REPORTING CUSTOMER SATISFACITON IN THE ANNUAL REPORTS

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This thesis is submitted to Professor Ciaran Ó hÓgartaigh, in the Business School, Dublin City University in candidature for the degree of Doctor of Philosophy.

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I hereby certify that this material, which I now submit for assessment on the programme of study leading to the award of Doctor of Philosophy is entirely my own work and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

Signed: Afra Sajjad ID No.: 51158248

Date: 27 January 2007

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REPORTING CUSTOMER SATISFACTION IN THE ANNUAL REPORTS

CONTENTS **PAGE**

CHAPTER 5: Reaction to Disclosure of Positive and Negative Customer Satisfaction Information in the Annual Reports

CHAPTER SIX: REACTION TO QUALITATIVE AND QUANTITATIVE DISCLOSURE OF CUSTOMER SATISFACTION IN THE ANNUAL REPORTS

CHAPTER 7: THE RESEARCH APPROACH

CHAPTER 8: THE RESEARCH INSTRUMENT

CHAPTER NINE: INTERVIEWS WITH THE PREPARERS OF ANNUAL REPORTS

CHAPTER TEN: EXPERIMENTAL INSTRUMENT TESTING RESULTS

CHAPTER ELEVEN: INTERVIEWS WITH USERS OF ANNUAL REPORTS

CHAPTER TWELVE: CONCLUSION AND RECOMMENDATIONS

REFERENCES

Abstract

Reporting Customer Satisfaction in the Annual Reports

The importance of intangible assets as important value drivers and critical success factors has increased in the customer centric world of today. Despite the importance of the intangible assets, intangible assets other than purchased goodwill are generally not recognised in the financial statements. This has resulted in declining relevance and decision usefulness of corporate annual reports to the users of annual reports. There have been suggestions for disclosure of intangible assets in the annual reports. These suggestions have argued for experimentation with development of measurement technology for measuring and reporting intangible assets in the annual reports. This research identifies customer satisfaction as a signal of the intangible assets to explore the possibility of disclosure of intangible assets like customer satisfaction in the annual reports.

This thesis is a behavioural exploratory study that adopts a user orientation approach to answer two research questions of why and how customer satisfaction should be disclosed in the annual reports. The theoretical framework developed to explore the main research questions argues that in view of the relevance of disclosure of customer satisfaction to the users of the annual reports, positive and negative, 'internally' and 'externally generated' measures of customer satisfaction may be disclosed qualitatively or quantitatively in the Operating and Financial Review of the annual reports. Research hypotheses are suggested for assessing the relevance of the customer satisfaction disclosure to the users of annual reports and for assessing the reaction of the users of annual reports to different types of customer satisfaction disclosures. Using a triangulation research approach, the research uses qualitative and quantitative research methods in exploring the research hypotheses. A number of economic, financial reporting and psychological theories for example Fuzzy Trace Theory, Attribute Framing Effects and Affective Reaction Model are used to explain the findings of the research study. The research concludes that even though there are existing measurement technologies that can be used to report customer satisfaction in the annual reports but the reluctance of the preparers of annual reports to report anything negative or qualitative in the annual reports is the main obstacle in reporting relevant information about customer satisfaction in the annual reports. The research suggests policy recommendations for reporting customer satisfaction in the annual reports and outlines future areas of research.

LIST OF FIGURES

LIST OF TABLES

Chapter One

Introduction

The importance of the need to report internally generated intangible assets in the annual reports has increased in the recent past. Previous research has proposed a number of suggestions for reporting internally generated intangible assets in the annual reports. This thesis "Reporting Customer Satisfaction in the annual reports" is a descriptive, innovative and exploratory research study that aims to explore the implications of the disclosure of an internally generated intangible asset like customer satisfaction in the Operating and Financial Review section of the annual reports. The innovativeness of this research is that it identifies customer satisfaction as a subset of internally generated intangible assets, a signal of their value and a representation of their worth through which the possibility of disclosure of an internally generated intangible asset like customer satisfaction in the annual reports is explored.

The research study endeavors to answer the following broad research questions:

- Why should customer satisfaction be disclosed in the annual reports?
- How should customer satisfaction be disclosed in the annual reports?

The study is exploratory as in answering the research question that why should customer satisfaction be disclosed in the annual reports it aims to explore the consequences of customer satisfaction disclosure on the decision-making of the users of annual reports - an area where there is little prior research. It is also a descriptive research study as in answering the research question that how should customer satisfaction be disclosed in the annual reports it outlines a framework for reporting customer satisfaction in the annual reports and provides a systematic explanation of different reactions of the users of annual reports towards different types of customer satisfaction disclosures in the annual reports suggested by the framework.

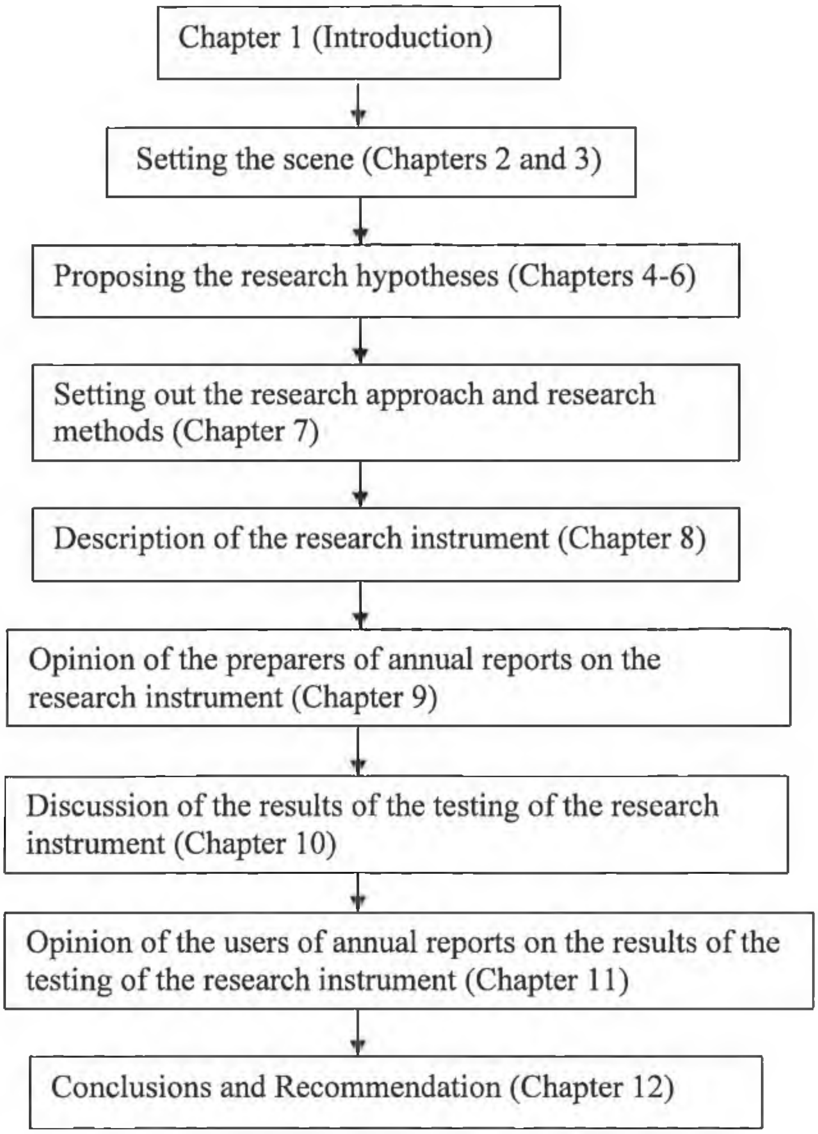
This research is original in the context as it argues that in order to build a case for the inclusion of customer satisfaction in the annual reports, the assessment of the relevance of the disclosure of customer satisfaction in the annual reports by the users of annual reports is important. The research is innovative in the context that it extends the literature on disclosure of performance measures relating to customer satisfaction in the annual reports by assessing the reaction of the users of annual reports to different formats of customer satisfaction disclosures. It thus comes up with policy recommendations in Chapter 12 about users' preferences about the preferred format of disclosure of customer satisfaction in the annual reports. The different formats of customer satisfaction investigated in the research study are 'externally generated' measures of customer satisfaction, 'internally generated' measures of customer satisfaction, disclosure of positive customer satisfaction information, disclosure of negative customer satisfaction information, qualitative disclosure of customer satisfaction and quantitative disclosure of customer satisfaction. The classification of performance measures in terms of 'internally generated' and 'externally measures' is a classification proposed for the purpose of this research. Whereas previous research has suggested that intangible assets like customer satisfaction may be disclosed qualitatively or quantitatively in the annual reports and that these disclosures should be balanced there is no prior evidence of classification of performance measures in terms of 'externally generated' measures and 'internally generated' measures.

An important contribution of this research is that whereas existing literature relating to reporting intangible assets only proposes that qualitative or quantitative disclosure of positive and negative information relating to intangible assets may be included in the annual reports. This research extends the literature by investigating the reaction of the users of annual reports to different types of disclosures suggested by previous research.

This is thus a behavioural research that uses a multi-disciplinary approach to develop a theoretical framework for suggesting research hypotheses to investigate the research objectives. Even though financial reporting research is mainly used in the development of theoretical framework but theories from economics, auditing, taxation, management accounting and psychology as well as marketing literature are also used. This adds to the richness of the findings of the research. In the development of the research approach, a triangulation approach is used in the selection of research methods. The main research method used is experiment but a number of other research methods like the review of annual reports as well as interviews with the preparers and users of annual reports are also used so as to ensure richness, robustness and relevance of research findings. This approach was considered necessary because of the exploratory nature of the research study. The structure of the research study is outlined in Figure 1.1:

Figure 1.1

Structure of the research study



It can be concluded from Figure 1.1 that in order to answer the research questions and to achieve the research objectives, a theoretical framework is constructed in Chapters 2 to 6 and specific research hypotheses have been formulated in Chapters 4 to 6. Chapter 7 sets out the research approach adopted for testing the research hypotheses. These research hypotheses are tested by means of an experimental instrument discussed in Chapter 8.

The results of the testing of the experimental instrument are discussed in Chapter 10. In Chapter 9 the experimental instrument is discussed with the preparers of annual reports and in Chapter 11 the results of the testing of the experimental instrument are discussed with the users of annual reports by means of semi-structured interviews.

The research study as outlined in Figure 1.1 is divided into twelve chapters including the present introductory chapter. Chapter 2 titled "Reporting Intangible Assets" is a curtain raiser to this research study. This chapter mainly aims to answer the research question of why customer satisfaction that is not recognised as an asset in the financial statements be reported in the annual reports. The reasons for exclusion of intangible assets from the financial statement of annual reports are reviewed. The importance of customer satisfaction as an invaluable intangible asset and the importance of measurement of customer satisfaction is discussed (AICPA, 1994; FASB, 2001; GRI, 2002). The criterion of relevance of customer satisfaction disclosure to users of annual reports is set out as one of the most important reasons for inclusion of an intangible asset like customer satisfaction in the annual reports. It is stated in Chapter 2 that as customer satisfaction presently can not be included in the annual reports by recognition as an asset in the financial statements due to a number of problems associated with the measurement of customer satisfaction; customer satisfaction should be disclosed in the Operating and Financial Review of the annual reports.

Chapter 3 titled "Reporting Customer Satisfaction" endeavours to answer the research question that how customer satisfaction may be reported in the annual reports. The current state of reporting intangible assets in the annual reports is critically discussed. Based on the current state of reporting intangible assets in the annual reports, Chapter 3 sets out a framework for reporting customer satisfaction in the annual reports. The framework suggests voluntary disclosure of performance measures of customer satisfaction in the Operating and Financial Review of the annual reports. For the purpose of the research study the performance measures are classified as 'externally generated' and 'internally generated'. 'Externally generated' performance measures like customer satisfaction surveys are those where the source is opinion based whereas 'internally generated' performance measures like number of complaints are those where the source is event based. The framework advocates adoption of a balanced approach towards reporting ‘externally’ and ‘internally generated’ measures of customer satisfaction in the annual reports. It is thus suggested that the information about externally and internally generated performance measures of customer satisfaction in the annual reports may be positive or negative. The disclosure of this information may be qualitative (textual) or quantitative (numerical). The possible reactions to these six different types of customer satisfaction disclosure are discussed theoretically in chapters 4 to 6.

The main aim of Chapter 4 “Reaction to Disclosures of ‘Externally’ and ‘Internally Generated’ Measures of Customer Satisfaction in the Annual Reports” is to construct a theoretical framework for proposing research hypotheses for assessing differences in the reaction of the users of annual reports to disclosure of ‘externally generated’ and ‘internally generated’ performance measures of customer satisfaction in the annual reports. The research hypotheses suggest that users of annual reports while making decisions will have less confidence in ‘externally generated measures’ like surveys due to their perceived subjective nature as opposed to ‘internally generated measures’ like number of complaints that may be perceived objective.

Chapter 5 “Reaction to Disclosure of Positive and Negative Customer Satisfaction Information in the Annual Reports” aims to propose research hypotheses for exploring the differences in reaction of the users of annual reports to inclusion of positive and negative customer satisfaction information in the annual reports. The research hypotheses are proposed after a critical review of relevant accounting and non-accounting literature including The Affective Reaction Model (Kida, Smith and Moreno, 2002) the Attribute Framing Effects (Levin and Gaeth, 1988) and the Prospect Theory (Kahneman and Tversky, 1979). The research hypotheses suggested in this chapter state that while making decisions, users of annual reports will react unfavourably to disclosure of negative customer satisfaction information and favourably to disclosure of positive customer satisfaction information. The users of annual reports will over-react to negative customer satisfaction information and under-react to positive customer satisfaction information.

Chapter 6 “Reaction to Qualitative and Quantitative Disclosure of Customer Satisfaction in the Annual Reports” aims to theoretically review the possible differences in reactions of the users of annual reports to qualitative (textual) and quantitative (numerical) disclosure of customer satisfaction in the annual reports so as to suggest research hypotheses for assessing differences in reaction to qualitative and quantitative disclosure of customer satisfaction in the annual reports. In this context relevant accounting and non-accounting literature is reviewed to build a theoretical framework. The research hypotheses suggest that users of annual reports will have more confidence while making decisions when customer satisfaction is disclosed quantitatively as opposed to when customer satisfaction is disclosed qualitatively as quantitative disclosures may be considered more reliable by the users of annual reports as opposed to qualitative disclosures.

Chapter 7 "The Research Approach" outlines the research approach and research methods used to test the research hypotheses outlined in Chapters 4 to 6 and research questions suggested in Chapters 1 to 3. The research study uses a behavioural research approach for the purpose of testing research hypotheses. The relevance of behavioural research for testing the research hypotheses is critically evaluated in Chapter 7. A triangulation approach is used in developing research methodology for this research study. A number of research methods are thus used for testing the research hypotheses and exploring research questions. These include review of annual reports; interviews with preparers and users of annual reports and experiments. The characteristics of the research methods used in the research study and their appropriateness for the purpose of this research study are analytically discussed in Chapter 7. It is stated that even though the use of experiment as the main research method for the current research is appropriate in view of the *ex-ante* nature of customer satisfaction disclosure but research methods like interviews enable an in-depth investigation of the problems under consideration and may be used in an exploratory behavioural research like the present one to ensure an in-depth understanding of the problem under consideration.

The main objective of Chapter 8 "The Research Instrument" is to explain the experimental instrument developed to test the research hypotheses and explore research questions. The main characteristics of the experimental instrument are delineated. The process undertaken to design, refine and test the experimental instrument is explained.

Chapter 9 "Interviews with preparers of Annual Reports" discusses the findings of interviews with the preparers of annual reports. The main objective of these interviews is to obtain the opinion of the preparers of annual reports about the relevance of customer satisfaction disclosure proposed in the research instrument and their reaction to different types of customer satisfaction disclosure proposed in the experimental instrument. The preparers of annual reports even though appreciative of the relevance of customer satisfaction disclosure suggested by the research instrument are apprehensive of the subjective and qualitative nature of customer satisfaction disclosure as well as the possible negative impact of disclosure of negative customer satisfaction information on the assessment of the company's performance by investors in their role as users of annual reports.

Chapter 10 "Experimental Instrument Testing Results" reviews the results of the statistical analysis of the experimental instrument that was developed to explore the research questions outlined in Chapters one to three and to test the main research hypotheses proposed in Chapters 4-6. The statistical analysis of the experimental instrument was conducted using SPSS. The statistical tests conducted were one-way analysis of variance (ANOVA) and t-tests. As a result of the testing of the experimental instrument it is concluded that there is preliminary evidence of relevance of customer satisfaction disclosure to the users of annual reports. There is also evidence of users of annual reports reacting unfavourably to disclosure of negative customer satisfaction in the annual reports. This it is concluded is an interesting finding. Whereas previous research advocates balanced disclosure of intangible assets in the annual reports, the results of the testing of the research instrument indicate that experimental subjects in their role as the users of annual reports react negatively to negative customer satisfaction information in the annual reports. Preparers of annual reports (discussed in Chapter 9) are averse to the idea of disclosure of negative customer satisfaction information in the annual reports as it might negatively affect the assessment of the company. The literature review (discussed in Chapter 5) also suggests that as negative information in annual reports results in unfavourable decisions, preparers of annual reports may adopt a concealment strategy of concealing voluntary negative information relating to intangible assets like customer satisfaction. This has important implications for policy makers who might have to come up with such policies that ensure balanced reporting by the preparers of annual reports.

As a result of the testing of the experimental instrument in Chapter 10, it is concluded that users of annual reports have a higher level of confidence in quantitative disclosure than qualitative disclosures while making decisions. Previous research discussed in Chapter 3 argues for qualitative and quantitative disclosure of intangible assets in the annual reports but the literature review discussed in Chapter 6 states that quantitative disclosure may be preferred to qualitative disclosure due to characteristics like reliability and accuracy. The results of the testing of the research instrument also outline preference for quantitative disclosure as opposed to qualitative disclosure. This is an interesting finding and has implications for policy makers. Whereas previous research states that qualitative (textual) disclosure may also be used to report intangible assets in the annual reports the current research provides evidence that quantitative (numerical) disclosure is preferred by the users of annual reports.
The main aim of Chapter 11 “Interviews with users of Annual Reports” is to obtain the opinion of the users of annual reports about the results of the statistical analysis of the experimental instrument data discussed in Chapter 9. The interviews of users expand the consideration of the disclosures beyond the prepapers (outlined in chapter 9) and compliment the findings of the experiments (outlined in chapter 10) with a view to developing a more comprehensive understanding of the disclosures.

