Relevance and Reliability: A Trade-off?

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Abstract

According to the Statement of Concepts, two qualitative characteristics that financial accounting information should possess are relevance and reliability. There is a long-held belief that there is a trade-off relationship between these qualities. However, very little empirical investigation has tested the presence of this relationship, and that which has found no empirical support for this.

This dissertation investigates the correlation of interest groups' perception differences between the relevance and reliability of historical cost and fair value measures. 397 participants from three interest groups; debt providers, equity providers, and statement preparers, were solicited for this sample, with 228 (57.4%) usable responses received. The convergence toward International Financial Reporting Standards (IFRSs), and its preference for fair value, was utilised as the setting for this investigation. With the belief that there is a trade-off in relevance and reliability with the move from historical cost toward fair value, six topical asset classification examples were tested.

Individual analysis of the three groups found a positive relationship, which was significant on almost all occasions, between the perceptions of relevance and reliability. While the results go against the long-held belief of a trade-off between relevance and reliability, the results are consistent with previous empirical findings in this area. These research results have implications for standard setters that advocate, and mandate, the use of historical cost which appears to provide information which is both less relevant, and less reliable.

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First and foremost I would like to thank my supervisor Associate Professor John Burke for his knowledge, eye for detail, and way of pinpointing issues in minimal time. Thank you also for the explanations which began at '000' level and always got me to the level of understanding required for the matter at hand. I would also like to specifically thank Dr. Gregory Liyanarachchi, Professor Alan MacGregor, Dr. Paul Theivananthampillai, Ros Whiting and Helen Tregidga. You have all assisted me in various ways and I thank you for the time, assistance and resources that you have shared with me.

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I would also like to thank my family whose encouragement, support and pride in me, have been constant not only throughout my degree, and decision to return to education, but right throughout my life. I believe that the independence and strength that I possess is due to my upbringing and surroundings. You are, and have always been, the central point of this. Thank you for always being there for me.

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Chapter One: Introduction

1.1   Overview of Chapter

This research analyses the trade-off between relevance and reliability. This first chapter, Chapter One, discusses the background to the research topic and explains why this research is important to the discipline of accounting, both theory and practice. The motivation for conducting this research on the trade-off between relevance and reliability is also then discussed, followed by an identification of the research question investigated and an overview of the structure of this dissertation.

1.2   *Introduction and Background*

The primary role of accounting is to collect and communicate data that can be used for analysis and decision making (Ettredge, Shane, & Smith, 1995; Hungerford, 1984). The way that financial data is provided and its content is of primary importance in its communication to information users (Hungerford, 1984). Part of the importance that surrounds data content is that we understand the characteristics that this data encompasses. As the communication of financial information is at financial accounting's core, this process of understanding should be open to continual development and improvement.

Over the years, numerous reports have been released by academics and committees to give guidance in developing a set of objectives for financial accounting information. Many of these reports outline the qualities that accounting information should possess. One of the initial reports which outlined preferred accounting qualities was the Trueblood report. The Trueblood committee (1973, cited in Sorter, 1973) found that predictions are required for decision-making, and that reliable information is important for making predictions. Later reports, including the Solomons and Dearing reports, gave advice regarding the implementation of a conceptual framework. The Solomons report was designed to provide a conceptual framework to improve the level of accounting information standards (Whittington, 1989). This conceptual framework implementation was supported by the Dearing committee (Ebling, 1989). The Statement of Concepts is an important piece of guidance in the role of accounting. The Statement of Concepts was developed to outline the qualitative characteristics that external general purpose financial reporting information should possess. These qualitative characteristics are relevance, understandability, reliability, and comparability (ICANZ, 2001). The guidance is thought to have a conflicting nature in respect to the qualitative characteristics of relevance and reliability and this is

discussed in the literature. In regard to the accounting standards, Solomons (1989, cited in Whittington, 1989) discussed the trade-off between various qualitative characteristics including relevance and verifiability, and verifiability is now acknowledged by the Financial Accounting Standards Board (FASB) as a component of reliability.

The foundation ideas outlined in the Statement of Concepts are intended to be followed by preparers (ICANZ, 2001). However, the idea that there is a trade-off means that the qualitative characteristics cannot both be fulfilled because they are conflicting; that is, when one is attained at a higher level, the other is sacrificed. The presence of these qualitative characteristics is intended to assist users, preparers and auditors in their involvement with general purpose financial reporting. Despite the long-held belief in accounting, supported on theoretical grounds, that there is a trade-off between relevance and reliability, no empirical studies have found support for this theory. The question arises of whether this is a presupposition, and as a result should be put to the test.

1.3   *Topic Importance*

Financial Reporting Standards (FRSs) have the greatest level of authority in specific areas of accounting guidance (ICANZ, n.d.). The Statement of Concepts, a major body of guidance, is not a FRS but is acknowledged by the Accounting Standards Review Board (ASRB) as an important guideline for standards to follow (ASRB, 1994, cited in Lont, 2002). The Statement of Concepts' guidelines are also written to assist in the preparation of external general purpose financial reports, especially when reporting in an area which is not specifically guided by FRSs. Statement of Concepts' guidelines outline what information should be supplied, and which groups' needs are intended to be fulfilled by the information disclosed.   The existence of a trade-off between relevance and reliability requires

investigation because it is at the foundation level of the accounting discipline, and, despite this, there is a lack of investigation in the area (Stanga, 1980).

In addition, there is a move in International Financial Reporting Standards (IFRSs) away from historical cost as the basis of accounts towards fair value. This move arguably is a move away from an emphasis on reliability towards relevance.   Understanding the relationship between relevance and reliability is not only important in this context but topical. The purpose of this dissertation is to test for the presence of a negative relationship between relevance and reliability.

1.4   *Topic Interest*

The Statement of Concepts is an interesting area, as it makes up part of the underlying foundation of accounting, but the guidance that it provides is in part contradictory and as a result cannot be applied in its entirety. Accounting literature and authoritative groups accept this possible contradictory situation, and even make a point of discussing the existence of the relevance and reliability trade-off. This contradictory trade-off relationship is based on unconfirmed theory, and despite this, the accounting discipline appears to follow blindly as though the belief is fact. Limited research has been undertaken to test empirically for the existence of a relevance and reliability trade-off. Research that has been carried out has found no statistically significant trade-off relationship between the two qualitative characteristics of relevance and reliability (McCaslin & Stanga, 1983b; Stanga, 1980).

1.5   *Research Question*

Is there a trade-off relationship between relevance and reliability, and is this relationship moderated by different interest groups?

1.6   *Overview of Dissertation*

The structures of the four remaining chapters of this dissertation are as follows. Chapter Two reviews the applicable academic literature in the area. This is undertaken in order to construct the theory required to understand and assess the possibility of a trade-off between relevance and reliability. In addition, Chapter Two also conceptualises the components of this dissertation and outlines the research hypotheses. Chapter Three discusses the design of this research including the research instrument, sample, data and method. Chapter Four reports the statistical analysis that was carried out in this research and the subsequent results of that analysis. Chapter Six discusses the findings by interpreting the results, concludes the dissertation, outlines the limitations of this research, and possible future research directions.

Chapter Two: Theory Construction

2.1   Overview of Chapter

Chapter Two builds the theory which forms the basis of this research. This basis begins with the Statement of Concepts' qualitative characteristics of relevance and reliability and group perceptions of these. Then, in Section 5, this chapter discusses the possible trade-off thought to be present, and the prior research which has been conducted in this area. The chapter then discusses the future direction of reporting currently being advocated by authoritative boards. Finally, the schematic diagram and hypothesis are stated prior to the chapter summary.

2.2   *Statement of Concepts*

The New Zealand Society of Accountants (NZSA) issued the Statement of Concepts in 1993. The intention of the Statement of Concepts was, and still is in 2004, to assist users, preparers, auditors and the Financial Reporting Standards Board (FRSB) in their roles which make them a part of the general purpose financial reporting process (1993). The Statement of Concepts provides financial accounting with a framework by outlining the objectives of general purpose financial reporting. These objectives are identified as assisting users in assessing the reporting entity and making decisions (NZSA, 1993). The Statement of Concepts allows a consistent foundation of ideas about what general purpose financial reports should contain and for what purpose. Part of the guidance provided is outlining what should be contained in the general purpose financial reports and sets out the qualitative characteristics that the information should possess. The Statement of Concepts outlines four qualitative characteristics that general purpose financial reports should contain to ensure that the reports will be useful to its users.

The four qualitative characteristics that accounting information should possess, in accordance with the Statement of Concepts, are; relevance, understandability, reliability and comparability. The New Zealand Statement of Concepts provides a diagram of these qualitative characteristics which is reproduced in Figure 2.1: Statement of Concepts' Qualitative Characteristics. It can be seen in Figure 2.1: Statement of Concepts' Qualitative Characteristics, that the four qualitative characteristics are given equal importance. The American Statement of Concepts advocates the same four qualitative characteristics. While, these four characteristics are viewed differently in the American Statement of Concepts, the elements of relevance and reliability are still given equal importance. The American Statement of Concepts describes relevance and reliability as the 'primary

decision-specific qualities' (FASB, 2004) and states that it is the qualities of relevance and reliability that makes information useful. The presence of these two qualitative characteristics is, therefore, central to achieving the objectives of general purpose financial reports produced.
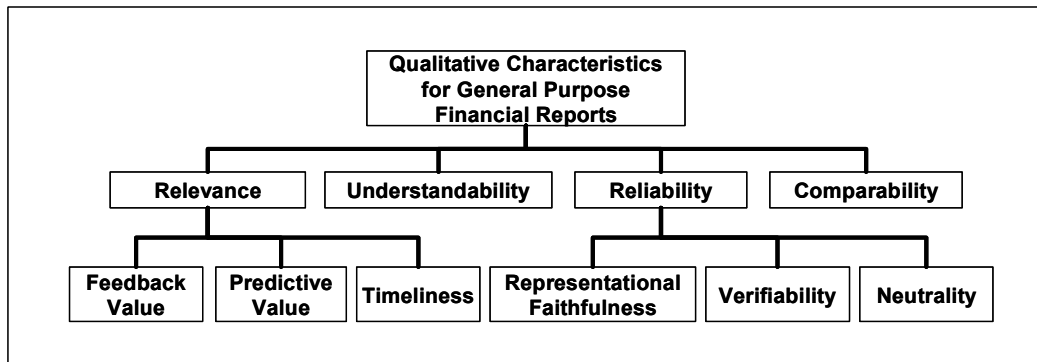
Figure 2.1: Statement of Concepts' Qualitative Characteristics (ICANZ, 2001)

2.3   *Relevance and Reliability*

Stanga (1980) states the importance of the Statement of Concepts' definitions of the two qualitative characteristics of relevance and reliability so that their common meanings do not blur their accounting definitions. The New Zealand Statement of Concepts does not specifically define the qualitative characteristics. However, information is described which encompasses each of the characteristics. Relevant information is described as confirming or correcting prior expectations, or assisting in forming future expectations (ICANZ, 2001). Reliable information is described as corresponding to underlying transactions, as well as being verifiable and neutral (ICANZ, 2001). The American Statement of Concepts defines relevance as "…the capacity of information to make a difference in a decision …", and reliability is defined as "…the quality of information that assures that information is reasonably free from error and bias and faithfully represents what it purports to represent" (FASB, 2004, p. 39).

It is implicit from the above descriptions and definitions provided that the qualitative characteristics of relevance and reliability are perceptions which are held by interest groups who are associated with financial accounting information. This is also the case in the broader sense of relevance and reliability. Generally relevance relates to a present matter or subject. Given that the intention of general purpose financial reporting is that the information produced will be used in various situations, and by various interest groups, it is implicit that the relevance of the information is dependent on both the situation and the group.

