents) completed responses. In providing the data and other feedback, the principal of the company hosting the online format noted that the drop out rate for technical research of this kind is generally around 12 per cent. The considerably lower drop-out rate showed that the research instrument was well constructed and properly timed. For versions 1, 2 and 3 of the research instrument, 101 respondents met the suitability criteria, of which 66 (65.3 per cent) of these completed the instrument in a manner that provided usable responses.[97]

[97] The vast majority of the 35 participants who did not provide usable responses were excluded as it was evident from the responses provided to the qualitative and manipulation check questions that they were not giving the research instrument serious attention. This was evidenced by the time taken to complete the research instrument, as all excluded participants had completed the research instrument in less than two-thirds of the time that it was expected to take to complete.

The number of responses received for each of the different versions of the research instrument is shown in Table 6.3.

Table 6.3: Instruments Returned by Version of Research Instrument

		Format		**Country^**		
Version	**Number Received**	Paper*	Online	Australia	UK	US
Version 1: CSR information with ***no Assurance Report***	**32**	10 (29)	22	11	12	9
Version 2: CSR information with ***Assurance Report issued by Professional Accountant (Auditor)***	**41**	17 (34)	24	12	19	10
Version 3: CSR information with ***Assurance Report issued by Sustainability Expert (Consultant)***	**33**	13 (34)	20	9	15	8
TOTAL	**106**	**40 (97)**	**66**	**32**	**46**	**27**

*** The number in parentheses in this column represents the number of instruments that were distributed.**
^ The total number of respondents for Version 3 by country does not equal the total of 33, as one of the respondents of a paper research instrument indicated that most of his/her experience in researching stocks had been gained in Japan

Chi-square tests for the proportions of instruments in the paper format returned (versus the number distributed) across the three versions indicate that there are no significant differences between groups in terms of the proportions of responses received by version ($p = 0.505$).

Table 6.3 highlights the potential sample sizes upon which analyses are performed in the testing of hypotheses and research question. Given the "within-subjects" component of the research design, it means that for each response there are two observations (as each research instrument covers two cases) for each dependent variable being considered. Therefore, in testing H1, the results for Version 1 (sample size of 64) will be compared with the aggregated results for Versions 2 and 3 (sample size of 148). In testing H3, the results for Version 2 (sample size of 82) will be compared with the results for Version 3 (sample size of 66). Given that they involve analyses of interactions between the two cases ("within-subjects") and the independent variables of interest, potential sample sizes for the testing of H2 and RQ1 will be half of the sample sizes for H1 and H3 respectively.

These potential sample sizes are however, reduced at the time of analysis as a result of manipulation check failures (refer Section 6.4.2).

6.4.2. Manipulation Checks

As noted previously in Section 6.3.2 the manipulation check question for the research instrument is one of five "case questions" included immediately after the background information is provided, and prior to the questions pertaining to the dependent variables. This approach is consistent with the approach used in Maines et al (1997). It is important for this study that experiment participants are aware that they are receiving CSR information that had either been assured or had not been assured (independent variable manipulation for H1 and H2). Furthermore, where the information had been assured, it is important that participants are aware by whom it has been assured; either a professional accountant (auditor) or a sustainability expert (consultant) (independent variable manipulation for H3 and RQ1).

Analysis of the first research instruments returned to the researcher indicated a higher than expected manipulation check failure rate. The 35 instruments returned from two of the investment banking contacts and the work colleague produced 70 potential data points (given that each respondent completed the two cases as part of the "within-subjects" research design). Of these 70 potential data points, 24 (34.3 per cent) failed to recognise that the CSR information had been assured. A further 8 (11.4 per cent) who recognised that the information had been assured, failed to indicate the correct type of assuror.

While these manipulation check failure rates are high, they may be explained in a similar manner to the explanations provided in Fargher and Gramling (2003), who experienced a manipulation check failure rate of 24.1 per cent in a behavioural experiment using US pension fund sponsors as participants. In Fargher and Gramling (2003) participants did not perceive that an attestation of information had occurred even when the case material explicitly indicated the presence of attestation. This failure rate was explained in two ways: (i) the participants were not familiar with the term “attestation”, preferring the term “verification” instead; and (ii) attestation of the information was not found to be an important factor in the investment decisions being made and examined.

It is possible that each of these two explanations may also relate to this study. Firstly, the term “assurance” may not be as familiar to financial analysts as the term “auditing”. Even though CSR information is, in the language of the IAASB, assured (rather than audited), some financial analysts may not recognise the purpose of the manipulation check question (presented in Figure 6.6) which asked them to indicate whether information had been assured.

Figure 6.6: Original Manipulation Check Question

The summary Corporate Social Responsibility Key Achievements provided in this study is extracted from GLP Limited’s corporate social responsibility reports that have: (Please tick the appropriate box)

BEEN ASSURED BY A PROFESSIONAL ACCOUNTANT (AUDITOR)	☐
BEEN ASSURED BY A SUSTAINABILITY CONSULTANT (OTHER EXPERT)	☐
NOT BEEN ASSURED	☐

This conclusion is consistent with the financial analysts’ self-rated knowledge “with respect to the meaning and interpretation of auditing and assurance”, which is considered to be only average at 3.57 on a 7-point scale ranging from “0 = Very Low; 3 = Average; 6 = Very High (refer Section 6.3.3.2).

The issue of manipulation check failures was discussed at the time that the preliminary results of the study were being presented at a leading business school at a US university. They concluded that the question as posed, including the use of the word “assured”, may be a reason that participants failed to respond in the desired manner. From an external validity perspective, the term “assured (or assurance)” could not be changed and substituted with the word “audited (or audit)”. Therefore, alternative wording for the manipulation check question was proposed, which retained the word “assured”, but which referred participants to the report attached to the CSR information.

These proposed changes were adopted in the research instruments subsequently distributed in paper format and used for the online format. The changes involve asking a two-part question. The first part of the question asked participants to recognise whether an "Assurance Report" pertaining to the CSR information had been attached. This question therefore explicitly uses the same wording as that at the top of the page which presents the CSR information. It makes it quite clear that the question relates to a separate attached report. The second part of the question then requires the participant to choose between the alternatives of a professional accountant or sustainability expert, if they answered "Yes" to the first part. This two-part question is presented in Figure 6.7.[98]

Figure 6.7: Changed Manipulation Check Question

Is there an Independent Assurance Report attached to the summary Corporate Social Responsibility Key Achievements, extracted from GLP Limited's corporate social responsibility reports, provided in this study: (Please tick the appropriate box)

YES ☐ **NO** ☐

If <u>YES</u>, has the summary Corporate Social Responsibility Key Achievements: (Please tick the appropriate box)

BEEN ASSURED BY A PROFESSIONAL ACCOUNTANT (AUDITOR) ☐

BEEN ASSURED BY A SUSTAINABILITY CONSULTANT (OTHER EXPERT) ☐

Following the changes to the manipulation check question, the failure rate for this question decreased markedly for the paper format of the research instrument. Of the 6 "paper" format research instruments returned subsequently to the change in the wording of the question, there was a 100 per cent correct response to the 12 questions (i.e., 6 research instruments times 2 cases per instrument). For the "online" format, there were 12 (9.1 per cent) of 132 responses to the question that failed to recognise that the CSR information had been assured. A further 14 (10.6 per cent) recognised that the information had been assured, however failed to indicate the correct type of assuror. Statistics for the manipulation check question are summarised in Table 6.4.

[98] As noted in the discussion in Section 6.3.2 the inclusion of the manipulation check question as one of several "case" question ensures that attention is not drawn to the manipulation and ensures that demand effects are minimised.

Table 6.4: Manipulation Check Question Failures^

	Format		
	Paper	Online	**TOTAL**
Original Manipulation Check Question			
Assurance	24/70 (34.3%)		**24/70 (34.3%)**
Type of Assuror	8/70 (11.4%)		**8/70 (11.4%)**
Changed Manipulation Check Question			
Assurance	0/12 (0%)	12/132 (9.1%)	**12/144 (8.3%)**
Type of Assuror	0/12 (0%)	14/132 (10.6%)	**14/144 (9.7%)**
TOTAL			
Assurance	**24/82 (29.3%)**	**12/132 (9.1%)**	**36/214 (16.8%)**
Type of Assuror	**8/82 (9.8%)**	**14/132 (10.6%)**	**22/214 (10.3%)**

^ **Number of manipulation check failures compared with number of usable responses.**

The analyses of hypotheses and the research question are performed using only data from participants who correctly answered the manipulation check questions. Recognition of assurance and of the type of assuror is critical to this study and therefore it was not considered appropriate to analyse data for participants who fail to make these important recognitions.[99]

6.5. Descriptive Results

This section discusses descriptive results pertaining to financial analysts' decision-making processes. In the first sub-section, the importance of nine items (including the CSR report and the assurance report for CSR report) to financial analysts' decision-making is discussed. This is followed by two sections that discuss respectively, the extent to which financial analysts include CSR information in their published reports, and the relevance of financial and CSR information to their decision-making. Finally, the last sub-section examines the most important considerations for financial analysts when making assessments about companies' shares.

[99] It is common in behavioural research to perform analyses including and excluding manipulation check failures, and to compare the analyses for any differences. This did not seem appropriate in this study, and therefore analyses were performed only where participants had correctly answered the manipulation check questions.

6.5.1. Importance of Information when Making Stock Recommendations

Data were gathered in relation to financial analysts' views about the importance to them of nine different pieces of corporate reporting, when making stock recommendations (refer Table 6.5).

This information was collected after participants had made decisions relating to the case information[100] and specifically noted that all of the different pieces of information described in the question had not been provided to them in the case information. This table clearly shows that participants rate the financial statements as the most important piece of information available to them (of the nine items listed) when making stock recommendations.

Table 6.5: Importance of Information to Participants When Making Stock Recommendations (n = 106)

Question

For each separate piece of information listed below, indicate **how important such information is generally perceived by you in terms of making stock recommendations**. (Note: Not all of these sources of information were provided to you in Part A)

(0 = Very Unimportant; 6 = Very Important)

		Mean	SD*	Range
(a)	The Annual Report (in its entirety)………………………………..	4.57	(1.29)	1 – 6
(b)	Company's Interim Earnings Announcements……………..........	4.72	(1.18)	1 – 6
(c)	Chairman's/CEO's Report within the Annual Report (MD&A)….	3.84	(1.32)	1 – 6
(d)	Financial Statements……………………………………........	5.14	(1.12)	1 – 6
(e)	The Notes to the Financial Statements……………………………	4.98	(1.11)	1 – 6
(f)	Audit Report of Financial Statements……………………………..	4.15	(1.69)	0 – 6
(g)	Corporate Social Responsibility Report…………………………..	3.40	(1.60)	0 – 6
(h)	Assurance Report of Corporate Social Responsibility Report…...	3.48	(1.65)	0 – 6
(i)	Corporate Governance Statement…………………………………	3.71	(1.45)	0 – 6

On average, participants rate the financial statements to be of great importance, with a mean score of 5.14 on a 7-point scale ranging from 0 to 6. This is followed by the notes to the financial statements (mean score of 4.98) and the company's interim earnings announcements (mean score of 4.72) in terms of relative importance. Of least importance to financial analysts (of the nine items listed) was the CSR report, which is of moderate importance, with a mean score of 3.40. Of only slightly greater importance is the assurance report of the CSR report (mean score of 3.48). Significance testing (t-

[100] Therefore data for those participants who failed the manipulation check questions are included.

tests) was undertaken to determine whether the CSR report and the assurance report of the CSR report were perceived as being significantly less important to financial analysts, than other information, in making stock recommendations. This testing shows that these two items are significantly less important than each of the other seven items. For the CSR report, significance levels ranged from p-values of 0.000 (five items) to 0.006 (two items), while for the assurance report they ranged from 0.000 (five items) to 0.039 (for the comparison with the corporate governance statement). These results are consistent with previous research which reports that annual report users consider information pertaining to environmental issues to be significantly less important than other financial information (Deegan and Rankin, 1999).

6.5.2. Inclusion of Corporate Social Responsibility Information in Financial Analysts' Published Reports

As noted previously (refer Section 6.3.2) the research instrument includes several questions that had been used in a survey of analysts by PwC (2005). These questions seek analysts' views about the importance of social, ethical and environmental information to their analysis.

The PwC survey involves interviews with 43 analysts in both Europe (22 analysts) and North America (21 analysts). It concludes that financial analysts' reports rarely discuss companies' social, ethical and environmental performance. They do not generally regard such performance factors as being relevant to the valuation of a company. If mention is made of social, ethical and environmental performance it is generally cursory in nature. Furthermore, it seems that financial analysts are not demanding that social, ethical and environmental performance be separately reported by companies.

These conclusions are consistent with the analysis reported for this study. Significance testing (t-tests) was undertaken to determine whether differences exist between the results of these questions. Table 6.6 shows that financial analysts are significantly more likely ($p = 0.000$) to include non-financial indicators (not specifically social, ethical, corporate governance and environmental considerations) in their assessments of company and management performance than social, ethical, corporate governance and environmental considerations. Non-financial indicators are included in assessments between "Sometimes" (i.e., "2" on a 5-point scale from 0 to 4) and "Most of the Time" (i.e., "3" on a 5-point scale from 0 to 4), as represented by a score of 2.57. In contrast, social, ethical, corporate governance and environmental considerations are included in assessments only "Sometimes" (a score of 2.03). Furthermore, financial analysts include social, ethical, corporate governance and environmental information in their published reports (i.e., score of 1.81 on a 5-point scale from 0 to 4) significantly less often (p = 0.014) than they include these issues in their company and management assessments.

Table 6.6: Inclusion of Corporate Social Responsibility Information in Assessments and Published Reports of Financial Analysts (n = 106)

Question	Mean Response
When you assess company and management performance, do you ever **include non-financial indicators (e.g., quality of management, reputation, employee relations, or intellectual property) in your assessment**? *(0 = Never; 1 = Rarely; 2 = Sometimes; 3 = Most of the Time; 4 = Always)*	2.57[ab]
More specifically, when you assess company and management performance, do you ever **include social, ethical, corporate governance or environmental considerations in your assessment**? *(0 = Never; 1 = Rarely; 2 = Sometimes; 3 = Most of the Time; 4 = Always)*	2.03[ac]
Do you **include social, ethical, corporate governance or environmental information in your published reports**? *(0 = Never; 1 = Rarely; 2 = Sometimes; 3 = Most of the Time; 4 = Always)*	1.81[bc]
Have you ever **raised questions regarding social, ethical, corporate governance or environmental issues with corporate managers in your research**? *(0 = Never; 1 = Rarely; 2 = Sometimes; 3 = Most of the Time; 4 = Always)*	1.58

[a] = significant difference (p = 0.000)
[b] = significant difference (p = 0.000)
[c] = significant difference (p = 0.014)

Where participants indicate that they "Sometimes", "Most of the Time" or "Always" included social, ethical, corporate governance and environmental information in their published reports, they are asked to provide the primary source of such information. Sixty-seven participants responded to this question. Results (not shown separately in a table) show that the three primary sources of information (mentioned by 15 or more participants) are; (i) other industry and economic information providers (mentioned

18 times); (ii) the media (mentioned 16 times); and (iii) the company's annual report (mentioned 15 times).

Where participants indicate that they "Sometimes", "Most of the Time" or "Always" raise questions with corporate managers regarding social, ethical, corporate governance or environmental information, they are asked to outline the sorts of questions and issues raised. Forty-one participants responded to this question. Results (not shown separately in a table) show that environmental (mentioned 26 times) and social, labour and human rights (mentioned 16 times) issues are the issues to which most focus is given by financial analysts when questions are asked of corporate management.

6.5.3. Relevance of Information when Making Stock Recommendations

As mentioned previously (refer Section 5.1) financial analysts place much less weight on, and report much less, non-financial information in their published reports, than companies disclose (Nielsen, 2006). Furthermore, while non-financial information is considered below financial factors in determining measures of company performance (Block, 1999), financial analysts are known to supplement their use of financial information with non-financial factors when making valuation decisions (Bradshaw, 2002). Furthermore, it is reported that financial analysts would prefer to have more qualitative information when making valuation decisions (Coram et al, 2006).

To provide comment on this general topic, participants in this study are asked to comment upon the relevance to the stock recommendations made for the two cases of three items: (i) the entire package of information provided to them in the case; (ii) the financial information provided; and (iii) the CSR information provided. Results (not shown separately in a table) show that the financial information is highly relevant to financial analysts when making their stock recommendations (mean score of 4.48 on a 7-point scale from 0 to 6 for the company in the mining industry and 4.46 for the company in the retailing industry). In contrast, CSR information is considered to be of only moderate, and significantly less ($p = 0.000$ for both industries), relevance (mean score of 3.45 on a 7-point scale from 0 to 6 for the company in the mining industry and 3.39 for the company in the retailing industry).

6.5.4. Important Considerations when Making Assessments about Companies' Shares

Analysis of qualitative responses pertaining to important considerations when making assessments about companies' shares confirms the conclusions reached in the two preceding sub-sections (Sections 6.5.2 and 6.5.3). Table 6.7 summarises participants' responses to a question seeking their views about the most important considerations when making assessments about companies' shares. The question does not relate specifically to the cases presented and therefore the results include the responses from all participants.[101]

Table 6.7: Qualitative Responses – Important Considerations When Making Assessments About Companies' Shares
(Number of times a particular response was mentioned)

List the three most important considerations for you when making assessments about companies' shares (n = 137)		
Responses mentioned……..		
(i)	Financial performance, current financial position and past financial history	111
(ii)	Earnings forecasts, earnings outlook and growth ……………….……….....	65
(iii)	Competitive analysis, industry analysis and factors, and macro environment ...	54
(iv)	Valuation ……………………………………………………….………...	45
(v)	Management capability, quality and execution ………………...……………...	33
(vi)	Cash flows ……………………………………………………….………...….	10
(vii)	Corporate social responsibility (social, ethical and environmental)……………	10
(viii)	Risk/volatility………………………………...……………………….……..	9
(ix)	Audit report…………………………………………………………….……….	8
(x)	Strategy …………………………………………………………………….…..	8
(xi)	Annual report……………………………………………………………….……..	7
(xii)	Capital expenditure……………………………………………….….………	2
(xiii)	Other (litigation, compliance)………………………………………………..	3

This table clearly indicates that the most important considerations for financial analysts relate to financial measures of performance and positions and past financial history (mentioned by 111 or just over 80 per cent of participants). Other items mentioned by at least one-third or more of participants include: (i) earnings growth and forecasts

[101] This includes participants who received the versions prepared for the additional analysis (refer Section 6.7) and those who failed the manipulation check question (refer Section 6.4.2).

(mentioned by 65 [47.4 per cent] of participants); (ii) competitive, industry and macro environmental analyses (mentioned by 54 [39.4 per cent] of participants); and (iii) valuation (mentioned by 45 [just under 33 per cent] of participants). CSR information is mentioned by 10 (around 7 per cent) of the 137 participants.

A similar theme is represented by the responses to a question that seeks participants' views about the type of information they would request of companies that would assist them in making stock recommendations. Information pertaining to strategy and outlook (mentioned on 35 occasions), competitive, industry and macro environmental information (mentioned on 20 occasions) and more detailed financial information (mentioned on 16 occasions) are mentioned most often. Requesting CSR information is mentioned on only two occasions.

6.6. Testing of Hypotheses and Research Questions

Before testing hypotheses, the reliability of the scales used for the dependent variable questions and other perception questions is tested using the Cronbach alpha coefficient test. The Cronbach alpha coefficient for these questions (excluding questions pertaining to the credibility of the source of the information, which are separately tested for reliability) was 0.851, above the indicative reliability value of 0.7. As the questions pertaining to the credibility of the source of the information involve six questions where scales ran in opposite directions for several of the questions, the scales for these questions are tested separately for reliability. Before testing for reliability, relevant scales are reversed for those questions which run in the opposite direction, thereby ensuring that the scales all run from the lowest outcome on the left-hand most point on the scale, to the highest outcome on the right-hand most point on the scale. The Cronbach alpha coefficient for these questions is 0.924; also above the indicative reliability value of 0.7. On the basis of this testing the scales used in the research instrument are considered reliable for the sample being examined.