Chapter Twelve concludes the research study by outlining the main research findings and outlining areas for future research based on the main research findings as well as briefly discussing the limitations of the research study. One of the main limitations of the research study identified is that an intangible asset like customer satisfaction is of paramount importance in customer centric economies like those of Ireland where there is strong economic growth. In other countries like the developing countries, customer satisfaction may not be as important an intangible asset as it is in Ireland. In times of slow economic growth, customer satisfaction may not be considered very important. Thus this research’s use of customer satisfaction as a signal of intangible assets may be of limited use in times of slow economic growth or in other developing countries. One of the important future areas of research outlined in Chapter 12 is to explore the possibility of disclosure of intangible assets other than customer satisfaction by using the research approach adopted for the purpose of this research.

CHAPTER 2

Reporting Intangible Assets

2.1 INTRODUCTION

As the business environment moves from being producer driven to consumer driven, the importance of intangible assets as value drivers of business has amplified (Johanson, Martensson and Skoog, 2001; Kohli and Jaworski, 1990; Aaker 1992 and Bitner and Hubbert, 1994). Intangible assets other than purchased goodwill are generally not recognised in the financial statements mainly because of the inability of the current financial reporting framework to measure intangible assets. This non-inclusion of intangible assets in the financial statements of corporate reports has resulted in declining relevance, reliability and decision usefulness of corporate annual reports to the users of annual reports (Amir and Lev, 1996; Jenkins, 1994; Lev and Zarowin, 1999; Eccles and Mavarinac, 1995; Grojer and Johanson, 2000 and Elliot, 1992). There is thus an urgent need to report intangible assets in the annual reports. An annual report nowadays commonly comprises of financial statements, notes to financial statements, auditors report and a narrative section. The narrative section usually comprises of Chairman's statement, the Directors Report, the Operating and Financial Review (OFR) or the Management Discussion and Analysis (MD&A), remuneration, corporate governance and environmental reports. A number of research studies as discussed in Chapter 3 have argued that as intangible assets cannot be recognized in the financial statements they should be disclosed in the narrative section of the annual reports.

One of the main aims of this research study as outlined in Chapter 1 is to explore the possibility of inclusion of internally generated intangible assets like customer satisfaction in the annual reports. In exploring the possibility of disclosure of customer satisfaction in the annual reports the research study as stated in Chapter 1 aims to answer the two research questions namely why and how customer satisfaction should be reported in the annual reports. The main objective of this chapter is to answer the research question of why customer satisfaction should be reported in annual reports. Chapter 3 aims to answer the research question of how customer satisfaction should be reported in annual reports.

The present section is the introductory section. Section 2.2 outlines the nature of intangible assets and reviews the importance of intangible assets. Section 2.3 analyses the reasons for inclusion of intangible assets in the annual reports. Section 2.4 identifies customer satisfaction as an intangible asset and discusses the possibility of inclusion of customer satisfaction in the annual reports. Section 2.5 is a conclusion to the chapter.

2.2 Intangible assets

The main aim of financial reporting is to facilitate informed decision making by the users of annual reports.

> "Financial reporting should provide information that is useful to present and potential investors and creditors and other users in making rational investment, credit, and similar decisions. .... Financial reporting should provide information about the economic resources of an enterprise, the claims to those resources (obligations of the enterprise to transfer resources to other entities and owners' equity), and the effects of transactions, events, and circumstances that change its resources and claims to those resources" (FASB, 1978, p.5.)

It can be concluded from the above statement that one of the main aims of financial reporting is to provide information about resources. Resources are the assets owned by a particular business enterprise. Assets are the rights or other access to future economic benefits controlled by an entity as a result of past transactions or events (ASB, 1999). Assets are of two types, namely tangible assets and intangible assets. Tangible assets are tangible resources controlled by a business as a result of the past transactions or events that represent future economic benefits. They can be observed, are financial in nature and have physical properties.

Intangible assets on the other hand are:

> "….. non-physical sources of probable future economic benefits to an entity or alternatively all the elements of a business enterprise that exist in addition to monetary and tangible assets." (FASB, 2001, p.68)

This is a broad definition of intangible assets that states that all assets other than tangible assets are intangible assets. Intangible assets also have been defined as:

> "Intangibles are non-physical sources of probable future economic benefits to an entity that have been acquired in an exchange or developed internally from identifiable costs, have a finite life, have market value apart from the entity, and are owned or controlled by the entity. (FASB, 2001, p.68)"

It can be concluded from the above definitions that the main characteristics of intangible assets are that they are non-physical, non-current and non-monetary source of probable future economic benefits. Internally generated intangible assets may be divided into two main categories: goodwill and other intangible assets for example customers, human resources, innovation and quality. This research study is about intangible assets other than goodwill that in today's knowledge economy form a significant proportion of the value of a business and are critical success factors of a company's performance (OECD, 1996; Beattie, 2000; AICPA, 1994; ICAS, 2002; ICAEW, 1999; Davis, 1992; Lev and Zarowin, 1999; Duizabo & Guillaume, 1996; Ochs, 1996). In the consumer driven world of today the source of economic value and wealth is no longer the tangible assets but the creation and manipulation of intangible assets (Goldfinger, 1997).

> "The decreased cost of information, the increase and spread in the number and range of markets in which companies can buy products, inputs, the liberalisation of products and labour markets and the deregulation of financial flows, is stripping away traditional sources of competitive

> differentiation and exposing a new fundamental core to wealth creation. That fundamental core is the development and astute deployment of intangible assets, … In the end, wealth creation in a world of heightened competition comes down to developing, orchestrating and owning intangible assets which your competitors will find it hard to imitate but which your customers value." (Teece, 1998, p.58)

It can be concluded from the above that in the intangible economy of today, companies must base their competitiveness on intangible assets which their competitors find hard to replicate. OECD countries are investing 50-100% as much on the acquisition of intangible assets as on physical assets (Hill and Youngman, 2002). Lev (2001) observed that US industrial companies now invest as much in intangible assets as they do in physical plant and equipment. The Federal Reserve Bank of Philadelphia estimated that in the year 2000 more than US$1 trillion was invested in intangible assets (Nakamura, 2001). An analysis in Business Week in July 1997 noted that Microsoft's stock market value of $1488.5bn was worth the same as the combined value of Boeing $37.9bn, McDonald's $34.7bn, Texaco $28.7bn, Time Warner $26bn and Anheuser-Busch $21.2bn. Only about 7% of Microsoft's stock market value at that time was accounted for by traditional, tangible assets - land, buildings, machinery, and equipment - recorded on its balance sheet. The missing 93% of the company's value was due to intangible assets: brands, research, customers, development and people. In 1998 only 15% of the S&P 500's market value was attributed to tangible assets, compared to 62% in 1982 (Daum, 2002). According to a survey in 1997 between 50-90% of the value generated by firms was attributable to intangible assets (Hope and Hope, 1998). On the basis of a sample of 169 financially distressed firms in the US, Gilson, John and Lang (1990) concluded that those firms with the higher probability of successful private financial restructuring have a higher level of intangible assets.

A further measure of the increasing importance of intangible assets is the gap between the market value and book value of different companies also known as the market-to-book ratio. Lev and Zarowin (1998) documented a significant increase in the market-to-book ratio of US firms, from a level of 0.81 in 1973 to a level of 1.69 in 1992 (which means nearly 40% of the market value of companies was not reflected on the balance sheet).

It can be concluded from this discussion that as intangible assets have become fundamental determinants of company value, companies are investing as much in intangible assets as they invest in tangible assets. The increasing importance of intangible assets to the market value of the company and the recognition of intangible assets as a source of competitive advantage has resulted in suggestions for the inclusion of intangible assets along with tangible assets in the annual reports (FASB, 2001; Kaplan and Norton, 1996; ASB, 2005). The next section aims to provide an answer to the research question of why intangible assets other than goodwill should be reported in the annual reports.

2.3 Reporting intangible assets in the annual reports

> "Will the accounting profession study the business enterprise in order to measure enterprise only in terms of profit or loss or will it study the development of measurements of effectiveness in terms other than profit or loss such as worker happiness or customer satisfaction?" (Lazersfeld, 1964).

Intangible assets other than purchased goodwill are generally not reported in the annual reports. A 1991-1992 survey quoted by the UK Accounting Standards Board showed that 81% of large companies did not report intangible assets in their annual reports. A more recent survey found that 76% of 226 quoted companies did not record any intangibles other than goodwill in their annual reports (Leadbetter, 2000). One of the most critical challenges thus faced by accountants in this new millennium is to account for intangible assets other than goodwill that have become fundamental determinants of the value of a company. This is necessary so as to ensure that financial reporting keeps pace with the changing economy and radical shifts in the sources of value creation from tangible to intangible assets.

Accountants so far have failed to provide an accurate view of value drivers like worker happiness or customer satisfaction. One of the most important characteristics of an asset as outlined in Section 2, 2 is that it results in generation of future profits. Tangible as well as intangible assets both result in future economic benefits for the firm. Intangible assets other than purchased goodwill unlike tangible assets are generally not included in the annual reports. Annual reports therefore fail to provide a true and fair view of the firm's (non-physical) position.

> "Today, we are witnessing a broad shift from an industrial economy to a more service based one; a shift from bricks and mortar to technology and knowledge. This has important ramifications for our disclosure and financial reporting models. We have long had a good idea of how to value manufacturing inventory or assess what a factory is worth... As intangible assets continue to grow in both size and scope, more and more people are questioning whether the true value—and the drivers of that value—is being reflected in a timely manner in publicly available disclosure."(Levitt, 1999, p. 2)

The economy is changing. Tangible assets were the most important resource of a machine driven economy. They are still important but now they share their importance with the intangible assets of a consumer or more precisely relationship driven economy. The most important sources of value are not only outputs produced by machines but also intangibles generated by maintaining successful relationships with stakeholders.

> "Increased competition and rapid advances in technology are resulting in dramatic changes..... In response to increased competition and changes in their businesses, companies also are changing their information systems and the types of information they use to manage their businesses. ....Can annual

> reports be immune from the fundamental changes affecting business?" (AICPA, 1994, p. 2)

The above statement raises an important question. An annual report is a communication instrument that communicates information to the users of annual reports to enable them to make efficient decisions (Lusk, 1973). If annual reports are a communication instrument, then should they not report intangible assets? One of the main aims of the annual reports is to facilitate decision-making by providing relevant and reliable information to the users of annual reports (ASB, 1999). An annual report should thus be able to communicate such relevant and reliable information about tangible and intangible resources of the business to the users of annual reports that will enable them to make informed and efficient decisions. The non-communication of intangible assets raises questions about the relevance and usefulness of annual reports for making efficient and informed decisions.

> "Why should we now pay more attention to complaints about the usefulness of corporate reports? The answer to this may be that the assets and risks not measured by historical cost accounts appear to be becoming more important as determinants of a business's future success." (ICAEW, 1998, p.5)

The omission of intangible assets from the annual reports has been identified as one of the reasons for decline in the relevance and decision usefulness of annual reports to the users of annual reports (Wallman, 1995; AICPA, 1994; Lev, 2001). The declining relevance of annual reports has resulted in the need to explore the option of disclosure of intangible assets in sections of annual reports other than financial statements. As stated in Section 2.1, annual reports nowadays typically comprise of financial statements, accompanying notes, *Operating and Financial Review* or *Management Discussion and Analysis* section, corporate governance information, environmental and social responsibility information. Financial statements thus are a sub-set of annual reports. There have been suggestions that the option of disclosure of intangible assets in other sections of the annual reports as opposed to recognition of intangible assets in the financial statements (see Chapter 3 for discussion of disclosure of intangible assets in the annual reports as opposed to recognition of intangible assets in the financial statements) should be explored so as to enhance the decision usefulness and relevance of annual reports to users of annual reports (FASB, 2001; AICPA, 1994 and Leadbetter, 2000). This possibility needs to be explored for a number of reasons.

Investments in intangible assets are mainly intended to acquire or maintain competitive advantage (Vitale, Mavrinac and Hauser, 1994; Sanchez, 1996; Barth and Clinch, 1997; Aboody and Lev, 1998; Hall, 1998 and Lev, 2001). In absence of information about intangible assets in the annual reports there is a significant risk associated with firms' under investing in intangibles. If firms under invest in intangible assets this might result in the failure of the firm to improve competitive position. It might also result in relatively poor future performance. Consequently, for both investors and managers to make efficient decisions, it is necessary to design and implement an information system which provides timely, relevant and reliable information about the existence of intangible assets and their impact on the firm's future performance (Salas, 1989). There is also a risk that if intangible assets are not included in the annual reports, they might not be considered in the analysis of the financial position of a firm. Thus the decisions based on the annual reports that do not include information about intangible assets may not be efficient or informed. If annual reports provide investors with inaccurate estimates of the firm's value and its capability to create wealth in the future, inefficiencies may appear in the resource allocation process which takes place in the capital markets.

On the basis of publicly available annual reports, investors might decide to allocate resources to firms investing little or nothing in intangibles and thus reporting higher levels of earnings and book values in the short-term, instead of supplying capital to companies undertaking large investments in intangibles which may make them appear as less attractive in the short run, but ensure higher future earnings. Due to the non-inclusion of information about intangible assets, annual reports may fail to present an accurate view of the firm's financial position. Investors are thus provided with non-relevant and non-comparable annual reports and will most likely not be able to assess the value of companies to make efficient resource allocation decisions. Barth, Kasznik and McNichols

(1998) have documented that the greater the intangible investment intensiveness, the higher the probability that firms will not be priced efficiently. Lev and Sougiannis (1999) showed that firms immediately expensing investments in intangibles are systematically mis-priced in the capital market. Lev (1998) has found evidence that the inadequate reporting of intangibles in the annual reports gives rise to information asymmetries that are exploited by managers in order to obtain abnormal gains by means of insider trading.
In the light of the discussion presented above, it can be concluded that intangible resources are likely to play a significant role in business strategy. The outcome of the exclusion of intangible assets from annual reports are less efficient capital markets, a higher cost of capital thus promoting volatility, misallocation of capital, opportunity for insider dealing, flawed return on investment, misleading price to book ratios, huge gap between market value and book value of the equity of most companies and incomplete valuations for the purpose of mergers and acquisitions (Wallman, 1995; Leadbetter, 1999;Botosan, 1997; Lev, 2001, Beattie, 2000; Lev and Zarowin, 1998; Francis and Schipper, 1999; AICPA, 1994; Edvinsson, 1997). Based on the discussion in this section it can be argued that there is a strong case for inclusion of intangible assets in the annual reports. Intangible assets are not only an important source of competitive advantage but also there are serious implications of non-inclusion of intangible assets in the annual reports.

The valuation of intangible assets and their inclusion in the financial statements of annual reports however represents a major challenge, because the nature of intangible assets is different as compared to tangible assets. Intangible assets are hard to grasp and no standards exist about how to report internally generated intangible assets in the financial statements. Intangible assets can vanish overnight, thus more risk is involved in their inclusion in the financial statements as compared to tangible assets. The dot-com bubble burst was evidence of the risky nature of intangible assets. When the dot-com companies collapsed their intangible assets vanished overnight. Although a dot-com may have accounts receivable, fixtures, and other physical property, intangible assets are its principal asset and investment.

Intangible assets are hardly a liquid asset; they are gained through a long, methodical process that eventually creates value for the company. It is difficult to assign a value to the intangible assets. Thus the inclusion of intangible assets in the financial statements is risky. The valuation of intangible assets is also problematic as it may be difficult to estimate the underlying expenditure of an intangible asset. Some intangible assets like leadership, customer loyalty and management skills may not require any additional underlying expenditure.

In his survey of corporate and institutional opinion in the UK, Vance (2000) reports universal antipathy to any form of standardised reporting of intangible assets with trenchant expressions of doubt, cynicism and outright opposition to the reporting of the intangible assets. The most important reason for the non-inclusion of intangible assets in the annual reports is the 'politics of intangibles' disclosure i.e. the reluctance of the preparers of annual reports to include intangible assets in the annual reports (Lev, 2001). Lev (2001) argues that even though inclusion of intangible assets reduces investor uncertainty and improves the stock price of the reporting company, the incentives of the real world confound the theory and discourage inclusion due to the 'politics of intangibles'.

> "The "politics" of intangibles'.... is not a diabolical scheme to obscure relevant information. Rather, it reflects expected attitudes, given the economic characteristics of intangible investments—high risk and difficulties to fully secure benefits. What is important is not to place the blame for the scarcity of information, but rather to understand the motives (crucial for the design of effective remedies) and particularly the consequences." (Lev, 2001, p. 119.)

Lee (1989) and Lev (2001) considers this universal antipathy to the inclusion of intangible assets as reflecting a desire by the profession to maintain the status quo as any change creates insecurity among the profession. Brennan (1999) states that despite the substantial levels of intangible assets owned by Irish companies, there seems to be little interest in, and demand for, measuring and accounting for intangible assets in Ireland. CEOs, CFOs, board members and senior managers are so entrenched in traditional ways of representing information that it is difficult to change mindsets and encourage new ways of looking at how a business is run and how inherent potential can be maximised. The consequence of this view is that annual reports are actually measuring less of what really matters.

The aversion of the accountancy profession to the reporting of intangible assets in the annual reports can be explained on the basis of the traditional reactive approach of the profession to change in annual reports (Lev and Zarowin, 1999, Lee, 1998). Intangible assets disclosure is a change from traditional accounting practices. It will require the development of new measures and new techniques. It might require the extension of the current financial reporting measurement technology. One of the main reasons for the non-inclusion of intangible assets in the annual reports in fact is the inability of major conceptual frameworks for accounting standards namely Financial Accounting Standards Board's (FASB) Statement of Financial Accounting Concepts (1978); International Accounting Standards Board (IASB) Framework for the Preparation and Presentation of Financial Statements (1989) and UK Accounting Standards Board (ASB) Statement of Principles (1999) to reflect the effects of transactions and events involving intangible assets. For an asset to be included in the financial statements in the annual reports, it must meet the recognition criteria laid down for recognition of an item in the financial statements (ASB, 1999; IASB, 1989; FASB, 1978). The recognition criteria are that the item meets the definition of an element of financial statements, has a relevant attribute measurable with sufficient reliability and information included in the financial statements about the asset, should possess characteristics of relevance and reliability.