2.4   *Group Perceptions*

The qualitative characteristics are designed to make information useful. However, relevant information is not useful to a user *because* the information relates to a present matter or subject, but because the user *perceives* that the information relates to a present matter or subject. Similarly, this reasoning can be applied to reliability. That is, it is not whether information *can* be depended upon by a user that makes it useful, but whether the user *perceives* that he or she can depend on the information.

Relevance is thought to be a user-specific characteristic. That is, it is a person's perception that gives information a level of relevance which is specific to both need and to the current decision under consideration (Stamp, 1982). Therefore, it is a person's perception that needs to be taken into account when examining and measuring relevance. As discussed above, reliability is also dependent on the user as it relates to the users' perception of the item. This is because each user will have an acceptable level of reliability that is determined by their current situation, as well as their acceptance of risk levels. Therefore, it is likely that reliability will vary among different users and situations.

It has long been acknowledged that different user groups have different requirements and concerns from information that is disclosed in financial statements (Rayburn, Tosh, & Williams, 1991). In addition, it is also recognised that users and preparers hold different perceptions of relevance and reliability (Hooper, 1997), further supporting that both of these groups should be examined. There are numerous groups associated with general purpose financial reporting. Users, preparers, auditors and the FRSB are recognised by the Statement of Concepts as having a role in and close association with general purpose financial reporting. In addition, it is these interest groups who are intended to be assisted by the presence of the qualitative characteristics including relevance and reliability, and more generally the Statement of Concepts as a whole.

2.5   *Trade-off*

The qualitative characteristics of relevance and reliability is a vigorously discussed topic in the literature and has been since well before the first issue of the Statement of Concepts (Duncan & Moores, 1988; Dye & Sridhar, 2004; Fortin, 2005; Godfrey, 1993; Hasan & Tibbets, 1996; Johnson, 2005; Measelle, 1994; Sorter, 1973). Of particular interest throughout this literature over the years, has been the way that one of these qualities is understood to be sacrificed, or traded off, in order to gain more of the other quality. This trade-off situation between the two qualitative characteristics of relevance and reliability has long been acknowledged by many parties. The first American Statement of Concepts, issued by the FASB in 1980, recognised a possible trade-off situation between relevance and reliability. The FASB (1980) stated that "…reliability may suffer when an accounting method is changed to gain relevance, and vice versa" (p. 37). This trade-off situation is also mentioned in many other pieces of literature including: Corfield (1990, cited in Godfrey, 1993); Brownlee, Ferris & Haskins (2001); Healy, Myers & Howe (2002); McDaniel,

Martin & Maines (2002); and Entwistle & Phillips (2003). In addition, there are situations where the trade-off between relevance and reliability is stated as an underlying assumption of research being undertaken (Kirschenheiter, 1997). The research undertaken by Kirschenheiter (1997) looks at the effect of the movement from historical cost to fair value.

2.6   *Prior Research*

While much of the literature mentions that there is a trade-off between relevance and reliability, there is very little empirical verification of the interaction of these two characteristics. Keith Stanga is one researcher who has tested the interaction of relevance and reliability, initially by himself (Stanga, 1980), and later in collaboration with Thomas McCaslin (McCaslin & Stanga, 1983a, 1983b). This research, along with research by Duncan & Moores (1988), will now be discussed.

Stanga (1980) tested the level of perceived relevance and reliability of numerous items using different measurement bases. Findings showed that not only was there no trade-off between relevance and reliability, but that the two characteristics were actually positively correlated. McCaslin & Stanga (1983b) added to these empirical findings by shifting the focus of the statistics applied in the research to examine the trade-off of relevance and reliability *as perceived by users*. McCaslin & Stanga (1983b) found that the two qualities are not independent of each other, that is, perceived relevance by users is dependent on the perceived level of reliability and participants did not perceive that a trade-off existed when the measurement basis was changed. Duncan & Moores (1988) researched the perceived relevance and reliability of current cost accounting, compared with historical cost accounting, and found that current cost accounting is both more relevant and more reliable. That is, no trade-off exists.

Although the above-mentioned research findings support the idea that there is no trade-off between the qualitative characteristics of relevance and reliability, the literature appears to have disregarded these findings and continues to discuss the interaction of the characteristics as though there is a trade-off. Furthermore, the American Statement of Concepts acknowledges the existence of this relationship with a direct statement about the handling of the trade-off situation as recently as their 2004/2005 edition. Smith (1996) describes the relationship as inevitably conflicting stating that this is because the aim is to satisfy simultaneously the mutually incompatible characteristics of relevance and reliability. Despite the empirical findings of a positive relationship between relevance and reliability (Duncan & Moores, 1988; McCaslin & Stanga, 1983a, 1983b; Stanga, 1980), subsequent research and literature published is still based on the presupposition of a negative correlation between the qualitative characteristics. This subsequent literature covers a wide area of accounting including fair value accounting in research and development reporting (Healy *et al.*, 2002; Kirschenheiter, 1997), forecasted information (McDaniel *et al.*, 2002) and brands in regard to challenging measurement bases (Godfrey, 1993).

2.7   *Future Direction of Reporting*

Accounting has in the past, perhaps subconsciously, supported reliability with the production of financial statements which are a historical record. This superiority position of the qualitative characteristic of reliability, has been challenged by a movement toward relevance. That is, a movement towards a balance sheet which truly displays the entity's current financial position (Hooper, 1997). For example, the use of fair value accounting has for some time been advocated in more and more areas of accounting by the American Financial Accounting Standards Committee (Weygandt *et al.*, 1993). The measurement basis of fair value is being supported because it is thought to provide a greater level of

relevance to users (Weygandt *et al.*, 1993). This movement is currently being furthered in New Zealand by the change from the current guidance of the FRSs to the New Zealand equivalents to IFRSs (NZ IFRSs) which will be the mandatory accounting standards for applicable financial reporters for reporting periods beginning on or after 1 January, 2007 (Teixeira, 2005).

Providing more relevant information to users is considered to be the cause of the relevance and reliability trade-off resurfacing in literature discussion (Hooper, 1997; Smith, 1996). The discussion of appropriate and preferred measurement bases has assumed that the level of reliability cannot remain or even increase with the introduction of fair value measurement; as such, the discussion has assumed the presence of a relevance reliability trade-off. That is, the move to relevance is decreasing levels of reliability. Watts (2003), and Entwistle & Phillips (2003), believe that the accounting profession should continue to support the superiority of reliability as the best option for external financial reporting. Watts (2003) states that reliability is closely linked to conservatism and that the role of accounting is being misunderstood. In addition, Watts also believes that moving to fair value accounting will have consequences because fair value accounting is moving away from conservatism, and therefore also reliability. The argument of Entwistle & Phillips (2003) states that a choice has to be made between the two qualitative characteristics, suggesting that information cannot possess both relevance and reliability and that supporting relevance would risk jeopardising the perceived quality of information.

2.8   *Current Reporting Situation*

As mentioned above, the objective of general purpose financial reporting is to assist users in assessing a reporting entity and making decisions (NZSA, 1993). Gathering decision-

making information from financial statements will soon be altered by the requirements of IFRSs, mentioned in Section 2.7: Future Direction of Reporting above. These changes in reporting standards which are being introduced will alter the information that will be available in financial statements, and in particular, the measurement bases required in reporting numerous types of assets in the statement of financial position.

There are several asset measurement differences between current reporting standards and international reporting standards which are creating discussion within the accounting literature. This dissertation discusses five of these. Firstly, goodwill will require an impairment of the carrying amount, as apposed to the amortisation of a transaction based amount. This measurement change is controversial and has been both supported and opposed in the literature (Beutel & Ray, 2004; White, 2003). The measurement of intangibles has for a long time been controversial as there was disagreement in the direction of guidance from the beginning of intangible recognition in financial reports[1] (Cochrane, 1994). It is believed that intangibles as a whole will be one of the major stumbling blocks for the compliance of international accounting standards (IASs) when compulsory reporting begins (Chalmers & Godfrey, 2003). This stumbling block exists because the new reporting rules differ from the current practice of a lot of firms, and the value of the intangibles is too material to ignore, especially in the case of brands (Chalmers & Godfrey, 2003).

Secondly, in the move to fair value, property plant and equipment has also been a source of disagreement in the literature (Firer, 2002; Nichols & Buerger, 2002). Property plant and equipment has retained the measurement option within the New Zealand international accounting standard (NZ IAS) which allows an entity to choose to either measure the cost or fair value amount of each class of asset held. However, in the United States this

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[1] Even the recognition of intangibles itself was questioned and debated in the literature (Cochrane, 1994).

measurement choice is not available. A serious situation arose recently in the United States when a prominent businessman was openly accused, by the Securities and Exchange Commission, of potentially violating IASs by using a cost measurement basis for a property, when the fair value basis is legally required (Rubrico, 2005).

Thirdly, while the measurement of biological assets at fair value has received some challenge (Fone, 1997), the majority of literature identified on the topic of the measurement of biological assets at fair value is of a descriptive nature (Pacter, 1999; Scott, 2005; Sealy-Fisher, 2005). The size of New Zealand's agricultural industry means that the measurement of biological assets at fair value will have a large effect on both the preparation and use of general purpose financial reports in New Zealand.

Fourthly, the use of fair value to measure closing values of financial instruments to be represented in general purpose financial reports has for some time been a "subject of considerable debate" (Lang, 2005), with arguments for and against the use of this measurement (Gray, 2003; Harding, 2000; Paterson, 2001). This measurement debate has been fuelled by problems with the initial reporting standard which required amendments to both the recognition and measurement requirements in the standard. In addition to these problems, the discussion of financial instruments has the longest presence in the literature with discussions of financial assets and liabilities moving to fair value measurements for over a decade (Measelle, 1994).

The fifth asset classification is inventory. While inventory does not have any measurement differences between the current reporting standards and international reporting standards, there is still discussion in the literature regarding inventory. The literature discussion is based around the differences between countries and specifically the similarity of inventory

valuation (Emenyonu & Adhikari, 1998). It appears that there is almost a natural valuation of inventory treatment which is still continuing to aid IAS convergence because of the similar treatment of inventory in various accounting environments (Anonymous, 2005). For a significant time period, the measurement of inventory has been required to be stated at the lower of cost and net realisable value. The notion of net realisable value is quite similar to that of fair value. While the main distinction between fair value and net realisable value lies in the allowance and restriction of recognising upward valuation changes, net realisable value and fair value are both based on the amount that it is expected that the asset could be sold for or exchanged at (ICANZ, 2004). Therefore, the idea of stating assets at fair value is not necessarily an idea which is new to the introduction of IASs, especially with inventory measurement.