Tests for normality of the distributions of data are also undertaken. Again, the questions pertaining to the credibility of the source of the information are analysed separately from the other questions. All of the distributions indicate normality, as revealed in histograms, “de-trended” normal probability plots and normality tests using the Kolmogorov-Smirnov statistic (Pallant, 2005). Therefore, in testing hypotheses and research questions ANCOVA is utilised.

Finally, as noted previously (refer Section 6.3.1.2) the questions pertaining to the credibility of the source of the information are drawn from a previously well tested set of six questions employed in marketing research (Berlo et al, 1969-70; Dholakia and Sternthal, 1977; Harmon and Coney, 1982; Grewal et al, 1994). The mean responses for the six questions are reported in Table 6.8. As the scales for questions (c) to (f) (inclusive) run in the opposite direction to the scales for the first two questions, the results for these last four questions are reversed in the table.

Table 6.8: Descriptive Results for Question Pertaining to the Credibility of the Source of the Corporate Social Responsibility Information

Item		Mean	Std Deviation	Range
(a)	Not Trustworthy/Trustworthy	3.76	1.30	0 – 6
(b)	Not Open-Minded/Open-Minded	3.59	1.23	0 – 6
(c)	Bad/Good	3.50	1.27	0 – 6
(d)	Not Expert/Expert	3.46	1.31	0 – 6
(e)	Not Experienced/Experienced	3.50	1.28	0 – 6
(f)	Untrained/Trained	3.50	1.27	1 – 6

In previous studies (Berlo et al, 1969-70; Dholakia and Sternthal, 1977; Harmon and Coney, 1982) these six questions have been used to determine source credibility in terms of two factors, described as trustworthiness and expertise. The first three of the six questions describe the trustworthiness factor, while the remaining three questions represent the expertise factor. To confirm the appropriateness of the questions in this study, factor analysis is performed on the data received.

Firstly, the suitability of the data for factor analysis is assessed. The Kayser-Meyer-Okin value is 0.856, which exceeds the recommended value of 0.6. Also, the Bartlett’s Test of Sphericity reached statistical significance (sig. = 0.000). Both of these measures indicate that the data is suitable for factor analysis. Components analysis reveals only one component with an eigenvalue of greater than 1 (4.269), which explains 71.1 per cent of the variance. A second component reports an eigenvalue of 0.822, and explains

13.7 per cent of the variance. In exploratory factor analysis, results of this kind suggest that all of the questions load onto one factor. However, as this analysis is confirmatory in nature, and the second component explains a significant proportion of the variance (at 13.7 per cent), the analysis continues on the basis of two components, as suggested in prior research (Berlo et al, 1969-70; Dholakia and Sternthal, 1977; Harmon and Coney, 1982). This decision is supported by inspection of the reported screeplot which reveals a clear break after the second component. Therefore, Varimax rotation is performed for two components. The results are shown in Table 6.9. The two-component solution explains a total of 84.85 per cent of the variance, with the first component (entitled "expertise") contributing 52.02 per cent and the second component (entitled "trustworthiness") contributing 32.83 per cent.

Table 6.9: Pattern/Structure for Coefficients: Factor Analysis of Source Credibility Questions

Item		Component One "Expertise"	Component Two "Trustworthiness"
(a)	Not Trustworthy/Trustworthy	0.295	**0.883**
(b)	Not Open-Minded/Open-Minded	0.320	**0.877**
(c)	Bad/Good	**0.836**	0.236
(d)	Not Expert/Expert	**0.892**	0.319
(e)	Not Experienced/Experienced	**0.889**	0.298
(f)	Untrained/Trained	**0.805**	0.419
	% of variance explained	**52.02**	**32.83**

Varimax rotation of two factor solution for credibility questions

One question loads differently from expectations. This is question (c), which asks respondents to indicate their perceptions of the credibility of the source of the information on a scale of "Bad" to "Good". Previous studies (Berlo et al, 1969-70; Dholakia and Sternthal, 1977; Harmon and Coney, 1982) have shown this question as relating to the "trustworthiness" component. However, as reported in Table 6.9, the question loads more heavily onto the factor that contains the three questions that would be labelled "expertise". Consequently, for the purposes of this study, the question pertaining to "Bad/Good" is excluded from the measure of "trustworthiness".

Therefore, credibility of the source of information is measured in three ways: (i) trustworthiness (using the averaged combined results from two questions – "Not Trustworthy/Trustworthy" and "Not Open-Minded/Open-Minded"); (ii) expertise (using the averaged combined results from three questions – "Not Expert/Expert", "Not Experienced/ Experienced" and "Untrained/Trained"); and (iii) overall credibility (using the averaged combined results of all six questions).

Given that data were collected from the administration of research instruments in different formats (paper and online) and across different countries, the testing of hypotheses requires that these potential confounding factors be controlled. Furthermore, the descriptive statistics for participants (refer Table 6.2) show that there is a wide range of experience in researching and covering stocks, with participants ranging in experience from less than one year to 21 years. ANCOVA is used for testing the hypotheses and the format of the research instrument and the type of country[102] are controlled for by entering these items as fixed factors into the analysis. The years of experience is controlled for by entering it as a covariate (given that it is a continuous variable).

6.6.1. Testing of H1 and H2: Impact of Assurance of Corporate Social Responsibility Reporting (H1) and Interactive Effect of the Assurance of Corporate Social Responsibility Reporting and the Type of Industry (H2)

Tables 6.10 to 6.13 report the results of testing of hypotheses 1 and 2. The following discussion describes results separately for each of the sub-hypotheses.

Sub-Hypothesis "a":
Credibility of the Source of Corporate Social Responsibility Information.

Hypothesis 1a posits that financial analysts receiving assured CSR information will consider the source of the information to be more credible than financial analysts who receive CSR information that is not assured. In testing this hypothesis credibility is assessed in terms of three constructs: (i) trustworthiness (Part A of Table 6.10);

[102] The type of country is dichotomised as "US" and "Other" on the basis of evidence that assurance of CSR reporting in the US is perceived very differently from other parts of the world (refer Simnett et al, 2007).

(ii) expertise (Part B of Table 6.10); and (iii) an overall measure of credibility (Part C of Table 6.10).

On a 7-point scale ranging from 0 to 6, the perceived credibility ranged from 3.38 for CSR information that is not assured for the company in the mining industry (in terms of the "expertise" construct) to 4.14 for assured CSR information for the company in the mining industry (in terms of the "trustworthiness" construct). These results indicate that the credibility of the source of the information is perceived as being only moderate, irrespective of whether or not the information has been assured or the type of industry within which the information is provided.

Hypothesis 1a is partly supported. Part A of Table 6.10 reports that financial analysts perceive the credibility of the source of assured CSR to be significantly greater than information that is not assured, in terms of the "trustworthiness" construct ($p = 0.014$; 2-tailed). In terms of the "expertise" construct and the overall perception of credibility the results are in the hypothesised direction, but are not significantly different.

Hypothesis 2a suggests that there will be a greater favourable impact of the assurance of CSR information on financial analysts' perceptions of the credibility of the source of the information for a company in the mining industry than a company in the retailing industry. As discussed in Buckless and Ravenscroft (1990), contrast analysis is a more appropriate form of analysis than ANCOVA to test such a hypothesis. However, it is first necessary to analyse the interaction (i.e., Assurance*Industry) using ANCOVA in order to discount the existence of interactions that are not the same as that being hypothesised. In all three parts of Table 6.10, no significant differences to those hypothesised (in fact, no significant differences at all) are reported for this interaction term, meaning that the use of contrast analysis to test this hypothesis is appropriate.

The results of contrast analysis are reported in Table 6.11, testing whether the results reported for the assured CSR information for the company in the mining industry are significantly different from the results reported for the other three cells. It shows that H2a is supported for both the "trustworthiness" construct ($p = 0.005$), and overall ($p = 0.080$) perceived credibility.

Table 6.10: Testing of Hypothesis 1a:
Impact of Assurance (Non-Assurance) of Corporate Social Responsibility Information

In relation to the information provided in the background information, provide your perceptions about how you would rate the credibility of the source of the corporate social responsibility information? *(0 = Very Low; 6 = Very High)*

		Part A – Source Credibility Trustworthiness Factor (Averaged combined results of two questions)			**Part B – Source Credibility Expertise Factor** (Averaged combined results of three questions)			**Part C – Overall Source Credibility** (Averaged combined results of six questions)		
Panel A: Descriptive Statistics [Mean (Standard Deviation)]										
Corporate Social Responsibility Information		**GLP Ltd Mining Industry**	**REC Ltd Retailing Industry**	**Total**	**GLP Ltd Mining Industry**	**REC Ltd Retailing Industry**	**Total**	**GLP Ltd Mining Industry**	**REC Ltd Retailing Industry**	**Total**
Not Assured		3.55 (1.31) n = 30	3.50 (1.13) n = 29	3.53 (1.21) n = 59	3.38 (1.12) n = 30	3.44 (1.16) n = 29	3.41 (1.13) n = 59	3.49 (1.05) n = 30	3.47 (1.00) n = 29	3.48 (1.02) n = 59
Assured		4.14 (1.03) n = 60	3.79 (1.21) n = 58	3.97 (1.13) n = 118	3.72 (1.26) n = 60	3.71 (1.26) n = 58	3.71 (1.25) n = 118	3.85 (1.06) n = 60	3.70 (1.14) n = 58	3.78 (1.10) n = 118
Total		3.94 (1.16) n = 90	3.70 (1.18) n = 87	3.82 (1.17) n = 177	3.61 (1.22) n = 90	3.62 (1.22) n = 87	3.61 (1.22) n = 177	3.73 (1.06) n = 90	3.63 (1.10) n = 87	3.68 (1.08) n = 177
Panel B: ANCOVA Results	**df**	**Sum of Squares**	**F**	**p**	**Sum of Squares**	**F**	**p**	**Sum of Squares**	**F**	**p**
Source of Variation										
ASSURANCE **(H1a)**	1	**7.265**	**6.125**	**0.014***	1.525	1.020	0.314	1.782	1.574	0.211
INDUSTRY	1	1.300	1.096	0.297	0.031	0.021	0.886	0.466	0.411	0.522
ASSURANCE*INDUSTRY	1	1.003	0.845	0.359	0.124	0.083	0.774	0.183	0.161	0.689
Control Factors										
FORMAT[1]	1	**12.227**	**10.309**	**0.002***	1.522	1.018	0.314	**3.408**	**3.010**	**0.085****
COUNTRY[2]	1	0.037	0.031	0.861	0.140	0.094	0.760	0.018	0.016	0.899
YEARS OF EXPERIENCE[3]	1	1.674	1.411	0.237	0.188	0.126	0.724	0.507	0.448	0.504
		R squared = 0.180			R squared = 0.197			R squared = 0.093		

* = Significant at the 5% level (2-tailed); ** = Significant at the 10% level (2-tailed)
[1] **= Paper versus online research instrument format (entered in ANCOVA as fixed factor)**
[2] **= USA versus other (UK and Australia) (entered in ANCOVA as fixed factor)**
[3] **= Number of years of experience in researching stocks (entered in ANCOVA as covariate)**

This significant main effect reported for the assurance of CSR information, for the "trustworthiness' factor, is further informed by this contrast analysis. In terms of overall perceived credibility of the source of the information, it shows that financial analysts perceive assurance of CSR information to be of greater significance for a company in a mining industry.

Table 6.11: Testing of Hypothesis 2a – Impact of Interaction between Type of Industry and Assurance (Non-Assurance) of Corporate Social Responsibility Information – Results of Contrast Analyses #

	Value of Contrast	df	t	p
Source Credibility Trustworthiness Factor	**1.567**	**174**	**2.813**	**0.005****
Source Credibility Expertise Factor	0.727	174	1.218	0.225
Overall Source Credibility	**0.920**	**174**	**1.761**	**0.080***

The contrast analysis compares whether the results for the cell containing assured CSR information for the company in the mining industry are significantly different from the other three cells. Descriptive statistics (mean and standard deviation) for these cells are reported in Table 6.10.
**** = Significant at the 5% level**
*** = Significant at the 10% level**
 # - Assumes equal variances

For the "trustworthiness" construct (Part A of Table 6.10), those participants completing the research instrument online (mean = 4.00) perceive the source of the information to be significantly more credible (p = 0.002; 2-tailed) than participants completing the research instrument in a paper format (mean = 3.46). This same relationship was marginally significant (p = 0.085; 2-tailed) for the overall perception of credibility (means of 3.78 and 3.47 respectively) (Part C of Table 6.10). As noted previously, control variables were included in analyses to account for any potential confounding effects arising from the fact that data was collected from the administration of research instruments in different formats across different countries.

Sub-Hypothesis "b":
Stock Recommendation.

Hypothesis 1b suggests that financial analysts receiving assured CSR information will provide a more favourable stock recommendation than financial analysts who receive CSR information that is not assured. Following on from this hypothesis, Hypothesis 2b then posits that there will be a greater favourable impact of assurance of CSR information on financial analysts' stock recommendation for a company in the mining industry than a company in the retailing industry.

Descriptive statistics show that on average, financial analysts make stock recommendations across all treatment groups which are around (just below) a "Hold" recommendation, ranging from a mean of 0.77 (where 0 = Sell, 1 = Hold and 2 = Buy) for assured CSR information for the company in the mining industry to a mean of 0.97 for CSR information which is not assured for the company in the mining industry.

The results of testing H1b shown in Part A of Table 6.12 indicate that the hypothesis is not supported. As with the testing of H2a, contrast analysis is used to test H2b. Part A of Table 6.12 shows that no significant difference to that hypothesised (in fact, no significant difference at all) is reported for this interaction term (i.e., Assurance*Industry), and hence the use of contrast analysis to test this hypothesis is appropriate. Results reported in Table 6.13 show that H2b is not supported.

Analysis of the control variables for the ANCOVA results reported in Table 6.12 indicate that participants completing the research instrument in a paper format (mean = 1.33) are significantly more likely ($p = 0.000$; 2-tailed) to make a more favourable stock recommendation than participants completing the research instrument online (mean = 0.67). Again, as noted previously, control variables were included in analyses to account for any potential confounding effects arising from the fact that data was collected from the administration of research instruments in different formats across different countries.

Sub-Hypothesis "c":
Share Price Appreciation.

The results of testing of Hypotheses 1c are reported in Part B of Table 6.12. It shows that this hypothesis, which posits that financial analysts believe that the potential for share price appreciation in the coming year will be greater when CSR information is assured, is not supported.

Table 6.12: Testing of Hypotheses 1b, 1c and 1d:
Impact of Assurance (Non-Assurance) of Corporate Social Responsibility Information

		Part A: H1b Stock Recommendation *(0 = Sell; 1 = Hold; 2 = Buy)*			**Part B: H1c Share Price Appreciation** *(0 = Decrease Markedly; 6 = Increase Markedly)*			**Part C: H1d Risk of Investment** *(0 = Very Low; 6 = Very High)*		
Panel A: Descriptive Statistics [Mean (Standard Deviation)]										
Corporate Social Responsibility Information		**GLP Ltd Mining Industry**	**REC Ltd Retailing Industry**	**Total**	**GLP Ltd Mining Industry**	**REC Ltd Retailing Industry**	**Total**	**GLP Ltd Mining Industry**	**REC Ltd Retailing Industry**	**Total**
Not Assured		0.97 (0.67) n = 30	0.90 (0.82) n = 29	0.93 (0.74) n = 59	3.36 (0.97) n = 29	3.59 (1.20) n = 29	3.47 (1.09) n = 58	3.87 (1.11) n = 30	3.24 (1.22) n = 29	3.56 (1.19) n = 58
Assured		0.77 (0.70) n = 60	0.95 (0.85) n = 58	0.86 (0.78) n = 118	3.89 (1.01) n = 60	3.51 (1.37) n = 58	3.70 (1.21) n = 118	3.50 (1.27) n = 60	3.26 (1.33) n = 58	3.38 (1.30) n = 118
Total		0.83 (0.69) n = 90	0.93 (0.83) n = 87	0.88 (0.76) n = 177	3.72 (1.03) n = 89	3.53 (1.31) n = 87	3.63 (1.17) n = 176	3.62 (1.22) n = 90	3.25 (1.29) n = 87	3.44 (1.26) n = 177
Panel B: ANCOVA Results	**df**	**Sum of Squares**	**F**	**p**	**Sum of Squares**	**F**	**p**	**Sum of Squares**	**F**	**p**
Source of Variation										
ASSURANCE **(H1)**	1	0.149	0.302	0.583	1.797	1.276	0.260	0.198	0.130	0.719
INDUSTRY	1	0.084	0.171	0.680	0.323	0.229	0.633	**8.916**	**5.868**	**0.017***
ASSURANCE*INDUSTRY	1	0.024	0.048	0.826	2.028	1.440	0.232	0.779	0.513	0.475
Control Factors										
FORMAT[1]	1	**9.356**	**18.967**	**0.000***	0.015	0.011	0.917	0.005	0.003	0.954
COUNTRY[2]	1	0.183	0.371	0.543	1.260	0.894	0.346	0.388	0.255	0.614
YEARS OF EXPERIENCE[3]	1	0.101	0.205	0.652	0.418	0.297	0.587	**4.645**	**3.057**	**0.082****
		R squared = 0.211			R squared = 0.047			R squared = 0.211		

* = Significant at the 5% level (2-tailed); ** = Significant at the 10% level (2-tailed)
[1] = Paper versus online research instrument format (entered in ANCOVA as fixed factor)
[2] = USA versus other (UK and Australia) (entered in ANCOVA as fixed factor)
[3] = Number of years of experience in researching stocks (entered in ANCOVA as covariate)

Table 6.13: Testing of Hypotheses 2b, 2c and 2d – Impact of Interaction between Type of Industry and Assurance (Non-Assurance) of Corporate Social Responsibility Information – Results of Contrast Analyses #

	Value of Contrast	df	t	p
H2b: Stock Recommendation	0.540	174	1.469	0.144
H2c: Share Price Appreciation	**1.160**	**173**	**2.053**	**0.042****
H2d: Risk of Investment	0.130	174	0.213	0.831

The contrast analysis compares whether the results for the cell containing assured CSR information for the company in the mining industry are significantly different from the other three cells. Descriptive statistics (mean and standard deviation) for these cells are reported in Table 6.12

**** = Significant at the 5% level**
*** = Significant at the 10% level**
 # - Assumes equal variances

Descriptive statistics reported in Part B of Table 6.12 indicate that financial analysts are doubtful about the possibility for share price appreciation, with average responses around the mid point of the scale (i.e., "3" – no movement) across the treatment groups; ranging from 3.36 for a company in the mining industry when CSR information is not assured, to 3.89 for a company in the mining industry with assured CSR information.

Hypothesis 2c posits that the difference in belief that the potential for share price appreciation in the coming year will be greater for a company in the mining industry than a company in the retailing industry. Again, testing of this hypothesis is undertaken using contrast analysis, after discounting the existence of a significant interaction different to that hypothesised (i.e., Assurance*Industry) using ANCOVA (refer Part B of Table 6.12). Table 6.13 reports the results of the contrast analysis and shows that the hypothesis is supported. The impact of assurance of CSR information on financial analysts' belief of the potential for share price appreciation is greater for the company in the mining industry.

None of the control variables for the ANCOVA results reported in Table 6.12 indicates any significant differences across the different treatment groups.

Sub-Hypothesis "d":
Risk of Investment.

Hypotheses 1d and 2d examine the perceived risk associated with an investment in a company, in terms of volatility relative to the market. The first hypothesis suggests that financial analysts will perceive the risk to be lower when CSR information is assured. The second hypothesis suggests that the difference in the perceived risk between cases when the information is assured and when it is not assured, will be greater for a company in the mining industry than for a company in the retailing industry.

Descriptive statistics show that across all treatment groups, the perceived risk is only moderate, with average responses ranging between 3.24 (for a company in the retailing industry when CSR information is not assured) and 3.87 (for a company in the mining industry when CSR information is not assured) on a 7-point scale ranging from 0 to 6. Not unexpectedly, financial analysts perceive the risk associated with an investment in a mining company (mean = 3.62) to be significantly greater (p = 0.017; 2-tailed) than an investment in a retailing company (mean = 3.25).