The elements of financial statements are assets, liabilities and capital. An asset as outlined in Section 2.2 is:

> "....resource controlled by the enterprise as a result of past events and from which future economic benefits are expected to flow to the enterprise."
> (IASB, 1989, F. 49 a)

The main characteristic of an asset is that it should be controlled by the entity and the enterprise should be able to obtain future economic benefits from the asset. Tangible assets fulfil these criteria more easily than intangible assets. This is because, in general, it is more difficult to measure the future service potential of intangibles than the benefits accruing from investment in tangible assets like property, plant, and equipment. As intangible assets are non-physical in nature and cannot be directly controlled by the entity, their future benefits are uncertain. As their future benefits are uncertain, their values are uncertain and subject to variations: therefore intangible assets are not recognised in the financial statements.

An important criterion for the recognition of an asset in the financial statements is that it can be measured in monetary terms and reported numerically in the annual reports.

> "The information provided by financial reporting is primarily financial in nature ....Information that is to be formally incorporated in financial statements must be quantifiable in units of money." (FASB, 1978, p.18)

Financial statements prepared under current financial reporting framework are concerned only with economic events and transactions that can be captured in quantitative terms and does not contemplate the importance of those events and forces that cannot be measured in quantitative terms (Oslen, 2002). This results in exclusion of information that can not be reported quantitatively and in financial terms. Information about intangible assets like customer satisfaction and human resources is usually non-financial due to the non-physical nature of customer satisfaction and the uncertainty of future benefits associated with intangible assets (Cañibano and Sánchez, 1999; Hendriksen, 1982).

> "....even when we can visualise them, their intrinsic characteristics make intangibles difficult to track. Because we cannot see them, touch them or weigh them, we cannot measure them directly and have to rely on proxy or indirect measures of their impact. In both macro and business economics, their existence is revealed indirectly by incremental economic performance that is not accounted for by the conventional key indicators" (European Union, 2002, p.2).

As information about intangible assets can not be expressed in quantitative terms, it is thus excluded from the financial statements. This is one of the major limitations of the current financial accounting framework in today's consumer driven society:

> - "Financial statements do not seek to meet all the information needs of users: users will usually have to supplement the information they obtain from financial statements with information from other sources. Furthermore, financial statements have various inherent limitations that make them an imperfect vehicle for reflecting the full effects of transactions and other events of a reporting entity's financial performance and financial position." (ASB Statement of Principles, Chapter 1, Paragraph 1.8)

The non-inclusion of intangible assets is resulting in a situation where the financial statements do not accurately represent the financial position of a firm's resources. Users thus have to supplement the information in the financial statements with information from other sources to obtain a full picture of all the resources owned by a business. Sveiby (1997) states that as intangible assets are by nature non-monetary, it is not necessary to measure intangible assets in monetary terms. If intangible assets are reported in non-monetary terms, they will not be recognised as assets by the current financial reporting frameworks and included in the financial statements. Thus this emphasis on the provision of financial information quantified in monetary terms is one of the main reasons for the exclusion of intangible assets from the financial statements.

Reliability as already stated is another important criterion for inclusion of an asset in the financial statements. It is an important qualitative characteristic of financial reporting frameworks (IASB, 1989; ASB, 1999; FASB, 1978). Information is reliable if it is neutral and verifiable. Information about assets is neutral if there are consistent, comparable and reliable benchmarks for measuring and reporting assets. Despite the efforts of standard setters and regulators (reviewed in Chapter 3) there is no consensus on consistent and comparable benchmarks or standards on intangible assets. In the absence of any standards regulating intangible assets measurements, the measurement may not be neutral and thus reliable.

This however does not imply that intangible assets should not be measured or reported in sections other than financial statements in the annual reports. As outlined in chapter 3, a number of standard setting bodies (AICPA, 1994, ICAEW, 2001; SEC, 2001, ASB, 2004, FASB, 2001) are encouraging research on development and reporting of reliable measures of intangible assets in section of the annual reports other than financial statements. There is an urgent need to develop a new and holistic measurement system that measures intangible assets like corporate reputation, customer satisfaction and employee satisfaction (Lev, 2001; Petty and Guthrie, 2000; Chaminade and Roberts, 2002; Meritum, 2002; Lev, 2001). The current measurement technology as reviewed in this Section is not in a position to measure and report intangible assets in the annual reports (Kristensen & Westlund, 2001, 2003). Sveiby (1997, p.74) argues:

> "It is tempting to try to design a measuring system equivalent of the double entry bookkeeping with money as the common denominator. It is an established framework with definitions and standards and therefore 'common sense'. This is precisely the reason why we should break with it. I believe that the combination of a manufacturing perspective and a financial focus prevents managers from seeing the new, largely intangible, world that is emerging. If we measure the new with the tools of the old, we won't see the new."

It must be noted that the current financial reporting measurement technology is well equipped to measure tangible assets. In order to measure intangible assets a new reliable measurement technology should be developed. It is just a matter of time before reliable measures of intangible assets will possibly be developed as a result of experimentations with measures of intangible assets that will be reported in the narrative section of the annual reports (FASB, 2001; ICAEW, 2001, AICPA, 1994).

The other important aspect of reliability is that the information should be verifiable. Verifiability of intangible assets measure is also an important issue. The audit and verification of tangible assets is well developed. The verification of intangible asset measures is still to develop but as intangible assets become important, verification techniques of intangible assets will have to be developed. It can be stated that as the need to develop reliable measures becomes urgent, so will the need to develop verification methods. This will be a difficult task but one that will have to be undertaken due to the increasing importance of inclusion of intangible assets as value drivers of a company's performance. The absence of reliable measures of intangible assets should not result in exclusion of information about intangible assets from the annual reports. Information that is considered as not reliable by the current financial reporting framework may not be recognised in the financial statements till such time that reliable measures are developed but information about intangible assets can be disclosed in the annual reports (see Chapter 3 for discussion about disclosure of intangible assets in annual reports as a distinctly different possibility to recognition of intangible assets in financial statements). Another important criterion for recognition of an item in the financial statements namely relevance is discussed in Section 2.4.

The financial reporting framework also states that for any new information to be included in the financial statements, the cost of disclosure should outweigh the benefits of disclosure (ASB, 1999). The costs of any new information are born by the preparers of financial statements and thus the enterprise as well as the auditors. Financial statement users also incur costs to assimilate new information and change analytical models. Thus the benefits should outweigh the cost of disclosure. The costs of disclosing intangible assets are generally considered high because it is a new kind of disclosure that requires the development of more sophisticated measurement and metrics (Backhuijs, Holterman, Oudman, Overgoor and Zijlstra, 1999). As stated in Section 2.2, the omission of intangible assets is resulting in declining relevance of annual reports; a possible benefit of inclusion of intangible assets in the annual reports is increased relevance of annual reports. Thus even though the costs of disclosure are high presently the benefits that correspond to trust in financial reporting may be higher. Furthermore cost incurred in development of measurement and metrics related to intangible assets is only a once off cost while the benefits of efficient and informed decision due to inclusion of an important resource in the annual reports are long lasting.

One of the reasons that intangible assets are also not included in the annual reports is that their inclusion will result in loss of competitive advantage for the reporting enterprise (Litan and Walison, 2000; Jensen and Meckling, 1976). Due to increasing competition, competitive advantage has become source of differentiation between companies. Companies today strive for competitive advantage and having gained competitive advantage protect the source of competitive advantage. As stated in Section 2.2, intangible assets like customers, human resources and innovation are fast becoming more important sources of competitive advantage as compared to tangible assets. Companies thus are reluctant to disclose information about intangible assets. This reluctance as already outlined is resulting in exclusion of relevant information from annual reports. As stated in Section 2.3, annual reports are a communication instrument that should aim to disclose such information to the users of annual reports that can help them make efficient decisions. Thus even though protection of competitive advantage is important, equally important is provision of relevant information to the users of annual reports that facilitate informed decision-making.

Chandra and Greenball (1977) and Mautz (1968) investigated that whether voluntary disclosure of information about strategic operations resulted in competitive disadvantage and concluded that in most cases competitors already knew about even commercially sensitive information about companies. Bmmanuel and Garrod (1992) and Edwards and Smith (1996) conducted research to explore whether segmental disclosure required by SSAP 25 resulted in competitive disadvantage and concluded that segmental information disclosure did not result in competitive disadvantage. In the context of intangible assets, companies may exercise caution but should disclose relevant information relating to intangible assets in the annual reports.

The main aim of this section was to explore the possibility of reporting intangible assets other than goodwill in the annual reports so as to answer the research question of why intangible assets should be reported in the annual reports. It can be concluded that even though the importance of intangible assets as a source of competitive advantage and fundamental determinant of value has increased, the recognition of intangible assets in the financial statements is complicated, in part due to the nature of these assets (high risk, non physical, difficult to control the future benefits), and in part due to archaic accounting rules, which deny them the status of assets. The present financial reporting framework does not encourage the inclusion of non-physical and non-monetary intangible assets in the financial statements. It can be concluded from the discussion in this section that as the annual report is a communication instruments it should disclose such relevant information to the users of annual reports that will enable them to make informed decisions. Exclusion of information about an important component of market value of a company as well as source of competitive advantage is adversely affecting the relevance of annual reports and decision making ability of users of annual reports. Intangible assets like tangible assets are resources of a business that results in future benefits and should be included in the annual reports just like tangible assets. The non-physical nature of intangible assets or the problems associated with measuring intangible assets should not be reasons for the non-inclusion of intangible assets in the annual reports. The inclusion of intangible assets in the annual reports will result in increased relevance and decision usefulness of annual reports to users of annual reports. If intangible assets cannot be recognised in the financial statements, then they may be disclosed in other parts of the annual reports. The option of disclosure in annual reports as opposed to recognition in the financial statements is explored in detail in Chapter 3. The next section identifies customer satisfaction as an important intangible asset and discusses the inclusion of customer satisfaction in the annual reports.

2.4 Reporting Customer Satisfaction in the annual reports

As discussed in Section 2.2 the importance of intangible assets like customer satisfaction, human resources and innovation as a source of value creation and critical success factors of a company's performance has increased in the recent decade or so (OECD, 1996; Beattie, 2000; AICPA, 1994; ICAS, 2002; ICAEW, 1999; Davis, 1992; Wallman, 1995 and Lev and Zarowin, 1999). In view of the increased importance of intangible assets as discussed in Section 2.3 there is an urgent need to include intangible assets in the annual reports.

Customer satisfaction is an intangible asset whose importance has increased in recent years as organisations have shifted their focus from being "product centric" to "customer centric," resulting in customer satisfaction becoming an important value driver and an important source of competitive advantage (Johanson, Martensson and Skoog, 2001; Kohli and Jaworski, 1990; Aaker 1992 and Bitner and Hubbert, 1994). Customer satisfaction is today recognised as an important intangible asset and critical success factor of a company's performance (ASB, 2003; AICPA, 1994; Kaplan and Norton, 1996). The Balanced Scorecard (1996) identifies customer satisfaction as one of the intangible assets for which businesses should develop measurements. The AICPA Report (1994) "*Improving Business Reporting—A Customer Perspective*" stresses the importance of developing measures for reporting intangible assets like customer satisfaction in the annual reports. The FASB Report (2001) "*Improving Business Reporting: Insights into Enhancing Voluntary Disclosures Steering Committee Report -Business Reporting Research Project Information about Unrecognised Intangible Assets*" identifies customers as one of the critical success factors of a company. GRI Guidelines (2002) outlines customer satisfaction as an important social performance indicator. The Reporting Standard on Operating and Financial Review issued by ASB (2005) identifies customer satisfaction as an important relationship that should be monitored.

This Section reviews the importance of customer satisfaction as an important intangible asset and explores the possibility of inclusion of customer satisfaction in the annual reports.

Customer satisfaction has been defined as "the degree to which a consumer's pre-purchase expectations are fulfilled or surpassed by a product" (Peter and Olson, 1996; Howard and Sheth, 1969; Anderson and Fornell, 1994; Churchill and Suprenant, 1982 and Zeithaml, Berry and Parasuraman, 1991 for an explanation of customer satisfaction).

Hauser, Duncan and Birger (1994) state that "... customer satisfaction measures are an indicator of future profit..." A US Department of Labour Report (1995) concludes that indicators of internal workplace achievement like customer satisfaction can serve as leading indicators of future financial performance. Dholakia and Morwitz (2002) opine that customer satisfaction under the "right circumstances" and if measured "properly" is a leading indicator of financial performance.

Customer satisfaction, for some organisations, has replaced market share as a measure of marketing success and business performance (Ahmad and Buttle, 1996). Empirical evidence concludes that increased customer satisfaction leads to improved profits, positive word-of-mouth, and lower marketing expenditures (Reichheld and Sasser, 1990). Customer satisfaction can also be used to predict future cash flow (see for example Bolton and Lemmon, 1999 and Rust and Zahorik and Keiningham, 1995) or to detect changes in service quality (see for example Oliver and Swan, 1989). Furthermore it is less sensitive to seasonal fluctuations, changes in costs or changes in accounting practices and reduces price elasticity (Kotler, 1988). Satisfied customers are reputedly more likely to engage in positive word of mouth, and less likely to engage in damaging negative word of mouth, for the firm (Anderson and Fornell, 1994; Howard and Sheth, 1969; Reichheld and Sasser, 1990 and Richins, 1983).

The importance of customer satisfaction can be judged from the significant portion of marketing budgets spent on enhancing customer satisfaction (Loro, 1992 and Griffin and Hauser, 1993). According to Inside Research, a marketing research industry newsletter, the combined US and European customer satisfaction measurement expenditure approximately was US$237 million in 1997 and is growing at the rate of approximately 20% every year.

A number of surveys have also outlined the importance of customer satisfaction. Schultz (1992) stated that 64% of 700 top executives in America considered customer satisfaction as their number one priority and the remaining 34% indicated it was one of the top priorities. According to a PricewaterhouseCoopers survey (1998), 73% of executives considered customer satisfaction as contributing to long-term shareholder returns. The importance of customer satisfaction is also illustrated by the importance attached to customer satisfaction by the European Quality Award and the Baldrige National Quality Award. According to Anderson, Fornell, and Lehmann (1994), customer satisfaction can be used to evaluate and enhance the performance of firms, industries, economic sectors and national economies as it measures the quality of good and services as experienced by the customers who consume them. Fornell (1992) developed the Swedish National Customer Satisfaction Barometer. He suggested that customer satisfaction can be used as a complement to economic measures of productivity and quality (Fornell, 1992, Anderson and Sullivan, 1993; Anderson, Fornell, and Lehmann, 1993).

Empirical evidence also suggests that there is a positive relationship between employee and customer satisfaction (Schneider and Bowen, 1993, Schlesinger and Zornitsky, 1991 and Wiley, 1991). Companies expend resources to collect customer satisfaction data for their own internal purposes and increasingly are linking executive compensation to customer satisfaction measures (see Ittner, Larcker and Rajan, 1996 for empirical evidence and McNerney, 1996 for example of how KFC links employees' compensation to customer satisfaction measures).

Ninety percent of the 200 of the largest American companies have an ongoing process for measuring and improving customer satisfaction scores (Lowenstein, 1996). Ninety six percent of the best manufacturing plants in North America regularly conduct customer satisfaction surveys (Jusko, 1999). This interest is explained on the basis of the positive relationship between customer satisfaction and business performance that has been discovered by these companies (Oliver, 1997). A number of research studies have also outlined a positive relationship between customer satisfaction and financial performance measured in terms of profitability (Agus, Latifah and Kadir, 2000; Bernhardt, Donthu and Kennett, 2000; Rust and Zahorik 1993; Storbacka, Starndvik and Gonroos, 1994). Ittner and Larcker (1996) found evidence of a strong association between customer satisfaction and share price levels. Grant (1998) discovered positive correlation between customer satisfaction and market returns using Customer Satisfaction Index studies. By analysing the American Customer Satisfaction Index, Ittner and Larcker (1998) concluded that a one unit increase in a company's score on the index was associated with a US$240 increase in the stock market value of an average company.

Anderson and Fornell (1994) found evidence of the positive impact of satisfaction on profits using data from the Swedish Customer Satisfaction Barometer and ROI for the sample firms.[1] Their study, based on the performance consequences of customer satisfaction in 77 Swedish firms, supported the hypothesis that customer satisfaction is positively associated with accounting returns on investment. They therefore concluded that high customer satisfaction results in higher economic returns where an annual one-point increase in customer satisfaction has a net present value of US$7.48 million over five years for a typical Swedish firm. Banker, Potter, and Srinivazan (1998) also

[1] If customer satisfaction was recognised as an asset, assets (the I in ROI) would increase, which would lead to a decreased ROI.

discovered that customer satisfaction measures are positively associated with future accounting performance in 18 hotels managed by a hospitality firm.

Customer satisfaction also has a positive relationship with customers' repurchase intentions and customer retention. Customers who are satisfied with a purchased product will buy the same product again, more often (Reicheheld, 1996; LaBarbera and Mazursky, 1983 and Rust and Williams, 1994), and will also recommend it to others (Oliver and Swan, 1989). This has a positive effect on business performance measured in terms of profitability as the costs of doing business with a buyer with whom a relationship has already been built up are significantly lower than those entailed by canvassing a new customer (Fornell, 1992; and Anderson, Fornell, and Lehmann, 1994. 1994). The market value of any company is contingent upon income received from customers for products and services supplied to them. The direct impact of customer retention is decreased future costs and a steady flow of income (Dawkins and Reichheld, 1990; Reichheld and Kenny, 1990; Reichheld and Sasser, 1990; and Reichheld, 1993 and 1996). Reichheld (1996) and Ittner and Larcker (1998) provide empirical evidence based on market-based studies that increased customer satisfaction results in increased customer retention. Higher customer retention reduces risk which reduces the discount rate and increases the present value of earnings/cash flows. (See also Dabholkar Rentz and Thorpe, 1994; Rust and Zahorik, 1993, Oliver and Swan, 1989; Bearden and Teel, 1983; LaBarbera and Mazursky, 1983 for evidence of positive relationship between customer satisfaction and purchase intentions.)

It has also been estimated that reducing customer defections by as little as 5% can increase profits from 25% to 85% (Fornell and Wernerfelt, 1987 and 1988). Reichheld and Sasser (1990) assert that customer defections have a stronger impact on a company's profits than "sale, market share, unit costs, and many other factors usually associated with competitive advantage".

In the context of minimising customer defections, customer satisfaction is also considered an important value driver due to the positive association of customer satisfaction with customer loyalty. Customer loyalty is considered as the single most important driver of long-term financial performance as customer loyalty is reflected in economic returns and ensures a steady stream of future cash flow. This results in an increase in the value of a firm's customer assets and future profitability (Anderson, Fornell, and Lehmann, 1994 and 1996; Cronin and Taylor, 1992; Reichheld and Sasser, 1990; Anderson and Sullivan, 1993; Bearden and Teel, 1983; Fornell, 1992; Oliver and Swan, 1989; LaBarbera and Mazursky, 1983).