2.9　*Schematic Diagram*

The diagram provided in, Figure 2.2: Schematic Diagram, shows the relationships between the variables assessed in this research. It can be seen in Figure 2.2: Schematic Diagram, that the relationship between perceived relevance and reliability is tested in the setting of information items. In addition, the moderating variable of interest groups will be taken into account. These interest groups are made up of debt providers, equity providers, and financial statement preparers. This moderating variable is present as this will identify differences in the interest groups' perceptions of relevance and reliability.
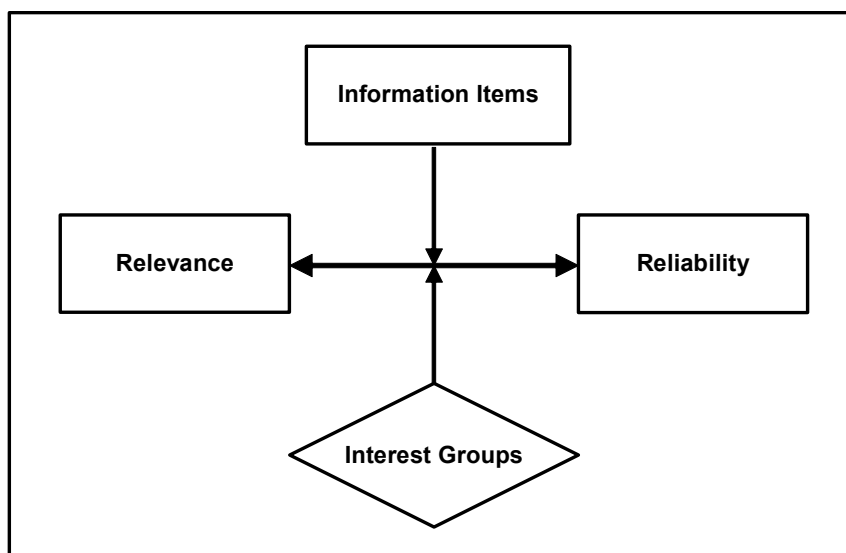
Figure 2.2: Schematic Diagram

2.10 *Hypothesis Statement*

This research expects to find a relationship between the perceived levels of relevance and reliability. However, a one-tailed hypothesis statement will not be used, as it will not specifically identify the possible result of no relationship between the qualitative characteristics of relevance and reliability. The hypothesis stated below is a two-tailed test in order to capture all possible outcomes of the relationship between the qualitative characteristics of relevance and reliability. The direction of the relationship will be implicit in the results which are found.

H_0: There is not a relationship between relevance and reliability.

H_1: There is a relationship between relevance and reliability.

2.11   *Chapter Summary*

Chapter Two brought together the theoretical basis which forms the foundation of this research.   Beginning with the Statement of Concepts' qualitative characteristics, the possible trade-off of relevance and reliability, and how this trade-off is perceived by different interest groups who are associated with the Statement of Concepts is discussed. Prior research in the area of the relevance and reliability trade-off was then outlined. Following this, the future direction of reporting was discussed, and specifically the current situation of IFRSs which is moving toward fair value as the predominant measurement basis for many asset classifications.   Finally, the schematic diagram and hypothesis statement of the research undertaken were presented.   The theoretical basis established in this chapter, provides the foundation for this research design which is outlined in the following chapter.

Chapter Three: Research Design

3.1   Overview of Chapter

This chapter outlines the design which is employed in this research. The research design incorporates the sample selection process, and the research instrument design which is based on a previous instrument. In addition, the face validity and delivery of the instrument is discussed. Finally, the data from participants is examined in relation to questionnaire response rates, the possibility of a non-response bias, and response validity.

3.2   *Sample Selection*

The sample for this research is made up of financial report users and preparers from three different interest groups. Financial report users make up the first two interest groups. The first user group in this sample is financial lenders, in their position as debt providers. Financial lenders are made up of lending officers from the four long-established banks in New Zealand[2]. The second user group are financial analysts who represent the perspective of an equity provider. The financial analysts' interest group is made up of employees at financial planning and investment businesses[3]. Financial report preparers make up the third interest group in the sample. Preparers are represented in the sample by employees at Big 4 accountancy firms[4] who prepare financial reports.

Contact details were comprised for the three interest groups through different information sources. A list of bank employees was established through their telephone customer services centres. Financial planning and investment businesses' details were compiled through the Otago Telecom Yellow Pages and was then extended with the aid of internet searches and personal communications with members of the investment industry. Finally, the contact details of Big 4 nationwide accountancy firms were obtained through the information available on their websites. The three interest groups which make up this sample are all represented by participants throughout New Zealand.

In their 1983b study, McCaslin & Stanga include chief financial officers, chartered financial analysts, and chief commercial loan officers in their sample. McCaslin & Stanga identified

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[2] These four banks are the ANZ National Bank Limited, ASB Bank Limited, Bank of New Zealand, and Westpac Banking Corporation.

[3] These planning and investment businesses are ABN Amro, ABN Amro-Craigs, AMP Capital Investors, Deutche Bank, Forsyth Barr, Greenslades, Guardian Trust, The Terrace Financial Group, and Tower Asset Management.

[4] The Big 4 accountancy firms are Deloitte, Ernst & Young, KPMG, and PricewaterhouseCoopers.

these three groups as users and preparers of financial statements. While the sample taken in this research is altered slightly to ensure that the participant positions are applicable to the New Zealand environment, the underlying reasoning of the sample selection process remains the same. In addition to retaining consistency in relation to McCaslin & Stanga (1983b), users and preparers have been recognised as important interest groups by the Statement of Concepts (ICANZ, 2001).

3.3   *Instrument*

3.3.1   *Original Instrument Design*

The instrument used in this research is primarily based on the instrument developed by McCaslin & Stanga (1983b).   The (McCaslin & Stanga, 1983b) instrument is a questionnaire with 30 pair-matched items. That is, the same accounting classifications are put into a questionnaire with a number of different measurement bases. For example, income from continuing operations measured on a historical cost basis is one item, and income from continuing operations measured on a constant dollar basis is another. A full list of the items is provided in Appendix A: Original Instrument Items. The items used in the McCaslin & Stanga (1983b) instrument are a mixture of classification accounts from both the statement of financial performance and the statement of financial position. The situation covered by the McCaslin & Stanga (1983b) instrument was the change in measurement between historical cost, constant dollar and current cost bases. Given the intensity of the inflation accounting debate in the economy at that time, the changes to these alternative measurement bases were a significant situation to be utilised as the basis of the questionnaire instrument.

3.3.2 Instrument Design

Three changes were made to the original instrument (McCaslin & Stanga, 1983b) when developing an instrument for this research. The instrument for this research is presented in Appendix B: Instrument. Firstly, the instrument situation covered in the questionnaire was changed. Although the core principle of measurement change remains, the inflation accounting measurement bases used in the original research are no longer topical. The situation has been replaced in this instrument by the movement from historical cost to fair value for many reported assets. As mentioned in Section 2.8: Current Reporting Situation above, there is an impending movement to fair value with the introduction of IFRSs. The introduction of IFRSs to current reporting and the associated move to fair value makes this situation very topical for all of the interest groups associated with general purpose financial reporting.

Secondly, while the items in the questionnaire remain pair-matched, the items used have been changed. The items used in this research are drawn solely from asset classifications in the statement of financial position. To set the instrument items in the IFRS situation discussed above the assets used in the instrument are drawn from the differences between the FRSs and the impending IFRSs. Examples of the asset classifications discussed in Section 2.8: Current Reporting Situation are used in the instrument. The asset examples were chosen for their widespread and ordinary nature to ensure that the asset classifications represented in the instrument were observed in the 'normal' function of the participants' interest group positions. The asset examples chosen are goodwill, a purchased brand, commercial property, biological assets, bonds, and inventory. These six examples of asset classifications, in relation to perceptions of relevance and reliability, and the measurements of historical cost and fair value, make up the 24 items on the questionnaire. While 24 pair

matched items is fewer than in the original instrument, this third alteration was made for two reasons. Firstly, the change was made in the interests of brevity; to encourage a greater level of responses from participants. Secondly, the change was made to ensure that the instrument content would be topical.

3.3.3 *Face Validity*

Assistance with the initial draft instrument was provided by a number of staff members of the Accountancy and Business Law Department[5]. After changes to the initial draft instrument, the questionnaire was pilot tested by a group of accounting honours students for understandability and to gauge the approximate time required to complete the instrument. Further changes were then made to the presentation of the instrument with the assistance of staff members of the Accountancy and Business Law Department.

3.3.4 *Instrument Procedure*

The purpose of the research was not disclosed to the participants, or their superiors, in an attempt to limit experimental effects. This will improve the external validity of the findings because the participants were not able to modify their behaviour to predict the 'right answer' to the questionnaire items, limiting the possibility of a Hawthorne effect. This is especially important in helping to eliminate the participants' predetermined ideas, about the existence and nature of the relationship between relevance and reliability, having an effect on the research results (Stanga, 1980).

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[5] Assistance was primarily provided in the departmental seminar programme as part of a dissertation presentation. Further assistance was provided in writing by a number of the staff members who completed the questionnaire which was provided as part of the dissertation presentation. These staff members made comments on their completed questionnaire.

In an attempt to ensure that the research purpose remained concealed from the participants, the 24 items in the instrument were randomly scrambled into the order that they appeared. However, the first random selection assignment of the items placed items two and three on the instrument as the same asset classification example, and the same measurement basis. That is, the only difference between the two items was the characteristics of relevance and reliability. As this is the comparison that was trying to be concealed from the participants through the random scrambling of items, the random scrambling process was reapplied to the items. The interest groups' perceptions of the asset examples are measured on two five point Likert type scales of relevance and reliability. The relevance scale ranges from irrelevant to relevant. The reliability scale similarly ranges from unreliable to reliable.

Initial telephone contact was made with participant supervisors asking for their support in this research. Of the 52 supervisors contacted in developing the sample for this research, 45 agreed to take part in distributing questionnaires to participants. Telephone contact with supervisors was engaged as a method to increase the level of support obtained by supervisors. Supervisor instrument packs were posted to the 45 participant supervisors who agreed to take part in the research. The supervisor packs contained a cover letter for the supervisor (see Appendix C: Supervisor Letter) and an appropriate number of participant instrument packages which was determined in the initial telephone contact that was made. As can be seen in the cover letter to the supervisor, in Appendix C: Supervisor Letter, supervisors were asked to forward the participant packages to a number of appropriate participants for completion. This method of distribution was utilised to encourage a higher response rate from participants. The participant packages were made up of a cover letter to the participant (see Appendix D: Participant Letter) and the questionnaire itself. This

package was contained in a stamped, self addressed, unsealed envelope which acted as the
return envelope for the participant to use once the questionnaire was completed.

3.4 *Data*

3.4.1 *Response Rate*

In total, 397 questionnaires were sent to the support providing supervisors for distribution.
Of these, 228 responses in total were received and used in the analysis of this research.
This equates to a response rate of 57.4%. A breakdown of the supervisor and participant
numbers, as well as the responses received and associated response rates for each of the
three interest groups in the sample is provided in Table 3-1: Response Rate Analysis.

Sample Responses				
Interest Groups	**Number of Supervisors**	**Number of Participants**	**Number of Reponses Received**	**Response Rate %**
Debt Providers	16	168	90	53.6
Equity Providers	14	69	40	58.0
Statement Preparers	15	160	98	61.3
Total Sample	45	397	228	57.4

Table 3-1: Response Rate Analysis

The effort to increase the response rate was incorporated into this research design to
strengthen how representative the sample would be of the population of interest in order to
gain a higher level of generalisability. This area of research design was also deemed
important in order to respond to the limitation stated by Stanga (1980) in relation to a low
response rate received.

3.4.2 Non-response Bias

While the level of the response rate in this research is relatively higher than those experienced in previous research[6] (McCaslin & Stanga, 1983b; Stanga, 1980), this higher response rate does not exclude the possibility of a non-response bias occurring. Lindner (2002) states that non-response bias procedures should be undertaken in research where the response rate is below 85%. The non-response procedure used in this research is applied as a result of the method undertaken in soliciting the responses because no secondary contact was made to gather further responses from the sample. This non-response procedure compares the first 50% of the responses with those of the second 50% (Lindner, 2002). Because a difference between the interest groups is likely in this research, the non-response procedure was carried out within the responses of each of the interest groups.