No support is found for either of these hypotheses (refer Part C of Table 6.12 for H1d and Table 6.13 for H2d). The testing of H2d is undertaken in a similar manner to the testing performed for H2b and H2c, using contrast analysis.

Analysis of the control variables for the ANCOVA results reported in Table 6.12 indicate a marginally significant difference (p = 0.082; 2-tailed) for financial analysts with greater years of experience in researching and covering stocks. That is, the greater the number of years of experience, the higher the perceived level of risk.

6.6.2. Testing of H3 and RQ1: Impact of Type of Assuror of Corporate Social Responsibility Reporting (H3) and Interactive Effect of the Type of Assuror of Corporate Social Responsibility Reporting and the Type of Industry (RQ1)

The results of testing hypothesis 3 and research question 1 are reported in Tables 6.14 and 6.15. The results of testing H3 and RQ1 are reported in the same tables with the following discussion describing separately each of the four sub-categories of the hypothesis and research question.

Sub-Category "a":
Credibility of the Source of Corporate Social Responsibility Information.

Hypothesis 3a posits that financial analysts receiving CSR information assured by a professional accountant (auditor) will consider the source of the information to be more credible than financial analysts who receive CSR information assured by a sustainability expert (consultant). Like the testing of hypotheses 1 and 2, credibility is assessed in terms of three constructs: (i) trustworthiness (Part A of Table 6.14); (ii) expertise (Part B of Table 6.14); and (iii) an overall measure of credibility (Part C of Table 6.14).

The descriptive statistics report perceived credibility scores ranging from 3.67 (for assurance provided by a sustainability expert for the mining company, in terms of the "trustworthiness" construct) to 4.54 (for assurance provided by a professional accountant for the mining company, in terms of the "trustworthiness" construct). Overall, the average scores across the treatment groups were in the moderate to high end of the 7-point scale which ranged from 0 to 6.

Hypothesis 3a is strongly supported for all three constructs of the perceived credibility of the source of CSR information. The credibility of the source of CSR information is perceived to be significantly greater when assured by a professional accountant (vis-à-vis a sustainability expert) in terms of "trustworthiness" ($p = 0.006$; 2-tailed), "expertise" ($p = 0.032$; 2-tailed) and overall perceived credibility ($p = 0.005$; 2-tailed).

In terms of the interactive effects between the type of assuror and the type of industry, a research question (rather than a directional hypothesis) is posed. In testing this question, it is necessary to interpret any significant differences reported for the interaction term (Type of Assuror*Industry). One interaction term, relating to the "trustworthiness" construct, reports a significant difference. Part A of Table 6.14 indicates that financial analysts perceive the credibility of the source of CSR information to be markedly greater for the company in the mining industry when

Table 6.14: Testing of Hypothesis 3a and RQ1a:
Impact of Type of Assuror and Interaction between Type of Industry and Type of Assuror of Corporate Social Responsibility Information

In relation to the information provided in the background information, provide your perceptions about how you would rate the credibility of the source of the corporate social responsibility information? *(0 = Very Low; 6 = Very High)*

Panel A: Descriptive Statistics [Mean (Standard Deviation)]

Corporate Social Responsibility Information	Part A – Source Credibility Trustworthiness Factor (Averaged combined results of two questions): GLP Ltd Mining Industry	Part A: REC Ltd Retailing Industry	Part A: Total	Part B – Source Credibility Expertise Factor (Averaged combined results of three questions): GLP Ltd Mining Industry	Part B: REC Ltd Retailing Industry	Part B: Total	Part C – Overall Source Credibility (Averaged combined results of six questions): GLP Ltd Mining Industry	Part C: REC Ltd Retailing Industry	Part C: Total
Assured by Professional Accountant (Auditor)	4.54 (1.07) n = 26	3.83 (1.16) n = 30	4.16 (1.16) n = 56	4.06 (1.29) n = 26	3.89 (1.09) n = 30	3.97 (1.18) n = 56	4.22 (1.12) n = 26	3.85 (1.04) n = 30	4.02 (1.09) n = 56
Assured by Sustainability Expert (Consultant)	3.67 (0.94) n = 21	3.95 (0.94) n = 19	3.80 (0.94) n = 40	3.70 (1.02) n = 21	3.74 (1.33) n = 19	3.72 (1.16) n = 40	3.68 (0.88) n = 21	3.75 (1.05) n = 19	3.71 (0.95) n = 40
Total	4.15 (1.09) n = 47	3.88 (1.07) n = 49	4.01 (1.09) n = 96	3.90 (1.18) n = 47	3.83 (1.17) n = 49	3.87 (1.17) n = 96	3.98 (1.05) n = 47	3.81 (1.03) n = 49	3.89 (1.04) n = 96

Panel B: ANCOVA Results

	df	Part A: Sum of Squares	Part A: F	Part A: p	Part B: Sum of Squares	Part B: F	Part B: p	Part C: Sum of Squares	Part C: F	Part C: p
Source of Variation										
TYPE OF ASSUROR **(H3a)**	1	**8.684**	**8.004**	**0.006***	**6.710**	**4.738**	**0.032***	**8.593**	**8.251**	**0.005***
INDUSTRY	1	1.075	0.991	0.323	0.395	0.279	0.599	0.863	0.828	0.365
TYPE OF ASSUROR *INDUSTRY **(RQ1a)**	1	**3.766**	**3.471**	**0.066****	0.789	0.557	0.458	1.415	1.359	0.247
Control Factors										
FORMAT[1]	1	0.006	0.003	0.940	0.963	0.680	0.412	0.530	0.509	0.477
COUNTRY[2]	1	**4.740**	**4.369**	**0.040***	3.710	2.620	0.109	**4.451**	**4.274**	**0.042***
YEARS OF EXPERIENCE[3]	1	0.283	0.261	0.611	0.175	0.123	0.726	0.105	0.100	0.752
		R squared = 0.196			R squared = 0.100			R squared = 0.156		

* = Significant at the 5% level (2-tailed); ** = Significant at the 10% level (2-tailed)
[1] = Paper versus online research instrument format (entered in ANCOVA as fixed factor)
[2] = USA versus other (UK and Australia) (entered in ANCOVA as fixed factor)
[3] = Number of years of experience in researching stocks (entered in ANCOVA as covariate)

assurance is provided by a professional accountant (auditor). For the company in the retailing industry, the perceived credibility of the source of CSR information when assured by a sustainability expert (consultant) is marginally greater than when assured by a professional accountant (auditor).[103]

These significant results for the main effect and the interaction, for the "trustworthiness" factor, are not replicated when ANCOVA is performed and differences in the experience of participants in researching and analysing stocks in the mining industry are controlled (refer Footnote 95). This suggests that it may be the differences in the industry research experience of participants which are responsible for the results reported in Part A of Table 6.14.

In terms of the control variables, it is noted that US participants perceive the credibility of the source of the information (mean = 3.73 for the trustworthiness factor and 3.69 for overall credibility) to be significantly lower (in terms of "trustworthiness" and overall perceived credibility) ($p = 0.040$ and 0.042; 2-tailed, respectively) than participants who have gained most of their experience in researching and covering stocks in Australia and the UK (mean = 4.10 for the trustworthiness factor and 3.96 for overall credibility). These differences are possibly explained by the lower prevalence of assurance of CSR information in the US (Simnett et al, 2007).

Sub-Hypothesis "b":
Stock Recommendation.

Part A of Table 6.15 reports the results of testing of hypothesis 3b and research question 1b which relate to the stock recommendations made by financial analysts. Hypothesis 3b posits that a more favourable stock recommendation will be provided by

[103] Post-hoc comparisons (Tukey HSD and Scheffe tests, recommended in Pallant, 2005) of the four cells shown in Part A of Table 6.14 were performed to determine whether the results of one particular cell was responsible for the reported differences. The Tukey HSD test indicates that the results (not reported separately) for the treatment group receiving CSR information assured by a professional accountant for the company in the mining industry is significantly different from two other cells (the treatment group receiving CSR information assured by a professional accountant for the company in the retailing industry, and the treatment group receiving CSR information assured by a sustainability expert for the company in the mining industry). The Scheffe test indicates (not reported separately) a significant difference for the first comparison only. These results confirm that the significant main effect for the type of assuror, and the significant interaction, are not being driven by the results of one cell.

Table 6.15: Testing of Hypothesis 3b, 3c, 3d, RQ1b, RQ1c and RQ1d:
Impact of Type of Assuror and Interaction between Type of Industry and Type of Assuror of Corporate Social Responsibility Information

		Part A: H3b and RQ1b Stock Recommendation *(0 = Sell; 1 = Hold; 2 = Buy)*			Part B: H3c and RQ1c Share Price Appreciation *(0 = Decrease Markedly; 6 = Increase Markedly)*			Part C: H3d and RQ1d Risk of Investment *(0 = Very Low; 6 = Very High)*		
Panel A: Descriptive Statistics [Mean (Standard Deviation)]										
Corporate Social Responsibility Information		**GLP Ltd Mining Industry**	**REC Ltd Retailing Industry**	**Total**	**GLP Ltd Mining Industry**	**REC Ltd Retailing Industry**	**Total**	**GLP Ltd Mining Industry**	**REC Ltd Retailing Industry**	**Total**
Assured by Professional Accountant (Auditor)		0.58 (0.70) n = 26	0.70 (0.79) n = 30	0.64 (0.75) n = 56	3.94 (1.33) n = 26	3.73 (1.20) n = 30	3.83 (1.26) n = 56	3.48 (1.38) n = 26	3.13 (1.28) n = 30	3.29 (1.32) n = 56
Assured by Sustainability Expert (Consultant)		1.00 (0.71) n = 21	1.21 (0.92) n = 19	1.10 (0.81) n = 40	3.95 (0.59) n = 21	3.08 (1.62) n = 19	3.54 (1.26) n = 40	3.33 (1.35) n = 21	3.42 (1.35) n = 19	3.38 (1.33) n = 40
Total		0.77 (0.73) n = 47	0.90 (0.87) n = 49	0.83 (0.80) n = 96	3.95 (1.05) n = 47	3.48 (1.40) n = 49	3.71 (1.26) n = 96	3.41 (1.35) n = 47	3.24 (1.30) n = 49	3.33 (1.32) n = 96
Panel B: ANCOVA Results	**df**	**Sum of Squares**	**F**	**p**	**Sum of Squares**	**F**	**p**	**Sum of Squares**	**F**	**p**
Source of Variation										
TYPE OF ASSUROR **(H3)**	1	1.147	2.374	0.127	0.363	0.227	0.635	1.062	0.580	0.448
INDUSTRY	1	0.068	0.140	0.709	**5.402**	**3.374**	**0.070****	0.282	0.154	0.696
TYPE OF ASSUROR *INDUSTRY **(RQ1)**	1	0.227	0.470	0.495	7.882	1.176	0.281	0.879	0.480	0.490
Control Factors										
FORMAT[1]	1	**5.679**	**11.759**	**0.001***	0.026	0.016	0.900	0.012	0.007	0.935
COUNTRY[2]	1	0.459	0.950	0.332	0.133	0.083	0.774	1.017	0.555	0.458
YEARS OF EXPERIENCE[3]	1	1.119	2.318	0.132	0.010	0.006	0.938	0.815	0.445	0.507
		R squared = 0.346			R squared = 0.116			R squared = 0.084		

* = Significant at the 5% level (2-tailed); ** = Significant at the 10% level (2-tailed)
[1] = Paper versus online research instrument format (entered in ANCOVA as fixed factor)
[2] = USA versus other (UK and Australia) (entered in ANCOVA as fixed factor)
[3] = Number of years of experience in researching stocks (entered in ANCOVA as covariate)

financial analysts for companies where CSR reporting is assured by a professional accountant (vis-à-vis a sustainability expert).

Descriptive statistics indicate that financial analysts recommend a "Hold" for the companies when CSR information is assured by a sustainability expert (mean = 1.10, where 0 = Buy; 1 = Hold and 2 = Buy) and somewhere between a "Sell" and a "Hold" for the companies when CSR information is assured by a professional accountant (mean = 0.64). For the hypothesis, these differences are in the opposite direction to that hypothesised but are not significantly different. In terms of the research question, no significant differences are reported for the interaction between the type of assuror and the type of industry.

Reported results for the control variables indicate that participants completing the research instrument in a paper format (mean = 1.38) provide significantly more favourable (p = 0.001; 2-tailed) stock recommendations than participants completing the research instrument online (mean = 0.60). As noted previously, control variables were included in analyses to account for any potential confounding effects arising from the fact that data was collected from the administration of research instruments in different formats across different countries.

Sub-Hypothesis "c":
Share Price Appreciation.

Hypothesis 3c relates to financial analysts' beliefs about the potential for share price appreciation. It posits that financial analysts will believe that the potential for share price appreciation in the coming year is greater when the CSR information is assured by a professional accountant (vis-à-vis a sustainability expert). The interaction between the type assuror and the type of industry is considered in testing research question 1c.

The results of testing reported in Part B of Table 6.15 show that the hypothesis is not supported and that there is no significant interaction between the two variables of interest.

Descriptive statistics in Table 6.15 highlight that financial analysts are ambivalent about the potential for share price appreciation in any of the treatment groups, with scores ranging between 3.08 (where CSR information is assured by a sustainability expert for a company in the retailing industry) and 3.95 (where CSR information is assured by a sustainability expert for a company in the mining industry) on a 7-point scale where "3" represents the belief that the share price will not move. It is noted that financial analysts have a view that the potential for share price appreciation in the coming year for the company in the mining industry is significantly greater ($p = 0.070$; 2-tailed) than the potential for share price appreciation in the coming year for the company in the retailing industry. None of the control variables indicate any significant differences across the different treatment groups.

Sub-Hypothesis "d":
Risk of Investment.

The final sub-category of hypothesis 3 and the research instrument 1 examines the perceived risk associated with an investment in a company, in terms of volatility relative to the market. H3d posits that a company will be perceived as being less risky when the CSR information is assured by a professional accountant (vis-à-vis a sustainability expert). The research question examines the interaction between the type of assuror and the type of industry. The results of testing are reported in Part C of Table 6.15.

Descriptive statistics indicate that financial analysts perceive a moderate level of risk across all treatment groups. Scores of between 3.13 (where CSR information is assured by a professional accountant for a company in the retailing industry) and 3.48 (where CSR information is assured by a professional accountant for a company in the mining industry) are recorded on a 7-point scale, where 0 = "Very Low" and 6 = "Very High". Hypothesis 3d is therefore not supported. Furthermore, there is no significant difference reported for the interaction term (Type of Assuror*Industry) and therefore nothing to describe in terms of the research question. Again, no significant differences are reported for any of the control variables.

6.7. Additional Data and Analysis: Examining Increased Salience

When preliminary results of this second study were presented and discussed, feedback suggested that the results of the study may be impacted by the salience of the CSR information in the decision context. In particular, there was a view that by strengthening the incentive for the companies in the case to present CSR information in the most favourable way, the importance of the assurance of CSR information would become more apparent to experiment participants. It follows that if the incentive for companies to report CSR information in the most favourable manner is heightened, assurance of that information assumes greater importance (and relevance) to the users of that information.

Frederickson et al (2006) explain the underlying tenet of this argument with reference to attribution theory and voluntary accounting choices. In discussing situations where management has accounting choices available to them, they note that "if users believe that management faces incentives to be optimistic, and management reports incentive-consistent, optimistic information (confirming expectations), attribution theory suggests that users will view this information as more strategic and more biased than if management had reported incentive-inconsistent information" (Frederickson et al, 2006, p. 1079). Therefore, as the main objective of independent assurance is to enhance the credibility of the information being assured, it follows that the impact of assurance on the perceived credibility of the source of the information provided voluntarily, and for which management has incentives to be optimistic, will be greater than when such incentives do not exist. That is, in terms of Birnbaum and Stegner (1979), when CSR information is assured in this context of increased salience, the source of the information will be perceived as being less biased and more credible.

To examine the issue of the impact of assurance of CSR reporting in a most "optimistic incentive" reporting context for management, two new treatment groups were created. These two groups include case information that highlights greater incentives for management to report positive CSR reporting, described as "increasing the salience" of the CSR information. One of the two new treatment groups includes an assurance report for CSR information provided by a professional accountant (auditor), while for the second new treatment group the assurance report is provided by a sustainability expert (consultant). Results for these two new treatment groups are compared with the results for similar treatment groups (without the increased salience of the CSR reporting) reported earlier (i.e., cells 2 and 3 depicted in Figure 6.4). This comparison determines whether differences in the salience (i.e., "less salient" vs. "more salient") of CSR reporting impacts financial analysts' perceptions and decision-making, in relation to the assurance of that reporting.

To ensure that the internal validity of the research instrument is maintained, and to ensure that demand effects are not created, the incentive to report CSR information in the most favourable manner is included in an unobtrusive way into the research instrument. This is achieved by introducing additional wording into the background information provided for each case. Rather than merely describing an environmental incident (for the mining company, and a social incident for the retailing company) that occurred two years previously, and which was satisfactorily addressed, the wording of this part of the background information is altered to highlight that the incident currently presents potential problems for the company and could continue to impact the company in a negative way. The revised wording is outlined in Figure 6.8.

With the change in the wording of the background information, a slight amendment is also made to the wording of the case question pertaining to the existence of an environmental (social) incident two years previously. The amended case question is also described in Figure 6.8. Following pilot-testing[104], the revised wording is included in two additional versions of the research instrument.

The participants for these additional cells are financial analysts based in the US[105], who complete the research instrument in the online format. Discussion of participants and

[104] Pilot-testing of the revised wording was conducted with five academic colleagues at UNSW. Versions of the wording provided to the five colleagues were randomised between colleagues and between cases. Four of the five colleagues indicated on a 5-point scale that the issue was more important when the revised wording is used (vis-à-vis the original wording). Four out of five also indicated that a stronger incentive exists for the company to produce positive CSR information in light of the environmental (social) issue when the revised wording is used (vis-à-vis the original wording).

[105] Although the participants for the additional cells are from the US only, existing cells used in analysis includes data from participants from the US, UK and Australia.

Figure 6.8: Revised Wording of Research Instrument to Make Positive Corporate Social Responsibility Reporting More Salient

Wording in Original "Less Salient" Versions	Wording in New "More Salient" Versions
GLP Limited (Mining Company)	
In Background Information Two years ago, world-wide attention was directed towards one of GLP Limited's mining sites, following a major water contamination spill. The company received a great deal of unwanted scrutiny from government regulators and global environmental groups. Today, as a member of the International Council on Mineral and Metals Sustainability, GLP Limited promotes itself as being at the forefront of environmental and sustainability practices for the industry.	**In Background Information** Two years ago, world-wide attention was directed towards one of GLP Limited's mining sites, following a major water contamination spill. The company received a great deal of unwanted scrutiny from government regulators and global environmental groups**, and was fined heavily at the time. The government regulators have imposed the threat of another very large fine and mining licence revocation, should any further environmental breaches occur.** Today, as a member of the International Council on Mineral and Metals Sustainability, GLP Limited promotes itself as being at the forefront of environmental and sustainability practices for the industry.
Case Question Two years ago, GLP Limited had a major environmental incident at one of its mine sites that has led to greater public scrutiny of its operations. TRUE? FALSE?	**Case Question** Two years ago, GLP Limited had a major environmental incident at one of its mine sites that led to **heavy fines, a threat of another larger fine for any future breaches, and continuing close scrutiny by government regulators.** TRUE? FALSE?
REC Limited (Retailing Company)	
In Background Information In 2005, public attention was drawn to the fact that one of REC Limited's major suppliers had been found to be exploiting child labour. This focused unwanted public scrutiny upon REC Limited and its operations. REC Limited responded by dropping the company from its list of approved suppliers. Furthermore, REC Limited has supported a number of staff and community initiatives aimed at assisting persons with disabilities and the underprivileged. It promotes itself as being at the forefront in terms of its responsibility to the environment and the global community.	**In Background Information** In 2005, a sustained negative media campaign highlighted the fact that one of REC Limited's **subsidiaries, a major supplier,** had been found to be exploiting child labour. This focused unwanted public scrutiny upon REC Limited and its operations. **Although REC Limited responded by immediately ceasing the exploitation, and replacing all of the management team in the subsidiary, the government regulator is pursuing a court action against the directors of REC Limited on the basis that the company has breached Federal workplace and industrial relations legislation. Potential heavy fines or imprisonment may result if REC Limited loses the case.** Furthermore, REC Limited has supported a number of staff and community initiatives aimed at assisting persons with disabilities and the underprivileged. It promotes itself as being at the forefront in terms of its responsibility to the environment and the global community.
Case Question Two years ago, one of REC Limited's major suppliers was found to be using child labour. The incident impacted unfavourably on REC Limited and led to greater public scrutiny of its operations. TRUE? FALSE?	**Case Question** Two years ago, one of REC Limited's **subsidiaries, a major supplier,** was found to be using child labour. The incident impacted unfavourably on REC Limited and has led to **the government taking court action against the company.** TRUE? FALSE?

the administration of the research instrument for the second study, and which are also relevant for this additional analysis, are included in Sections 6.3.3. Discussion of the response rates for the entire online administration of the research instrument is outlined in Section 6.4.1. Specifically for the two additional versions of the research instrument, 65 respondents meet the suitability criteria. However, only 31 (47.7 per cent) of this number completed the instrument in a manner that provided usable responses.[106] The responses for each of the versions are shown in Table 6.16. Chi-square tests for the proportions of responses across the four versions indicate that there are no significant differences between versions in terms of the proportions of responses analysed ($p = 0.404$).