It can be concluded from this discussion that customer satisfaction is an important intangible asset that has a positive relationship with the economic performance of the company. Customer satisfaction results in a number of positive outcomes, namely customer retention, customer loyalty and lower customer defection that increases the value of a company making customer satisfaction an important value driver. One of the research questions that the present research aims to answer is that why should customer satisfaction that is not recognised as an asset by the current financial reporting framework and thus not included in the financial statements be reported in the annual reports. Section 2.3 outlines a number of reasons for inclusion of intangible assets like customer satisfaction in the annual reports for example declining relevance of annual reports due to exclusion of information about intangible assets that are increasingly becoming an important source of competitive advantage and an important determinant of value. Beattie (2004) and Leadbetter (1999 and 2000) while suggesting the inclusion of intangible assets in the narrative section of the annual reports have identified the following criteria for inclusion of an intangible asset in the annual reports that is not recognised in the financial statements:

- Evidence of a positive relationship between the intangible asset and the economic performance of the company measured in terms of profitability, share price or long-term shareholders returns.
- The provision of relevant information to the users of annual reports i.e. whether the inclusion of the intangible asset provides information that affects or changes the decisions of the decision makers.

Leadbetter (1999 and 2000) and Beattie (2004) considered the establishment of criteria for inclusion of intangible assets in the narrative section of the annual reports as important for without specification of criteria they were of the opinion that a floodgate to information relating to intangible assets would be opened. Beattie (2004) is of the opinion that researchers need to provide robust empirical evidence of relevance of information about intangible assets to the users of annual reports and of positive relationship between intangible assets and the financial performance of the company before a case can be made for the inclusion of an intangible asset in the annual reports. Beattie (2004) furthermore states that researchers only need to illustrate that the criteria for inclusion of intangible assets have been fulfilled, it is then up to the policy makers to make a decision about whether an intangible asset is to be included in the annual reports or not. It can be concluded that a strong case can be built for the inclusion of customer satisfaction in the annual reports if it can be illustrated that:

- A positive relationship exists between customer satisfaction and economic performance of the company measured in terms of profitability, share price or long-term shareholders returns.
- The inclusion of customer satisfaction information in the annual reports provides relevant information

The empirical evidence supporting the existence of a positive relationship between customer satisfaction and economic performance was reviewed in this section. A number of research studies discussed in this section provide empirical evidence of existence of positive relationship between customer satisfaction and economic performance (Banker, Potter, and Srinivazan, 1998; Anderson and Fornell, 1994; Ittner and Larcker, 1998; Grant, 1998; Agus, Latifah and Kadir, 2000; Bernhardt, Donthu and Kennett, 2000; Rust and Zahorik 1993; Storbacka, Starndvik and Gonroos, 1994). Thus one criterion for inclusion of information about intangible assets is fulfilled by customer satisfaction. This research study thus aims to find out whether inclusion of customer satisfaction provides relevant information to the users of annual reports.

As discussed in Section 2.2, *relevance* is an important characteristic for the recognition of an asset in the financial statements. *Relevance* is defined as any information that has feedback value or predictive value (or both) for users and has the capacity to make a difference in investors', creditors', or other users' decisions (ASB, 1999). Information included in the annual reports is relevant if it changes the decision being made by the decision maker (ASB, 1999). The fundamental objective of financial reporting is to provide users of financial statements with information about financial position and financial performance that is useful to present and potential investors and creditors and other users in making rational economic, investment, credit, and similar decisions (ASB, 1999; Beattie, 2000 and FASB, 1978). Any new information that is to be included in the annual reports should contribute towards the decision-making role of financial reporting. When any information in the annual report facilitates decision-making, then that information fulfils the criteria of relevance to the users of annual reports (Pankoff and Virgil, 1970; ASB, 1999; AICPA, 1994 and FASB, 1978).

Due to the increasing importance of intangible assets, the criterion of relevance has become very important. This is because the potential decline in decision usefulness and relevance of annual reports due to the exclusion of intangible assets from annual reports is one of the main reasons for exploring the inclusion of intangible assets in the financial statements or annual reports. Thus there is an urgent need to include such intangible assets in the annual reports that provide relevant information to the users of annual reports and can thus increase the decision usefulness of the annual reports (AICPA, 1994 and the OECD, 1998).

Researchers proposing the inclusion of any intangible asset in the annual reports need to illustrate the relevance of inclusion of that intangible asset in the annual report to the users of annual reports. Beattie (2000) states that researchers need to reveal the relevance of intangible assets, after that it is up to the policy makers and standard setting bodies to articulate the changes in the most appropriate manner. This research study precisely aims to do that. It aims to assess the relevance of customer satisfaction disclosure by direct involvement of users of annual reports.

AICPA (1994) and ICAS (2002) state that direct involvement of users of annual reports is necessary for assessing relevance of any voluntary new information relating to intangible assets in the annual reports. Users of annual reports are present and potential investors, employees, lenders, suppliers and other trade creditors, customers, governments and their agencies and the public (ASB, 1995; AICPA, 1994). The primary users of annual reports are currently characterised as investors (ASB, 1999; Canibano and Sanchez, 1998; AICPA, 1994; Beattie, 2000). The needs of other users are served through the satisfaction of the needs of investors (ASB, 1995).

> "The objective of financial statements is to provide
> information about the reporting entity's financial

> performance and financial position that is useful to a wide range of users for assessing the stewardship of the entity's management and for making economic decisions......That objective can usefully be met by focusing exclusively on the information needs of present and potential investors, the defining class of user." (ASB Statement of Principles, 1999, p. 8)

Thus, firms' disclosures are a response to investors' requirements (Gelb and Zarowin, 2000). This is because that the investor has traditionally been regarded as bearing the greatest risk in a business entity. The investor is most exposed to and most interested in accurate valuation of the company. Thus in the assessment of relevance of customer satisfaction disclosure to the users of annual reports, investors are considered as the defining class of users of annual reports for the purpose of this research study.

Investors want information that helps them in investment decisions. If customer satisfaction disclosure has an impact on investment decision-making then disclosure of customer satisfaction provides relevant information to the users of annual reports. Customer satisfaction information in the annual reports will be relevant if it has 'feedback value' as well as 'predictive value' to the users of annual reports. Investment decisions usually involve making decisions about financial position, financial performance, investment risk and share price of the company. Customer satisfaction will have 'feedback value' if it affects assessment of financial position, financial performance, investment risk and share price. Investors are also concerned about the reliability of the information on the basis of which they make assessment of financial position, financial performance, investment risk and share price. Customer satisfaction information will be relevant if it has 'predictive value'. It will have a 'predictive value' if customer satisfaction disclosure affects investors' confidence in their assessment of the financial position, financial performance, investment risk and share price (ASB, 1999). Therefore, customer satisfaction information in annual reports is relevant if the disclosure of customer satisfaction in the annual reports results in the provision of information that affects, changes or improves the decision makers' (investors') investment decision in the context of the assessment of financial position, financial performance, risk and share price as well as level of confidence in the assessment of financial position, financial performance, investment risk and share price.

The main aim of this section was to answer the research question that 'why customer satisfaction should be disclosed in the annual reports.' The answer is that customer satisfaction should be disclosed in the annual reports if customer satisfaction has a positive relationship with the economic performance of the company and its inclusion provides relevant information to the users of annual reports. With regards to the positive relationship between customer satisfaction and economic performance, a number of research studies outlined in this section provide empirical evidence of positive relationship between customer satisfaction and economic performance of the company. The second aspect of the criteria is the provision of relevant information to the users of annual reports. One of the main aims of this research study is to assess the relevance of customer satisfaction disclosure to the defining class of users of annual reports namely investors. Research hypotheses (H1a to H1d) developed for assessing the relevance of customer satisfaction disclosure to users of annual reports will be outlined in Chapter 10. The research hypotheses will be tested by means of an experimental instrument explained in Chapter 8. The results of the testing of the experimental instrument are discussed in Chapter 10.

2.5 Conclusion

This chapter is a curtain raiser to the research study. The main aim of the chapter is to explore the answer to the main research question that why customer satisfaction should be reported in the annual reports. Intangible assets other than good will are not recognised in the financial statements resulting in declining relevance and decision usefulness of the annual reports. The exclusion of intangible assets from the financial statements of annual reports is partly because of financial reporting frameworks (ASB, 1999; FASB, 1978) that do not encourage inclusion of non-physical and non-monetary intangible assets and partly because of the politics of intangible assets.

It is stated in Section 2.3 that due to the inability of the current financial reporting frameworks to recognise intangible assets in the financial statements the option of disclosure of intangible assets in the annual reports rather than recognition in the financial statements needs to be explored. This option is discussed in detail in Chapter 3.

As discussed in Section 2.4, due to the increasing importance of intangible assets there is a need to report intangible assets in the annual reports that have positive relationship with the economic performance of the company and provide relevant information to the users of annual reports. Customer satisfaction is identified as a signal of intangible assets in Section 2.4 that will be used to explore the main research aims and objectives. The reasons for identification of customer satisfaction as the signal of intangible assets are reviewed in Section 2.4. It is stated that the significance of customer satisfaction as an important value driver and source of wealth creation has increased in the customer centric business world of today. Customer satisfaction results in a number of advantages like customer retention, loyalty and repurchases which result in increased profitability. The empirical evidence of a positive relationship between customer satisfaction and financial performance of the company is also discussed. The existence of evidence of a positive relationship between customer satisfaction and financial performance of the company satisfies one of the criteria discussed in Section 2.4 for inclusion of an intangible asset in the annual reports. This research as mentioned in Section 2.4 aims to assess the relevance of customer satisfaction disclosure to the users of annual reports.

Relevance is defined as any information that effects decisions. It is thus stated that a strong case will exist for the inclusion of customer satisfaction in the annual reports if it can be proved that it provides relevant information to the users of annual reports. Investors are identified as defining class of users of annual reports in Section 2.4. The research as stated in Section 2.4 aims to assess whether customer satisfaction disclosure provides relevant information to investors. For that purpose a research instrument is designed (see Chapter 8). The testing of the research instrument (Chapter 10) will answer the research question that whether customer satisfaction provides relevant information to users of annual reports. In this chapter the stage thus has been set for subsequent exploration of relevance of customer satisfaction disclosure to the users of annual reports in Chapters 9, 10 and 11.

CHAPTER 3

REPORTING CUSTOMER SATISFACTION

> "We cannot have financial reporting and disclosure constraints that slow the pace of progress in capital markets, decrease the rate of reduction in the cost of capital, or limit innovation. The next step collectively is ours." Steven M.H. Wallman (1995, p. 89).

3.1 INTRODUCTION

Contemporary financial reporting 'no longer meets the needs and expectations of a modern economy, in which prospects of and risks to businesses, and "softer" assets, such as intellectual and human capital, are of increasing importance', but accepted that, 'it is easier to criticise than to produce a practicable and generally acceptable alternative set of rules' (Company Law Review Group, paragraph 6.9). This research instead of criticising financial reporting for its inability to report intangible assets in the annual reports takes a practical approach towards the issue of reporting intangible assets in the annual reports by exploring the possibility of reporting intangible assets in the annual reports. This is considered necessary so as to address the issue of declining relevance of annual reports due to exclusion of intangible assets from annual reports.

As outlined in Chapter 1, the two main research questions to be addressed in this research study are why and how an intangible asset like customer satisfaction should be disclosed in the annual reports. The main focus of Chapter 2 was to explore why customer satisfaction that is not recognised as an asset in the financial statements should be disclosed in the annual reports. The main objective of this chapter is to answer the research question of how customer satisfaction should be disclosed in the annual reports.

A review of reports relating to reporting intangible assets in the annual reports is undertaken so as to evaluate the relevance of proposals made for including intangible assets like customer satisfaction in the annual reports. A number of suggestions (discussed in this chapter) outline metrics and measurement technologies for reporting intangible assets in annual reports. This research study thus focuses on one of the main limitations of contemporary financial reporting: the inability of current measurement technologies to provide sufficiently credible numbers which can be recognised in the financial statements.

This chapter is divided into four sections. The present section is an introductory section. Section 3.2 reviews the literature relating to reporting intangible assets in the annual reports by critically reviewing suggestions for reporting intangible assets in the annual reports. Section 3.3 based on the discussion in Section 3.2 outlines a framework for reporting customer satisfaction in the annual reports. The framework proposed in Section 3.3 will form the basis of discussion for the remainder of the thesis. The next section reviews the literature relating to reporting intangible assets in the annual reports.

3.2. Intangible assets in the annual reports

The rise of the intangible economy reviewed in Chapter 2 has resulted in the need to measure and report intangible assets in the financial statements, thus posing a major challenge to financial reporting (Swieringa, 1997; Vickery and Wurzburg, 1992). Wallman (1995) argues that the challenge can be faced successfully if there is knowledge, courage, and the vision to evaluate and make forward-looking changes in the reporting system that will make available to investors the most relevant and useful information. There are, therefore, strong arguments in favour of the development of reliable measurement technologies and reporting of a range of intangible assets in the annual report.

A critical issue outlined in Chapter 2 that needs to be addressed in the context of reporting intangible assets in the annual reports is whether intangible assets should be formally recognised in the financial statements or whether they should be disclosed in the annual reports. Recognition of intangible assets means recording the intangible assets in the company's accounting books. The effects of the recognition of an intangible asset in the company's accounting books are reflected in the company's financial statements, which are the primary means of providing accounting information to investors and creditors. Disclosure of intangible assets, on the other hand, means disclosing the intangible assets in the notes to the financial statements or other parts of the annual reports like the *Operating and Financial Review* or the *Chairman's Statement*.

The measurement and recognition of intangible assets in the financial statement has been fraught with problems and controversies (Backhuijs, Holterman, Oudman, Overgoor and Zijlstra, 1999). This is because the approach to measuring and reporting intangible assets like brands, customers, patents, reputation and innovation has to be different than the approach to measuring tangible assets like machinery, equipment and fixtures. As discussed in Chapter 2, one of the main reasons for the non-recognition of intangible assets in the financial statements is the inability of the financial reporting frameworks to recognise, measure and report intangible assets in the financial statements. Intangible assets may provide relevant information to the users of annual reports but they are non-physical in nature and their future benefits are uncertain. They thus do not fulfil the recognition criteria for an asset laid down by the current financial reporting framework. They are thus excluded from the financial statements. There have been attempts in the recent past at recognising intangible assets in the financial statements. Accounting standards such as FRS 10 (1999) and IAS 38 (1998) have provided guidance for reporting intangible assets in the financial statements. These standards state that with the exception of internally generated intangible assets that have a readily ascertainable market value all internally generated intangible assets should be expensed. Intangible assets on the other hand acquired from others, including through a business combination accounted for as a purchase, are recognised in the financial statements. Several commentators (see e.g., Lev and Zarowin, 1999; Eustace, 2000; Vance, 2001) have highlighted the inconsistencies between the treatment of purchased and internally generated intangibles. This inconsistency in the treatment of purchased and internally generated assets leads to incomparable representations in the financial statements. If intangible assets have to be included in the annual reports then there should not be any discrimination between internally generated intangible assets and purchased intangible assets. They both have the same characteristics - that they are non-physical in nature and their future benefits are uncertain. Whereas internally generated intangible assets cannot be recognised in financial statements, purchased intangible assets can be. The IASB has identified this problem in IAS 38, expressing concern that the guidance is 'not sufficiently robust' (IASB, 1998). The main problem associated with recognising internally generated intangible assets in the financial statements is that it is difficult for accountants to value them and consequently recognise them in the financial statements.

> "Monkeying with financial statements, for almost any reason, is a terrible idea. Investors have 500 years of practice interpreting financial statements while learning to understand, project, get comfortable with, and value our more than $60 trillion in total assets.... Scrambling the financial data we use to make such judgments would render these methods less useful........Giving people more information is fine: They can make their own judgments. Tinkering with the balance sheet is not a good idea. Balance sheets are for *stuff*, ..., not people or ideas." (Rutledge, 1997, p.17)

If the Balance Sheet is for stuff called tangible assets then where should people, ideas, relationships called intangible assets that are also resources owned by a business be reported? The SEC inspired task force report "*Strengthening financial markets: Do Investors Have the Information They Need?*" demonstrates investors need for information about intangible assets. Investors as stated in Chapter 2 are the defining class of users of annual reports. If investors want information about intangible assets as stated by this report then a strong case exists for the inclusion of information about intangible assets in the annual reports. This is one of the most critical challenges faced by financial reporting (FASB, 2001). If the balance sheet prepared using the traditional financial reporting framework cannot recognise intangible assets in the financial statements then because of the importance of intangible assets other avenues for inclusion of intangible assets in the annual reports need to be explored. One such avenue advocated by standards setters and professional bodies as discussed in the next sub-section is disclosure of intangible assets in the annual reports (FASB, 2001; AICPA, 1994, ASB, 2005).

3.2.1 Disclosure of intangible assets in the annual reports

A report by the Financial Accounting Standards Board (2001) titled "*Business and Financial Reporting: Challenges from the New Economy*" critically reviews the situation of recognition versus disclosure of intangible assets in the annual reports. The report clearly states that:

> ".. the economy of 2000 is fundamentally different from the economy of 1950 and before..., traditional financial statements do not capture—and may not be able to capture—the value drivers that dominate the new economy. Those assertions have attracted a considerable following. Accounting bodies, standard setters, academics, and government regulators in Europe and all of the English-speaking countries have conducted studies and issued reports. To date, there has been little change in financial reporting." (FASB, 2001, p.1)

One of the possible reasons for this little change in financial reporting is the inability of the preparers of annual reports to see beyond recognition in financial statements. The FASB (2001) report argues for the extension of financial reporting boundaries to include information about the intangible assets of the new economy. It outlines the following proposals for the extension of financial reporting boundaries:

- A new financial reporting paradigm for reporting intangible assets of the new economy that would supplement, or might replace, the existing financial reporting paradigm.
- Development of standards by accounting standard setters that would be used as a basis for the recognition and measurement of internally generated intangible assets.
- Reporting of intangible assets in the annual report by development of non-financial metrics like employee or customer satisfaction measures.

Having identified the proposals extending the boundaries of financial reporting, the report encourages voluntary disclosure of intangible assets in the annual reports as opposed to recognition in the financial statements. This suggestion is made in view of the fact that recognition in the financial statements require mandated changes that will do more to harm the usefulness and credibility of reporting than improving its usefulness. The report however stresses that in view of the importance of intangible assets they should be reported within the annual reports even if it involves a need to extend the financial reporting boundaries but the extension should not come at the expense of replacement or supplementation of annual reports with some other type of report or document to report intangible assets.