The assessment of a potential non-response bias was made by calculating the difference, in units of standard deviation, between the observed correlations and the mean, that is, the *z*-score[7]. Following this, the differences between the early and late z-scores was calculated and compared to the critical value at the 5% level of significance (2.7714). This test is a two-tailed test and as a result, if the *z*-scores were in either of the two critical regions, the assessment was determined to be significant. That is, if the difference between the z-scores is significant, the asset classification for that interest group is potentially biased by the non-respondents of the sample. A summary of the non-response results is presented in Table 3-2: Non-response Comparison Results.

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[6] Stanga (1980) received a response rate of 21.4% overall. McCaslin & Stanga (1983b) received a response rate of 31.6% overall. However, the response rate for the chartered financial analyst interest group was considerably lower at only 19.7% (McCaslin & Stanga, 1983b).
[7] While this unit of standard deviation measure is referred to in this non-response bias assessment, and corresponding table as the *z*-score, please note that this was calculated using the Kendall's Tau distribution, *not* the normal distribution.

It can be seen from these results that three instances of significant differences were found between early and late respondents. The first of these instances of potential bias is the equity group respondents for the asset classification example of bonds. The early respondents for the equity group of bonds shows a negative correlation coefficient, suggesting the presence of the trade-off between relevance and reliability for bonds when the measurement basis is changed from historical cost to fair value. Interestingly, not only are the later equity group participants for bonds significantly different from the early group, the correlation in the later group shows a strong positive correlation.

		Early Respondents		Late Respondents			
Interest Groups	Asset Class Examples	Correlation Coefficient	z-score	Correlation Coefficient	z-score	z-score Difference	Significant (5% level)
Debt Providers							
	Goodwill	0.192	1.859	0.246	2.382	-0.523	
	Biological Assets	0.246	2.382	0.150	1.453	0.930	
	Bonds	0.147	1.424	0.519	5.026	-3.603	* potential bias
	Commercial Property	0.468	4.532	0.579	5.607	-1.075	
	Inventory	0.485	4.697	0.578	5.598	-0.901	
	Brands	0.195	1.888	0.280	2.712	-0.823	
Equity Providers							
	Goodwill	0.049	0.302	0.346	2.133	-1.831	
	Biological Assets	0.337	2.077	0.332	2.047	0.031	
	Bonds	-0.159	-0.980	0.431	2.657	-3.637	* potential bias
	Commercial Property	0.302	1.862	0.572	3.526	-1.664	
	Inventory	0.211	1.301	0.521	3.212	-1.911	
	Brands	0.074	0.456	0.533	3.286	-2.829	* potential bias
Statement Preparers							
	Goodwill	0.261	2.646	0.505	5.119	-2.473	
	Biological Assets	0.016	0.162	0.038	0.385	-0.223	
	Bonds	0.298	3.021	0.096	0.973	2.048	
	Commercial Property	0.391	3.964	0.419	4.247	-0.284	
	Inventory	0.474	4.805	0.285	2.889	1.916	
	Brands	0.340	3.447	0.209	2.119	1.328	

Non-response Bias Assessment between Early and Late Respondents

Table 3-2: Non-response Comparison Results

Secondly, and also interestingly, the data from the early respondents for the debt providing interest group also shows a significantly less positive correlation for bonds. The third and final significant difference for early and late responses received is for the equity interest group for the asset example of brands. As with the other two significant differences mentioned above, this correlation coefficient for later responses also displays a more

positive correlation between relevance and reliability when the measurement basis is changed from historical cost to fair value.

3.4.3 Response Validity

It is possible that the instrument does not actually capture and measure the desired variables. There are two significant reasons why this may have occurred. Firstly, if the participants did not properly understand the wording of the questionnaire items, they could not have provided meaningful responses in the questionnaire[8]. This semantic effect may not only have been caused by misunderstanding, but the effect may also be caused by participants' interpretations of the meanings of the instrument wording.

Secondly, if the questionnaire was completed by the participants on a superficial level, meaningless data would have been received. In addition to randomising the order of items on the questionnaire, to avoid the uniformity of items, the analytical technique attempted to control for this effect by examining the differences of the differences. That is, once the differences were determined between the measurement bases of historical cost and fair value, the differences between relevance and reliability were correlated. It is believed that if this effect occurred, the response differences between historical cost and fair value would be predominantly zero. The spread of the differences away from zero were examined in SPSS and a summary is provided in Table 3-3: Spread of Differences. While there is some evidence of clustering around the difference of zero, it is also evident that there is a broad spread of differences throughout the 12 difference variables. Therefore it can be said that the responses are valid.

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[8] Although this effect was anticipated in the design of the instrument and definitions were provided to promote a consistent level of understanding of relevance, reliability, and biological assets.

Frequency of Differences, for the 12 Difference Variables						
Difference	Diff_Rv_Good	Diff_Rb_Good	Diff_Rv_Biol	Diff_Rb_Biol	Diff_Rv_Bond	Diff_Rb_Bond
-4			3.5	0.4	5.3	1.3
-3	2.2	3.1	15.8	7.5	11.8	7.0
-2	7.0	4.8	23.2	14.9	19.3	10.1
-1	7.9	10.5	22.8	21.1	23.7	24.1
0	36.0	35.1	27.6	32.9	31.1	41.7
1	21.9	18.9	5.3	15.4	5.7	11.0
2	16.2	17.1	1.3	5.3	2.2	2.6
3	7.5	8.3	0.4	2.2	0.9	2.2
4	1.3	2.2		0.4		
Difference	Diff_Rv_Prop	Diff_Rb_Prop	Diff_Rv_Inv	Diff_Rb_Inv	Diff_Rv_Brnd	Diff_Rb_Brnd
-4			1.8	1.3		0.4
-3	3.1	1.8	5.3	5.7	4.8	2.6
-2	6.6	5.3	6.6	7.0	9.6	10.1
-1	7.9	7.0	19.7	14.9	22.8	15.4
0	35.5	37.3	34.2	32.5	43.0	44.7
1	17.1	21.5	14.0	18.9	11.4	18.4
2	17.1	11.8	8.3	10.1	4.8	4.8
3	9.2	10.5	6.6	7.0	2.6	3.5
4	3.5	4.8	3.5	2.6	0.9	

Table 3-3: Spread of Differences

3.5   *Chapter Summary*

This chapter outlined the design utilised in this research. This design includes the nationwide sample of three interest groups which was solicited. These three interest groups are debt providers, equity providers, and financial statement preparers. As another part of the research design that this chapter outlined, was the instrument developed from previous research in this area. In addition, the procedure which was undertaken in distributing the instrument to the sample was also outlined and specifically its focus on receiving a high response rate to assist analysis and strengthen results. Following this, despite a relatively high response rate, the responses were assessed for the presence of a non-response bias. Finally, the validity of responses was assessed and discussed.

Chapter Four: Analysis and Results

4.1   Overview of Chapter

This chapter begins with the preparation of the data for analysis. Following this, the analytic procedure used in this research is introduced and its assumptions are tested. Then, in Section 4.4, the main thrust of the analysis which was carried out is presented. The analysis presented covers the total sample, followed by the three interest groups individually. Finally, the main points of the research results are summarised before the chapter is drawn together in the chapter summary.

4.2   *Data Preparation*

4.2.1 *Errors and Missing Data*

The responses were entered from the completed questionnaires into an electronic format. Following this, the electronic data was checked against the questionnaires in an effort to minimise data errors. In addition, initial descriptive analysis was undertaken to explore the characteristics of the data, and to assess for any errors and missing data. Missing data occurred as a result of incomplete questionnaires received from participants[9]. Mean substitution was carried out within each applicable participant interest group to complete the data set. Within group mean substitutions were carried out for items with missing data because the interest groups are likely to have different perceptions of the relationship of relevance and reliability. Therefore, the substitution of the overall mean for each occurrence of missing data had a potential to alter the data.

4.3   *Analytical Procedure*

Analysis will be carried out through Kendall's Tau, a non-parametric statistical technique. Kendall's Tau measures an association between variables by ranking observations. As with the original instrument discussed earlier in Section 3.3.1: Original Instrument Design, the analysis of this research data will be based on the analytical procedure carried out by McCaslin & Stanga (1983b).

Kendall's Tau ranges between negative one, and positive one. A correlation coefficient of negative one means that the two variables tested are perfectly negatively correlated (Daniel,

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[9] The incomplete questionnaires were those with unanswered questions and one occasion where a participant had indicated two responses for a question.

1990). A correlation coefficient of positive one means that the two variables tested are perfectly positively correlated (Daniel, 1990). Therefore, if a trade-off does exist between the qualitative characteristics of relevance and reliability, the results will show a negative correlation coefficient. Because of the results that Kendall's Tau produces, in addition to testing for the hypothesised existence of a relationship between the qualitative characteristics of relevance and reliability, the correlation coefficient will implicitly reveal the direction and strength of the relationship.

4.3.1 Assumption Testing

There are two assumptions of the statistical procedure, Kendall's Tau. The first assumption is that the data consists of a random sample (Daniel, 1990). This assumption has been compromised in this research design as a result of the attempts to raise the response rate of participants. This assumption breach also raises the issue of a selection bias present because the sample selection was not random (Sekaran, 2000). In addition, further selection was carried out through the supervisors who gave support to the research. Finally, selection of participants was made by supervisors in the distribution of the questionnaires. This selection bias weakens the internal validity of the research design. However, it is quite probable that this selection bias has been minimised by the size of the sample.

The second assumption of the statistical method of Kendall's Tau is that data is measured on at least an ordinal scale so that the observations can be ranked (Daniel, 1990). As mentioned above in Section 3.3.2: Instrument Design, the scale in this instrument is a five point Likert type scale. The data gathered on this type of scale is interval in nature (Sekaran, 2000) which exceeds the minimum requirement of ordinal data for the statistical technique of Kendall's Tau.

4.4   *Statistical Analysis*

The information items in the questionnaire were pair-matched appropriately at the beginning of the analysis. To assist with this process the 24 questionnaire items in the instrument (See Appendix B: Instrument) were placed into six two-by-two matrices which represented the six asset classification examples.   These six matrices are provided in Appendix E: Analysis Matrices.

To assist in the explanation of this analysis process, the asset classification of goodwill is followed through the analysis as an example of the process.   The analysis began by identifying the four items in the instrument that relate to goodwill. These are questions 1, 4, 11, and 21, and are provided in Figure 4.1: Goodwill Instrument Items. Following this, the four identified questionnaire items were placed into the analysis matrix (Figure 4.2: Goodwill Matrix) according to the measurement basis and perception that they relate to. For example, question 1 relates to the reliability of goodwill when measured at historical cost.

Goodwill Instrument Items

1.   How reliable is the value of goodwill when measured as the difference between the amount negotiated and paid by an organisation, i.e. the purchase price, and the amount of the subsidiary's net assets being bought?

4.   How reliable is the value of goodwill stated at an amount which reflects a bid offer, before the transaction is complete?

11.   How relevant is the value of goodwill stated at an amount which reflects a bid offer, before the transaction is complete?

21.   How relevant is the value of goodwill when measured as the difference between the amount negotiated and paid by an organisation, i.e. the purchase price, and the amount of the subsidiary's net assets being bought?

Figure 4.1: Goodwill Instrument Items

GOODWILL	Reliability	Relevance
Historical Cost	Question 1	Question 21
Fair Value	Question 4	Question 11

Figure 4.2: Goodwill Matrix

Once the matrices were established for the six asset classification examples, 12 variables were calculated from the matrices. A list of the 12 difference variables is supplied in Appendix F: Difference Variables. These 12 variables are the *difference* in perceived relevance, and the *difference* in perceived reliability, for each of the six asset classification examples between historical cost and fair value. For example, in the case of perceived reliability of goodwill, the difference variable (Figure 4.3) represents the difference between the measurement bases of historical cost, and fair value. That is, from the left hand side of the Goodwill Matrix (Figure 4.2), the response for question 1 minus the response for question 4. The relevance goodwill variable is calculated in the same way, from the right hand side of the matrix and can be seen in Figure 4.3: Goodwill Difference Variables.