Table 6.16: Responses Received by Version of Research Instrument – Revised Wording to Increase Salience of Positive Corporate Social Responsibility Reporting

Version	Online
Version 2: CSR information with ***Assurance Report issued by Professional Accountant (Auditor)*** – Original Wording	24
Version 3: CSR information with ***Assurance Report issued by Sustainability Expert (Consultant)*** – Original Wording	20
Version 4: CSR information with ***Assurance Report issued by Professional Accountant (Auditor)*** – Revised Wording	17
Version 5: CSR information with ***Assurance Report issued by Sustainability Expert (Consultant)*** – Revised Wording	14
TOTAL	**75**

Mann-Whitney U tests, performed to assess whether the two key treatment groups (i.e., “less salient” – versions 2 and 3; and the “more salient” – versions 4 and 5) differ in terms of the experience of respondents, reports no significant difference ($p = 0.421$). Respondents in treatment groups receiving the original wording average 7.39 years of experience in researching and covering stocks (standard deviation of 4.82 years) in a range of 1 to 20 years, while those receiving the revised wording average 8.65 years of experience (standard deviation of 5.36 years) in a range of 2 to 26 years.

[106] The vast majority of the 34 participants who did not provide usable responses are excluded as it is evident from the responses provided that they are not giving the research instrument serious attention. The time taken to complete the research instrument for those excluded is less than two-thirds of the time that it is expected to take to complete.

The 31 instruments for the two additional versions (versions 4 and 5 in Table 6.16) produce 62 potential data points that would be available for analysis (given that each respondent completed the two cases as part of the "within-subjects" research design). Of these 62 potential data points, 1 (1.6 per cent) failed to recognise that the CSR information had been assured. However, a further 17 (27.4 per cent) recognise that the information has been assured, but fail to indicate the correct type of assuror; all but one of these further 17 fail to correctly identify the sustainability expert as the assuror. These "higher than expected" manipulations check failures may be explained by the lower prevalence of assurance of CSR information in the US (Simnett et al, 2007). That is, given the relatively low level of assurance of CSR information in the US, participants from the US would not be familiar with, and therefore necessarily identify with, different types of assurors. The case questions pertaining to the existence of the environmental (social) incident two years previously (and the ongoing issue for versions 4 and 5) are also considered as a manipulation check question for this additional analysis. It is especially important for participants in this additional analysis to be aware of these incidents, given the objectives of the analysis. A number of participants failed this second manipulation check question, resulting in the exclusion of 17 potential data points (across all four versions) for participants who correctly identify the assurance of CSR information. For those participants who correctly identify the type of assuror, 13 potential data points (across all four versions) are excluded.

These manipulation check failures reduce the population sample sizes and impact the extent of the analysis that is performed. Therefore, the analysis undertaken compares the results of the "less salient" case information in aggregate (versions 2 and 3 – population sample size of 72) with the results of the "more salient" case information in aggregate (versions 4 and 5 – population sample size of 53). In terms of the type of assuror the analysis examines only the comparison between the "less salient" and "more salient" case information groups for the assurance provided by the professional accountant (auditor). This involves population sample sizes of 35 (version 2) and 28 (version 4).[107]

[107] The loss of data due to manipulation check failures for the "more salient" case information, where assurance is provided by the sustainability expert (consultant), means that sample sizes are too small (e.g., version 5 size of 10) for meaningful analysis.

Results

Analysis is performed on the same basis as the analysis described in Section 6.6. ANCOVA is used, with potentially confounding factors being controlled. For this analysis, there is no need to control for the format of the research instrument, as all of the data included in this analysis has been obtained from research instruments completed online. The country[108] and type of industry are controlled for by including them in the analysis as fixed factors, while the years of experience is controlled for by including this variable as a covariate.

Detailed tables outlining the descriptive statistics and tests of analysis for each treatment group and test are not provided. The results of the analysis are summarised in Table 6.17, which highlights only descriptive means and the p-values for the question of interest: the comparison between the "less salient" and "more salient" case information treatment groups.

Table 6.17: Summary of Analysis – Comparing Results for Treatment Groups with "Less Salient" Case Information with Treatment Groups with "More Salient" Case Information

Question	**"Less Salient" Vs. "More Salient"**	
	Type of Assuror Combined (Versions 2 and 3 [n = 72] v. Versions 4 and 5 [n = 53])	**Assurance by Professional Accountant** (Version 2 [n = 35] v. Version 4 [n = 28])
Credibility of Source of Information		
Trustworthiness	3.96 v 4.22 (p = 0.111)	**3.96 v 4.45 (p = 0.096**)**
Expertise	3.67 v 3.52 (p = 0.582)	3.79 v 3.76 (p = 0.988)
Overall	3.75 v 3.79 (p = 0.217)	3.82 v 4.05 (p = 0.427)
Stock Recommendation	**0.67 v 0.96 (p = 0.031*)**	**0.43 v 0.93 (p = 0.021*)**
Share Price Appreciation	3.67 v 3.34 (p = 0.434)	3.89 v 3.50 (p = 0.940)
Risk	3.44 v 3.55 (p = 0.399)	3.46 v 3.71 (p = 0.645)

*** = Significant at 5% level (2-tailed); ** = Significant at 10% level (2-tailed)** **Using ANCOVA**

Control Factors

(a) Type of Industry – more favourable stock recommendation made; less potential for share price appreciation; lower perceived level of credibility of source of CSR information (when assurance provided by professional accountant) for company in retailing industry (vis-à-vis company in mining industry)

(b) Country – greater perceived risk in investment; lower perceived credibility of source of CSR information for participants in US than those in Australia and UK

(c) Years of Experience – greater potential for share price appreciation with greater years of experience (when assurance provided by professional accountant)

[108] While all the participants in the two new treatment groups are from the US, participants from the original treatment groups are from the US, UK and Australia.

In terms of the "trustworthiness" construct for the perceived credibility of the source of CSR information, the descriptive means show movement in the expected direction. That is, when incentives to provide positive information are strengthened, the credibility of the source of the assured CSR information is perceived to be greater. This difference is significant ($p = 0.096$; 2-tailed) when specifically examining assurance provided by a professional accountant, with reported means of 3.96 for the "less salient" treatment group and 4.45 for the "more salient" treatment group (on a scale of 0 = Very Low to 6 = Very High). The results for the "expertise" construct and overall credibility are not significant.

For the investment decisions, strengthening the incentives to report CSR information more favourably, only impacts the stock recommendations made by financial analysts. The increased salience of the CSR information leads financial analysts to make more favourable stock recommendations, whether examining the combined assurance treatment groups ($p = 0.031$; 2-tailed; with means for "more salient" of 0.96 versus "less salient" of 0.67), or assurance provided by the professional accountant ($p = 0.021$; 2-tailed; means for "more salient" = 0.93; "less salient" = 0.43).

Conclusion

The results highlighted in Table 6.17 suggest that increasing the salience of CSR reporting has little impact on financial analysts' perceptions of the credibility of the source of that information (when it is assured), but may affect the stock recommendations they make. Stock recommendations made by financial analysts are more favourable in the case where stronger incentives are provided to management to report CSR information more positively. While it is possible that the results have arisen randomly as a consequence of statistical vagaries, it is also possible that the more favourable stock recommendations arise following changes to other perceptions about the information that are not measured in the research instrument. For example, financial analysts may perceive that perceptions relating to the quality, resilience and stability of management are of greater importance when making a stock recommendation for a company recovering from a major crisis.

6.8. Summary and Discussion

The results of this study are summarised and discussed in this section. Results pertaining to the impacts of the assurance, and of the type of assuror, of the CSR information, are described separately in two sub-sections. Limitations of the study, as well as implications for future research, are also discussed in separate sub-sections.

In recent years the debate surrounding the reporting of CSR information has continued. As growing numbers of countries and companies perceive the benefits of reporting on matters pertaining to environmental, social and ethical performance, frameworks for reporting this information are evolving. With increased reporting has come recognition of the important role that independent verification and assurance of CSR reporting plays for the users of this information.

This study contributes to this growing debate and provides evidence that the assurance of CSR information is important to a sophisticated group of corporate reporting users; namely financial analysts. The results of the study indicate that the assurance of CSR information, and the type of assuror, impact financial analysts' perceptions of the credibility of the source of that information. Financial analysts show a strong preference for assurance provided by a professional accountant, rather than a sustainability expert, in terms of the perceived credibility of the source of the information. Although differences arise in the perceived credibility of the source of the CSR reporting as a consequence of that information being assured, there is no impact on the investment decisions made by financial analysts. Furthermore, when management is provided with incentives to report most positively about their corporate social performance, there seems to be little difference in the manner in which the assurance of CSR impacts financial analysts' perceptions and investment decision-making.

Specific discussion of the results of this study in terms of the impacts of the assurance of CSR reporting and the type of assuror follows.

6.8.1. Assurance of Corporate Social Responsibility Reporting

The assurance of CSR reporting impacts financial analysts' perceptions of the credibility of the source of that information. Specifically, the source of the information is perceived to be more credible, in relation to a trustworthiness construct of credibility, when it is assured. In terms of an expertise construct of credibility however, assurance does not impact financial analysts' perceptions. This implies that for financial analysts, the benefits of assurance in terms of perceptions about the credibility of the source of the information arise from the perspective that assurors have independently verified CSR information that becomes part of an information set sourced jointly by management and the assuror. In this study, the assurance process can be seen as effectively meeting the primary aim of an independent assurance engagement, and highlights the importance of independence. This is encouraging for standard-setters developing assurance standards in this area.

The impact on financial analysts' perceptions of the credibility of the source of the assurance of CSR information is context specific, in that it differs for companies in two different industries. The impact of assurance on the perceived credibility of the source of the information, in relation to a trustworthiness construct of credibility and overall credibility is greater for a company in the mining industry than in the retailing industry. This is consistent with the view that assurance will be of more importance for companies reporting CSR information in industries (e.g., mining industry) where greater incentives (politically, environmentally and socially) exist to report such information more positively.

In terms of investment decisions, the assurance of CSR information has little impact on the decisions made by financial analysts. This is not surprising in light of the analysis of the qualitative data received in this study. This analysis shows that financial analysts do not believe that CSR is as relevant, or as important, as other information in making investment decisions. Specifically, the CSR report is perceived by financial analysts as being the least important of nine information items assessed (including the financial statements, notes to the financial statements and annual report) when making stock recommendations. Also, CSR information is perceived as being significantly less relevant in making stock recommendations than financial information.

It is possible to envisage that the importance and relevance of CSR reporting, as part of financial analysts' decision-making processes, may increase over time. The advent of socially responsible investment (SRI) and moves towards mandating certain elements of CSR reporting and its assurance by governments around the world may be instrumental in changing the emphasis for financial analysts' decision-making.

6.8.2. Type of Assuror of Corporate Social Responsibility Reporting

Financial analysts draw a distinction between assurance provided by a professional accountant and assurance provided by a sustainability expert, in relation to the perceived credibility of the source of CSR information. When CSR information is assured by a professional accountant (vis-à-vis a sustainability expert), financial analysts perceive the source of that information to be more credible in terms of its trustworthiness, expertise and overall assessment of credibility. In this regard, financial analysts view professional auditors as providing a greater level of independent and expert assurance than sustainability experts.

Financial analysts' preference for a particular type of assuror does not seem to depend on the industry within which the companies operate. However, it is noted that from a trustworthiness perspective (in relation to the perceived credibility of the source of CSR information), they indicate a preference for a professional accountant as assuror for a company in the mining industry. While it is difficult to draw conclusive inferences from this result, it is interesting to note that the preferred assuror is that which is hypothesised as being preferred, and is in the industry where the incentives to report positively are expected to be greater (and therefore the industry in which assurance is deemed to be more important).

Given the fact that assurance of CSR information does not impact decision-making, it is not surprising that differences in the type of assuror of CSR reporting also has no impact on the investment decision-making of financial analysts.

6.8.3. Limitations

Several limitations exist which may potentially bring into question the validity of the results when a "non-controlled" experiment of this kind is administered. Potential limitations include that: (i) participants are free to consult additional materials and information; (ii) there is no guarantee that participants are working independently; (iii) there is no certainty that the person who completes the research instrument is actually the claimed participant; and (iv) there is no guarantee that participants are correctly following instructions and are fully acquainted with the required tasks (refer Trotman, 1996, p. 92). For the first two potential issues, one may argue that external validity is potentially enhanced if participants consult other materials and converse with others, as this would be expected in situations outside of a controlled experimental setting. Furthermore, although the experiment requires the completion of a manipulation check question, it is included as one of five case questions appearing directly after the case information and prior to answering questions relating to the dependent variables. This means that explicit instructions such as "enveloping earlier sections before proceeding to later sections" are not required. In effect, the design of the research instrument allows participants to access all of the information provided throughout the time that the instrument is being completed. Furthermore, pilot-testing of the research instrument means that all instructions are stated clearly and unambiguously.

The research instrument is rather lengthy and contains a great deal of information. Its total length varies from 22 to 24 pages, depending upon the version. This may have introduced an aspect of respondent fatigue. However, the design of the research instrument ensures that any adverse effects of the length of the instrument are minimised. That is, the research instrument is designed in line with the techniques highlighted for tailoring questionnaires and surveys (Dillman, 2000). For example, the importance of the research is highlighted to respondents, little private information is sought and important questions that form the basis of testing of hypotheses are placed in the early stages of the instrument (therefore, if respondent fatigue does set in, the most important questions would have already been answered). Furthermore, by having executives from the investment banks contributing participants for the study involved in the administration of the research instrument, the importance of the study is promoted to participants. It also facilitates the return of completed instruments.

A common limitation with any behavioural experimental research is ensuring that sufficient relevant information is provided to enable participants to complete all of the questions and tasks required of them. By providing as much relevant case information as possible, the external validity of the experiment is enhanced. This of course needs to be balanced by internal validity concerns and the practical considerations of making the completion of the research instrument possible within a reasonable timeframe. Therefore, it is acknowledged that the case information provided in the research instrument does not contain all of the information that would necessarily be available to financial analysts in making investment decisions. However, to ensure that sufficient relevant information was included, the research instrument was reviewed by a senior staff member of a major global investment bank and was pilot-tested and reviewed by several academic colleagues.

Given the difficulty of acquiring sufficient numbers of suitable participants to complete the research instrument in a paper format, the research instrument was administered using two different formats across different countries. Financial analysts who completed the research instrument in the paper format were acquired through personal contacts of the researcher. Most of these financial analysts are sell-side equities analysts. Buy-side analysts, and particularly SRI specialists, could not be obtained despite exhaustive efforts on the part of the researcher to acquire them for this study. The online format was administered by a research company based in the US which was recommended by two senior academics at leading business schools at US universities. These recommendations provide comfort to the author about the veracity of the data received through this online administration. In acknowledging that the results of hypotheses testing may be confounded by the use of different formats across different countries, these variables were controlled for in performing relevant analyses.

Finally, in commenting on the preliminary results of this study, it was suggested that the salience of CSR reporting could be strengthened in the research instrument. By increasing the salience of the CSR reporting, the importance of the assurance of that information is heightened, providing further insight into the hypotheses and research questions being examined. To address this limitation, additional analysis was performed by creating two additional treatment groups and examining the impact of the increased salience of CSR reporting on financial analysts' perceptions and decision-making. Increased salience was operationalised by providing stronger incentives for management to report CSR information in a more favourable manner.

6.8.4. Implications for Future Research

Results from this study give rise to several areas of potential future research. Firstly, behavioural experiments could be developed which provide for a range of different case scenarios. With the possibility of CSR reporting and the assurance of CSR reporting being mandated across more countries, it is conceivable that reported information will not always be framed in the most positive light. Mandated reporting may lead to companies reporting negative environmental, social and ethical performance as well as positive performance. A case scenario focused on differences in the reported information may provide insights for assurance standard-setters in terms of the impacts of assurance on perceptions of users. Another implication of mandated assurance of CSR reporting is the possibility that regulators in different jurisdictions may perceive the roles of professional accountants (and other assurors) differently. For example, differences in the views of regulators about whether suitable criteria exist against which assurance of CSR information can be performed (i.e., as noted in the IFAE, assurance is provided on a subject matter against criteria) may lead to differences across jurisdictions in the types of assurance engagements that professional accountants are permitted to accept. Therefore, a range of case scenarios that examine different types of assurors may also be considered. Furthermore, as well as examining different characteristics of the information, it may also be relevant to examine differences in the characteristics of those reporting the information. Clearly, differences in industry, jurisdiction and the salience of the information (from an incentives perspective) are examples of characteristics that could be examined.

Secondly, this study was undertaken at a time when reporting frameworks and assurance standards pertaining to CSR are evolving. Academic researchers must keep abreast of proposed changes to frameworks and assurance standards to ensure that they are able to provide useful feedback to regulators and standard-setters and inform policy decision-making. Clearly linked to this point is the consideration of alternative (maybe even creative) ways in which the communication aspects of assurance reporting can be enhanced. Prior research has suggested that the communication effectiveness of the audit report has been potentially diminished by its standardised format and wording. Over time, report users become accustomed to the format and therefore read the report less often. Consequently, changing the wording of the report may not always be effective in changing users' views. As assurance reporting is an evolving area of interest, research that examines and demonstrates enhanced communication through alternative reporting options may assist in informing standard-setters in this area.

Finally, the knowledge and education of report users may be an important consideration when examining communications aspects of the auditing and assurance process. Consideration could be given to examining the impact that different levels of exposure to, familiarity with, and understanding of, CSR reporting and the assurance of that information have on the perceptions and decision-making of corporate report users. The use of a range of different participant groups with varying levels of sophistication and knowledge will assist in studies of this kind. It may confirm the outcomes reported in this study, or alternatively show that assurance of CSR reporting affects different report users differentially. For example, it is conceivable that the assurance of CSR information would be of utmost importance to buy-side analysts who work for investment funds that have a "green" agenda and investment managers who are instructed by clients to seek out socially responsible investments. Also, given that CSR reporting is an area where assurance services may be provided by more than one mandated group of assurors, examining the perceptions of different types of assurors may provide meaningful and insightful results. Lastly, as an evolving area, standard-setters and regulators would be interested in research that assists them to develop the most effective educational and other promotional programs aimed at ensuring that report users are kept properly and effectively informed.

CHAPTER SEVEN: SUMMARY AND CONCLUSION

7.1. Introduction

This thesis aimed to investigate communication effectiveness and the role that written assurance reports play, more generally, in this process. It comprised two studies that were undertaken in the context of the financial statement audit and the audit report, and the CSR report and the assurance report, respectively. In each study the effectiveness of the communication is examined in terms of report users' perceptions and their investment decision-making. Such examination fully tests the model developed by Libby (1979) that describes the impact of the auditor's report on decision-making.