The Institute of Chartered Accountants in England and Wales Report (2000) titled *"New Measures for New Economy"* proposes the following alternatives for reporting intangible assets in the annual reports:

Incremental approach –This approach suggests that traditional financial accounts should remain the focus of corporate reporting but they should be augmented by relevant and robust information on intangible assets. The incremental approach therefore seeks gradually to fill in values for the intangible assets that the traditional balance sheets overlook. This approach recommends that the immediate focus should be on development of industry specific best practices to improve the disclosure of non-financial information about intangibles, alongside traditional financial accounts. The emphasis thus for the time being should be on disclosure of intangible assets in the annual reports rather than recognition of intangible assets in the financial statements. This will involve development of reliable performance measures relating to intangible assets. This approach would thus provide better information about intangibles and allow them to be valued more reliably.

A Radical approach - The radical approach is to devise entirely new balance sheets for companies called Intellectual Capital Balance Sheets that would put intangible assets at the heart of the accounts. An example of the intellectual capital balance sheet is the intellectual capital report published by Swedish insurance company - Skandia.

A Hybrid approach – This is the most radical approach suggested as it would involve far more sweeping changes, not just to the way managers and accountants value intangible assets but also the value placed upon them by society as a whole. The Hybrid approach argues for the creation of new financial markets which would allow the trade of options on intangibles. This would allow investors to invest in companies, as combinations, but also on a disaggregated basis. Accountants would not attempt to measure intangible values themselves, but simply record the values put on intangibles by the financial markets. The great merit of this market-led approach is that accounting and market-based measures of value would develop in tandem. Companies would be forced to provide more information to investors to inform their trading in these markets. The focal point would not be new balance sheets but new markets.

Having outlined the three approaches to reporting intangible assets in the annual reports, the report favours the incremental approach and states that even though there is a need to measure and report intangible assets but the reporting should be within the annual reports. As there are problems associated with measuring and recognising intangible assets in the financial statements, this report suggests that such metrics should be developed through which intangible assets can be disclosed in the annual reports. An evolutionary approach should thus be undertaken to report intangible assets in the annual reports. This report like the FASB (2001) report discussed earlier encourages disclosure of intangible assets within the annual reports as opposed to recognition of intangible assets within the financial statements.

The Securities Exchange Commission Inspired Task Force (2001) *"Strengthening Financial Markets: Do Investors Have the Information They Need"* after investigating the information needs of investors acknowledges that investors use information about intangible assets to develop their assessments of a company's future performance. The report however states that information about intangible assets should not be included in the balance sheet as the balance sheet prepared under Generally Accepted Accounting Principles (GAAP), was never meant to reflect the value of the intangible assets of the company. The financial statements of a company are meant to provide information about a company's tangible assets and liabilities and changes in those assets and liabilities from one period to the next. This information, when combined with other information, helps investors assess the value of the company. Thus the report states that efforts should be directed towards developing a framework other than GAAP for *supplemental* reporting by companies about intangible assets. This supplementary reporting would involve voluntary disclosure of intangible assets in the annual reports.

The report like other reports discussed in this section is of the opinion that even though investors require complete information about intangible assets, voluntary disclosure of intangible assets will be a far better approach to disclosure of intangible assets than prescriptive formulas for reporting intangible assets due to the unstable and uncertain nature of intangible assets. The report acknowledges that in case of voluntary systems of disclosure of intangible assets, there are chances that not all the companies will make disclosure of intangible assets but the report believes that companies lagging in their disclosure will be penalised by market forces.

The Brookings Institute's Report (2001) *Unseen Wealth: Report of the Brookings Task Force on Understanding Intangible Sources of Value* in advocating disclosure of intangible assets in the annual reports states that investors want information about internally generated intangibles and concludes that "it is irrelevant whether such information is incorporated into the regular financial statements of companies or whether it is presented in some other format, such as in the footnotes in the management discussion and analysis, or in some other supplementary disclosure format" (Brookings Institution,2001, p. 46). This report like the other reports discussed in this section also favours disclosure of intangible assets within the annual report and is of the opinion that the positioning of reporting intangible assets is irrelevant.

The Financial Accounting Standards Board Report (2001) *"Improving Business Reporting: Insights into enhancing voluntary disclosure steering committee report – Business Reporting Research Project Information about Unrecognised Intangible Assets* concludes that as intangible assets are inherently subject to shifts caused by factors not wholly within the management's control, the report recommends disclosure versus recognition. The Steering Committee developed the following framework for providing voluntary disclosures:

- Identify the critical success factors of the company's business. The critical success factors identified were human resources, customers and innovation.
- Identify past, present and future management's strategies and plans for managing those critical success factors
- Identify metrics (operating data performance measures) used by management to measure and manage the implementation of their strategies and plans.

- Consider whether voluntary disclosures would adversely affect the company's competitive position and whether the risk of adversely affecting competitive position exceeds the expected benefit of making the voluntary disclosure.
- If disclosure is deemed appropriate, determine how best to voluntarily present that information. The nature of metrics presented should be explained, and those metrics should be consistently disclosed from period to period to the extent they continue to be relevant. .

It can be concluded from the discussion of the Steering Committee report that critical success factors that can be important value drivers like the intangible assets may be disclosed in the annual reports provided the benefits of the disclosure outweigh the costs. As suggested by other reports reviewed in this section, this report also advocates disclosure of intangible assets in the annual reports as opposed to recognition of intangible assets in the financial statements.

The OECD sponsored Symposium (1999) *"Measuring and Reporting Intellectual Capital: Experience, Issues, and Prospects"* argued for voluntary disclosure of intangible assets in the annual reports stating that mandatory changes in rules affecting intangible assets are too early to consider.

The *"Accounting for People"* Taskforce Report in 2003 found widespread support for the need to report an intangible asset like human capital measures in annual reports. The report supports disclosure of human capital measures in the annual reports as opposed to recognition in the financial statements. The performance measures developed should be consistent, objective, balanced, reliable, relevant and comparable. An evolutionary approach should be undertaken in the development of human capital management measures. The report suggests that human capital management is a material factor in organisational performance, thus the natural place for inclusion of information about human capital management measures is the *Operating and Financial Review* because of the discursive nature of human capital management measure. This report like the other reports reviewed in this section suggests disclosure of intangible assets in the annual reports as opposed to recognition in the financial statements but it takes a step forward as it precisely states that human capital measures should be disclosed in the *"Operating and Financial Review."*

The ASB published its definitive standard (*Reporting Standard 1*) on the *Operating and Financial Review* in May 2005. Even though this standard does not specifically relate to intangible assets, it provides guidance on a number of issues that are critical to this research study. An *Operating and Financial Review* is a

> "narrative explanation, provided in the annual report, of the main trends and factors underlying the development, performance and position of an entity during the period covered by the financial statements that is not reported in financial statements but which is relevant to the investors' evaluation of past results and assessment of future prospects, and which are likely to affect the entity's future development, performance and position (ASB, 2004, p. 14).

One of the key proposals of the Reporting Standard is that the OFR shall complement as well as supplement the financial statements by providing useful comprehensive, understandable; balanced; neutral; and comparable financial and non-financial information about the business and its performance, in order to enhance the overall corporate disclosure. The OFR shall be balanced and neutral, dealing even-handedly with both good and bad aspects. It shall contain comprehensive, relevant, understandable, balanced, consistent and neutral disclosures of financial and non-financial Key Performance Indicators (KPI) judged by the directors to be the most effective in measuring the delivery of their strategies and in managing their business together with information that will enable investors to understand and evaluate each Key Performance Indicator (p.17). For each KPI disclosed in the OFR the definition and its calculation method shall be explained; its purpose shall be explained; the source of underlying data shall be disclosed and, where relevant, assumptions explained; quantification or commentary on future targets shall be provided; where available, corresponding amount for the financial year immediately preceding the current year shall be disclosed; and any changes to Key Performance Indicators shall be disclosed as well as any calculations.

The OFR shall provide an overview of important tangible and intangible assets available to the business that will help in the achievement of its objectives and especially those items that are not reflected in the balance sheet. Resources, risks and relationships that may significantly affect the company's short and long-term value should be disclosed in the annual reports. OFR shall include information about significant relationships with stakeholders for example customers, suppliers, employees which are likely, directly or indirectly, to influence the performance of the business and its value (paragraph 50). The types of disclosures worth exploring with regards to relationships with stakeholders are profiles of the stakeholder and nature of the relationship (length of relationship, is it subject to contract, if so when does the contract expire); level of dependency; satisfaction with relationship –feedback results, levels of complaints, surveys etc.

The ICAEW (2001) called for the voluntary disclosure of intangible assets in the *Operating and Financial Review* until such time that concrete measurement techniques are formulated. O'Dwyer (2001) concluded that environmental disclosures in Ireland are mostly undertaken in the *Operating and Financial Review* and Chairman's Statement/Chief Executive Officer's review sections of the annual report. Brennan (1999) suggested that the natural place for voluntary disclosures in Ireland is the Chairman's Report or the *Operating and Financial Review*.

It can be stated that the *Operating and Financial Review* provides a framework for disclosure of information relating to intangible assets suggested by reports reviewed in this section. As most of the reports reviewed in this section have suggested disclosure of intangible assets in the annual reports, OFR provides the location for disclosure of information relating to intangible assets. Like the other reports reviewed in this Section the Reporting Standard 1 also suggests that comparable and balanced key performance indicators relating to intangible assets should be reported in the OFR. It specifically mentions that relationships with stakeholders like customers should be reported in the OFR. Thus information about customer satisfaction may be disclosed in OFR.

It can be concluded from the discussion in this sub-section that as recognition of intangible assets in the financial statements is fraught with problems of reliable measurements of non-physical assets, policy makers for present need to undertake an evolutionary approach towards reporting of intangible assets in the annual reports. This evolutionary approach involves disclosure of intangible assets in the *Operating and Financial Review* of annual reports.

Arnold (1992) states the abandonment of the current accounting models does not seem like a plausible course of action in the near future. The costs associated with a radical change of the accounting system of reporting would be unaffordable. Therefore, it appears the most sensible approach to the enhancement of the usefulness of financial statements is to develop complementary statements within the framework of the current accounting system. Sterling (1967, p. 99) writes that '….the theory of accounting is subject to revolutionary change but the practice of accounting must be evolutionary' (Sterling, 1967, p. 99). This opinion is upheld by ASB's *Statement of Aims,* one of which is 'to take account of the desire of the financial community for evolutionary rather than revolutionary change in the reporting process' (ASB, 1991, para. 7). Birnberg (1976) warns of the possible effects of 'information overload' if the evolutionary approach is not adopted for initiating changes in the annual reports.

The recognition of intangible assets in the financial statements can also be classified as a revolutionary approach to reporting intangible assets in the annual reports. As discussed earlier in this section, Rutledge (1997) states that tinkering with financial statements that are based on financial reporting framework that has been established as a result of a long period of extensive experimentation is not a good idea; balance sheet is for stuff like tangible assets or purchased intangible assets. It is possible that in years to come such measurement technology is developed that results in recognition of internally generated intangible assets in the financial statement but the approach to development of that technology needs to be incremental rather than radical. For present, the policy makers as discussed in the next sub-section need to concentrate on experimentation with disclosure of intangible assets in the annual reports.

3.2.2 Experimentation with disclosure of intangible assets

The AICPA Report (1994) *Improving Business Reporting – A Customer Focus* strongly encourages experimentation with disclosures of intangible assets but within the boundaries of annual reports. The Canadian Institute of Chartered Accountants (CICA) report *Performance Measures in the New Economy* (McLean, 1995) encourages experimentation with development of supplementary measures for intangible assets presently and does not favour a drastic development of a new accounting model for accounting for intangible assets. The SEC inspired Task Force report (2001) *Strengthening financial markets: Do investors have the information they need?* also encourages experimentation with disclosures of intangible assets as well as channels of disclosure of intangible assets in the annual reports. It recommends that government should provide an environment that encourages innovative disclosure by reducing the risks associated with such a disclosure. One of the conclusions of the OECD sponsored *Symposium on Measuring and Reporting Intellectual Capital: Experience, Issues, and Prospects (1999)* was that there is an increasing need to report intangible assets in the annual reports. The financial data on its own presents insufficient information. Experimentation that will lead to general principles or guidelines for reporting key intangible assets should be encouraged by international organisations, governments, standards setters and other stake holders. The results of such experimentation should be systematically monitored and evaluated.

It can thus be concluded that the reports advocate experimentation with measures of intangible assets but do not recommend a radical approach like recognition of intangible assets in the financial statements. A very key issue that also emerges from the discussion in the current section is that the emphasis is on reporting intangible assets within the annual report. Intangible assets are non-physical sources of benefit that the current financial reporting framework does not recognise as an asset that can be included in the financial statement but as it is a resource that is owned by the business it needs to be reported within the annual reports. The next sub-section reviews proposals for the format of disclosure of intangible assets in the annual reports.

3.2.3 Disclosure of performance measures relating to intangible assets in the annual reports

A number of research reports reviewed in Section 3.2.1 advocating disclosure of intangible assets in the annual reports had stated that reliable and relevant metrics or performance measures need to be developed to disclose intangible assets in the annual reports. The "*Business and Financial Reporting: Challenges from the New Economy*" report by the Financial Accounting Standards Board (2001) advocates the disclosure of non-financial metrics like employee or customer satisfaction measures in the annual reports. The Institute of Chartered Accountants in England and Wales Report (2000) report *"New Measures for New Economy"* suggests disclosure of performance measures relating to intangible assets in the annual reports. The Financial Accounting Standards Board Report (2001) *"Improving Business Reporting: Insights into enhancing voluntary disclosure steering committee report – Business Reporting Research Project Information about Unrecognised Intangible Assets* states that relevant, comparable and reliable performance measures or metrics relating to critical success factors of a business like human resources, customer and innovation should be disclosed in the annual reports. The *"Accounting for People"* Taskforce Report in 2003 argues for inclusion of performance measures relating to human resources in the annual reports. The ASB *Operating and Financial Review* Reporting Standard (2005) suggests disclosure of comprehensive, understandable; balanced; neutral; and comparable Key Performance Indicators (KPI) relating to intangible assets and relationships in the annual reports. A number of other reports reviewed in this sub-section also recommend disclosure of performance measures relating to intangible assets in the annual reports.

In 1992, Robert S. Kaplan and David P. Norton published *The Balanced Scorecard—Measures That Drive Performance.* The central idea of the Balanced Scorecard is that managers should develop and report the measures on which they manage the business from the following four different perspectives:

- The customer perspective ('how do customers see us?') – Examples of 'customer perspective' performance measures are customer satisfaction as measured by survey results, number of customer complaints, market share and number of new customers.
- The internal business process perspective ('what must we excel at?') – Examples of internal business process perspective performance measures are the percentage of sales from new products, time to settle a customer complaint, time from call by a customer to repair of a product quality costs and delivery cycle time.
- Learning and growth ('can we continue to improve and create value?') – Examples of learning and growth performance measures are suggestions per employees and employee turnover.

- Financial ('how do we look to shareholders?') – e.g. operating income by division.

An example of a balanced scorecard for a semiconductor company with the pseudonym Electric Circuits Inc. (ECI) is outlined in Figure 3.1:

Figure 3.1

ECI's Balanced Scorecard

ECI's Balanced Business Scorecard			
Financial Perspective		**Internal Business Perspective**	
Goals	Measures	Goals	Measures
Survive	Cash flow	Technology capability	Manufacturing geometry vs. competition
Succeed	Quarterly sales growth & operating income by division	Manufacturing experience	Cycle time, Unit cost, Yield
Prosper	Increased market share and ROE	Design productivity	Silicon efficiency, Engineering efficiency
		New product introduction	Actual introduction schedule vs. plan
Innovation & Learning Perspective		**Customer Perspective**	
Goals	Measures	Goals	Measures
Technology leadership	Time to develop next generation	New products	Percent of sales from new products, Percent of sales from proprietary products
Manufacturing learning	Process time to maturity	Response supply	On-time delivery (defined by customer)
Product focus	Percent of products that equal 80% sales	Preferred supplier	Share of key accounts' purchases, Ranking by key accounts
Time to market	New product interdiction vs. competition	Customer partnership	Number of cooperative engineering efforts

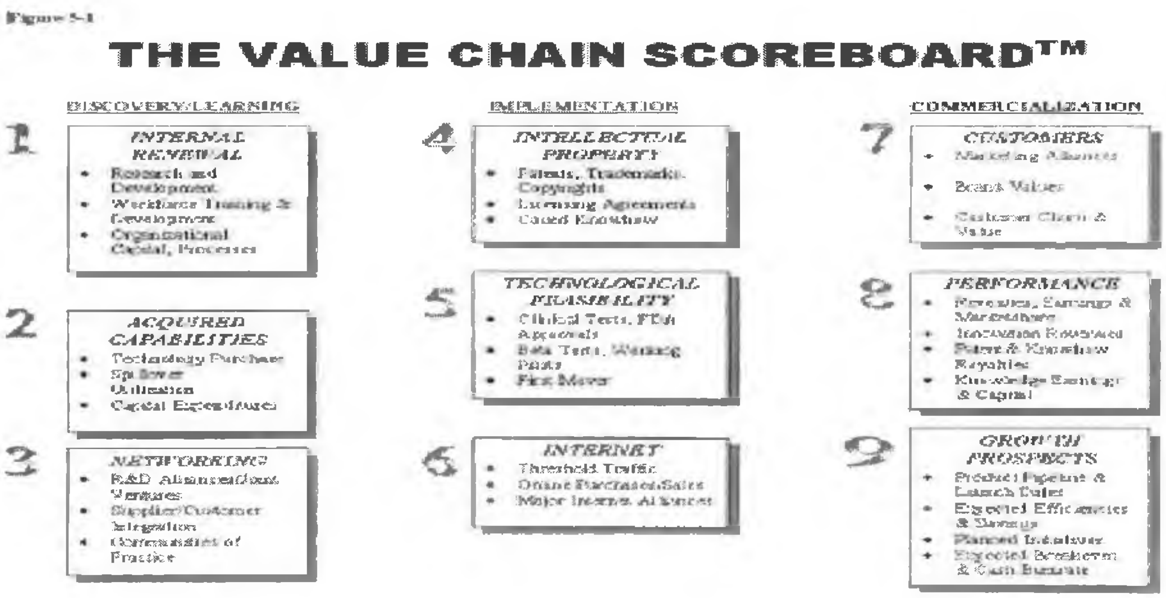
It can be concluded from the figure 3.1 that the Balanced Scorecard proposes the reporting of financial performance as well as non-financial performance by the development of idiosyncratic performance measures that serve the needs of a particular company but they may not be specific to any other company. Its designers saw the Balanced Scorecard as a tool for management reporting. A growing number of companies (Buckman Laboratories International, Brown and Root Energy Services, the Chase Bank, Cigna Property and Casualty, Dow Chemical Co., Mobil Marketing and Refining, Skandia) are incorporating a BSC into their financial statements, in order to provide investors with a more accurate view of the fundamental determinants of their equity value. The Balanced Scorecard like the reports reviewed in Section 3.2.1 suggest development of performance measures for reporting intangible assets like customers and innovation.