Goodwill Difference Variables

Relevance Difference Variables
    From historical cost to fair value

Goodwill   Diff_Rv_Good   =   Question 21   **minus**   Question 11

Reliability Difference Variables
    From historical cost to fair value

Goodwill   Diff_Rb_Good   =   Question 1   **minus**   Question 4

Figure 4.3: Goodwill Difference Variables

Once the 12 difference variables were calculated the Kendall's Tau statistical technique was calculated for each of the six asset classification examples. SPSS software was used to calculate the Kendall's Tau correlation coefficients for this research. Firstly, the relationship between relevance and reliability was tested for the total sample. Secondly, each of the three interest groups were analysed individually to establish the perceptions of each of the interest groups. The statistical technique correlated the relevance and reliability *difference* of the 12 variables. For example, for the asset classification example of goodwill, the correlation coefficient was calculated for the two goodwill difference variables (Figure 4.3). That is, the *difference* in relevance, and the *difference* in reliability. The results of these tests are outlined in the section following this, Section 4.5: Results.

4.5　Results

4.5.1　Total Interest Group Results

The correlation results for the three interest groups together show a significant positive correlation for all six asset classification examples tested. As can be seen in Table 4-1: Correlation Summary Results for Total Sample, biological assets report the relatively weakest of the total interest groups' correlation coefficients at 0.131. However, this relationship is still significant at the 2% level. The remaining five asset classification examples are all significant at less than the 1% level.

Total Sample's Correlations		
Asset Classification Examples	**Kendall's Tau$_b$**	**Probability**
Goodwill	0.296	0.000
Biological Assets	0.131	0.014
Bonds	0.240	0.000
Commercial Property	0.482	0.000
Inventory	0.437	0.000
Brands	0.247	0.000

Table 4-1: Correlation Summary Results for Total Sample [10]

Interestingly, the two asset classification examples of commercial property and inventory show a markedly higher strength of positive correlation than the remaining four assets tested. After these two stronger relationships, goodwill is the next strongest relationship in the results with a reasonably strong correlation coefficient of 0.296. The remaining two asset classification examples of bonds and brands are similarly correlated in terms of the strength of the relationship. Based on these results, the hypothesis statement can be rejected at the 2% level.

4.5.2 Debt Providers' Results

The correlation results for the interest group of debt providers show a significant positive correlation for all six asset classification examples tested. As can be seen in Table 4-2: Correlation Summary Results for Debt Providers, biological assets report the relatively weakest of the debt providers' correlation coefficients at 0.189. However, this relationship is still significant at the 3% level. The next weakest of the correlation coefficients is goodwill and this result is still significant at the 2% level. The remaining four asset classification examples are all significant at less than the 1% level.

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[10] Full test results are presented in Appendix G-A: Correlation Results – Total Sample.

Debt Providers' Correlations		
Asset Classification Examples	**Kendall's Tau$_b$**	**Probability**
Goodwill	0.207	0.016
Biological Assets	0.189	0.028
Bonds	0.335	0.000
Commercial Property	0.522	0.000
Inventory	0.504	0.000
Brands	0.237	0.007

Table 4-2: Correlation Summary Results for Debt Providers [11]

As above, the two asset classification examples of commercial property and inventory again show a markedly higher strength of positive correlation than the remaining four assets tested. After these two stronger relationships, the remaining two asset classification examples are bonds and brands which are both reasonably correlated at 0.335 and 0.237 respectively. Based on these results, the hypothesis statement for debt providers can be rejected at the 3% level.

4.5.3 Equity Providers' Results

The correlation results for the interest group of equity providers show a significant positive correlation for five of the six asset classification examples tested. As can be seen in Table 4-3: Correlation Summary Results for Equity Providers, bonds report the relatively weakest of the positive correlation coefficients at 0.169, with a probability value of 0.200, this result is not significant enough to reject the null hypothesis of no relationship. Of the five remaining asset classification examples, goodwill is the weakest of the equity providers' correlation coefficients at 0.234. However, this relationship is still significant at the 8% level. As above with the debt providers interest group, the two asset classification examples of commercial property and inventory show a markedly higher strength of positive correlation than the remaining four. After these two stronger relationships, brands are the

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[11] Full test results are presented in Appendix G-B: Correlation Results – Debt Providers.

next strongest correlated relationship in the results with a reasonably strong coefficient of 0.321. The final remaining asset classification example is biological assets, which is significant at the 3% level.

Equity Providers' Correlations		
Asset Classification Examples	**Kendall's Tau$_b$**	**Probability**
Goodwill	0.234	0.071
Biological Assets	0.279	0.028
Bonds	0.169	0.200
Commercial Property	0.443	0.001
Inventory	0.402	0.002
Brands	0.321	0.017

Table 4-3: Correlation Summary Results for Equity Providers [12]

Based on these results, the hypothesis statement for debt providers cannot be rejected as a whole. However, if the asset classification examples are assessed individually, with the exception of bonds, the remaining five of six can be rejected at the significance levels supplied in Table 4-3: Correlation Summary Results for Equity Providers.

Further assessment was carried out in an attempt to determine why the asset classification example of bonds for this interest group was found to be insignificant. Histograms of the fair value instrument items of relevance and reliability showed that the vast majority of respondents perceived the fair value measurement of bonds to be both relevant and reliable. That is, that they responded 5, on the scales of measurement. It is possible that the insignificant correlation of bonds would not have occurred if the scale had a higher perception of these qualitative characteristics. For example, a 7-point scale.

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[12] Full test results are presented in Appendix G-C: Correlation Results – Equity Providers.

4.5.4 Statement Preparers' Results

The correlation results for the interest group of statement preparers show a significant positive correlation for five of the six asset classification examples. As can be seen in Table 4-4: Correlation Summary Results for Statement Preparers, biological assets report the relatively weakest of the positive correlation coefficients at 0.012, with a probability value of 0.889, this result is not significant enough to reject the null hypothesis of no relationship. Of the five remaining asset classification examples, bonds are the weakest of the equity providers' correlation coefficients at 0.194. However, this relationship is still significant at the 2% level. Consistent with both debt and equity providers, the two asset classification examples of commercial property and inventory show a markedly higher strength of positive correlation. After these two stronger relationships, goodwill is the next strongest correlated relationship in the results with a reasonably strong coefficient of 0.380. The final remaining asset classification example is brands, which is significant at the 1% level.

Statement Preparers' Correlations		
Asset Classification Examples	**Kendall's Tau$_b$**	**Probability**
Goodwill	0.380	0.000
Biological Assets	0.012	0.886
Bonds	0.194	0.019
Commercial Property	0.405	0.000
Inventory	0.378	0.000
Brands	0.281	0.001

Table 4-4: Correlation Summary Results for Statement Preparers [13]

Based on these results, the hypothesis statement for statement preparers, as for debt providers above, cannot be rejected as a whole. However, as for equity providers, if the asset classification examples are assessed individually, with the exception of one asset

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[13] Full test results are presented in Appendix G-D: Correlation Results – Statement Preparers

classification example, in this case biological assets, the remaining five of six can be rejected at the significance levels supplied in Table 4-4: Correlation Summary Results for Statement Preparers.

As for the equity providers' perception of bonds above, further assessment was carried out in an attempt to determine why the asset classification example of biological assets for this sample group was insignificant. Histograms of the two biological asset difference variables revealed a wide distribution in the difference of perceptions when the measurement basis is changed from historical cost to fair value.

4.5.5 Results Summary

There are three main consistencies within the results throughout the interest groups. Firstly, it is important to note that none of the reported correlations report a negative correlation coefficient. Secondly, in relation to the asset classification examples of commercial property, the results of all three interest groups' show that this positive relationship is the strongest of the six assets tested. Thirdly, the results show that inventory is the second strongest perceived positive relationship tested. The remaining four asset classification examples vary in order of relative strength when compared across the three interest groups. These four remaining asset classification examples contain the two assets which the results, each on one occasion, did not report a *significant* positive relationship. These two asset classification examples are bonds for equity providers, and biological assets for statement preparers.

4.6   *Chapter Summary*

This chapter outlined the analytical procedure of Kendall's Tau used in this research and its assumptions. The process that this analysis took was then outlined from pair-matching instrument items to calculating variables and running the correlation technique to test the relationship of relevance and reliability. Following this, the results which were obtained in this research were outlined. The results incorporated both the total sample, as well as each of the three interest groups individually. Finally, the result summary draws together the main points and similarities.

Chapter Five: Interpretation

5.1   *Overview of Chapter*

This chapter builds on the results presented in the previous chapter by interpreting their meaning. Firstly, this interpretation discusses the results and outlines their implications. The discussion begins by addressing the results of the total sample, and then discusses each interest group tested individually. A conclusion is then provided in Section 3 which draws this dissertation together. Finally, the research limitations are stated along with suggestions for future research which could be carried out in this area.

5.2   *Discussion*

5.2.1   *Total Interest Group Discussion*

As outlined earlier in Section 4.5.1: Total Interest Group Results, the correlation results for the total interest groups together, show a significant positive correlation for all six asset classification examples tested. These results show that as a total sample, for the six asset classification examples tested, there is no perceived trade-off between the qualitative characteristics of relevance and reliability, when the measurement basis is changed between historical cost and fair value.

5.2.2   *Debt Providers' Discussion*

In Section 4.5.2: Debt Providers' Results, the correlation results for the interest group of debt providers show a significant positive correlation for all six asset classification examples tested. These results show that for the debt provider interest group, for the six asset classification examples tested, there is no perceived trade-off between the qualitative characteristics of relevance and reliability, when the measurement basis is changed between historical cost and fair value.

5.2.3   *Equity Providers' Discussion*

As stated in Section 4.5.3: Equity Providers' Results, the correlation results for the interest group of equity providers show a significant positive correlation for five of the six asset classification examples tested. The sixth asset classification example, bonds, was insignificant. These results show perceptions of varying positive relationships for the equity providers' interest group. For five of the six asset classification examples, equity providers perceive that there is no trade-off between the qualitative characteristics of

relevance and reliability, when the measurement basis is changed between historical cost and fair value. It is believed that in the case of bonds, where an insignificant result was found, that the scale used in the research instrument may have restricted the responses of the participants.

5.2.4 Statement Preparers' Discussion

As outlined in Section 4.5.4: Statement Preparers' Results, the correlation results for the interest group of statement preparers show a significant positive correlation for five of the six asset classification examples. The sixth asset classification example, biological assets, was insignificant. These results show that for the interest group of statement preparers, like equity providers', there are varying perceived relationships for the tested asset classification examples. Therefore, as for equity providers, for five of the six asset classification examples, statement preparers perceive that there is no trade-off between the qualitative characteristics of relevance and reliability, when the measurement basis is changed between historical cost and fair value.

5.2.5 Discussion Summary

The results of this research show the changes in perceptions of relevance and reliability for the six asset classification examples tested, when the measurement basis is changed between historical cost and fair value. The test results for the interest groups do not show the same perception of the tested relationship. However, all correlations found in this research are positive. This goes against the long-held belief of a negative correlation which would be consistent with the literature discussed in Section 2.5: Trade-off. That is, the negative relationship, that would be present if there was a trade-off between the qualitative characteristics of relevance and reliability, was not found in this research.

This research has implications for those setting and maintaining FRSs. The possibility of a trade-off has been taken into account in the Statement of Concepts in the past (FASB, 1980; NZSA, 1993). However, this logic based theoretical belief is at odds with the empirical findings of previous research that has been carried out (McCaslin & Stanga, 1983b; Stanga, 1980), and now also these research findings.