The questions and contexts addressed in this thesis involve topical issues. The audit of financial statements represents a mature assurance service with evolved communication. Therefore the audit report is a product developed over many years and as such is the most appropriate assurance communication to examine in terms of its wording. At the time that the first study was conducted, international and Australian standard-setters were considering changes to the wording of the audit report. Indeed, the wording changes proposed by standard-setters provided the basis of the examination in this study; that is, a comparison of the proposed wording and the existing wording for management's and auditor's responsibilities. The group of report users specifically targeted by these changes, shareholders, were the experiment participants. Subsequently, key regulatory and research bodies (IAASB, AAA and AICPA) have demonstrated their interest in the topic by commissioning research aimed at "better understand(ing) users' perceptions of the Auditor's Report on Financial Statements" (IFAC, 2006, p. 1).

The assurance of CSR information is a relatively new assurance service. The assurance report currently issued for CSR information can be considered an evolving product, and therefore it is appropriate to consider the impact on communication effectiveness of the role of assurance and the type of assuror. As CSR reporting grows in importance, increasing numbers of companies are issuing "stand-alone" reports as well as incorporating such matters in their broader corporate reporting. Furthermore, in a growing number of jurisdictions around the globe the reporting of certain CSR matters is being mandated. In recognition of its growing importance, a number of standard-setters are debating measures and developing standards pertaining to the assurance of CSR reporting. These standard-setters include bodies who are developing standards for the accounting profession (e.g., IAASB) and other bodies who are developing assurance standards for a broader audience (e.g., AccountAbility).[109] It is, therefore, timely that this second study examines questions of the impact of assurance, and the type of assuror, of CSR reporting on an important group of corporate report users; namely financial analysts.

The theoretical framework used to examine the research questions posed in this thesis was adapted from a communications model developed by Shannon and Weaver (1949), and supplemented by research in the field of psychology that focused on source credibility (refer Birnbaum and Stegner, 1979). This framework recognises that two key components of the communication process are the: (i) message being transmitted; and (ii) the source of the information (message). The first of these two components is the key focus of the first study that examines the impact on report users of changes to the message, in the form of wording changes in the audit report. The second of these two components is the key focus of the second study, where differences in the source of the information set comprising CSR reporting (and the assurance report for relevant treatment cells) are created in the form of having the CSR report assured (not assured) by different types of assuror.

The remainder of this Chapter continues as follows. Firstly, communications effectiveness is discussed in terms of the two key areas upon which impacts on report users were expected: they are, report users' perceptions and report users' investment decision-making. This follows with a discussion of how the two studies (and this thesis) provide contributions highlighted in Chapter One, and discussed from a: (i) practical perspective; (ii) policy perspective; and (iii) theoretical perspective. Finally, the Chapter concludes with a summary of the general conclusions reached, brief

[109] For example, the IAASB, through the IFAC SEAP is currently undertaking a project aimed at developing an assurance standard for carbon emissions information. AccountAbility is currently revising its standard, AA1000AS using a "broad-based multi-stakeholder process" and aims to have it available online in October 2008.

discussion of some of the limitations of these studies, and implications and suggestions for future research.

7.2. Communication Effectiveness and Report Users' Perceptions

The perceptions of assurance (audit) report users do not appear to be impacted by changes to the wording of the management's and auditor's responsibilities sections of the audit report. However, their perceptions seem to be affected by differences in the source of information being provided. Importantly, in terms of the trustworthiness construct of the perceived credibility of the source of the information, financial analysts are able to differentiate between CSR reporting that has been assured and that which has not been assured. Assurance also impacts financial analysts' perceptions of the credibility of the source of information differently between companies in industries where the incentives (political, social and environmental) to report positive CSR information differ. That is, the credibility of the source of the assured information is perceived to be greater, in terms of both the trustworthiness construct and overall, for a company in the mining industry (than for a company in the retailing industry) where incentives to report CSR information positively are greater.

Significantly, these financial analysts are able to discern between two different types of assuror in terms of the credibility of the source of the information (for the trustworthiness and expertise constructs, and overall credibility) indicating a preference for a professional accountant (auditor) over a sustainability expert. That is, financial analysts perceive the source of information (i.e., an information set sourced jointly by management and an assuror, and including CSR information and an assurance report) to be more trustworthy and expert when the assurance is provided by a professional accountant than a sustainability expert. This suggests that the professional framework, and independence and quality control standards to which professional accountants adhere provide them with an image of greater dependability and reliance as a joint source of information with management, than sustainability experts.

Although the wording changes to the audit report (the message itself) did not impact shareholders' perceptions, differences between the characteristics of shareholders appear to give rise to differences in perceptions for this mature assurance service. Of note is that shareholders with a greater familiarity with audit reports and shareholders who believe that the audit report is more understandable, have significantly different perceptions of the audit process and auditor's responsibilities compared with shareholders with less familiarity and who find the audit report less understandable. However, the proposed wording changes to management's and auditor's responsibilities have little impact on the perceptions of shareholders, regardless of their level of familiarity with audit reports, or the extent to which they find audit reports understandable.

7.3. Communication Effectiveness and Report Users' Investment Decision-Making

Assurance (audit) reporting appears to have little impact on the investment decisions made by report users. The decisions made by shareholders are unaffected by changes to the message (i.e., changes to the wording of the audit report), while the decisions of financial analysts are largely unaffected by changes to the source of the information (i.e., when information is assured and assured by different types of assurors).

The lack of impact on investment decisions appears to be explained by factors relating to the use of assurance (audit) reports made by users in formulating their decisions. Shareholders indicate that they only read the audit report rarely or sometimes. Clearly, therefore, if their readership of the report is low, changes to the wording of the report will not have an impact on their decision-making. Furthermore, many shareholders indicate that they rely on the advice of others (e.g., brokers and analysts) when making their investment decisions. Financial analysts report that both CSR reporting and its assurance are significantly less important to them than other pieces of information in making stock recommendations. Additionally, CSR information is significantly less relevant than financial information in making their recommendations. Consequently, when the report on the subject matter itself is of relatively little importance to financial analysts in their decision-making, one cannot expect that changes to (differences in) its assurance will impact decision-making. The lack of results in relation to investment decision-making by assurance (audit) report users supports the decision by the IAASB, AAA and AICPA to commission research into users' perceptions only.

7.4. Contributions

Chapter One outlines the manner in which this thesis aimed to contribute to the field of auditing and assurance. These contributions are categorised from practical, policy and theoretical perspectives. Each of these perspectives is discussed separately in the following sections.

7.4.1. Contributions from a Practical Perspective

From a practical perspective, the results of this thesis contribute to the field of auditing and assurance by reporting that shareholders' perceptions and investment decision-making are largely unaffected by the proposed changes to the wording of the audit report (the message itself). Standard-setters were hoping that changes to the wording of the audit report, regarding management's and auditor's responsibilities, would enhance the effectiveness of the communication process by improving users' understanding of key reporting and auditing responsibilities and the audit process. Importantly however, results indicate that shareholders are generally able to recognise the key responsibilities of the auditor and management. Furthermore, the first study highlights that it may be differences in report user characteristics, such as levels of familiarity with audit reporting, rather than the characteristics of the report itself, which are important in promoting differences in perceptions and enhancing communication effectiveness. Finally, it seems that shareholders are generally not always reading the audit report, which means attempts by standard-setters to affect reports users' views by changing the wording of the report may have little affect unless report users are encouraged to read the audit report (perhaps by including information specifically requested by report users).

Despite providing a context in which CSR information is important, the financial analysts participating in this study do not rate CSR reporting as being particularly relevant or important to their investment decision-making. Therefore, the assurance of this information also does not affect the decisions being made. However, it is worth highlighting that in terms of the perceived credibility of the source of the CSR reporting, financial analysts differentiate between information that is assured and information that is not assured, as well as between companies in two different industries where the incentives to report positive CSR information differ. They also differentiate between professional accountants (auditors) and sustainability experts (consultants) as assurors.

Results suggest that financial analysts consider the benefits of assurance of CSR reporting as relating to the trustworthiness that is enhanced through the independent verification of the information. The impact of assurance of CSR information is more significant for a company in an industry where the incentives to report positive CSR information are greater; whereby the source of the CSR information is perceived as more credible, both overall and in terms of the trustworthiness construct. Finally, it seems that relative to sustainability experts, professional accountants significantly enhance the overall credibility of the source of assured CSR reporting, as well as source credibility in terms of the trustworthiness and expertise constructs.

7.4.2. Contributions from a Policy Perspective

Several contributions are made to the policy debate, with results providing important feedback and information to standard-setters and regulators.

Firstly, the results of the thesis demonstrate that the proposed wording changes to the audit report being considered by the IAASB and AuASB in 2004, did not have the desired impact on shareholders for which standard-setters were hoping. The results of the first study were presented formally to the Australian standard-setters, and informally to the international standard-setter. Reportedly after receiving this feedback, the IAASB working group committees examining audit reporting focused less on debating the merits of the particular words used in the audit report to describe the responsibilities of management and the auditor, and more actively considered other aspects of the report.

Secondly, this thesis contributes to the policy debate by highlighting that the manner in which audit reporting affects report users may relate as much to the characteristics of the report user as it does to the report itself. It notes that many shareholders do not read the report and that differences in perceptions arise depending upon report users' familiarity with audit reporting, and the extent to which they find it understandable. Therefore, it implies that standard-setters need to consider how they can best enhance the communication process by educating and informing the range of report users for which the audit report is prepared. Effectively, standard-setters may need to consider alternatives to wording changes in the audit report as the means by which to enhance communication. It is possible that standard-setters and regulators have recognised this issue by recently commissioning research aimed at better understanding report users' perceptions. This research is not restricted to looking merely at wording changes to the report, but has a much broader outlook. Also of note is that the commissioned research focuses only on perceptions and is not extended to investment decision-making.

Finally, as standard-setters develop assurance standards pertaining to the assurance of non-financial information, it is encouraging for the accounting profession to consider the results of this thesis which show that financial analysts consider there to be a significant difference in the perceived credibility of the source of CSR information when it is assured by a professional accountant (auditor), than when it is assured by a sustainability expert. It indicates that it is important for the profession to be deeply involved in the debate surrounding assurance of CSR reports. The results of this thesis provide support in favour of developing assurance standards for use by professional accountants.

7.4.3. Contributions from a Theoretical Perspective

This thesis contributes to auditing and assurance academic research in a theoretical sense by developing and applying to an auditing context, a theoretical model adapted from the communications and psychology disciplines. Previous studies examining the impact of assurance reporting and communication effectiveness have often not based their research in communications theory, and consequently have failed to sufficiently recognise both of the key components of communication identified by Shannon and

Weaver (1949). That is, the source of the information and the message itself. In recognising that the credibility of the source of the information is a critical aspect of the communication process, this thesis assesses this credibility using a series of questions developed and tested in marketing research. This is in contrast to previous research in auditing and assurance which assesses source credibility through independent variable manipulations (refer DeZoort et al, 2003), or by merely asking respondents a direct question on the matter (e.g., Hodge, 2001).

In examining the credibility of the source of the information, this thesis addresses all three of the constructs of source credibility identified by Birnbaum and Stegner (1979). While previous accounting and auditing studies have focused on the "bias" and "expertise" constructs, the third construct relating to the "judge's point of view" has largely been ignored. This thesis considered the work of Birnbaum and Stegner in its entirety by examining all three constructs as part of the one study.

Furthermore, the studies reported in this thesis are two of the few studies that have examined the investment decisions made by report users, and as such have attempted to examine all three links reported in the Libby (1979) model of the impact that the audit report has on decision-making. The results of the thesis do not provide support for the Libby (1979) model. This may be due to inappropriately identifying the perceptions of report users which are impacted by changes to the wording of the audit report (the first link in the model), and which in turn impact the decisions made. Alternatively, it may simply be that the audit report is not an important consideration in report users' investment decision-making.

Finally, the context within which the second study was conducted is an area of growing interest for practitioners and academics. An increasing focus is being placed on matters pertaining to the reporting and assurance of CSR reporting. While much of the research to date has been descriptive and exploratory in nature, the second study in this thesis sought to examine important questions within a behavioural experimental setting relating to: (i) the assurance of CSR reporting; (ii) preferences of information users for particular types of assuror; and (iii) financial analysts' decision-making processes in relation to CSR reporting. By using a theoretical framework adapted from communications and psychology theories, a potential alternative theoretical foundation has been tested and upon which future research in this field could be developed.

7.5. Conclusions, Limitations and Future Research

The outcomes from this thesis highlight that the communication effectiveness of assurance reporting is a topic worthy of continuing academic examination. It is a topic that has practical and policy implications, and an area where further theoretical contributions can be made. It suggests that future efforts should continue to focus on reports users' perceptions, but should also consider report users' characteristics across a wide range of users. Confirmation of a link between users' perceptions and investment decisions (as per the Libby (1979) model) continues to be problematic when using behavioural experimental research settings. Important result that warrant further consideration and attention relate to the ability of financial analysts to: (i) differentiate between the importance of assurance of CSR information for different industries; and (ii) differentiate between assurance provided by professional accountants (auditors) and sustainability experts (consultants); in terms of the perceived credibility of the source of assured CSR reporting.

The key limitations for each of the two studies in this thesis are discussed in Sections 4.8.4 and 6.8.3, respectively. For both studies the results need to be interpreted in light of the external validity and generalisability concerns that are often directed towards behavioural experimental research methods. Firstly, questions are often raised about the case scenario and information provided in terms of the view that experiment participants are never presented with all of the information that would normally be available to them in making investment decisions. While not ignoring these limitations, effective research design, and pilot-testing and review of research instruments prior to administration go some way to addressing these concerns. Secondly, each of the two studies was undertaken using one type of report user, which arguably affects the generalisability of the results. While this cannot be denied, it is worth noting that in each of the two studies the most appropriate group of assurance (audit) report users for the particular decision contexts examined was used. Finally, the second study was conducted in a contextual setting that assumes voluntary reporting and assurance of

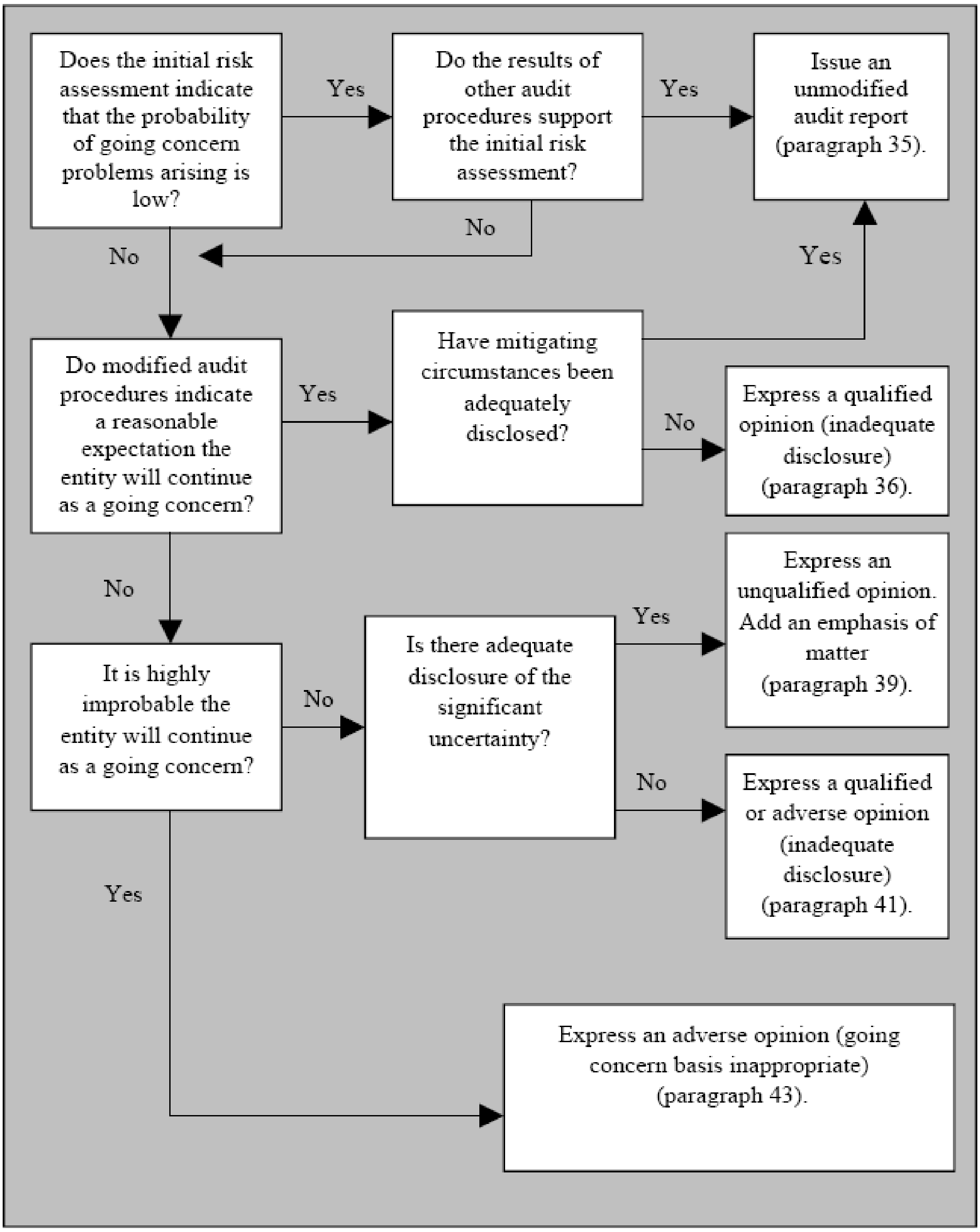
CSR information. This is a context that is potentially changing, and as changes to mandated reporting and assurance of CSR are debated and considered, it is possible that the relevance of the context of the second study may become less relevant.

The implications for future research arising from this thesis are summarised in Sections 4.8.5 and 6.8.4. Most prominent in these areas of potential future research are that consideration be given to examining the impact of differences in the characteristics of report users on perceptions and investment decisions. This should be considered in the context of a broad range of appropriate and relevant assurance report users. Also, continued efforts need to be directed towards examining questions that arise from an ever-changing environment within which the reporting and assurance of CSR reporting is provided. Of great interest to the accounting profession are questions that relate to their role as assurance providers and perceived differences between the roles they, and other assurance providers, can play in this area. Finally, there is a great opportunity for researchers to utilise their creative potential in examining alternatives to the traditional written form of assurance reporting. The standardised written form of the audit report has led some to speculate that report users become conditioned to the contents of the report and hence do not read it. Therefore, in an effort to encourage wider readership, changes to wording which simplifies the language could be considered and researched. Also, the impact on report users of revising the audit report to provide more information on areas of interest to report users, such as the types of risks identified and assessed by auditors, details of specific testing undertaken and a summary of the issues raised and discussed with management, could be examined. Alternatively, researchers may investigate theories and research in the marketing, communications and psychology disciplines, and apply them to examine the impact that alternatives to a straight-forward written assurance (audit) report may have on report users. Consideration could be given to the use of colours, diagrams, ratings systems and so on in an attempt to encourage readership and make the assurance report more relevant and salient for users.

APPENDICES

List of Appendices

Appendix 1: Extract from ASA 570 "Going Concern" – Appendix 1: Linking Going Concern Considerations with Types of Audit Opinions



Appendix 2: Covering Letter for Research Instrument: Study One - by Chief Executive Officer of Australian Shareholders' Association Ltd

Australian Shareholders' Association Ltd
ABN 40 000 625 669

22 March 2004

Dear Member,

We enclose a survey which is being undertaken by the School of Accounting of the University of New South Wales.

The Association believes that the subject matter is important to ASA members and your input will constitute valuable findings for all shareholders. We therefore endorse the research and ask that you spend a little time to complete the questionnaire and return it direct to the authors.

In due course we will publish the results in *EQUITY*.

Thank you in anticipation.