The Royal Society of Arts Report *"Tomorrow's Company: The Role of Business in a Changing World*" (1994) argues for disclosure of non-financial performance measures relating to intangible assets in the annual reports. The main finding of the report by the Royal Society of Arts is that a company should produce annual reports containing clear statements about indicators of success and its key relationships with customers, suppliers, providers of capital, employees and the community. This report like the other reports reviewed in this Section and Section 3.2.1 stresses the need to develop performance measures relating to key relationships and intangible assets.

The AICPA report (1994) *" Improving Business Reporting—A Customer Focus"* while recommending the evolution of annual reports to become business reports suggests the inclusion of key operating data and non-financial measures relating to intangible assets that are leading indicators of a company's future in the annual reports so as to meet users' changing needs. Examples of performance measures to be included in the business reports are statistics related to activities that produce revenues, market acceptance, and quality, such as units and prices of product or services sold; growth in units sold or average prices of units sold; growth or shrinkage in market share; measures of customer satisfaction; percentage of defects or rejections; and backlog.

The Brookings Institution report, *Intangibles: Management, Measurement, and Reporting* (Lev, 2001), proposes the following value chain scoreboard designed to convey information about "the fundamental economic process of innovation" (p.14).

Figure 3.2



The value chain scoreboard as outlined by the above figure is a matrix of non-financial metrics like brand value, customer churn rates and marketing alliances. Lev suggests that every individual company should present a "parsimonious set" of no more than 10–12 metrics in the annual reports. The metrics selected according to him should be quantitative, standardised, meaning that they can be compared across firms for valuation and benchmarking purposes and most importantly the 'measures should be confirmed by empirical evidence as relevant to users, generally by establishing a significant statistical association between the measures and indicators of corporate value' (p.164). It can be concluded that the report by Lev similar to the other reports suggests disclosure of intangible assets metrics in the annual reports.

One of the main recommendations of the OECD sponsored Symposium (1999) on "*Measuring and Reporting Intellectual Capital: Experience, Issues, and Prospects*" was creation of a framework for the voluntary compilation at the enterprise level of a number of key indicators relating to intangible assets using all possible approaches, including company benchmarking. The framework for reporting should focus on areas that matter most to company performance. The report stated that as employees, suppliers, and customers are involved increasingly in the value creation process, improvements in reporting should aim to inform them better.

The *Global Reporting Initiative Guidelines* (2002) suggest development of economic, environmental and social performance indicators to be reported inside or outside the annual report as part of sustainability reporting by companies. Examples of social performance indicators are description of policy, procedures/management systems, and compliance mechanisms related to customer satisfaction, including results of surveys measuring customer satisfaction. The main recommendation of the GRI Guidelines are that the indicators reported should be company specific, transparent, inclusive, auditable, complete, relevant, accurate, comparable, clear, timely and neutral. At a minimum, reporting organisations should present data for the current reporting period (e.g., one year) and at least two previous periods, as well as future targets where they have been established. Comparisons with industry averages or industry or sector specific variable where available can also provide useful context.

It can be concluded from the review in this sub-section that performance measures relating to intangible assets need to be developed to report intangible assets in the annual reports. The suggested characteristics of performance measures are reliability, relevance and comparability. The review also highlights the importance of development of such performance measures that are critical success factors. There are different names used for performance measures like metrics or key performance indicators but it is reasonable to conclude that they all imply that the development of measurement technology relating to intangible assets should concentrate on the development of performance measures that are critical success factors. It can be stated at this stage, that the answer to the research question of how an intangible asset may be reported in the annual reports is that performance measures relating to intangible assets need to be developed to disclose intangible assets in the annual reports. Some common characteristics of the disclosure relating to performance measures suggested by the reviewed reports are discussed in the next sub-sections.

3.2.4 Qualitative and quantitative disclosure of performance measures relating to intangible assets

One of the common suggestions of the reports reviewed for the purpose of answering the research question of how intangible assets other than goodwill may be reported in the annual reports is that performance measures relating to intangible assets may be reported qualitatively or quantitatively in the annual reports. The ASB Reporting Standard *Operating and Financial Review* (2005) as discussed in Section 3.2.1 suggests that while disclosing Key Performance Indicators relating to intangible assets in the *Operating and Financial Review* the directors can either include "narrative evidence describing how the directors manage the business or quantified measures used to monitor the entity's external environment and/or progress towards the achievement of its objectives" (ASB, 2004, p. 19). This means that performance measures relating to intangible assets may be disclosed by means of qualitative or quantitative disclosures.

The "*Accounting for People*" Taskforce Report in 2003 makes a similar kind of recommendation by suggesting that a combination of narrative and hard data about the way human capital is measured, used and developed should be reported in the annual reports. The Global Reporting Initiative Guidelines (2002) also make a similar kind of recommendation by stating that performance indicators can be either quantitative or qualitative. The Guidelines state that while quantitative or numerical measures offer many advantages, they may prove unreliable, incomplete, or ambiguous for measuring performance on certain issues. GRI considers qualitative indicators, those indicators requiring textual response, to be complementary and essential to presenting a complete picture of an organisation's economic, environmental, and social performance.

The AICPA Report *Improving Business Reporting – A Customer Focus* (1994) suggests that non-intangible assets can be reported by development of reliable, comparable and consistent quantitative measures that may be supplemented with qualitative disclosure where meaningful. The FASB Report *Improving Business Reporting: Insights into Enhancing Voluntary Disclosures Steering Committee Report* (2001) proposes that metrics should be disclosed quantitatively but might be explained qualitatively.

The SEC Inspired Task Force Report *"Strengthening financial markets: Do Investors Have the Information They Need?"* states that qualitative information about an intangible asset is meaningful especially if it is backed up with quantitative information that supports the qualitative assessment. The Brookings Institution report, *Intangibles: Management, Measurement, and Reporting,* suggests that quantitative metrics relating to intangible assets should be developed. It can be concluded from the discussion in this sub-section that performance measures relating to intangible assets may be disclosed qualitatively or quantitatively in the annual reports.

3.2.5 Balanced approach to reporting intangible assets in the annual reports

A balanced approach to reporting intangible assets is advocated by the reports reviewed so as to answer the research question of how an intangible asset other than goodwill may be reported in the annual report. The balanced approach implies that positive as well as negative information relating to intangible assets should be disclosed in the annual reports. The ASB *Reporting Standard 1- Operating and Financial Review (2005)* proposes that a balanced approach should be adopted in reporting key performance indicators (KPI) relating to intangible assets in the annual reports. The Financial Accounting Standards Board Report (2001) *Improving Business Reporting: Insights into Enhancing Voluntary Disclosures Steering Committee Report -Business Reporting Research Project Information about Unrecognised Intangible Assets* suggests that the disclosure of performance measures relating to intangible assets should cover good and bad news so as to enhance the credibility of the voluntary disclosure. It states that metrics will be most useful if they report on previously disclosed plans and goals and the results achieved in meeting those plans and goals as it would help investors to identify and quantify both good and bad news. The SEC inspired Task Force report (2001) *Strengthening financial markets: Do Investors Have the Information They Need?* advocates a balanced approach to reporting intangible assets in the annual reports but acknowledges that in the absence of regulatory pressure, companies will be inclined to disclose voluntarily only favourable information, and that they will avoid disclosing negative information relating to intangible assets. Market forces however will penalize companies that provide inadequate information relative to their peers. The Global Reporting Initiative Guidelines (2002) also argue for a balanced approach towards reporting performance measures in the annual reports. The *"Accounting for People"* Taskforce Report in 2003 states that performance measures developed should be consistent, objective, balanced, reliable, relevant and comparable. It can thus be concluded from the discussion in this sub-section that a balanced approach encompassing good and bad news relating to intangible assets should be adopted in reporting intangible assets in the annual reports.

3.2.6 Conclusion

The main aim of this section, was to review reports relating to reporting of intangible assets in the annual reports so as to answer the research question that how an intangible asset like customer satisfaction may be reported in the annual reports. A number of common themes arise from the review that can help in suggesting a framework for reporting customer satisfaction in the annual reports in Section 3.3. The most important theme to emerge is that an incremental approach should be undertaken towards reporting intangible assets like customer satisfaction in the annual reports (ICAEW, 2001; FASB, 2001) i.e. intangible assets should be disclosed in the annual reports rather than recognised in the financial statements. The incremental approach thus encourages development of such an approach that will allow for exploration and extension of financial reporting without undermining fundamental recognition criteria. This is an important suggestion especially if one considers the discussion in Chapter 2 about the inability of the current financial reporting framework to report intangible assets as they do not fulfil the recognition criteria established for inclusion of an asset in the financial statements. The incremental approach suggests disclosure of intangible assets within the current annual reports in the *Operating and Financial Review* of the annual report (ICAEW, 2001; ASB, 2005). It can thus be concluded that even though the contemporary financial reporting still has to develop the measurement technology to measure and report intangible assets but contemporary annual reports have the *Operating and Financial Review* as an excellent framework for reporting intangible assets in the annual reports.

The reports reviewed in this Section also advocate experimentation with voluntary disclosures of intangible assets (AICPA, 1994; SEC, 2001; FASB, 2001). Experimentation is necessary as disclosure relating to intangible assets is in the developing stage. The emphasis is on voluntary reporting of consistent, comparable, relevant, reliable, balanced, qualitative or quantitative disclosure of metrics or performance indicators of intangible assets. The voluntary approach is considered necessary to encourage experimentation that will ultimately result in the development of standardised reporting of intangible assets. This research study as discussed in Chapter 7 adopts experiments as the main research method for exploring the possibility of reporting customer satisfaction in the annual reports.

One of the main objectives of this Chapter is to suggest a framework for reporting customer satisfaction in the annual reports so as to answer one of the main research questions of how customer satisfaction can be reported in the annual reports. As a result of the review of the reports, it can be concluded that consistent, comparable, balanced, qualitative or quantitative performance indicators or measures of customer satisfaction may be voluntarily reported in the *Operating and Financial Review* of the Annual Reports. Table 3.1 outlines the main features of the reports reviewed in this Section.

Table 3.1

Summary of the Reports reviewed

Name of the Report	Author/Issuing body	Conclusions
Improving Business Reporting – A Customer Focus	AICPA	Encourages experimentation with quantitative disclosures of performance measures relating to intangible assets but within the boundaries of annual reports
Performance Measures in the New Economy	Canadian Institute of Chartered Accountants	Encourages experimentation with development of supplementary measures for intangible assets
Business and Financial Reporting: Challenges from the New Economy	Financial Accounting Standards Board	Voluntary disclosure of intangible assets in the annual reports as opposed to recognition in the financial statements
New Measures for New Economy	Institute of Chartered Accountants of England and Wales	Voluntary disclosure of performance measures relating to intangible assets in the annual reports
Strengthening Financial Markets: Do Investors Have the Information They Need	Securities Exchange Commission Inspired Task Force	Voluntary balanced qualitative and quantitative disclosure of intangible assets in the annual reports Encourages experimentation with disclosures of intangible assets
Unseen Wealth	Report of the Brookings Task Force on Understanding Intangible Sources of Value	Voluntary disclosure of quantitative intangible assets measures in the annual reports
Improving Business Reporting: Insights into enhancing voluntary disclosure steering committee report	FASB Business Reporting Research Project - Information about Unrecognised Intangible Assets	Voluntary balanced quantitative disclosure of performance measures relating to intangible assets in the annual reports
Accounting for People	Department of Trade and Industry Sponsored Accounting for People Task Force Report	Balanced qualitative and quantitative disclosure of human capital measures in the Operating and Financial Review of the annual reports
Operating and Financial Review	Accounting Standards Board	Qualitative and quantitative balanced disclosure in OFR of key performance indicators relating to intangible assets.
Tomorrow's Company: The Role of Business in a Changing World	Royal Society of Arts	Disclosure of performance measures relating to intangible assets in the annual reports.
Global Reporting Initiative Guidelines	Global Reporting Initiative	Balanced qualitative and quantitative disclosure of economic, social and environmental performance indicators within or outside the annual reports

The next Section based on the discussion in this Chapter outlines a framework for reporting customer satisfaction in the *Operating and Financial Review* of the annual report.

3.3 Framework for reporting customer satisfaction in the annual report

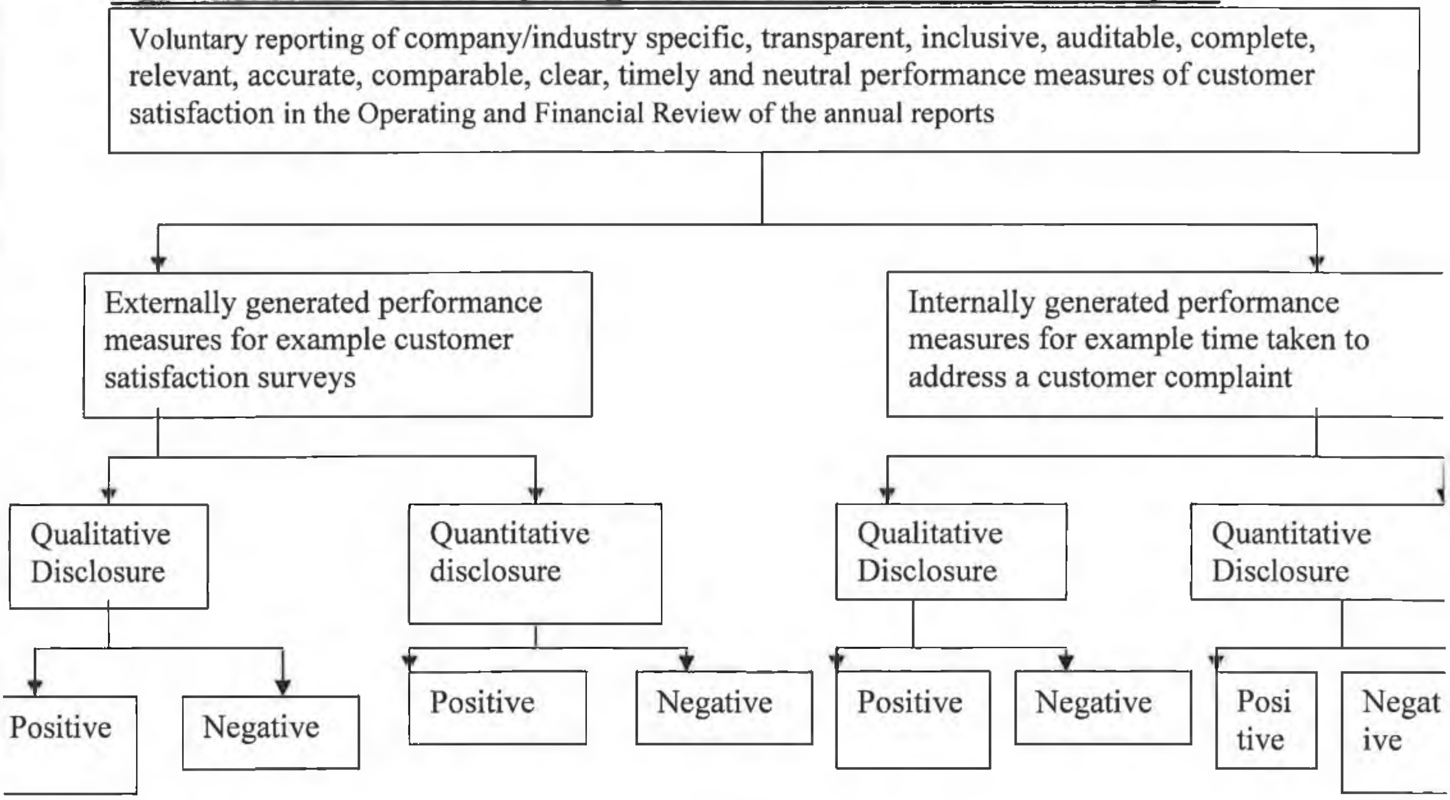
The importance and communication of customer satisfaction measures is well documented (Wirtz, 2000; Ittner, Larcker, and Rajan, 1998; and Dholakia and Morwitz, 2002). Hemmer (1996) suggests that the benefits of customer satisfaction programmes, which result in repeat business and referrals in the future, are not reflected in historical accounting measures. Therefore customer satisfaction needs to be reported on its own in the annual reports. Leadbetter (2000) considers customer measures such as loyalty, relationship quality, satisfaction and brand commitment as crucial lead indicators of non-financial performance and considers the absence of "generally accepted customer measurement principles" as unfortunate as traditionally accounting measures are not in a position to capture the long term benefits obtained by companies from investing in customer satisfaction programmes. Lev and Amir (1998) and Ittner and Larker (1996) suggest that there should be scope for companies to disclose customer recruitment, retention and satisfaction information within their annual reports, especially as information technology systems make it easier for companies to collect and analyse this information. Amir and Lev (1998) suggest that different kinds of customer satisfaction information will be relevant to different industries as the importance attached to customer satisfaction may also vary from industry to industry. Dholakia and Morwitz (2002) and Lambert (1998) argue for the inclusion of customer satisfaction as a supplemental disclosure in the annual reports.

Lambert (1998) considers the option of recognition of "customer satisfaction" as an asset on the balance sheet but decides not to include it as an asset in view of the problems associated with choosing a measurement basis (e.g. cost or fair value) and the difficulty associated with separating it from related assets such as brand names or the company reputation as a whole. He therefore concludes that customer satisfaction should be left as a supplemental non-financial measure that need not be measured in financial terms until it is decided how to 'convert it to a (recognised) financial one' (Lambert, 1998, p.45). He outlines that the important issues to consider in formulating any kind of standard on customer satisfaction is to specify how much "flexibility companies would be allowed in the way to measure and present customer satisfaction data" and "whether customer satisfaction is to be presented for the firm as a whole or separately for business or geographic segments.' Leadbetter (1999) argues for the disclosure of customer satisfaction information in the annual reports but agrees with Amir and Lev (1998) that the nature of customer satisfaction disclosure will vary from industry to industry. He states that instead of focusing on global and timeless standards, regulators and professionals should focus on standards that may be industry specific and revisable to take account of the industry's special features and stage of development. Leadbetter (1999) recommends development of performance measures or performance indicators relating to customer satisfaction to be included in the annual reports.