5.3   *Conclusion*

This research has investigated the long-held belief of a trade-off between the qualitative characteristics of relevance and reliability, and the possibility that this trade-off is moderated by different interest groups. The Statement of Concepts outlines the qualitative characteristics that external general purpose financial reporting information should possess as relevance, understandability, reliability, and comparability. It is important that these qualitative characteristics, and their relationships are understood, because the quality of information is essential in its communication.

The presence of a trade-off between relevance and reliability would mean that the two qualitative characteristics cannot both be fulfilled. The presence of these characteristics is intended to assist users, preparers, auditors, and standard setters in their involvement with general purpose financial reporting. Despite the theoretically grounded belief of the existence of the relevance and reliability trade-off, previous empirical research has found no evidence of this. Acceptance of this theory based trade-off justifies the use of information which does not culminate in the most superior information being communicated. If this quality compromise is unnecessary, the use of information which is of a lower level of quality should not be accepted.

Accounting in many parts of the world is converging toward IFRSs. Many of these standards advocate the use of fair value in an attempt to increase reporting relevance. This research carried out was based in the setting of this movement to IFRSs, and the increased momentum away from historical cost, toward fair value for various asset classifications.

The correlations found, that as a total sample, the qualitative characteristics of relevance and reliability are significantly positively correlated for all six of the asset classification examples tested. In addition to this, once the total sample was broken into the three interest groups tested for individual analysis, with the exception of two insignificant results, the six asset classification examples tested were also significantly positively correlated. The two exceptions which were not significantly positively correlated are the asset classification examples of bonds for equity providers, and biological assets for statement preparers. These results show that with the exception of the two insignificant results, for the three interest groups, and the six asset classification examples tested, there is no perceived trade-off between the qualitative characteristics of relevance and reliability, when the measurement basis is changed between historical cost and fair value. However, the findings of this research should be interpreted in conjunction with the limitations stated below.

Given these results, there are implications for standard setters that advocate historical cost, as this research supports the contention that this measurement is both less relevant and less reliable than fair value. However, the findings of this research should be interpreted in conjunction with the limitations stated below.

5.4   *Limitations*

In addition to the conventional limitations of questionnaire based research, there are three limitations which should be taken into account when contemplating these research results. Firstly, the statistical technique used in this research requires randomly selected participants and this assumption was compromised when the sample was established.

Secondly, all the asset classifications used were not appropriate for the entire sample. Feedback was provided on one of the debt providers' questionnaires that their position was in the business' commercial lending division. As a result of their position, they did not often encounter lending decisions which required the examination of biological assets. It is reasonable to assume that this would have also been the case for other debt providers in the sample. There were three debt provider participants who did not complete the biological asset questions in the instrument and incomplete data was received. While the missing data was substituted with the mean response, if this was more common and the participants filled in the questionnaires without actually having a perception of the measurement bases, this will have had an influence on the data collected and therefore the results.

Thirdly, there is the possibility of a non-response bias occurring in the sample. A test of this was run and is discussed in Section 3.4.2: Non-response Bias. However, it is questionable whether this test would actually identify a non-response bias. The test conducted actually identifies differences between earlier and later responses. That is, later respondents are used as a proxy for non-respondents. While there are similarities between later respondents and non-respondents, it is evident that late respondents are actually more similar to early respondents simply because they actually responded. Therefore, despite testing carried out, a non-response bias may still be present.

5.5   *Suggestions for Future Research*

Two points of difference in these research results should be taken into account in future research which is carried out in this area. Firstly, there are differences between the three interest groups tested. Further research could be carried out to determine whether other groups also have a different perspective. These other groups could include auditors, FRSB members and other wider interest groups including other creditor groups, managers, and public interest groups.

Secondly, there is a considerable difference between the asset classification example results. Further research could investigate other examples of the six asset classifications tested. However, research should not be limited to these classifications and should also test other asset classifications so that the research undertaken, and therefore the contribution to the literature, has a broader application.

The situation utilised in this research was the movement toward international financial reporting. Therefore, the results are related to the measurement bases of historical cost and fair value. Other situations could be investigated which involve the release of reporting requirements. These situations could include almost any reporting requirement which advocates or mandates a different measurement basis from that previously used or required. That is, not necessarily historical cost and fair value.

References

Anonymous. (2005). Convergence is still on the table. *International Accounting Bulletin, Mar 16*, 10-11.

Beutel, P. A., & Ray, B. (2004). Grasping the value of intangible assets. *The International Tax Journal, 30*(1), 35-46.

Brownlee, E. R., Ferris, K. R., & Haskins, M. E. (2001). *Corporate financial reporting.* New York: McGraw Hill.

Chalmers, K., & Godfrey, J. (2003). Companies in the danger zone. *Australian CPA, 73*(10), 69-72.

Cochrane, D. (1994). Intangible assets and accounting regulation. *Chartered Accountants Journal of New Zealand, 73*(5), 79-81.

Daniel, W. W. (1990). *Applied nonparametric statistics* (2nd ed.). Boston: PWS-KENT Publishing Company.

Duncan, K., & Moores, K. (1988). Usefulness of CCA information for investor decision making: A laboratory experiment. *Accounting and Business Research, 18*(70), 121-132.

Dye, R. A., & Sridhar, S. S. (2004). Reliability-relevance trade-offs and the efficiency of aggregation. *Journal of Accounting Research, 42*(1), 51-88.

Ebling, P. (1989). Accountants and the seven year itch. *Accountancy, 103*(1150), 22-23.

Emenyonu, E. N., & Adhikari, A. (1998). Measuring the degree of international harmony in selected accounting measurement practices. *Australian Accounting Review, 8*(2), 24-33.

Entwistle, G. M., & Phillips, F. (2003). Relevance, reliability, and the earnings quality debate. *Issues in Accounting Education, 18*(1), 79-92.

Ettredge, M., Shane, P. B., & Smith, D. B. (1995). Overstated quarterly earnings and analysts' earnings forecast revisions. *Decision Sciences, 26*(6), 781-802.

FASB. (1980). Qualitative characteristics of accounting information. In *Statement of financial accounting concepts no. 2*.

FASB. (2004). *Original Pronouncements; As amended* (Vol. 2004/2005): John Wiley & Sons, Inc.

Firer, S. (2002). Is anybody listening? *Accountancy SA, Mar*, 19-21.

Fone, B. (1997). Historical cost still makes sense for agricultural assets. *Accountancy, 119*(1246), 66.

Fortin, S. (2005). Relevant and reliable? *CA Magazine, 138*(2), 45-48.

Godfrey, A. (1993). Brand valuations - relevant or reliable? *The Accountants' Journal, 72*(11), 29-32.

Gray, R. P. (2003). Research note: Revisiting fair value accounting-measuring commercial banks' liabilities. *Abacus, 39*(2), 250-272.

Harding, T. (2000). IAS 39: A tangled web. *Accountancy, 125*(1278), 85-86.

Hasan, H., & Tibbets, R. (1996). Bring on the beancounters. *Charter, 67*(10), 42-43.

Healy, P. M., Myers, S. C., & Howe, C. D. (2002). R&D accounting and the trade-off between relevance and objectivity. *Journal of Accounting Research, 40*(3), 677-710.

Hooper, K. (1997). Statement of financial position… What's in a name? *Chartered Accountants Journal of New Zealand, 76*(3), 37-40.

Hungerford, K. (1984). Computers: An accounting perspective. *Australian Accountant, 54*(11), 997-999.

ICANZ. (2001). *Statement of concepts for general purpose financial reporting. New Zealand Accounting Standards* (July 2004 ed.). New Zealand.

ICANZ. (2004). *Applicable financial reporting standards: New Zealand equivalents to international financial reporting standards* (Vol. January 2005). Auckland: Institute of Chartered Accountants of New Zealand.

ICANZ. (n.d.). *Financial reporting standards*. Retrieved September 10, 2003, from www.icanz.co.nz/StaticContent/AGS/FRSIndex.cfm

Johnson, L. T. (2005). Relevance and reliability. *FASB Report / Financial Accounting Standards Board, 380*(Feb), 5-8, Retrieved from http://www.fasb.org/articles&reports/relevance_and_reliability_tfr_feb_2005.pdf.

Kirschenheiter, M. (1997). Information quality and correlated signals. *Journal of Accounting Research, 35*(1), 43-59.

Lang, Y. (2005). Technical update: International. *Accounting & Business, Apr*, 42.

Lindner, J. R. (2002). Handling of nonresponse error in the journal of agricultural and extension education. *Journal of Agricultural and Extension Education, 40*(6).

Lont, D. (2002). Unspecified operating expense disclosure requirements in New Zealand. *Pacific Accounting Review, 14*(2), 57-95.

McCaslin, T. E., & Stanga, K. G. (1983a). Accounting information adjusted for changing prices: How do users react? *The Journal of Commercial Bank Lending, 65*(11), 50-61.

McCaslin, T. E., & Stanga, K. G. (1983b). Related qualities of useful accounting information. *Accounting and Business Research, 14*(53), 35-41.

McDaniel, L., Martin, R. D., & Maines, L. A. (2002). Evaluating financial reporting quality: The effects of financial expertise vs. financial literacy. *The Accounting Review, 77*, 139-167.

Measelle, R. L. (1994). Market value accounting. *Cato Journal, 13*(3), 403-413.

Nichols, L. M., & Buerger, K. H. (2002). An investigation of the effect of valuation alternatives for fixed assets on the decisions of statement users in the United States and Germany. *Journal of International Accounting Auditing & Taxation, 11*(2), 155.

NZSA. (1993). *Statement of concepts for general purpose financial reporting*. Wellington: NZSA.

Pacter, P. (1999). Accounting for life. *Accountancy, 124*(1273), 72-83.

Paterson, R. (2001). Financial instruments. *Accountancy, 127*(1291), 105-114.

Rayburn, W. B., Tosh, D. S., & Williams, R. E. (1991). FASB concept statement 2: A framework for more useful appraisal reporting. *The Appraisal Journal, 59*(3), 319-328.

Rubrico, J. G. U. (2005). SEC accountant questions valuation of CAP land. *BusinessWorld, Manila*(Jan 31), 1.

Scott, J. (2005). NZ IAS 41 agriculture. *Chartered Accountants Journal of New Zealand, 84*(1), 39-41.

Sealy-Fisher, V. (2005). FRSB developments. *Chartered Accountants Journal of New Zealand, 84*(1), 44-45.

Sekaran, U. (2000). *Research methods for business: A skill-building approach* (3rd ed.). New York: John Wiley & Sons Inc.

Smith, M. (1996). Qualitative characteristics in accounting disclosures: a desirability trade-off. *Managerial Auditing Journal, 11*(3), 11-16.

Sorter, G. H. (1973). Objectives of financial statements - an inside view. *The Canadian Chartered Accountant, 103*(5), 30-35.

Stamp, E. (1982). First steps towards a British conceptual framework. *Accountancy, 93*, 123-130.

Stanga, K. G. (1980). The relationship between relevance and reliability: Some empirical results. *Accounting and Business Journal, 11*, 29-39.

Teixeira, A. (2005). The new NZ GAAP. *Chartered Accountants Journal of New Zealand, 84*(1), 52-53.

Watts, R. L. (2003). Conservatism in accounting part I: Explanations and implications. *Accounting Horizons, 17*(3), 207-220.

Weygandt, J. J., Barth, M. E., Collins, W. A., Crooch, G. M., Frecka, T. J., Imhoff Jr, E. A., *et al.* (1993). Response to the FASB discussion memorandum "recognition and measurement of financial instruments". *Accounting Horizons, 7*(3), 95-107.