Yours sincerely

Stuart Wilson
Chief Executive Officer

Appendix 3: Research Instrument: Study One

Investors' Decision-making and Judgements

Thank you for taking the time to participate in this questionnaire.

Currently the accounting and auditing professions are participating in a process of international harmonisation. Within Australia, this process involves the adoption of international accounting and auditing standards, which cover a range of areas including technical accounting matters and auditing and communication processes. As an investor and user of financial reports, you have a vital role to play in the development of appropriate standards and reporting requirements.

Answers to the attached questionnaire will assist the profession in developing means by which to better serve the information needs of yourselves and other decision-makers. The questionnaire consists of:

Part A: Background information about Astor Properties Limited (a fictitious company), selected financial information (including extracts from Note 1 of the accounts), and the audit report.

Part B: A set of questions relating to your decisions and judgement as an investor and user of financial reports. The case information included in Part A is not intended to include all the information that would be available if you were evaluating the share price of Astor Properties Limited. However, for the purposes of this study, base your judgements on the information provided.

Part C: A set of questions relating to your views about the audit report provided in Part A.

Part D: General questions.

Please **work independently** of anyone else whom you know may have received the questionnaire. Please complete all questions in all parts. All details and responses to questionnaires will be held in **strictest confidence** and will only be disclosed in aggregate statistical form. Your individual responses will be kept **strictly confidential** and no reference will be made to any individual or firm. There is no name or number on the form so it cannot be traced to any individual.

After responding to all questions, please return all of the questionnaire materials using the attached, stamped, self-addressed envelope. It would be appreciated if this can be done within one week of receiving the questionnaire.

Thank you very much for your contribution to this important research.

Gary Pflugrath and Professor Roger Simnett
University of New South Wales

Should you have any questions regarding the study or the contents of the questionnaire, please do not hesitate to contact Gary Pflugrath on (02) 9385-5840.

Part A

(The company described below is fictitious.)

Astor Properties Limited is a listed property investment and development group, established four years ago, and operating solely in Australia. Its principal activities involve the development of properties for both commercial and residential purposes. It also maintains a portfolio of land that it uses for trading. This land is shown as a current asset, “Land Held for Resale” in the Statement of Financial Position. The company took advantage of improving land prices to divest itself of some of these land holdings during 2003. By the nature of property development, positive returns are generated over the medium to long term.

Being relatively new, Astor has yet to record a profit, however its performance has been improving each year as it becomes more established. The movement in its share price over the last four years has been fairly consistent with the movement in the share price indices for both “financials” (which include real-estate related entities) and “property trusts”. Both of these indices have seen a slight softening during 2003 following a couple of years of strong growth. During its formative years, Astor has restricted itself to property investments within Australia. Generally, the company has been performing in line with management’s expectations.

Although the company expects to continue to improve during the next year, the directors recognise that its ability to continue to operate is dependent upon the continued support of its bankers and creditors, and the generation of future sales at a level adequate to sustain its operations. A large proportion of the company’s borrowings relates to financing facilities with its bank. Given the level of debt and the fact that it has yet to return an annual profit, Astor remains reliant on the support of its bankers. Directors note that while the bank remains supportive, it continues to review the situation. The banking facilities, which are due for renewal in April 2004, have been classified as non-current liabilities as the directors believe that these borrowings are long term in nature.

The company prepares general purpose financial reports in accordance with the Corporations Act 2001, applicable accounting standards and other mandatory financial reporting requirements.

ASTOR PROPERTIES LIMITED
and its controlled entities

Statement of Financial Performance
For the year ended 30 June ...

	2003 $'000	2002 $'000	2001 $'000
Sales	17,308	11,154	9,769
Cost of Sales	(11,077)	(8,538)	(6,192)
Gross Profit	**6,231**	**2,615**	**3,577**
Other Revenues from Ordinary Activities	5,160	69	223
Expenses from Ordinary Activities	(11,625)	(5,471)	(9,211)
Borrowing Costs	(2,385)	(2,705)	(3,097)
Loss before Income Tax	**(2,618)**	**(5,491)**	**(8,508)**
Income Tax	0	0	0
Net Loss	**(2,618)**	**(5,491)**	**(8,508)**
Earnings Per Share	**(1.42)**	**(2.97)**	**(4.61)**

Statement of Financial Position
As at 30 June ...

	2003 $'000	2002 $'000
Assets		
Current	3,462	24,220
Non-Current	20,697	22,245
Total Assets	**24,159**	**46,465**
Liabilities & Shareholders' Equity		
Current	2,846	19,826
Non-Current	13,885	16,592
Total Liabilities	**16,731**	**36,418**
Contributed Equity	30,000	30,000
Accumulated Losses	(22,571)	(19,953)
Shareholders' Equity	**7,429**	**10,047**
Total Liabilities & Shareholders' Equity	**24,159**	**46,465**

Statement of Cash Flows
For the year ended 30 June ...

	2003 $'000	2002 $'000
Cash Flows from Operating Activities	8077	1000
Cash Flows from Investing Activities	7388	-38
Cash Flows from Financing Activities	-14765	885

Selected Ratios

	2003	2002	2001
Current Ratio	1.22	1.22	1.16
Quick Ratio	0.71	0.62	0.65
Total Debt to Equity	2.25	3.62	3.85
Return on Assets	-10.8%	-11.8%	-13.5%
Return on Equity	-35.2%	-54.7%	-68.4%

Selected Extracts from Note 1 of the Accounts

Note 1 a) Basis of Financial Statements

The financial report is a general purpose financial report which has been prepared in accordance with the Corporations Act 2001, applicable Accounting Standards, Urgent Issues Group Consensus Views and other authoritative pronouncements of the Australian Accounting Standards Board. The financial report has been prepared on an accruals basis and in accordance with historical cost convention and does not take into account changing money values, except where stated, current valuations of non-current assets. Unless otherwise stated, the accounting policies adopted are consistent with those of the previous year.

Note 1 b) Inventories

During the year ended 30 June 2003, the group was the developer of several properties. Costs relating to the acquisition and development of land are capitalised and carried forward at cost, as inventories. As developed lots are settled the associated value of inventories is expensed to the Statements of Financial Performance.

Note 1 k) Depreciation

Depreciation is provided on property, plant and equipment, including freehold buildings but excluding land and investment properties. Depreciation is calculated on a straight line basis so as to write off the net cost of each asset over its expected useful life to the group. Leasehold improvements are depreciated over the period of the lease of estimated useful life, whichever is the shorter, using the straight line method.

Note 1 m) Going Concern Basis

The financial statements have been prepared on the basis that the consolidated entity is a going concern. The going concern basis assumes that the consolidated entity will be able to pay its debts as and when they fall due. The consolidated entity's current financing facilities are with its bank.

The consolidated entity's ability to continue to operate as a going concern is dependent upon the continued support of its bankers, the continued support of its creditors and the generation of additional future sales at a level to support the consolidated entity's ongoing operations. In view of its loss making position and current level of borrowings, the company remains reliant on the continuing support of its bankers. The company's directors have been advised by the bank that it remains supportive for the time being, but given the company's financial position, the situation will remain under review.

The directors believe that the nature of the consolidated entity's borrowings is long term, notwithstanding that all facilities are due for review in April 2004. For this reason, all borrowings from the bank have been classified as non-current liabilities.

Note 1 q) Revenue Recognition

Sale of Goods and Disposal of Assets
Revenue from the sale of goods and disposal of other assets is recognised when the group has passed control of the goods or other assets to the buyer.

Interest Revenue
Interest income is recognised as it accrues

Rent Revenue
Rent received is recognised upon receipt.

One of fifteen different versions of an audit report included here

Before proceeding to Parts B, C and D of this questionnaire, please answer the following question.

What are the three main points of interest to you contained in the audit report of Astor Properties Limited?

1. ____

____

2. ____

____

3. ____

____

Instructions for Parts B and C

- Please answer the following statements and questions in the order they are presented.
- You are free to go back to look at the information in Part A when answering these questions.
- After you have answered a question, please do **not** go back and change your response.

Part B – Investor Decisions

1. Based on all of the information provided to me in the case, I predict that Astor's performance (shown as net profit/loss) will (decrease/increase markedly) **in 2004.**
(Please circle a point of the scale below that which corresponds to your judgement)

0 1 2 3 4 5 6 7 8 9 10
Decrease markedly — Increase markedly

2. I believe that Astor's shares have (extremely low/high) **potential for price appreciation over the next twelve months.**
(Please circle a the point of the scale below that which corresponds to your judgement)

0 1 2 3 4 5 6 7 8 9 10
Extremely low — Extremely high

3. I believe that the level of risk associated with an investment in Astor's shares is (very low/high)**.**
(Please circle a point of the scale below that which corresponds to your judgement)

0 1 2 3 4 5 6 7 8 9 10
Very low — Very high

4. Based on all of the information provided to me in the case, I believe that the probability of Astor continuing as a going concern is (very low/high)**.**
(Please circle a point of the scale below that which corresponds to your judgement)

0 1 2 3 4 5 6 7 8 9 10
Very low — Very high

Part C – Astor Properties Limited – Audit Report

(For each of the following questions, please circle the point on the scale that best corresponds to your understanding)

5. To what extent does the audit cover the information contained in the notes related to the financial statements?

0 1 2 3 4 5 6 7 8 9 10
Does not cover any information in any of the related notes — Covers all the information in all of the related notes

6. Who is responsible for the information prepared and presented in the financial statements?

0 1 2 3 4 5 6 7 8 9 10
Management solely — Auditor solely

7. Who is responsible for the development and maintenance of a sound internal control environment?

0 1 2 3 4 5 6 7 8 9 10
Management solely Auditor solely

8. Who is responsible for preventing and detecting fraud?

0 1 2 3 4 5 6 7 8 9 10
Management solely Auditor solely

9. Who is responsible for selecting and applying relevant accounting policies?

0 1 2 3 4 5 6 7 8 9 10
Management solely Auditor solely

10. Who is responsible for making necessary accounting estimates?

0 1 2 3 4 5 6 7 8 9 10
Management solely Auditor solely

11. How clear is the extent of work undertaken by the auditor in arriving at the opinion?

0 1 2 3 4 5 6 7 8 9 10
Totally unclear Extremely clear

12. How much judgement does the auditor exercise in the selection of audit procedures?

0 1 2 3 4 5 6 7 8 9 10
No judgement in respect to any procedures Judgement exercised in all procedures

13. How much assurance does the auditor provide that the financial statements are free from material misstatement?

0 1 2 3 4 5 6 7 8 9 10
No assurance Absolute assurance

14. How independent of the company is the auditor?

0 1 2 3 4 5 6 7 8 9 10
Not at all independent Totally independent

15. Given the audit report, how credible is the information provided?

0 1 2 3 4 5 6 7 8 9 10
No credibility Totally credible

Part D – General Questions

Please answer the following general questions. (Note: Responses will be kept strictly confidential)

1. When I receive a financial report for a company in which I do have an investment, or am considering making an investment, I read (please tick appropriate box for each):

	Never	Rarely	Sometimes	Most of the time	Always
The Statement of Financial Position	☐	☐	☐	☐	☐
The Statement of Financial Performance	☐	☐	☐	☐	☐
The Statement of Cash Flows	☐	☐	☐	☐	☐
The Notes to the Accounts	☐	☐	☐	☐	☐
The Chairman's/CEO's Report	☐	☐	☐	☐	☐
The Audit Report	☐	☐	☐	☐	☐

2. Please indicate the degree to which you are familiar with audit reports:

0 1 2 3 4 5 6 7 8 9 10

Not at all familiar — Very familiar

3. Please indicate to what extent you believe that the audit report is understandable:

0 1 2 3 4 5 6 7 8 9 10

Not at all easy to understand — Very easy to understand

4. What is your current occupation?

____

5. What is your number of years work experience?

____

6. Please list any professional bodies (e.g.,CPA Australia, ICAA) of which you are a member.

____

7. **Does the audit report cover all of the areas for which you require assurance from the auditor? (Please circle)**

YES / NO

If you answered NO, please provide further details:

____

____

8. Please feel free to provide any comments:

____

____

____

Thank you for participating in this study

Appendix 4: "Correct" Answers to Part C Questions in Research Instrument: Study One

To what extent does the audit cover the information contained in the notes related to the financial statements?

Covers all of the information in the notes

Who is responsible for the information prepared and presented in the financial statements?

Management

Who is responsible for the development and maintenance of a sound internal control environment?

Management

Who is responsible for preventing and detecting fraud?

Management

Who is responsible for selecting and applying relevant accounting policies?

Management

Who is responsible for making necessary accounting estimates?

Management

How clear is the extent of work undertaken by the auditor in arriving at the opinion?

--

How much judgement does the auditor exercise in the selection of audit procedures?

Judgement exercised in all procedures

How much assurance does the auditor provide that the financial statements are free from material misstatement?

Reasonable, but not absolute

How independent of the company is the auditor?

Totally independent

Given the audit report, how credible is the information provided?

Appendix 5: Proposed Audit Report
(including separately headed "Independence" Section)

INDEPENDENT AUDITOR'S REPORT

To the members of Astor Properties Limited

We have audited the accompanying financial statements of Astor Properties Limited, which comprise the Statements of Financial Position as at 30 June 2003, and the Statement of Financial Performance, Statement of Cash Flows for the year then ended, and the related notes.

Management's responsibility

Management is responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards (IFRS). This responsibility includes maintaining internal control relevant to the preparation of financial statements that are free of material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies that are consistent with IFRS; and making accounting estimates that are reasonable in the circumstances.

Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those standards require that we plan and perform the audit to obtain reasonable, but not absolute, assurance whether the financial statements are free from material misstatement, whether caused by fraud or error.

An audit involves performing procedures to obtain evidence about the amounts and disclosures in the financial statements. The audit procedures selected depend on the auditor's assessment of the risks of material misstatement in the financial statements. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the financial statements as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant estimates made by management, as well as evaluating the overall financial statement presentation and disclosures.

We believe that the audit evidence that we have obtained is sufficient and appropriate to provide a reasonable basis for our opinion on the financial statements.

Independence

In conducting our audit, we followed applicable independence requirements of Australian professional ethical pronouncements and the *Corporations Act 2001*.

Audit Opinion

In our opinion, the financial statements give a true and fair view of the financial position of Astor Properties Limited as of 30 June 2003, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards.

Big 4 Auditor
Chartered Accountants

29 September 2003
Sydney, New South Wales

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Appendix 6: Current and Proposed Wording of the Audit Report – Responsibilities

	Current ISA700	Proposed ISA700
Management's Responsibility	These financial statements are the responsibility of the Company's management	*Management's responsibility* Management is responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards (IFRS). This responsibility includes maintaining internal control relevant to the preparation of financial statements that are free of material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies that are consistent with IFRS; and making accounting estimates that are reasonable in the circumstances.
Auditor's Responsibility	Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.	*Auditor's responsibility* Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those standards require that we plan and perform the audit to obtain reasonable, but not absolute, assurance whether the financial statements are free from material misstatement, whether caused by fraud or error. An audit involves performing procedures to obtain evidence about the amounts and disclosures in the financial statements. The audit procedures selected depend on the auditor's assessment of the risks of material misstatement in the financial statements. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the financial statements as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant estimates made by management, as well as evaluating the overall financial statement presentation and disclosures. We believe that the audit evidence that we have obtained is sufficient and appropriate to provide a reasonable basis for our opinion on the financial statements.
Independence		*Independence* In conducting our audit, we followed applicable independence requirements of Australian professional ethical pronouncements and the *Corporations Act 2001*.

Appendix 7: Current and Proposed Wording of the Audit Report – Opinions

Unqualified Opinion	*Opinion* In our opinion, the financial statements give a true and fair view of the financial position of Astor Properties Limited as of 30 June 2003, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards.
Unqualified Opinion with "Emphasis of Matter" paragraph – Going Concern	*Opinion* In our opinion, the financial statements give a true and fair view of the financial position of the Astor Properties Limited as of 30 June 2003, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards. *Inherent Uncertainty Regarding Continuation as a Going Concern* Without qualifying our opinion, we draw attention to Note 1q) in the financial statements which indicates that in view of its loss making position and current level of borrowings, the company remains reliant on the continuing support of its bankers. While the company's directors have been advised by the bank that it remains supportive for the time being, given the company's financial position, the situation remains under review. These conditions indicate the existence of a material uncertainty which may cast significant doubt about the company's ability to continue as a going concern.
Qualified Opinion – "Except for"	*Qualification* The company's financial statements have been prepared on the basis that the consolidated entity is a going concern. The going concern basis assumes that the consolidated entity will be able to pay its debts as and when they fall due. The consolidated entity's current financing facilities are with Northern Bank Limited. Its ability to continue to operate as a going concern is dependent upon the continued support of its bankers, the continued support of its creditors and the generation of additional future sales at a level to support the consolidated entity's ongoing operations. In view of its loss making position and current level of borrowings, the company remains reliant on the continuing support of its bankers. The company's directors have been advised by the bank that it remains supportive for the time being, but given the company's financial position, the situation will remain under review. The financial statements (and notes thereto) do not disclose this fact. *Qualified Audit Opinion* In our opinion, except for the omission of the information included in the preceding paragraph, the financial statements give a true and fair view of the financial position of Astor Properties Limited as of 30 June 2003, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards.

Appendix 8: Research Instrument: Study Two

Analysts' Decision-making and Judgements

Thank you for taking the time to participate in this research study.

As an important user of corporate reporting information, you have a vital role to play in the development of appropriate standards and reporting requirements. Your answers to the attached questionnaire will assist the profession in developing more meaningful standards for decision-makers like yourself. The questionnaire consists of:

Background information about two fictitious companies (GLP Limited and REC Limited) and selected financial and non-financial information typically included in corporate reports.

Parts A: Questions relating to your decisions and judgement as a researcher covering stocks, for each of the two companies immediately follow the background information for each company. The background information is not intended to include all of the information that would normally be available if you were making the types of evaluations being asked. However, for the purposes of this study, base your judgements on the information provided.

Part B: A set of questions aimed at eliciting your general views on the importance of the information provided, and the type of other information (not presented) that you would find useful in your decision-making.

Part C: General questions.

Please **work independently** of anyone else, and complete all questions in all parts. All details and responses to questionnaires will be held in **strictest confidence** and will only be disclosed in aggregate statistical form. Your individual responses will be kept **strictly confidential** and no reference will be made to any individual or firm. There is no name or number on the form so it cannot be traced to any individual.

After responding to all questions, and following the instructions detailed in the research instrument, <u>please place all material in the envelope(s) provided and pass it back to the study convenor.</u>

Thank you very much for your contribution to this important research.

Gary Pflugrath and Professor Roger Simnett
University of New South Wales

Should you have any questions regarding the study or the contents of the research instrument, please ask the study convenor. If you have questions at a time following your participation in the study, please do not hesitate to contact Gary Pflugrath on (61-2) 9385-5840 or at g.pflugrath@unsw.edu.au.

Company One (1) – Background Information

(The company described below is fictitious. The information and questions relating to your stock recommendations follow this background information.)

Mining Company - GLP Limited

GLP Limited is a well established mining company listed on the Australian Stock Exchange, and is part of the ASX 200 group of companies. It commenced operations in the 1960s.

The Chairman of the company, an independent non-executive director, has been with the company as a director for eight years, the last four in the role of Chairman. The remaining nine directors comprise six independent directors, the Chief Executive Office, the Chief Financial Officer and the Chief Production Manager. The same independent auditors, Big4 International Accounting have been retained by the company for the last twenty years.

GLP Limited operates three iron ore mining operations in the Pilbara region of Western Australia. Two of the mines are estimated to have proven and provable reserves which will permit mining to continue at current levels for another fifteen to twenty years. The third mine, being the oldest of the three currently operating, is expected to continue operating for only another three years. GLP Limited is currently continuing feasibility studies at two potential sites; one of which is a new site. If successful, the second site will form “Phase II” at an existing operation. In the first two years after the third mining operation commenced, GLP Limited experienced record levels of production. In the last three years production levels have remained at a “steady state”.