It can be concluded from the above discussion that as traditional accounting measures cannot capture the long-term benefits of investment in customer satisfaction programmes; customer satisfaction measures should be developed and disclosed as supplemental non-financial information in annual reports until measures are developed to recognise it as an asset in the financial statements. Thus an evolutionary approach needs to be undertaken in reporting an intangible asset like customer satisfaction that is not recognised as an asset by the traditional financial reporting framework. The reports reviewed in Section 3.2 identify customers as one of the intangible assets that should be disclosed in the annual reports (Balanced Scorecard, 1992 and 1996; AICPA, 1994; Lev, 2001; GRI, 2002; ASB, 2005; ICAEW, 2001). A number of reports also suggest that as relationships with stakeholders have become important, this relationship needs to be disclosed by development of appropriate performance measures in the annual reports (Royal Society of Arts, 1994; ASB, 2005). One of the stakeholders identified are customers (OECD, 1999; GRI, 2002; ASB, 2005). The reports suggest that information about customers may be disclosed by means of customer satisfaction measures like customer satisfaction surveys, number of customer complaints, market share and number of new customers (Kaplan and Norton, 1992 and 1996; AICPA, 1994; GRI, 2002).

Based on the discussion in Section 3.2, the following framework for reporting customer satisfaction in the annual reports is proposed. This framework is a useful starting point for exploration of the main research objectives outlined in Chapter 1 i.e. how should customer satisfaction be disclosed in the annual reports and how do users of annual reports react to disclosure of customer satisfaction in the annual reports.

Figure 3.3: Framework for reporting customer satisfaction in the annual reports



It can be concluded from the discussion in Section 3.2 that the preferred mode of reporting intangible assets in the annual reports is by voluntary disclosure of performance measures in the annual reports. The framework thus suggests that customer satisfaction may be reported in the annual reports by means of performance measures disclosed in the *Operating and Financial Review* of the annual reports. The reason for inclusion of this information in the *Operating and Financial Review* is that the subjective and qualitative nature of customer satisfaction disclosure falls into the objectives of the type of information that is to be disclosed in the OFR i.e. narrative, experimental, judgmental, operational, strategic, critical success factor and related to customers.

The suggested customer satisfaction performance measures in Section 3.2 and 3.3 are customer satisfaction surveys, number of customer complaints, market share and number of new customers. As outlined in Figure 3.1, performance measures have been classified as 'externally generated' and 'internally generated' for the purpose of the research study. 'Externally generated' performance measures like customer satisfaction surveys are those which are based on the opinion of external stakeholders whereas 'internally generated' performance measures like number of complaints, percentage of defections or rejections are those which are obtained from internal transactions and records. The classification of performance measures in terms of 'internally generated' and 'externally generated' performance measures is the innovation of this current research. There is no prior evidence of performance measures being classified as 'internally generated' and 'externally generated.'

A number of research reports reviewed in Section 3.2 state that performance measures relating to intangible assets may be reported qualitatively (GRI, 2002; SEC, 2001) or quantitatively in the annual reports (FASB, 2001; Lev, 2001; AICPA, 1994). Figure 3.1 suggests that 'externally' and 'internally generated' customer satisfaction performance measures may be disclosed qualitatively or quantitatively. This classification will help in finding out whether users of annual reports have more confidence in qualitative disclosure or quantitative disclosure; hence this classification will help in answering the research question that how information relating to customer satisfaction should be disclosed in the annual reports (see Chapter 6 for discussion of qualitative and quantitative disclosure). Examples of qualitative and quantitative disclosures are outlined in Table 3.2. These examples are taken from the Department of Trade and Industry Report "Accounting for People" and Exposure Draft on the *Operating and Financial Review* (ASB, 2004) discussed in Section 3.2.

Table 3.2: Examples of qualitative and quantitative disclosures

Example 1: Qualitative disclosure **Measuring employee satisfaction** We use Management Information about our people to help measure progress towards strategic and operational goals, validated by external benchmarking wherever possible. A key component is the annual People Assurance Survey, which is managed independently and has elements that are benchmarked within member companies. It assesses the following major components of organisational effectiveness: • diversity and inclusion • leadership effectiveness • employee motivation and performance • the ability to attract and retain good people • internal communications • internal brand perception • ethical conduct. The last year survey showed that employees are generally satisfied with BP.
Example 2:Quantitive disclosure **Average revenue per user (customer)**
Quantified target: To increase ARPU by 15%per annum for pre-pay customers and 5%per annum for post pay customers.

Quantified data: Pre-pay	2004 –£121, 2005 –£141,growth of 16.5%,
Post-pay	2004 –£503, 2005 –£525, growth of 4.4%.
No changes have been made to the source of data or calculation methods used.	

The reports reviewed in Section 3. 2 state that a balanced approach should be undertaken for reporting intangible assets in the annual reports (FASB, 2001; SEC, 2001; GRI, 2002). The framework outlined in Figure 3.3 suggests that qualitative and quantitative disclosure of 'externally generated' or 'internally generated' customer satisfaction performance measures may represent positive customer satisfaction information or negative customer satisfaction information. As this research study will explore the difference in reaction to the disclosure of positive and negative customer satisfaction information in the annual reports, the classification into the disclosure of positive and negative customer satisfaction information will help in the exploration of users of the annual reports reaction to disclosure of positive and negative customer satisfaction information in the annual reports (see Chapter 5 for discussion of disclosure of positive and negative customer satisfaction information). Examples of disclosure of positive and negative information relating to intangible assets are outlined in Table 3.3. These examples are taken from the Exposure Draft on *Operating and Financial Review* (ASB, 2004) and Inside Out (ICAEW, 2003) discussed in Section 3.2.

Table 3.3: Examples of disclosure of positive and negative information

Example 1: Positive disclosure
Market Share
Quantified data: Five year trend data, 2001 –17% 2002 –18% 2003 – 17%, 2004 - 19% 2005 –20%.
No changes have been made to the source of data or calculation methods used.
Example 2: Negative disclosure
(Extract from the 1998/99 annual report of the Companies House)
Quality
The fiche quality target for 98% of current fiche to be error-free was missed by 2%, largely due to difficulties in our London office. These were primarily difficulties of timing, rather than quality, which fortuitously came to be measured in the quality target. The target for 1999-2000 remains at 98%.

One of the main aims of this research study is to find out how should customer satisfaction be disclosed in the annual reports. It can be concluded on the basis of discussion in this section that customer satisfaction may be disclosed voluntarily in the *Operating and Financial Review* in the annual reports. These disclosures can be in the form of 'externally generated' or 'internally generated' performance measures of customer satisfaction. These measures of customer satisfaction may be disclosed qualitatively or quantitatively. Qualitative or quantitative disclosure of externally generated or internally generated performance measures of customer satisfaction may present positive customer satisfaction information or negative customer satisfaction information.

The research aims to answer the research question that how customer satisfaction may be disclosed in the annual reports by investigating the reaction of the users of annual reports to different formats of customer satisfaction disclosures. This is the innovativeness of this research study. The research reports reviewed in Section 3.2 outlines suggestions for reporting intangible assets. This research study based on those suggestions outlines a framework for reporting customer satisfaction in the annual reports but it moves a step ahead by considering the reaction of the users of annual reports to the different formats of customer satisfaction disclosures. For that purpose, the framework outlined in Figure 3.3 is very important as it will be used in Chapter 7 to suggest the experimental framework on the basis of which experimental instrument will be developed in Chapter 8 to assess the reaction of the users of annual reports to different formats of disclosure of customer satisfaction suggested in Figure 3.3 .

3.4 Conclusion

The main aim of this Chapter is to answer the research question that how customer satisfaction that is not recognised by the current financial reporting framework as an asset and thus not included in the financial statements of the annual reports be reported in the annual reports. In answering the research question, a number of research studies relating to intangible assets disclosures are reviewed in Section 3.2 to obtain an understanding of how an intangible asset like customer satisfaction maybe reported in the annual reports. Based on this review, a framework for reporting customer satisfaction is proposed in Figure 3.1. The framework as outlined in Table 3.4 states that customer satisfaction may be disclosed voluntarily in the *Operating and Financial Review* of the annual reports and suggests six types of disclosures of customer satisfaction.

3.4: Proposed types of customer satisfaction disclosures in the annual reports

Type of Disclosure	Type of Disclosure	Discussion Chapter
Disclosure of 'Externally generated' customer satisfaction performance measures e.g. customer satisfaction survey results	Disclosure of 'Internally generated' customer satisfaction performance measures e.g. number of complaints	Reaction to disclosure of 'externally generated' and 'internally generated' customer satisfaction performance measures discussed in Chapter 4
Quantitative disclosure of customer satisfaction	Qualitative disclosure of customer satisfaction	Reaction to qualitative and quantitative disclosure of customer satisfaction discussed in Chapter 6
Disclosure of positive customer satisfaction information	Disclosure of negative customer satisfaction	Reaction to disclosure of positive and negative customer satisfaction information discussed in Chapter 5

The framework suggested in Figure 3.1 as stated in Table 3.4 outlines six different types of disclosures of customer satisfaction. The value of this research study therefore is that it provides a framework for assessing whether customer satisfaction provides relevant information in making investment decisions to the users of annual reports (see Chapter 2 and 10) as well as assessing the reaction of the users of annual reports to different types of disclosures of customer satisfaction in the annual reports. As already discussed in Section 3.3, this is the innovative element of the research study. The potential reactions to the six different types of customer satisfaction disclosures will be assessed from a theoretical context in Chapters 4 to 6 as a result of which specific hypotheses capturing reaction to these different types of disclosures of customer satisfaction will be formulated. Based on these discussions, an experimental instrument is proposed in Chapter 8 and the results of the testing of the experimental instrument are discussed in Chapters 9 to 11. The next chapter assesses the potential reaction to the disclosure of 'externally' and 'internally generated' customer satisfaction measures in the annual reports.

Chapter 4

Reaction to Disclosures of 'Externally' and 'Internally Generated' Measures of Customer Satisfaction in the Annual Reports

4.1 Introduction

One of the main aims of this research study as outlined in Chapter 1 is to find out how customer satisfaction that is an important value driver of a company's performance but not recognised in the financial statements be disclosed in the annual reports. In order to answer this question, a framework for reporting customer satisfaction in the annual reports was outlined in Section 3.3.

The framework suggests that 'externally' or 'internally generated' measures of customer satisfaction might be voluntarily disclosed qualitatively or quantitatively in the *Operating and Financial Review* of the annual reports. These performance measures may depict positive customer satisfaction information or negative customer satisfaction information. An important objective of this research study as outlined in Chapter 1 is to answer the question of how customer satisfaction may be reported in the annual reports. In this context, the research aims to evaluate that how do users of annual reports react to different types of disclosures of customer satisfaction in the annual reports. The main aim of this chapter is to construct a theoretical framework for suggesting research hypotheses regarding differences in reaction of the users of annual reports to disclosure of 'externally generated' and 'internally generated' performance measures of customer satisfaction in the annual reports by exploring whether users of annual reports while making decisions have more confidence in 'externally generated' or 'internally generated' performance measures of customer satisfaction.

This chapter is divided into six sections. Section 4.2 critically reviews the importance of inclusion of performance measures relating to intangible assets in the annual reports. In Section 4.3 'externally generated' and 'internally generated' performance measures are discussed with examples of 'externally generated' and 'internally generated' performance measures. Section 4.4 reviews the theoretical framework for assessing differences in reaction to disclosure of 'externally' and 'internally generated' performance measures in the annual reports. Section 4.5 suggests research hypotheses for assessing differences in reaction of the users of annual reports to disclosure of 'externally generated' and 'internally generated' customer satisfaction measures in the annual reports. Section 4.6 is a conclusion to this chapter.

4.2 Reporting performance measures in the annual report

Montagna (1997) states that the period in which we live can be called the 'post-modern period'. The post-modern period is characterised by new methods of production, new types of organisations, new types of assets and the need to develop new types of measurement methods to measure the performance of these new methods of production and new types of assets. We live in an era distinguished by flexibility: there is flexibility in production, labour market, capital and patterns of consumption (Montagna, 1997). The role of the accountant has changed in the post-modern times. If the modernist accountant was concerned with the acquisition or control of knowledge, the postmodernist accountant is concerned with the diffusion or dissemination of knowledge. There are many obstacles to this aim of diffusion or dissemination of knowledge. One of them is the inability of the current financial reporting framework as discussed in Chapter 2 to measure and thus report intangible assets in the financial statements.

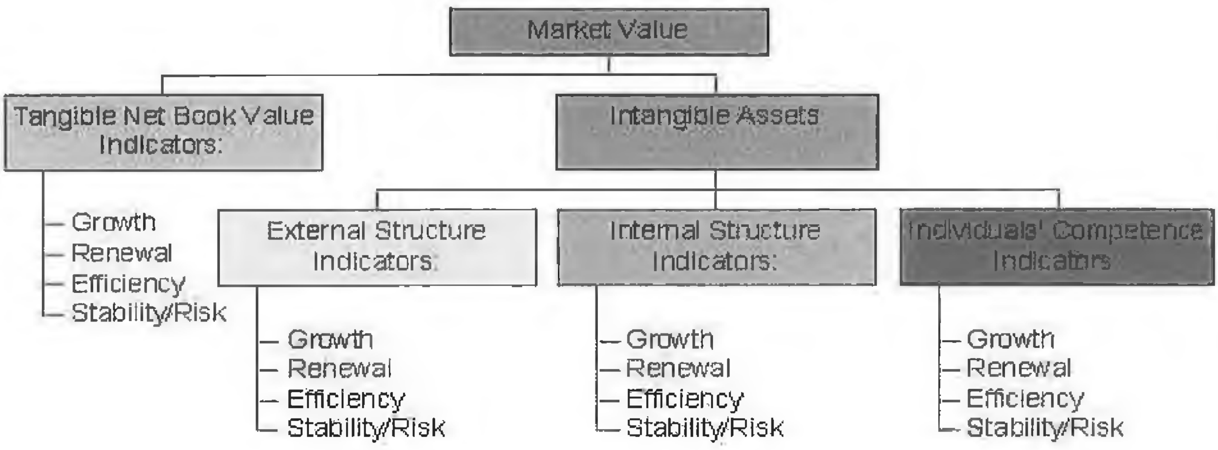
Solomons (1991) argues that accountants are like journalists: their role is to report the news objectively and not to create it. He compares accounting information to the telephone in that it is "information commodity that promotes exchange" by being passive and by representing the speaker's thoughts (i.e. management) to the listener (i.e. investors). He concludes that the accountant is and should not be an actor in the exchange. The job of the accountant is to objectively measure as carefully as possible economic phenomena. It is outside the scope of the role of accountants to report anything that is not economic and objective. Information relating to intangible assets may not be objective or economic. It is therefore not recognised in the financial statements. In view of the increased importance of intangible assets it does not seem desirable to limit measurement efforts to those objects, which promise greater objectivity (Ashton, 1977). Tinker (1991) states that accountants have a role not only to report objectively correct accounting information but also to report information that has relevance to the users of financial statements, even if this information is not objective. Kaplan and Atkinson (1998, p. 379) note that 'as organisations invest in acquiring new capabilities, their success (or failure) cannot be motivated in the short run solely by the traditional financial accounting model.'

> "In summary, the financial measures generated by traditional cost accounting systems provide an inadequate summary of a company's manufacturing operations. Today's global competition requires that non-financial measures on quality, inventory levels, productivity, flexibility, deliverability, and employees also be used in the evaluation of a company's manufacturing performance." (Kaplan, 1986, p. 180)

The incomplete nature of the traditional financial accounting model has led to suggestions that as businesses cannot rely solely on the narrowly focused internal financial measures for performance evaluations it may well be best to include information in the financial statements about tangible assets and to disclose relevant information about intangible assets in form of performance measures in the annual reports (Kaplan & Norton, 2000; Ittner & Larcker, 1998; Otley, 1999; Hoque & James, 2000). These suggestions were discussed in detail in Section 3.2. Lingle and Schiemann (1996) conclude that firms achieve higher performance when they place greater emphasis on a broad set of financial and non-financial performance measures rather than emphasising on traditional financial measures only. Ittner, Larcker and Randall (2004) conclude that traditional financial measures should be supplemented with a diverse mix of performance measures that are expected to capture key strategic performance dimensions that are not accurately reflected in the short-term accounting measures. Vavio (2006) is of the opinion that performance measures can provide more specificity to financial reporting as performance measures can measure those assets which have eluded quantification and calculability in traditional financial terms but are of utmost importance to the organisation like customers, human resources and innovation. Kaplan and Norton's Balance Scorecard (1992 and 1996) discussed in Section 3.2.3 state that firms should supplement financial measures with performance measures focused on perspectives like customers, internal business processes, and learning and growth. Eccles (1991) states that performance measures for customer satisfaction, quality and human resources need to be developed and given equal importance as financial measures. Toni and Tonchia (2001) advocate the need for the development of non-financial and non-monetary performance measures for reporting intangible assets. Ittner and Larcker (2003) emphasise the need to develop performance measures like customer and employee satisfaction as they might ultimately affect profitability and investors' evaluation of the company. The Intangible Asset Monitor proposed by Sveiby (1997) recommends replacing the traditional accounting framework with a new framework (the Intangible Assets Monitor) within which performance measures of intangible assets and financial measures of tangible assets may be jointly used to provide a complete indication of financial success and shareholder value. The Intangible Assets Monitor Framework is outlined in Figure 4.1.

Figure 4.1

Intangible Assets Monitor



It can be concluded from Figure 4.1 that the market value of a company comprises of tangible and intangible assets. The intangible assets include a set of measures for internal structure, external structure and competence where they are monitored in relation to three main yardsticks – efficiency, stability, growth and renewal. External structure indicators consist of relationships with customers and suppliers, brand names, trademarks and reputation, or "image". Internal structure consists of a wide range of patents, concepts, models, and computer and administrative systems. Individual competence is people's capacity to act in various situations. It includes skill, education, experience, values and social skills. Each of the measure of intangible assets advocated by the Intangible Asset Monitor requires development of new measures.

The importance of performance measures has increased in the last few years. A CIMA (1993) survey, which was based on responses from 77 UK manufacturing firms outlined that most of the firms used at least a limited set of performance measures relating to intangible assets and many had developed an elaborate array of such indicators. The significance of these findings was that all the companies surveyed indicated that such performance measures relating to intangible assets were increasing in importance. Drury and Tales (1993) surveyed management accounting practices in 260 UK manufacturing companies, and their results also confirmed the increasing importance of performance measures relating to intangible assets, especially measures of customer satisfaction, product quality, delivery and supplier reliability. The increasing importance of performance measures relating to intangible assets may be attributed to a number of factors including this that the performance measures are in a much better position to measure the costs and benefits of investing in intangible assets; less susceptible to manipulation, more timely and more easily understood than financial measures (Hemmer, 1996; Ittner and Larcker, 1998; Rees and Sutcliffe 1994; Fisher, 1992). They are thus at times considered as better indicators of long term financial performance as compared to financial measures (Banker, Potter and Srinivasan, 2000; American Accounting Association 1971, Johnson and Kaplan 1987; Lev and Amir, 1996; Deming 1982; Roslender, 1997; Wallman, 1995).