White, A. (2003). Proposals for business combinations. *Accountancy SA, Jul*, 11-15.

Whittington, G. (1989). Accounting standard setting in the UK after 20 years: A critique of the Dearing and Solomons reports. *Accounting and Business Research, 19*(75), 195-205.

Appendices

Appendix A: Original Instrument Items

McCaslin & Stanga (1983b) used eleven items over three measurement bases as follows:

1. Income from continuing operations - historical cost basis

2. Sales or net revenues - historical cost basis

3. Cost of goods sold (LIFO pricing method) - historical cost basis

4. Cost of goods sold (FIFO pricing method) - historical cost basis

5. Depreciation expense (Straight line method) - historical cost basis

6. Depletion expense (Units of production method) - historical cost basis

7. Inventory (LIFO pricing method) - historical cost basis

8. Inventory (FIFO pricing method) - historical cost basis

9. Property, plant and equipment - historical cost basis

10. Net assets at year end - historical cost basis

11. Earnings per share - historical cost basis

12. Income from continuing operations - constant dollar basis

13. Sales or net revenues - constant dollar basis

14. Cost of goods sold (LIFO pricing method) - constant dollar basis

15. Cost of goods sold (FIFO pricing method) - constant dollar basis

16. Depreciation expense (Straight line method) - constant dollar basis

17. Depletion expense (Units of production method) - constant dollar basis

18. Inventory (LIFO pricing method) - constant dollar basis

19. Inventory (FIFO pricing method) - constant dollar basis

20. Property, plant and equipment - constant dollar basis

21. Net assets at year end - constant dollar basis

22. Earnings per share - constant dollar basis

23. Income from continuing operations - current cost basis

24. Cost of goods sold - current cost basis

25. Depreciation expense (Straight line method) - current cost basis

26. Depletion expense (Units of production method) - current cost basis

27. Inventory - current cost basis

28. Property, plant and equipment - current cost basis

29. Net assets at year end - current cost basis

30. Earnings per share - current cost basis

Appendix B: Instrument

This four page instrument was presented as a double sided booklet on a single sheet of A3 paper folded in half.

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Te Whare Wānanga o Otāgo

Usefulness of financial statement information

Questionnaire

The following definitions are provided to promote a consistent understanding when completing this questionnaire.

Relevant information confirms decisions made in the past, and or informs a decision making process, whether present or in the future.

Reliable information corresponds to actual transactions or events, can be independently verified, and is free from bias.

Biological assets are living plants or animals, for example, dairy cattle or trees in a plantation.

Please place a tick (☑) in the appropriate box to indicate your response as a <group affiliation>

---

1. **How reliable is the value of goodwill when measured as the difference between the amount negotiated and paid by an organisation, i.e. the purchase price, and the amount of the subsidiary's net assets being bought?**

Unreliable	*Somewhat unreliable*	*Neither unreliable or reliable*	*Somewhat reliable*	*Reliable*
☐	☐	☐	☐	☐

2. **How reliable are biological asset values stated at an amount which reflects their current market value?**

Unreliable	*Somewhat unreliable*	*Neither unreliable or reliable*	*Somewhat reliable*	*Reliable*
☐	☐	☐	☐	☐

3. **How relevant are bond values stated at the amount at which they were purchased?**

Irrelevant	*Somewhat irrelevant*	*Neither irrelevant or relevant*	*Somewhat relevant*	*Relevant*
☐	☐	☐	☐	☐

4. **How reliable is the value of goodwill stated at an amount which reflects a bid offer, before the transaction is complete?**

Unreliable	*Somewhat unreliable*	*Neither unreliable or reliable*	*Somewhat reliable*	*Reliable*
☐	☐	☐	☐	☐

5. **How relevant are biological asset values stated at an amount which was determined by their input costs?**

Irrelevant	*Somewhat irrelevant*	*Neither irrelevant or relevant*	*Somewhat relevant*	*Relevant*
☐	☐	☐	☐	☐

6. **How relevant is the value of inventory stated at the amount of its purchase transaction?**

Irrelevant	*Somewhat irrelevant*	*Neither irrelevant or relevant*	*Somewhat relevant*	*Relevant*
☐	☐	☐	☐	☐

7. **How relevant is the value of a purchased brand when it is stated at a revalued amount which was determined by an independent valuer?**

Irrelevant	*Somewhat irrelevant*	*Neither irrelevant or relevant*	*Somewhat relevant*	*Relevant*
☐	☐	☐	☐	☐

8. **How relevant is the value of a commercial property stated in accordance with a government valuation?**

Irrelevant	*Somewhat irrelevant*	*Neither irrelevant or relevant*	*Somewhat relevant*	*Relevant*
☐	☐	☐	☐	☐

9. **How relevant is the value of inventory stated at an amount which reflects the amount that would be received if the inventory were sold?**

Irrelevant	*Somewhat irrelevant*	*Neither irrelevant or relevant*	*Somewhat relevant*	*Relevant*
☐	☐	☐	☐	☐

10. **How relevant are bond values stated at the amount at which they are traded in a liquid market?**

Irrelevant	*Somewhat irrelevant*	*Neither irrelevant or relevant*	*Somewhat relevant*	*Relevant*
☐	☐	☐	☐	☐

11.   **How relevant is the value of goodwill stated at an amount which reflects a bid offer, before the transaction is complete?**

Irrelevant	*Somewhat irrelevant*	*Neither irrelevant or relevant*	*Somewhat relevant*	*Relevant*
☐	☐	☐	☐	☐

12.   **How reliable is the value of inventory stated at an amount which reflects the amount that would be received if the inventory were sold?**

Unreliable	*Somewhat unreliable*	*Neither unreliable or reliable*	*Somewhat reliable*	*Reliable*
☐	☐	☐	☐	☐

13.   **How reliable is the value of a commercial property stated at the amount at which it was purchased?**

Unreliable	*Somewhat unreliable*	*Neither unreliable or reliable*	*Somewhat reliable*	*Reliable*
☐	☐	☐	☐	☐

14.   **How reliable is the value of inventory stated at the amount of its purchase transaction?**

Unreliable	*Somewhat unreliable*	*Neither unreliable or reliable*	*Somewhat reliable*	*Reliable*
☐	☐	☐	☐	☐

15.   **How relevant is the value of a commercial property stated at the amount at which it was purchased?**

Irrelevant	*Somewhat irrelevant*	*Neither irrelevant or relevant*	*Somewhat relevant*	*Relevant*
☐	☐	☐	☐	☐

16.   **How reliable is the value of a purchased brand stated at the amount paid at the time of its purchase in an arm's length transaction?**

Unreliable	*Somewhat unreliable*	*Neither unreliable or reliable*	*Somewhat reliable*	*Reliable*
☐	☐	☐	☐	☐

17.   **How reliable are biological asset values stated at an amount which was determined by their input costs?**

Unreliable	*Somewhat unreliable*	*Neither unreliable or reliable*	*Somewhat reliable*	*Reliable*
☐	☐	☐	☐	☐

18. **How reliable is the value of a commercial property stated in accordance with a government valuation?**

Unreliable	*Somewhat unreliable*	*Neither unreliable or reliable*	*Somewhat reliable*	*Reliable*
☐	☐	☐	☐	☐

19. **How relevant is the value of a purchased brand stated at the amount paid at the time of its purchase in an arm's length transaction?**

Irrelevant	*Somewhat irrelevant*	*Neither irrelevant or relevant*	*Somewhat relevant*	*Relevant*
☐	☐	☐	☐	☐

20. **How reliable are bond values stated at the amount at which they were purchased?**

Unreliable	*Somewhat unreliable*	*Neither unreliable or reliable*	*Somewhat reliable*	*Reliable*
☐	☐	☐	☐	☐

21. **How relevant is the value of goodwill when measured as the difference between the amount negotiated and paid by an organisation, i.e. the purchase price, and the amount of the subsidiary's net assets being bought?**

Irrelevant	*Somewhat irrelevant*	*Neither irrelevant or relevant*	*Somewhat relevant*	*Relevant*
☐	☐	☐	☐	☐

22. **How reliable are bond values stated at the amount at which they are traded in a liquid market?**

Unreliable	*Somewhat unreliable*	*Neither unreliable or reliable*	*Somewhat reliable*	*Reliable*
☐	☐	☐	☐	☐

23. **How relevant are biological asset values stated at an amount which reflects their current market value?**

Irrelevant	*Somewhat irrelevant*	*Neither irrelevant or relevant*	*Somewhat relevant*	*Relevant*
☐	☐	☐	☐	☐

24. **How reliable is the value of a purchased brand when it is stated at a revalued amount which was determined by an independent valuer?**

Unreliable	*Somewhat unreliable*	*Neither unreliable or reliable*	*Somewhat reliable*	*Reliable*
☐	☐	☐	☐	☐

Thank you for completing my questionnaire; I really appreciate the time that you have given.

Appendix C: Supervisor Letter

23 August 2005

<MailName>
<CompanyName>
<Address1>
<Address2>
<Address3>

Dear <FirstName>

We spoke recently regarding the study that I am conducting as part of my forth-year university honours course. Thank you for agreeing to assist me in distributing my questionnaires to the appropriate staff within your organisation. Without your help this study would not be possible.

The staff which you choose to complete the questionnaires enclosed can come from any level of your organisation. However, it is necessary that they have a perception of the relevance and reliability of several asset components of general purpose financial statements, as this is the area in which I am interested, and such a perception is essential to the completion of the questionnaire.

Within this package I have enclosed a number of postage-paid, self-addressed return envelopes. Each of these envelopes contains a questionnaire for completion and a cover letter explaining the questionnaire and study to the participant. Therefore, each envelope contained in this package is a complete parcel, which you can distribute to the staff who you determine are appropriate to complete the questionnaire. I have left the envelopes unsealed so that the envelope can be used by the participant and you are welcome to look over the contents before passing them on to the participant for completion. Please also feel free to complete a questionnaire yourself.

I would be very grateful if you could distribute the questionnaires promptly as I require the return of the completed questionnaires by the 2nd of September, 2005. I have endeavoured to make the questionnaire as brief as possible and pilot testing has shown that it will take the participant approximately 10 minutes to complete.

All responses collected are solely for this research project and will be kept in the strictest confidence. At no time will individuals or organisations be able to be separately identified and the only people with access to the information will be my supervisor and myself. Please be assured that results of the responses will only be published in aggregate form. A summary of the results will be made available to you upon the completion of my assessment in late October for distribution to participants. If you have any questions or concerns about the questionnaire or study you are most welcome to contact me through the details provided below.

Thank you again for your support in assisting me to complete my research dissertation which is the final part of completing my honours degree in accountancy at the University of Otago. I am very appreciative of your support and look forward to receiving the responses.

Yours sincerely

Toni Cocker
cocan823@student.otago.ac.nz
021 144 7128

Appendix D: Participant Letter

25 August 2005

Dear Sir/Madam

My name is Toni Cocker. I am a fourth-year accountancy honours student at the University of Otago. For the purpose of my honours degree, I am investigating the usefulness of items which commonly appear on the balance sheets of general purpose financial statements. The results from this enclosed questionnaire will form the basis of my research dissertation, which is the final requirement of my degree. This research will contribute to enhancing our knowledge, and understanding, of accounting practice as well as the usefulness of accounting information to users of financial statements.

The distribution of this questionnaire to you has been supported by <MailName>. The questionnaire which you have received should take approximately 10 minutes to complete. Please answer all questions and return the questionnaire directly to me in the postage-paid, self-addressed return envelope provided; this will ensure that your response remains anonymous and confidential.