Like most mining companies in the region, GLP Limited has benefited from strong commodity prices; its growth in earnings over recent years has been in line with movements in these prices. Earnings in 2008 have been projected at $2,000 million, and are expected to continue to grow consistently with industry averages. GLP Limited is a major exporter of iron ore, with a large proportion of its production being shipped to countries in the South East Asian region, especially China and Japan.

GLP Limited continues to strive to improve its expense to revenue ratio, and has been investing heavily in capital expenditure, as it transforms its mining operations from more conventional to mechanised mining. The cost savings expected by this transformation will be somewhat offset by the pressures impacting all miners in the region: increasing consumable prices and an increasing shortage of skilled labour, especially engineers. New project capital expenditure in 2008 is expected to be around $120 million.

Two years ago, world-wide attention was directed towards one of GLP Limited’s mining sites, following a major water contamination spill. The company received a great deal of unwanted scrutiny from government regulators and global environmental groups. Today, as a member of the International Council on Mineral and Metals Sustainability, GLP Limited promotes itself as being at the forefront of environmental and sustainability practices for the industry.

SUMMARY OF KEY COMPANY FINANCIAL DATA – GLP LIMITED

{This information is extracted from the company's audited financial statements. Audit report attached.}

(AUD million)	2003	2004	2005	2006	2007
Income Statement					
Turnover/Net Revenue	1,060	1,154	1,596	1,606	1,906
EBITDA	176	221	363	175	293
Net Profit before Tax	111	161	278	94	203
Profit after Tax	82	117	201	68	139
Balance Sheet					
Net Current Assets (Liabilities)	84	72	143	96	172
Net Cash and Deposits (Borrowing)	(15)	(95)	(159)	(378)	(342)
Intangible Assets	0	0	0	0	0
Total Assets	951	1,156	1,293	1,452	1,524
Total Liabilities	332	518	593	835	824
Cash Flow Statement					
Cash Flow from Operations	150	116	223	38	199
Cash Flow from Investing	(40)	(57)	(126)	(151)	(120)
Free Cash Flow[1]	113	58	103	(115)	79
Capital Expenditure					
Total Capital Expenditure	36	58	120	153	165
New Project Capital Investment	27	45	98	119	121
Capital Expenditure to Turnover	0.03	0.05	0.08	0.10	0.09
Capital Expenditure to Net Profit	0.44	0.49	0.60	2.26	1.19
Financial Ratios					
Operating Margin (%)	10.4	13.9	17.4	5.8	10.7
Net Profit After Tax on Average Invested Capital (%)	12.5	16.5	26.6	9.7	17.0
Net Debt/Equity Ratio (%)	2.5	14.8	22.7	61.3	48.9
Interest Coverage (times)	49.3	77.3	53.5	9.7	10.7
Stock Market Ratios					
Basic Earnings per Share (cents)	52.0	79.8	142.2	48.0	97.0
Diluted Earnings per Share[3] (cents)	52.0	79.8	142.2	48.0	97.0
Cash Flow from Operations per Share (cents)	94.4	78.9	157.5	26.7	138.7
Free Cash Flow per Share (cents)	71.3	39.4	72.8	(81.9)	55.1
Dividend per Share (cents)	29.0	40.0	62.0	44.0	63.0
Share Price (year-end) (cents)	415.0	765.1	1,467.5	655.2	1,119.4
Number of Shares (year-end) (millions)	158	146	142	137	145
Weighted Average Number of Shares (millions)	158	146	142	141	144
Price/Earnings	8.0	9.6	10.3	13.7	11.5
Price/Book Value	1.1	1.8	3.0	1.5	2.3
Price/Free Cash Flow	5.8	19.4	20.2	(8.0)	20.3

[1] Cash flow from operations less capital expenditure
[2] Potential ordinary shares affecting EPS calculations relate to currently exercisable share options

SUMMARY OF KEY MINING INDUSTRY AND ECONOMIC DATA

	2003	2004	2005	2006	2007	2008 (proj)
ASX 200 Index	100.0	110	135	158	189	201
Industry Share Price Index	100.0	90	125	130	220	240
Commodity Price Index – Base Metals	100.0	105	119	152	239	252
CPI	100.0	102	105	108	111	114
Mining Industry GDP	100.0	95.4	99.5	98.8	100.3	101.1
Industry P/E (range)	6 – 9	9 – 14	9 – 14	9 – 14	9 – 14	10 – 15

BIG 4 International Accounting

INDEPENDENT AUDITOR'S REPORT

To the members of GLP Limited
Report on the Financial Report

We have audited the accompanying financial statements of GLP Limited, which comprise the Balance Sheet, as at 31 March 2007, and the Income Statement, Cash Flow Statement, and Statement of Changes in Equity for the year then ended, and the related notes.

Directors' responsibility

Management is responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards (IFRS). This responsibility includes maintaining internal control relevant to the preparation of financial statements that are free of material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies that are consistent with IFRS; and making accounting estimates that are reasonable in the circumstances.

Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those standards require that we plan and perform the audit to obtain reasonable, but not absolute, assurance whether the financial statements are free from material misstatement, whether caused by fraud or error.

An audit involves performing procedures to obtain evidence about the amounts and disclosures in the financial statements. The audit procedures selected depend on the auditor's assessment of the risks of material misstatement in the financial statements. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the financial statements as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant estimates made by management, as well as evaluating the overall financial statement presentation and disclosures.

We believe that the audit evidence that we have obtained is sufficient and appropriate to provide a reasonable basis for our opinion on the financial statements.

Independence

In conducting our audit, we followed applicable independence requirements of Australian professional ethical pronouncements and the *Corporations Act 2001*.

Audit Opinion

In our opinion, the financial statements give a true and fair view of the financial position of GLP Limited as of 31 March 2007, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards.

BIG4InternationalAccounting
Chartered Accountants

3 May 2007
Sydney, New South Wales

CORPORATE SOCIAL RESPONSIBILITY – KEY ACHIEVEMENTS 2007

{This information is extracted from the company's Corporate Social Responsibility report, which has been prepared by management. This information has not been assured.}

GLP Limited actively supports the United Nations Global Compact and its ten principles. The manner in which these principles have been supported this year is outlined below:

Human Rights

1: Businesses should support and respect the protection of international human rights within their sphere of influence

2: Businesses should make sure they are not complicit in human rights abuses

Achievements This Year

- Subscribe to all International Labour Organisation (ILO) fundamental principles and rights to work
- Adopting principles embodied in the United Nations Declaration for Human Rights

Labour

3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining

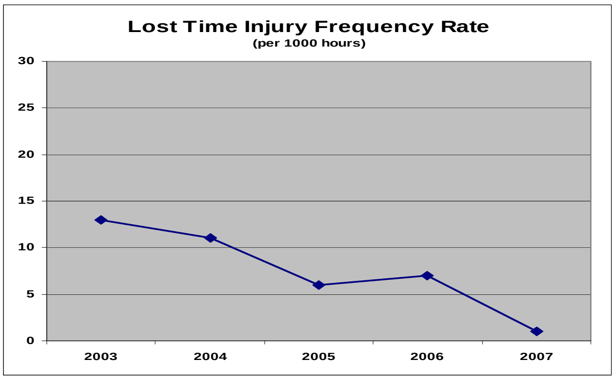
4: Businesses should support the elimination of all forms of forced and compulsory labour

5: Businesses should support the elimination of child labour

6: Businesses should support the elimination of discrimination in respect of employment and occupation

Achievements This Year

- Member of the 'International Freedom for Labour'
- Dramatically reduced 'lost time injury frequency rate' and attained a zero death rate across all sites
- Providing all staff with training in respect to cultural issues pertaining to indigenous communities in close proximity to mining sites



Environment

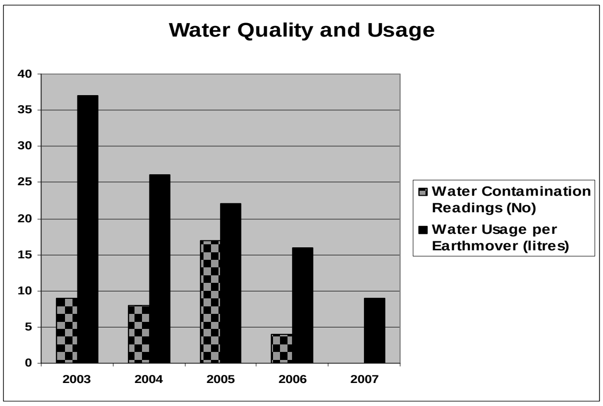
7: Businesses should support a precautionary approach to environmental challenges

8: Businesses should undertake initiatives to promote greater environmental responsibility

9: Businesses should encourage the development and diffusion of environmentally friendly technologies

Achievements This Year

- Attained ISO 14001 Environment Management System certification
- Received top rating from EPA for water quality with no reported contaminations
- Won Australian Government Environment Award for restoration and site redevelopment of now defunct site
- Subscribe to all International Council on Mining and Metals Sustainability principles



Anti-Corruption

10: Businesses should work against corruption in all its forms, including extortion and bribery

Achievements This Year

- Founding member of Australian Business

▪ Introduction of whistle-blowing arrangements for all staff at all sites	Against Corruption

{Insert Assurance Report – as appropriate – in this part of the Research Instrument.
Refer Appendices 9 and 10}

Note: Where an Assurance Report was included in the Research Instrument, the heading of the preceding page was altered. The altered words appear below in italics for emphasis only – they were not in italics in the Research Instrument.

CORPORATE SOCIAL RESPONSIBILITY – KEY ACHIEVEMENTS 2007 **{This information is extracted from the company's Corporate Social Responsibility report, which has been prepared by management. *This information has been assured. Assurance Report attached*.}**

- Please answer the following statements and questions in the order they are presented.
- You are free to go back to look at the background information when answering these questions.
- After you have answered a question, please do **not** go back and change your response.
- **Base your answers to the questions on the information provided in the case**.

Company One (1) - Part A

Please provide answers for the following questions in relation to **GLP Limited**

Case Information

1. In the last five years, GLP Limited has recorded:

NET PROFITS AFTER TAX ☐ **NET LOSSES AFTER TAX** ☐

2. The summary financial information presented in this study is based on GLP Limited's financial statements that have: (Please tick the appropriate box)

BEEN AUDITED BY A PROFESSIONAL ACCOUNTANT (AUDITOR) ☐

BEEN AUDITED BY A SUSTAINABILITY CONSULTANT (OTHER EXPERT) ☐

NOT BEEN AUDITED ☐

3. GLP Limited's Corporate Social Responsibility Key Achievements Information is based on the ten principles of the United Nations Global Compact?

TRUE ☐ **FALSE** ☐

4. The summary Corporate Social Responsibility Key Achievements provided in this study is extracted from GLP Limited's corporate social responsibility reports that have: (Please tick the appropriate box)

BEEN ASSURED BY A PROFESSIONAL ACCOUNTANT (AUDITOR) ☐

BEEN ASSURED BY A SUSTAINABILITY CONSULTANT (OTHER EXPERT) ☐

NOT BEEN ASSURED ☐

5. Two years ago, GLP Limited had a major environmental incident at one of its mine sites that has led to greater public scrutiny of its operations?

TRUE ☐ **FALSE** ☐

Stock Recommendations

G1. **Based on the background information provided, what type of stock recommendation would you make:**
(Please mark your answer with a cross in the most appropriate box below)

BUY	☐
HOLD	☐
SELL	☐

G2. **Indicate how confident you are about the stock recommendation you have made:**
(Please circle a point of the scale below that which corresponds to your judgement)

0 1 2 3 4 5 6

No Confidence ... Extremely Confident

Please provide your key reason(s) for the feeling of confidence that you have about the decision you have indicated above

____

____

____

____

____

G3. **Based on all of the background information provided, indicate what you believe will happen to GLP Limited's share price in 2008:**
(Please circle a point of the scale below that which corresponds to your judgement)

0 1 2 3 4 5 6

Decrease Markedly (0) ... Remain Unchanged (3) ... Increase Markedly (6)

G4. **Indicate the level of risk, in terms of the volatility relative to the market associated with an investment in GLP Limited's shares:**
(Please circle a point of the scale below that which corresponds to your judgement)

0 1 2 3 4 5 6

Very Low ... Very High

G5. **Indicate how <u>relevant</u> you believe the <u>entire package of information</u> provided to you in the background information to be in making your recommendation in respect of GLP Limited's shares: (Please circle a point of the scale below that which corresponds to your judgement)**

0 1 2 3 4 5 6

Very Irrelevant Very Relevant

G6. **Indicate how <u>relevant</u> you believe the <u>financial information</u> provided to you in the background information to be in making your recommendation in respect of GLP Limited's shares:**
(Please circle a point of the scale below that which corresponds to your judgement)

0 1 2 3 4 5 6

Very Irrelevant Very Relevant

G7. **Indicate how <u>relevant</u> you believe the <u>corporate social responsibility information</u> provided to you in the background information to be in making your recommendation in respect of GLP Limited's shares: (Please circle a point of the scale below that which corresponds to your judgement)**

0 1 2 3 4 5 6

Very Irrelevant Very Relevant

G8. **In relation to the information provided in the background information, provide your perceptions about how you would rate the <u>credibility</u> of the <u>source of the financial information</u> in terms of each of the following: (Please circle a point of the scale below that which corresponds to your judgement)**

The source of the <u>financial information</u> provided was:

0 1 2 3 4 5 6

Not Trustworthy Trustworthy

0 1 2 3 4 5 6

Not Open-Minded Open Minded

0 1 2 3 4 5 6

Good Bad

0 1 2 3 4 5 6

Expert Not Expert

0 1 2 3 4 5 6

Experienced Not Experienced

0 1 2 3 4 5 6

Trained Untrained

G9. **In relation to the information provided in the background information, provide your perceptions about how you would rate the credibility of the source of the corporate social responsibility information in terms of each of the following: (Please circle a point of the scale below that which corresponds to your judgement)**

The source of the corporate social responsibility information provided was:

0	1	2	3	4	5	6
Not Trustworthy						Trustworthy

0	1	2	3	4	5	6
Not Open-Minded						Open Minded

0	1	2	3	4	5	6
Good						Bad

0	1	2	3	4	5	6
Expert						Not Expert

0	1	2	3	4	5	6
Experienced						Not Experienced

0	1	2	3	4	5	6
Trained						Untrained

At completion of Part A for both GLP Limited and REC Limited, please proceed to Parts B and C.

Company Two (2) – Background Information

(The company described below is fictitious. The information and questions relating to your stock recommendations follow this background information.)

Retailing Company - REC Limited

REC Limited has evolved from a small family owned merchandising company, which opened its first store in the late 1800s. It has grown to become a large diversified retailer, with nearly 100 stores and outlets situated predominantly in Australia and New Zealand. It listed on the Australian Stock Exchange in the 1950s, and is part of the ASX 200 group of companies.

Key management personnel have been with the company for several years, with the current Chief Executive Officer being appointed to his role in 2002, and the Chief Financial Officer in 2003. The Board of Directors comprises the Chairman (who is an independent director appointed in 2001), and eight other members, of which only two (i.e., CEO and CFO) are executives of the firm.

The company sells food and low cost, good quality general merchandise, including apparel, toys, books, and so on. Sales trends in terms of volume in the last few years have generally mirrored trends in household GDP expenditure and new store openings. However, REC Limited has promoted itself as being very price competitive and price conscious, and reports that it has reduced prices to customers by just over 1.5 per cent in the last three years. Total turnover for 2008 is estimated at $3,860 million.

REC Limited has aimed to improve its access to, and the shopping experience of, its customers, in a most cost-efficient manner. Self-service checkouts, greater access to on-line shopping, and improved supplier and distribution arrangements have allowed REC Limited to maintain a steady and respectable operating margin. Greater utilisation of the good standing and reputation REC Limited holds in the consumer goods and general retailing market will be made in coming years, through the establishment of arrangements with suppliers for the production and distribution of "company branded" products. Revenue generated per store area has steadily grown over time, as evidenced by the return achieved at its 'flagship'[110] store.

In the last two years, REC Limited has opened nearly six stores, for a net increase in store numbers of two. Five outlets were closed following brand amalgamation and re-branding of the company's liquor business. One-off costs associated with these ventures have had some impact on cash flows and is reflected by the large amount of capital investment in recent years. New capital investment for 2008 is estimated to be around $150 million. However, cash flows remain generally healthy, while underlying sales remain unaffected.

In 2005, public attention was drawn to the fact that one of REC Limited's major suppliers had been found to be exploiting child labour. This focused unwanted public scrutiny upon REC Limited and its operations. REC Limited responded by dropping the company from its list of approved suppliers. Furthermore, REC Limited has supported a number of staff and community initiatives aimed at assisting persons with disabilities and the underprivileged. It promotes itself as being at the forefront in terms of its responsibility to the environment and the global community.

[110] Same' store in attached Summary of Key Financial Data.

SUMMARY OF KEY COMPANY FINANCIAL DATA – REC LIMITED

{This information is extracted from the company's audited financial statements. Audit report attached.}

(AUD million)	2003	2004	2005	2006	2007
Income Statement					
Turnover/Net Revenue	2,501	2,892	3,212	3,688	4,153
EBITDA	804	918	969	1,195	1,331
Net Profit before Tax	583	673	674	879	1,429
Profit after Tax	378	440	429	574	965
Balance Sheet					
Net Current Assets (Liabilities)	968	1,127	1,498	1,746	1,603
Net Cash and Deposits (Borrowing)	3	64	192	10	(60)
Inventories	471	611	631	648	686
Intangible Assets	30	28	26	87	59
Total Assets	4,814	5,923	6,775	7,576	7,969
Total Liabilities	2,229	2,852	3,395	3,969	3,614
Cash Flow Statement					
Cash Flow from Operations	271	474	462	399	787
Cash Flow from Investing	(380)	(472)	(588)	(477)	45
Free Cash Flow[1]	(132)	(21)	0	(56)	345
New Capital Investment	244	311	259	226	189
Store Data					
Number of Stores (year-end)	86	99	94	89	95
Total Selling Area ('000 m^2)	17	19	18	17	16
Same Store Revenue per Square Metre	20.19	19.67	20.23	20.31	21.30
Same Store Sales Growth (%)	1.1	1.2	1.5	1.4	1.3
Financial Ratios					
Operating Margin (%)	23.3	23.3	21.0	23.8	34.4
Net Profit After Tax on Average Invested Capital (%)	14.8	14.1	12.9	14.4	12.6
Net Debt/Equity Ratio (%)	37.7	36.3	42.8	50.6	28.2
Interest Coverage (times)	13.7	13.6	10.5	11.9	13.9
Stock Market Ratios					
Basic Earnings per Share (cents)	14.3	16.6	16.2	21.7	36.5
Diluted Earnings per Share[2] (cents)	14.3	16.6	16.2	21.7	36.5
Cash Flow from Operations per Share (cents)	10.3	17.9	17.5	15.1	29.7
Free Cash Flow per Share (cents)	(5.0)	(0.8)	0.0	(2.1)	13.0
Dividend per Share (cents)	5.0	8.0	7.0	8.0	11.0
Share Price (year-end) (cents)	207.6	225.4	253.5	319.9	482.5
Number of Shares (year-end) (millions)	2,640	2,642	2,644	2,644	2,646
Weighted Average Number of Shares (millions)	2,640	2,643	2,646	2,644	2,646
Price/Earnings	14.5	13.5	15.7	14.7	13.2
Price/Book Value	2.1	1.9	2.0	2.3	2.9
Price/Free Cash Flow	(41.6)	(285.3)	(25,352.0)	(151.6)	37.1

[1] Cash flow from operations less capital expenditures and dividends
[2] Potential ordinary shares affecting EPS calculations relate to currently exercisable share options

SUMMARY OF KEY RETAILING INDUSTRY AND ECONOMIC DATA

	2003	2004	2005	2006	2007	2008 (proj)
ASX 200 Index	100.0	110	135	158	189	201
Industry Share Price Index	100.0	80	100	112	120	135
CPI	100.0	102	105	108	111	114
Retail Trade GDP	100.0	105	110	111	114	116
Industry P/E (range – cents)	10 - 17	8 - 15	10 - 18	10 - 18	10 - 19	12 - 21

BIG 4 International Accounting

INDEPENDENT AUDITOR'S REPORT

To the members of REC Limited
Report on the Financial Report

We have audited the accompanying financial statements of REC Limited, which comprise the Balance Sheet, as at 31 March 2007, and the Income Statement, Cash Flow Statement, and Statement of Changes in Equity for the year then ended, and the related notes.

Directors' responsibility

Management is responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards (IFRS). This responsibility includes maintaining internal control relevant to the preparation of financial statements that are free of material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies that are consistent with IFRS; and making accounting estimates that are reasonable in the circumstances.

Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those standards require that we plan and perform the audit to obtain reasonable, but not absolute, assurance whether the financial statements are free from material misstatement, whether caused by fraud or error.

An audit involves performing procedures to obtain evidence about the amounts and disclosures in the financial statements. The audit procedures selected depend on the auditor's assessment of the risks of material misstatement in the financial statements. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the financial statements as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant estimates made by management, as well as evaluating the overall financial statement presentation and disclosures.

We believe that the audit evidence that we have obtained is sufficient and appropriate to provide a reasonable basis for our opinion on the financial statements.

Independence

In conducting our audit, we followed applicable independence requirements of Australian professional ethical pronouncements and the *Corporations Act 2001*.

Audit Opinion

In our opinion, the financial statements give a true and fair view of the financial position of REC Limited as of 31 March 2007, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards.

BIG4InternationalAccounting
Chartered Accountants

3 May 2007
Sydney, New South Wales

CORPORATE SOCIAL RESPONSIBILITY – KEY ACHIEVEMENTS 2007

{This information is extracted from the company's Corporate Social Responsibility report, which has been prepared by management. This information has not been assured.}

REC Limited actively supports the United Nations Global Compact and its ten principles. The manner in which these principles have been supported this year is outlined below:

Human Rights

1: Businesses should support and respect the protection of international human rights within their sphere of influence

2: Businesses should make sure they are not complicit in human rights abuses

Achievements This Year

- Introduced requirement for all suppliers to provide certification of their adoption of ILO and UN principles of rights to work
- Membership of Supplier Ethical Data Exchange (SEDEX)

Labour

3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining

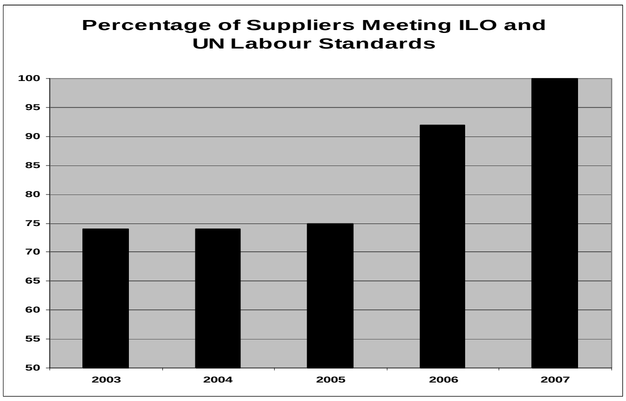
4: Businesses should support the elimination of all forms of forced and compulsory labour

5: Businesses should support the elimination of child labour

6: Businesses should support the elimination of discrimination in respect of employment and occupation

Achievements This Year

- 100 per cent of suppliers meeting ILO and UN standards on labour practices, including abolition of all forms of child labour exploitation
- Equip through training, all managers with "religious and cultural" toolkit
- Agreement with staff allowing all staff to observe their respective religious calendars
- New collective bargaining agreement with all staff across all stores and warehouses, included introduction of child care voucher scheme



Environment

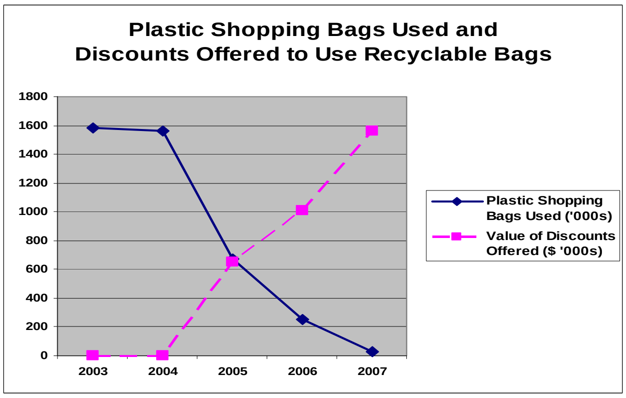
7: Businesses should support a precautionary approach to environmental challenges

8: Businesses should undertake initiatives to promote greater environmental responsibility

9: Businesses should encourage the development and diffusion of environmentally friendly technologies

Achievements This Year

- Implementing a discount system for customers using recyclable shopping bags, and elimination of all plastic shopping bags from all stores
- Removal of all CFC refrigeration in warehouses and stores
- Signing agreements with all suppliers who have undertaken to be ISO 140001 Environment Management System certified within two years



Anti-Corruption

10: Businesses should work against corruption in all its forms, including extortion and bribery

Achievements This Year

- Introduction of whistle-blowing arrangements
- Providing training to all staff in respect of ethical

for all staff at all sites	behaviour and decision-making, and responses to evidence of such behaviour

{Insert Assurance Report – as appropriate – in this part of the Research Instrument. Refer Appendices 9 and 10}

Note: Where an Assurance Report was included in the Research Instrument, the heading of the preceding page was altered. The altered words appear below in italics for emphasis only – they were not in italics in the Research Instrument.

CORPORATE SOCIAL RESPONSIBILITY – KEY ACHIEVEMENTS 2007 **{This information is extracted from the company's Corporate Social Responsibility report, which has been prepared by management. *This information has been assured. Assurance Report attached*.}**

- Please answer the following statements and questions in the order they are presented.
- You are free to go back to look at the background information when answering these questions.
- After you have answered a question, please do **not** go back and change your response.
- **Base your answers to the questions on the information provided in the case**.

Company Two (2) - Part A

Please provide answers for the following questions in relation to **REC Limited**

Case Information

1. **In the last five years, REC Limited has recorded:**

   NET PROFITS AFTER TAX ☐ **NET LOSSES AFTER TAX** ☐

2. **The summary financial information presented in this study is based on REC Limited's financial statements that have: (Please tick the appropriate box)**

   BEEN AUDITED BY A PROFESSIONAL ACCOUNTANT (AUDITOR) ☐

   BEEN AUDITED BY A SUSTAINABILITY CONSULTANT (OTHER EXPERT) ☐

   NOT BEEN AUDITED ☐

3. **REC Limited's Corporate Social Responsibility Key Achievements Information is based on the ten principles of the United Nations Global Compact?**

   TRUE ☐ **FALSE** ☐

4. **The summary Corporate Social Responsibility Key Achievements provided in this study is extracted from REC Limited's corporate social responsibility reports that have: (Please tick the appropriate box)**

   BEEN ASSURED BY A PROFESSIONAL ACCOUNTANT (AUDITOR) ☐

   BEEN ASSURED BY A SUSTAINABILITY CONSULTANT (OTHER EXPERT) ☐

   NOT BEEN ASSURED ☐

5. **Two years ago, one of REC Limited's major suppliers was found to be using child labour. The incident impacted unfavourably on REC Limited and led to greater public scrutiny of its operations?**

   TRUE ☐ **FALSE** ☐

Stock Recommendations

R1. Based on the background information provided, what type of stock recommendation would you make:
(Please mark your answer with a cross in the most appropriate box below)

BUY ☐

HOLD ☐

SELL ☐

R2. Indicate how confident you are about the stock recommendation you have made:
(Please circle a point of the scale below that which corresponds to your judgement)

0	1	2	3	4	5	6
No Confidence						Extremely Confident

Please provide your key reason(s) for the feeling of confidence that you have about the decision you have indicated above

____

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____

R3. Based on all of the information provided in the background information, indicate what you believe will happen to REC Limited's share price in 2008:
(Please circle a point of the scale below that which corresponds to your judgement)

0	1	2	3	4	5	6
Decrease Markedly			Remain Unchanged			Increase Markedly

R4. Indicate the level of risk, in terms of the volatility relative to the market associated with an investment in REC Limited's shares:
(Please circle a point of the scale below that which corresponds to your judgement)

0	1	2	3	4	5	6
Very Low						Very High

R5. Indicate how <u>relevant</u> you believe the <u>entire package of information</u> provided to you in the background information to be in making your recommendation in respect of REC Limited's shares: (Please circle a point of the scale below that which corresponds to your judgement)

0	1	2	3	4	5	6
Very Irrelevant						Very Relevant

R6. Indicate how <u>relevant</u> you believe the <u>financial information</u> provided to you in the background information to be in making your recommendation in respect of REC Limited's shares:
(Please circle a point of the scale below that which corresponds to your judgement)

0	1	2	3	4	5	6
Very Irrelevant						Very Relevant

R7. Indicate how <u>relevant</u> you believe the <u>corporate social responsibility information</u> provided to you in the background information to be in making your recommendation in respect of REC Limited's shares: (Please circle a point of the scale below that which corresponds to your judgement)

0	1	2	3	4	5	6
Very Irrelevant						Very Relevant

R8. In relation to the information provided in the background information, provide your perceptions about how you would rate the <u>credibility</u> of the <u>source of the financial information</u> in terms of each of the following: (Please circle a point of the scale below that which corresponds to your judgement)

The source of the <u>financial information</u> provided was:

0	1	2	3	4	5	6
Not Trustworthy						Trustworthy

0	1	2	3	4	5	6
Not Open-Minded						Open Minded

0	1	2	3	4	5	6
Good						Bad

0	1	2	3	4	5	6
Expert						Not Expert

0	1	2	3	4	5	6
Experienced						Not Experienced

0	1	2	3	4	5	6
Trained						Untrained

R9. In relation to the information provided in the background information, provide your perceptions about how you would rate the <u>credibility</u> of the <u>source of the corporate social responsibility information</u> in terms of each of the following: (Please circle a point of the scale below that which corresponds to your judgement)

The source of the c<u>orporate social responsibilit</u>y information provided was:

0	1	2	3	4	5	6
Not Trustworthy						Trustworthy

0	1	2	3	4	5	6
Not Open-Minded						Open Minded

0	1	2	3	4	5	6
Good						Bad

0	1	2	3	4	5	6
Expert						Not Expert

0	1	2	3	4	5	6
Experienced						Not Experienced

0	1	2	3	4	5	6
Trained						Untrained

At completion of Part A for <u>both GLP Limited and REC Limited,</u> please proceed to Parts B and C.

Part B – Information for Decision-making

1. **For each separate piece of information listed below, indicate how important such information is generally perceived by you in terms of making stock recommendations**
(Note: Not all of these sources of information were not provided to you in Part A).
(Please circle a point of the scale below that which corresponds to your judgement)

The Annual Report (in its entirety)

0 1 2 3 4 5 6
Very Unimportant Very Important

Company's Interim Earnings Announcements

0 1 2 3 4 5 6
Very Unimportant Very Important

Chairman's/Chief Executive's Report within the Annual Report (MD&A)

0 1 2 3 4 5 6
Very Unimportant Very Important

Financial Statements

0 1 2 3 4 5 6
Very Unimportant Very Important

The Notes to the Financial Statements

0 1 2 3 4 5 6
Very Unimportant Very Important

Audit Report of Financial Statements

0 1 2 3 4 5 6
Very Unimportant Very Important

Corporate Social Responsibility Report

0 1 2 3 4 5 6
Very Unimportant Very Important

Assurance Report of Corporate Social Responsibility Report

0 1 2 3 4 5 6
Very Unimportant Very Important

Corporate Governance Statement

0 1 2 3 4 5 6
Very Unimportant Very Important

2. **List the three most important considerations for you when making assessments about company's shares:**

(a) ____________________

____

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(b) ____________________

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(c) ____________________

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3. **If you were able to directly contact the company you are analysing, what information would you request that would assist you to make your stock recommendations:**

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4. **When you assess company and management performance, do you ever include non-financial indicators (e.g., quality of management, reputation, employee relations, or intellectual property) in your assessment? (Please tick the appropriate box)**

☐ Never ☐ Rarely ☐ Sometimes ☐ Most of the Time ☐ Always

5. **More specifically, when you assess company and management performance, do you ever include social, ethical, corporate governance or environmental considerations in your assessment? (Please tick the appropriate box)**

☐ Never ☐ Rarely ☐ Sometimes ☐ Most of the Time ☐ Always

6. **Do you include any social, ethical, corporate governance or environmental information in your published reports? (Please tick the appropriate box)**

☐ Never ☐ Rarely ☐ Sometimes ☐ Most of the Time ☐ Always

If Sometimes, Most of the Time, or Always, what are your primary sources of information/research?

____

____

____

7. **Have you ever raised questions regarding social, ethical, corporate governance or environmental issues with corporate managers in your research? (Please circle)**

☐ Never ☐ Rarely ☐ Sometimes ☐ Most of the Time ☐ Always

If Sometimes, Most of the Time, or Always, what are the sorts of questions/types of issues upon which you have focused?

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End of Part B
Please Proceed to Part C

Part C – General Questions

Please answer the following general questions. (Note: Responses will be kept strictly confidential)

1. What is your number of years experience in researching and covering stocks? _______________

2. In what country have you had the most experience in researching and covering stocks? ___________________________________

3. What is the title of your position within the company? _______________________________

4. Within which industry sectors have you predominantly been involved in researching and covering stocks? (Please list up to three only, in order of most recent to least recent, and an indication of the proportion of time spent - as a percentage - in these sectors)

(a) ____ Time spent_____________ %

(b) ____ Time spent_____________ %

(c) ____ Time spent_____________ %

Total 100%

5. How would you rate your knowledge with respect to the meaning and interpretation of financial statements?

0	1	2	3	4	5	6
Very Low			Average			Very High

6. How would you rate your knowledge with respect to the meaning and interpretation of corporate reporting more generally, including corporate social responsibility reporting?

0	1	2	3	4	5	6
Very Low			Average			Very High

7. How would you rate your knowledge with respect to the meaning and interpretation of auditing and assurance?

0	1	2	3	4	5	6
Very Low			Average			Very High

8. Please feel free to provide any comments:

At the completion of Part C, please place the background information and Parts A, B and C in the envelope provided. Seal the envelope. It will be collected by the researcher convening the study.

Thank you for participating in this study

Appendix 9: Assurance Report – Professional Accountant (Auditor)

GMPK

A Global BIG 4 Accounting Firm

INDEPENDENT ASSURANCE REPORT

Introduction

GLP Limited engaged us to review selected sustainable development performance indicators and targets in its Corporate Social Responsibility Report 2007 (the "Report"), and the management assertions made in its preparation. Indicators and targets were assessed against sustainable development criteria detailed in the Report. Our assurance engagement also assessed whether the Report complies with the *'in accordance with'* requirements of the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines.

Respective Responsibilities of Directors and Independent Assurance Provider

The directors of *GLP Limited* are responsible for the preparation of the Report and the information and assessments contained within, for determining the company's objectives in respect of sustainable development, for developing appropriate sustainable development indicators, and for maintaining appropriate performance management and internal control systems from which the reported information is derived. Our responsibility is to express our conclusions based on our independent assurance engagement, performed in accordance with the International Standard on Assurance Engagements (ISAE 3000) *Assurance Engagements Other than Audits of Reviews of Historical Information* in relation to performance data, and the *AA1000 Assurance Standard (AA1000AS)* for the management assertions.

Basis of Our Work Performed

The procedures selected depend on our judgment, including the assessment of risks of material misstatement of the aspects of the Report that were the subject of our engagement. Our work consisted of:

- Obtaining an understanding of the systems used to generate, aggregate and report the selected performance indicators and targets at all of *GLP Limited's* sites;
- Conducting interviews with management at the sites, and review relevant information to obtain an understanding of the reporting processes and explanations;
- Performing an analytical review of performance indicators and targets submitted for aggregation and obtaining explanations for unusual trends, and testing the accuracy of the aggregation process; and
- Reviewing the consistency of between the selected performance indicators and targets and the related statements in the report, in light of any findings from the site visits and analytical reviews.

Statement

Based on our work described above, in our opinion, nothing has come to our attention that causes us to believe that:

- *GLP Limited's* performance indicators and targets described above, are not fairly stated in all material respects;
- Management assertions made by *GLP Limited* in relation to alignment to the principles of completeness, materiality and responsiveness of AA1000AS are not fairly stated; and
- *GLP Limited* has not complied with the *'in accordance with'* requirements of the GRI Sustainability Reporting Guidelines in the Report.

GMPK
Chartered Accountants
Sydney, New South Wales
3 May 2007

Appendix 10: Assurance Report – Sustainability Expert (Consultant)

S.I. Sustainability International

One of the world's largest sustainability and environmental consultants

INDEPENDENT ASSURANCE STATEMENT

Introduction

GLP Limited engaged us to review selected sustainable development performance indicators and targets in its Corporate Social Responsibility Report 2007 (the "Report"), and the management assertions made in its preparation. Indicators and targets were assessed against sustainable development criteria detailed in the Report. Our assurance engagement also assessed whether the Report complies with the *'in accordance with'* requirements of the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines.

Respective Responsibilities of Directors and Independent Assurance Provider

The directors of *GLP Limited* are responsible for the preparation of the Report and the information and assessments contained within, for determining the company's objectives in respect of sustainable development, for developing appropriate sustainable development indicators, and for maintaining appropriate performance management and internal control systems from which the reported information is derived. Our responsibility is to express our conclusions based on our independent assurance engagement, performed in accordance with the International Standard on Assurance Engagements (ISAE 3000) *Assurance Engagements Other than Audits of Reviews of Historical Information* in relation to performance data, and the *AA1000 Assurance Standard (AA1000AS)* for the management assertions.

Basis of Our Work Performed

The procedures selected depend on our judgment, including the assessment of risks of material misstatement of the aspects of the Report that were the subject of our engagement. Our work consisted of:

- Obtaining an understanding of the systems used to generate, aggregate and report the selected performance indicators and targets at all of *GLP Limited's* sites;
- Conducting interviews with management at the sites, and review relevant information to obtain an understanding of the reporting processes and explanations;
- Performing an analytical review of performance indicators and targets submitted for aggregation and obtaining explanations for unusual trends, and testing the accuracy of the aggregation process; and
- Reviewing the consistency of between the selected performance indicators and targets and the related statements in the report, in light of any findings from the site visits and analytical reviews.

Statement

Based on our work described above, in our opinion, nothing has come to our attention that causes us to believe that:

- *GLP Limited's* performance indicators and targets described above, are not fairly stated in all material respects;
- Management assertions made by *GLP Limited* in relation to alignment to the principles of completeness, materiality and responsiveness of AA1000AS are not fairly stated; and
- *GLP Limited* has not complied with the *'in accordance with'* requirements of the GRI Sustainability Reporting Guidelines in the Report.

S.I. Ltd
Sustainability Consultants
Sydney, Australia 3 May 2007

Appendix 11: Instructions Provided to Investment Bank Staff Assisting in Administration of the Research Instrument

(Copy provided to Investment Bank Staff Member in Australia)

xxxx,

Thanks very much again for your help. As I said the other day, any numbers that you get to complete the instrument would be great ………20 to 25 (or more) would be fantastic and would complement the ones I may get back from xxxx in London.

Included in this package are:

- Forty-two (42) envelopes containing the research instruments.

They are in an order in which they should be distributed. Within each is a "yellow" page outlining the ethics clearance (which we are required to provide by law, and which participants should keep), an instruction page and the instrument itself.

As I mentioned the other day when we were talking, the instrument should take people no longer than 25 to 30 minutes to complete. They should record their first responses, and once done they should not go back and change them. There is no "one right or wrong" answer, as what we are interested in is their perceptions …..one of the major problems when people take too long to complete instruments is that they are worried about getting the right answer, or trying to provide the answer that we want. Please encourage them to move through fairly quickly.

I have addressed the envelopes as suggested, asking participants to return them to you.

Please give me a call if you have any questions, or anything doesn't make sense or requires clarification.

Many thanks.

Gary
9385 5840
0412 059 440
g.pflugrath@unsw.edu.au

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