Please be assured that results of your response will only be published in aggregate form. A summary of the results will be made available to <MailName> in late October. You may obtain a copy of the summary results from <MailName>. Alternatively, you may obtain this summary of results directly by contacting me through email. In addition, if you have any questions or concerns about the questionnaire or study you are also most welcome to contact me through the details provided below.

I would greatly appreciate it if you could complete the questionnaire and mail it back to me in the envelope provided by the 2nd of September, 2005. A satisfactory response rate is crucial to the successful completion of my dissertation. Your response will be greatly appreciated and I look forward to receiving it.

Regards

Toni Cocker
cocan823@student.otago.ac.nz
021 144 7128

Appendix E: Analysis Matrices

GOODWILL	Reliability	Relevance
Historical Cost	Question 1	Question 21
Fair Value	Question 4	Question 11

BIOLOGICAL ASSETS	Reliability	Relevance
Historical Cost	Question 17	Question 5
Fair Value	Question 2	Question 23

BONDS	Reliability	Relevance
Historical Cost	Question 20	Question 3
Fair Value	Question 22	Question 10

COMMERCIAL PROPERTY	Reliability	Relevance
Historical Cost	Question 13	Question 15
Fair Value	Question 18	Question 8

INVENTORY	Reliability	Relevance
Historical Cost	Question 14	Question 6
Fair Value	Question 12	Question 9

BRANDS	Reliability	Relevance
Historical Cost	Question 16	Question 19
Fair Value	Question 24	Question 7

Appendix F: Difference Variables

Relevance Difference Variables
From historical cost to fair value

Goodwill	Diff_Rv_Good	=	Question 21	**minus**	Question 11
Biological assets	Diff_Rv_Biol	=	Question 5	**minus**	Question 23
Bonds	Diff_Rv_Bond	=	Question 3	**minus**	Question 10
Commercial property	Diff_Rv_Prop	=	Question 15	**minus**	Question 8
Inventory	Diff_Rv_Inv	=	Question 6	**minus**	Question 9
Brands	Diff_Rv_Brnd	=	Question 19	**minus**	Question 7

Reliability Difference Variables
From historical cost to fair value

Goodwill	Diff_Rb_Good	=	Question 1	**minus**	Question 4
Biological assets	Diff_Rb_Biol	=	Question 17	**minus**	Question 2
Bonds	Diff_Rb_Bond	=	Question 20	**minus**	Question 22
Commercial property	Diff_Rb_Prop	=	Question 13	**minus**	Question 18
Inventory	Diff_Rb_Inv	=	Question 14	**minus**	Question 12
Brands	Diff_Rb_Brnd	=	Question 16	**minus**	Question 24

Appendix G: Correlation Results

Appendix G-A: Correlation Results – Total Sample

Correlations			Diff_Rv_Good	Diff_Rb_Good
Kendall's tau_b	Diff_Rv_Good	Correlation Coefficient	1	0.305
		Sig. (2-tailed)	.	0.000
		N	228	228
	Diff_Rb_Good	Correlation Coefficient	0.305	1
		Sig. (2-tailed)	0.000	.
		N	228	228

Correlations			Diff_Rv_Biol	Diff_Rb_Biol
Kendall's tau_b	Diff_Rv_Biol	Correlation Coefficient	1	0.131
		Sig. (2-tailed)	.	0.014
		N	228	228
	Diff_Rb_Biol	Correlation Coefficient	0.131	1
		Sig. (2-tailed)	0.014	.
		N	228	228

Correlations			Diff_Rv_Bond	Diff_Rb_Bond
Kendall's tau_b	Diff_Rv_Bond	Correlation Coefficient	1	0.240
		Sig. (2-tailed)	.	0.000
		N	228	228
	Diff_Rb_Bond	Correlation Coefficient	0.240	1
		Sig. (2-tailed)	0.000	.
		N	228	228

Correlations

			Diff_Rv_Prop	Diff_Rb_Prop
Kendall's tau_b	Diff_Rv_Prop	Correlation Coefficient	1	0.482
		Sig. (2-tailed)	.	0.000
		N	228	228
	Diff_Rb_Prop	Correlation Coefficient	0.482	1
		Sig. (2-tailed)	0.000	.
		N	228	228

Correlations

			Diff_Rv_Inv	Diff_Rb_Inv
Kendall's tau_b	Diff_Rv_Inv	Correlation Coefficient	1	0.437
		Sig. (2-tailed)	.	0.000
		N	228	228
	Diff_Rb_Inv	Correlation Coefficient	0.437	1
		Sig. (2-tailed)	0.000	.
		N	228	228

Correlations

			Diff_Rv_Brnd	Diff_Rb_Brnd
Kendall's tau_b	Diff_Rv_Brnd	Correlation Coefficient	1	0.247
		Sig. (2-tailed)	.	0.000
		N	228	228
	Diff_Rb_Brnd	Correlation Coefficient	0.247	1
		Sig. (2-tailed)	0.000	.
		N	228	228

Appendix G-B: Correlation Results – Debt Providers

Correlations			Diff_Rv_Good	Diff_Rb_Good
Kendall's tau_b	Diff_Rv_Good	Correlation Coefficient	1	0.207
		Sig. (2-tailed)	.	0.016
		N	90	90
	Diff_Rb_Good	Correlation Coefficient	0.207	1
		Sig. (2-tailed)	0.016	.
		N	90	90

Correlations			Diff_Rv_Biol	Diff_Rb_Biol
Kendall's tau_b	Diff_Rv_Biol	Correlation Coefficient	1	0.189
		Sig. (2-tailed)	.	0.028
		N	90	90
	Diff_Rb_Biol	Correlation Coefficient	0.189	1
		Sig. (2-tailed)	0.028	.
		N	90	90

Correlations			Diff_Rv_Bond	Diff_Rb_Bond
Kendall's tau_b	Diff_Rv_Bond	Correlation Coefficient	1	0.335
		Sig. (2-tailed)	.	0.000
		N	90	90
	Diff_Rb_Bond	Correlation Coefficient	0.335	1
		Sig. (2-tailed)	0.000	.
		N	90	90

Correlations

			Diff_Rv_Prop	Diff_Rb_Prop
Kendall's tau_b	Diff_Rv_Prop	Correlation Coefficient	1	0.522
		Sig. (2-tailed)	.	0.000
		N	90	90
	Diff_Rb_Prop	Correlation Coefficient	0.522	1
		Sig. (2-tailed)	0.000	.
		N	90	90

Correlations

			Diff_Rv_Inv	Diff_Rb_Inv
Kendall's tau_b	Diff_Rv_Inv	Correlation Coefficient	1	0.504
		Sig. (2-tailed)	.	0.000
		N	90	90
	Diff_Rb_Inv	Correlation Coefficient	0.504	1
		Sig. (2-tailed)	0.000	.
		N	90	90

Correlations

			Diff_Rv_Brnd	Diff_Rb_Brnd
Kendall's tau_b	Diff_Rv_Brnd	Correlation Coefficient	1	0.238
		Sig. (2-tailed)	.	0.007
		N	90	90
	Diff_Rb_Brnd	Correlation Coefficient	0.238	1
		Sig. (2-tailed)	0.007	.
		N	90	90

Appendix G-C: Correlation Results – Equity Providers

Correlations

			Diff_Rv_Good	Diff_Rb_Good
Kendall's tau_b	Diff_Rv_Good	Correlation Coefficient	1	0.234
		Sig. (2-tailed)	.	0.071
		N	40	40
	Diff_Rb_Good	Correlation Coefficient	0.234	1
		Sig. (2-tailed)	0.071	.
		N	40	40

Correlations

			Diff_Rv_Biol	Diff_Rb_Biol
Kendall's tau_b	Diff_Rv_Biol	Correlation Coefficient	1	0.279
		Sig. (2-tailed)	.	0.028
		N	40	40
	Diff_Rb_Biol	Correlation Coefficient	0.279	1
		Sig. (2-tailed)	0.028	.
		N	40	40

Correlations

			Diff_Rv_Bond	Diff_Rb_Bond
Kendall's tau_b	Diff_Rv_Bond	Correlation Coefficient	1	0.169
		Sig. (2-tailed)	.	0.200
		N	40	40
	Diff_Rb_Bond	Correlation Coefficient	0.169	1
		Sig. (2-tailed)	0.200	.
		N	40	40

Correlations

			Diff_Rv_Prop	Diff_Rb_Prop
Kendall's tau_b	Diff_Rv_Prop	Correlation Coefficient	1	0.443
		Sig. (2-tailed)	.	0.001
		N	40	40
	Diff_Rb_Prop	Correlation Coefficient	0.443	1
		Sig. (2-tailed)	0.001	.
		N	40	40

Correlations

			Diff_Rv_Brnd	Diff_Rb_Brnd
Kendall's tau_b	Diff_Rv_Brnd	Correlation Coefficient	1	0.321
		Sig. (2-tailed)	.	0.017
		N	40	40
	Diff_Rb_Brnd	Correlation Coefficient	0.321	1
		Sig. (2-tailed)	0.017	.
		N	40	40

Correlations

			Diff_Rv_Inv	Diff_Rb_Inv
Kendall's tau_b	Diff_Rv_Inv	Correlation Coefficient	1	0.402
		Sig. (2-tailed)	.	0.002
		N	40	40
	Diff_Rb_Inv	Correlation Coefficient	0.402	1
		Sig. (2-tailed)	0.002	.
		N	40	40

Appendix G-D: Correlation Results – Statement Preparers

Correlations			Diff_Rv_Good	Diff_Rb_Good
Kendall's tau_b	Diff_Rv_Good	Correlation Coefficient	1	0.380
		Sig. (2-tailed)	.	0.000
		N	98	98
	Diff_Rb_Good	Correlation Coefficient	0.380	1
		Sig. (2-tailed)	0.000	.
		N	98	98

Correlations			Diff_Rv_Biol	Diff_Rb_Biol
Kendall's tau_b	Diff_Rv_Biol	Correlation Coefficient	1	0.012
		Sig. (2-tailed)	.	0.886
		N	98	98
	Diff_Rb_Biol	Correlation Coefficient	0.012	1
		Sig. (2-tailed)	0.886	.
		N	98	98

Correlations			Diff_Rv_Bond	Diff_Rb_Bond
Kendall's tau_b	Diff_Rv_Bond	Correlation Coefficient	1	0.194
		Sig. (2-tailed)	.	0.019
		N	98	98
	Diff_Rb_Bond	Correlation Coefficient	0.194	1
		Sig. (2-tailed)	0.019	.
		N	98	98

Correlations

			Diff_Rv_Prop	Diff_Rb_Prop
Kendall's tau_b	Diff_Rv_Prop	Correlation Coefficient	1	0.405
		Sig. (2-tailed)	.	0.000
		N	98	98
	Diff_Rb_Prop	Correlation Coefficient	0.405	1
		Sig. (2-tailed)	0.000	.
		N	98	98

Correlations

			Diff_Rv_Inv	Diff_Rb_Inv
Kendall's tau_b	Diff_Rv_Inv	Correlation Coefficient	1	0.378
		Sig. (2-tailed)	.	0.000
		N	98	98
	Diff_Rb_Inv	Correlation Coefficient	0.378	1
		Sig. (2-tailed)	0.000	.
		N	98	98

Correlations

			Diff_Rv_Brnd	Diff_Rb_Brnd
Kendall's tau_b	Diff_Rv_Brnd	Correlation Coefficient	1	0.281
		Sig. (2-tailed)	.	0.001
		N	98	98
	Diff_Rb_Brnd	Correlation Coefficient	0.281	1
		Sig. (2-tailed)	0.001	.
		N	98	98