The importance of performance measures was briefly reviewed in this Section. It can be concluded from the discussion in this Section that in view of the increasing importance of intangible assets there is a need to develop performance measures as discussed in Chapter 3 to be disclosed in the annual reports. This is important as multidimensional information in the annual reports may function as the cornerstone of a company's current and future success and provide accurate information about financial position and financial performance of the company by providing information about tangible assets as well as intangible assets like customer satisfaction, innovation, quality production, which are necessary to accomplish competitive advantage (Kaplan and Norton, 1996; Ittner and Larcker, 1998; Otley, 1999; Govindarajan and Gupta, 1985; Ittner, Larcker, and Rajan, 1997; Kaplan and Norton, 1992, 1996; Nanni, Dixon and Vollmann, 1992; Simons, 1987, Hoque, and James, 2000). The next section explains 'externally generated' and 'internally generated' performance measures.

4. 3'Externally Generated' and 'Internally Generated' measures

The framework outlined in Figure 3.3 for reporting customer satisfaction in the annual reports suggests that customer satisfaction may be disclosed in the annual reports by means of 'externally' and 'internally generated' performance measures. It is also outlined in Chapter 3 that the classification of performance measures in terms of 'externally generated' and 'internally generated' performance measures has been suggested for the purpose of this research so as to investigate any possible differences between the reaction of users of annual reports to disclosure of 'internally generated' and 'externally generated' measures. There is no prior evidence of such a classification of performance measures. The current section aims to explain 'internally generated' measures and 'externally generated' performance measures with the help of examples as well as briefly outline the reasons for classification of performance measures in terms of 'internally generated' and 'externally generated' performance measures.

'Internally generated' performance measures are event based whereas 'externally generated' performance measures are opinion based. 'Internally generated' performance measures as outlined in Chapter 3 are generated from internal records of events that have taken place. As the source of collection of obtaining information about 'internally generated' performance measures is internal records of events, they are thus direct, efficient and effective measures of countable inputs, outputs, behaviours or outcomes produced from internal records of events. As internally generated measures are based on internal records of events that have taken place, they may be assumed to be free of systematic bias and random error. These measures thus may be considered as objective. An objective measure is one that exist independently from the 'subjective' and, therefore, immeasurable states of mind of the observing subject (Bryer, 2002). Objectivity in accounting according to Wagner (1965, p.600) is the "relative absence of perceptual defects in the exercise of professional judgement," while Arnett (1961) states that objectivity in accounting implies "freedom from personal opinion and bias."

> "An objective measure is one that pertains to the object or event measured rather than to the perceptions of the measurer.... (is) not affected by the measurer's reflections, feelings and desires." (FASB, 1976, p.156).

As 'internally generated' measures are obtained from internal records of events they may be considered to be free from bias and thus objective. An example of 'internally generated' performance measures, as outlined in Chapter 3, is the number of days taken to process a claim. The reason for its classification as an 'internally generated' performance measure is that the number of days taken to process a claim is an event and the information about the event can be obtained from the internal records. The other internally generated performance measures namely number of complaints and defections are classified as 'internally generated' measures of customer satisfaction as information about these events can also be obtained from the internal records. These measures as they pertain to the measurement of an event may be considered free from individual bias or error and perceptual defects and thus objective.

'Externally generated' performance measures are based on the opinion of external stakeholders for example customers or suppliers. Examples of 'externally generated' performance measures are customer satisfaction surveys or supplier satisfaction surveys. As they are based on judgmental assessment and perception of respondents, they may be considered subjective.

It can be concluded from the discussion in this chapter that 'internally generated' measures like time taken to process a complaint relate to measurement of an event that has taken place and is recorded in the internal records. As 'internally generated' measures are concerned with measurement of events that have taken place and are free from perceptual defects or errors, they may be considered objective. On the other hand 'externally generated' measures like customer satisfaction surveys as they are based on the opinion of external stakeholders may be considered subjective.

As stated in Chapter 3, intangible assets may be disclosed by means of performance measures. This research aims to suggest the preferred format of disclosure of customer satisfaction in the annual reports. In this context it observes that there is a need to classify performance measures as 'externally generated' and 'internally generated.' This need arises because some of the performance measures like number of days taken to process a complaint are based on events and information about the events is recorded in the internal records. They are thus free from any perceived bias and may thus be considered objective by the users of annual reports. In view of the increasing importance of intangible assets, there is a need to explore the possibility of inclusion of externally generated measures like surveys to be included in the annual reports to measure and report relationships with key stakeholders. These surveys as they are based on opinion may be considered subjective by the users of annual reports. The inclusion of performance measures in the narrative section of the annual reports is a comparatively new occurrence. Users of annual reports may be appreciative of objective 'internally generated' measures but are they appreciative of subjective 'externally generated' measures. This is precisely what the research aims to explore and for this reason performance measures have been classified as 'internally generated' and 'externally generated'. The next section aims to build a theoretical framework for proposing research hypotheses regarding differences in reaction to the disclosure of 'externally generated' and 'internally generated' measures of customer satisfaction in the annual reports in Section 4.5.

4.4: Reaction to 'externally generated' and 'internally generated' measures

As discussed in Chapter 3 customer satisfaction may be disclosed in the annual reports by a number of performance measures like customer satisfaction surveys, market share, number of complaints and number of returned products. For the purpose of the research study, the performance measures have been classified as 'internally generated' and 'externally generated'. Performance measures like customer satisfaction surveys that are based on opinion of external stakeholders like customers are classified as 'externally generated' performance measures. On the other hand performance measures like number of complaints and number of returned products are classified as 'internally generated' measures. This is because information about them can be obtained from internal records. For the purpose of the research, internally generated measures are considered objective as objective measure is one that pertains to the object or event measured rather than to the perceptions of the measurer. On the other hand externally generated measures are considered subjective as they are based on perceptions or biases.

As there is no prior evidence of research in the area of assessing differences in reaction of users of annual reports to 'externally' and 'internally generated' performance measures, hence research studies evaluating the reaction to subjective and objective performance measures from different disciplines are reviewed in this section so as to build a theoretical framework for suggesting research hypotheses in the next Section. This approach is undertaken as an important perceived characteristic of internally generated measures is objectivity and of externally generated measures is subjectivity.

Organisational psychology literature states that greater weight should be placed on performance measures that are considered objective (Bellows, 1954; Blum and Naylor, 1968) as compared to measures based on subjective performance assessments because they are influenced by biases and perceptual defects (e.g., Feldman, 1981; Heneman, 1986; Campbell, 1990). The reason for preference of objective measures as compared to subjective measures is that objective measures do not greatly rely on the personal judgments of people and are thus not unduly influenced by distorting elements, such as biases and measurement errors. A number of research studies have outlined the existence of divergences in reaction to subjective and objective performance measures (Balabanis, Stables, & Phillips, 1997; Jaworski & Kohli, 1993; Martin & Grbac, 2003; Schlegelmilch & Ram, 2000).

Nicoletti and Pryor (2006) undertook a comparison of subjective and objective measures of governmental regulations in OECD countries and concluded that objective measures of governmental regulations were more reliable as compared to subjective measures of governmental regulations mainly because objective measures do not greatly rely on the personal judgments of people unduly influenced by ideology and are free of noise other than (hopefully small) measurement errors. Subjective measures on the other hand rely on personal judgments that may be flawed and influenced by factors unrelated to the actual regulatory environment, such as the respondent's ideology or the current state of business conditions.

Zeithaml, Berry, and Parasuraman (1993) state that decision makers prefer objective measures as compared to subjective measures as objective performance measure may be a better predictor than a subjective satisfaction measure because of greater accuracy and reliability. In a study of diversification strategies, Hoskisson, Hist, Johnson and Douglas (1993) demonstrate that measures considered objective were preferred to measures considered subjective because the construct validity of objective diversification strategy measures was higher than subjective measures. McMullan, Chrisman and Vesper (2001) in a research study of entrepreneurs and small business owners conclude that objective measures of business performance are more dependable to assess the business performance of small businesses as compared to subjective measures. One of the main problems identified with subjective measures is that they are based on personal judgments and perceptions and thus the variability due to unrelated factors and measurement error is likely to be larger for subjective measures as compared to objective measures (Nicoletti and Pryor,2006).

Exclusive reliance upon subjective performance measures may thus lead to erroneous conclusions about business performance. On the other hand, objective measures on their own can also provide reliable information about the business' performance as they are more reliable and dependable as compared to subjective measures. Dess and Robinson (1984) suggest that subjective measures of firm financial performance may only be useful if objective measures of performance are not available.

Frederickson (1999) suggests that due to the traditional focus on financial results and maximisation of profits, companies tend to rely much more on objective financial measures in designing bonus plans as compared to subjective measures. The inclusion of subjective measures in reward systems introduces bias and favouritism in incentive contracts as it leads firms to rely on perceptions and judgements (Prendergast and Topel, 1996). Schiff and Hofmann (1996) find that executives tend to place a greater weight on objective financial information when evaluating the performance of a business unit mainly because the traditional focus of a company has been on maximising financial performance measured in terms of objective measures like profits or cash. Ittner, Larcker and Meyer (2003) conclude after investigation of the effects of inclusion of subjective measures for example customer satisfaction survey results, along with objective financial accounting measures in the bonus plans of employees that objective measures were preferred to subjective measures. The high level of subjectivity in subjective measures included in the bonus plan of a major financial services firm resulted in the abandoning of subjective measures as the inclusion of subjective measures was resulting in favouritism and bias in the bonus. Thus only objective accounting measures were included in the bonus plan. The abandonment of subjective measures in favour of objective measures is interesting in the context of this research.

It was stated in Section 4.3 that one of the perceived characteristics of 'internally generated' measures is objectivity and that of 'externally generated' measures is subjectivity. Based on the discussion in this Section, it can be concluded that objectives measures are considered more reliable as compared to subjective measures as they are free from bias and more reliable. Thus it can be stated that 'internally generated' measures may be considered more reliable as compared to 'externally generated' measures by the users of annual reports.

On the other hand, 'externally generated' performance measures like customer satisfaction surveys are the most commonly used method of measuring customer satisfaction as they are useful in revealing the feelings of clients about business performance (Cushman & Rosenberg 1991). In a market economy, pleasing the customer is one of the main objectives of the business. In the post-modern period of today as the importance of monitoring relationships with stakeholders like customers and suppliers has increased, the importance of externally generated measures like surveys that give an insight into the perceptions of stakeholders' relationship with the business has also increased. In certain circumstances where the contribution of the stakeholders' like suppliers or customers to firm value cannot be measured by means of 'internally generated' measures, 'externally generated' measures may be the best option to use. They might complement or improve the available internally generated measures, particularly through disclosures along side such measures. The involvement of customers in measuring customer satisfaction is important. One of the best means to involve customers in measuring customer satisfaction is a survey as it might facilitate the measurement of complex dimensions of customer satisfaction performance (Cushman & Rosenberg 1991).

It can thus be stated that despite a number of advantages associated with objective measures, one of the main disadvantages of objective performance measures is that like financial performance measures, objective measures are only informative about the measurable aspects of an intangible asset like customer satisfaction and do not measure qualitative aspects, like perceptions of customers about customer satisfaction. Subjective performance measures like surveys, on the other hand, are informative about the qualitative aspects of customer satisfaction and are therefore of value in measuring customer satisfaction since they provide information not provided by objective performance measures (Baiman & Rajan, 1995). Subjective measures are also important for measuring customer satisfaction as there are no clear performance standards for measuring customer satisfaction and assessed performance is solely determined by subjective judgments (Prendergast & Topel, 1993).

A number of research studies have stated that, in bonus plans and incentive contracts, measures that are subjective need to be included along with measures that are considered objective (Baker, Gibbons and Murphy, 1984; Baiman and Rajan, 1995; Prendergast and Topel, 1996; MacLeod, 2001 and Murphy and Oyer, 2001). Incentive contracts usually reward managerial performance based on financial measures such as earnings, return on investment, or unit costs (Ittner, Larcker and Rajan, 1997; Eccles 1991). Due to the increasing importance of intangible assets, there have thus been suggestions for the inclusion of subjective measures in such incentive contracts (Banker, Potter and Srinivasan, 2000; Kaplan and Norton, 1992 and 1996). Incentive contracts that are based solely on financial results have been criticised for promoting an over-emphasis on short-term accounting returns and discouraging investments in intangible assets and relationships that are necessary for success in customer centric world of today (Kaplan and Norton 1992; Deloitte and Touche 1994). Baiman and Rajan (1995) indicate that the use of objective and subjective information in bonus pool arrangements leads to efficiency improvements compared to a situation where only objective or subjective measures are used. Feltham and Xie (1994) and Hemmer (1996) suggest that objective financial measures alone are unlikely to be the most efficient means to motivate employees, and demonstrate how incentives based on subjective non financial measures can improve incentive contracts by incorporating subjective information that is not fully captured in financial results. Subjective measures in incentive contracts furthermore mitigate incentive distortions caused by imperfect objective measures. Exclusive reliance on objective accounting measures, for example earnings, can result in manipulation and fraudulent behaviour by mangers to achieve the objective measures so as to earn personal monetary benefits at the expense of the long-run firm value (Baker, Gibbons and Murphy, 1984). Hirst (1983) argues that objective measures are relatively incomplete measures of performance where task uncertainty is high. Intangible assets are uncertain. They are a non-physical source of benefit. The benefits associated with intangible assets are uncertain. Thus externally generated subjective measures might be in a better position to measure intangible assets due to the uncertain nature of intangible assets.

Ittner, Larcker and Rajan (1997) conclude that firms pursuing an innovation-oriented or quality oriented strategy tend to place relatively greater weight on subjective performance measures as compared to objective performance measures in their annual bonus contract so as to ensure that management incentives and organisational goals are aligned. A number of researchers have investigated the relationship between subjective or objective measures and market orientation measures. In an empirical review of these research studies Benito and Benito (2004) conclude that almost 50% of these studies reported a stronger relationship between market orientation and subjective performance measures than for market orientation and objective performance measures (Balabanis, Stables, & Phillips, 1997;, 1999; Jaworski & Kohli, 1993; Martin & Grbac, 2003; Schlegelmilch & Ram, 2000). This they concluded was due to the fact that subjective measures are more flexible than objective measures in capturing complex dimensions of performance of intangible assets like customer satisfaction, reputation and innovation. Fransson, Vastfja and Skoog (2006) undertook a comparison of the relative utility of subjective (rating scale measures) and objective indicators of perceived comfort of indoor environments. They conclude that in a hospital setting the patients based their decision about indoor comfort on subjective indicators of indoor comfort rather than objective indicators of indoor comfort.

Thus it can be concluded that due to the increased importance of intangible assets and relationships with stakeholders' 'externally generated' measures that may be perceived subjective have become important. As discussed in this Section objective performance measures are, however, preferred in performance measurement research studies and incentive contract research studies. Subjective performance measures are considered biased and performance measurement and incentive contract research studies advocate their use either along with objective measures or in the absence of objective measures. A number of market orientation studies however indicate that subjective measures are a better indicator of market orientation as compared to objective measures as subjective measures are well equipped to measure complex dimensions of performance of intangible assets like customer satisfaction. The divergence of opinion relating to reaction to objective and subjective performance measures make this classification of performance measures into 'externally generated' and 'internally generated' measures an interesting one. The next section explores this divergence of option to suggest research hypotheses for assessing for assessing the differences in reaction of the users of annual reports to disclosure of 'externally generated' and 'internally generated' measures of customer satisfaction in the annual reports.

4.5 Research hypotheses: Reaction to disclosure of 'externally generated' and 'internally generated' measures of customer satisfaction in the annual reports

The financial information in the annual reports is derived from events and transactions that have taken place and been recorded in internal records. This information, as it is free from perceptual defects and errors, is considered objective. Annual reports comprising of financial statements having perceived 'internally generated' objective information about tangible assets were sufficient to fulfil the needs of the tangible economy. The increasing importance of intangible assets and relationships with stakeholders' has resulted in the need to explore the possibility of including subjective 'externally generated' performance measures like customer satisfaction surveys in the annual reports. Customer satisfaction surveys are in a much better position to capture the sentiments or the perceptions of stakeholders like customers about the different aspects of relationship of business with stakeholders' like customers. The possibility of inclusion of customer satisfaction surveys in the annual reports raises a number of issues. One of the issues is that as annual reports have traditionally comprised of perceived objective 'internally generated' information, what will be the reaction of users of annual reports to disclosure of perceived subjective 'externally generated' information in the annual reports.

A number of research studies based on an analysis of the needs of users of annual reports in Chapter 3 have suggested reporting performance measures relating to intangible assets (AICPA, 1994; SEC, 2001). These research studies have, however, not differentiated between 'externally generated' and 'internally generated' performance measures. Users might be willing to accept the inclusion of 'internally generated' performance measures like the number of customer complaints in the annual reports as they are considered objective but are they willing to accept inclusion of 'externally generated' performance measures like surveys in the annual reports that are subject to individual bias and perceptual defects?

As discussed in Section 4.4 a number of research studies reviewed in this chapter have illustrated a preference for objective measures over subjective measures mainly because objective measures are considered reliable, verifiable, dependable, replicable and free from perceptual defects or individual errors (Zeithaml, Berry and Parasuraman, 1993; McMullan, Chrisman and Vesper, 2001). The literature reviewed in Section 4.4 states that subjective measures should only be used along with objective measures or in the absence of objective measures (Bakker, Gibbonds and Murphy, 1984; Baiman and Rajan, 1995).

As outlined in Chapter 2, one of the main objectives of annual reports is to facilitate the decision-making of the users of annual reports. Investors are the defining class of users of annual reports (ASB,1999). Investment decisions are one of the most important decisions made by investors. Investment decisions among other assessments involve making assessments about financial position, financial performance, investment risk and share price of the company. The research aims to suggest preferred format of disclosure of customer satisfaction in the annual reports and thus explore the preference of users with regards to disclosure of 'externally generated' and 'internally generated' performance measures in the annual reports. Based on the literature review in this chapter it can be concluded that investors will show a preference for 'internally generated' measures; that they may consider objective and thus reliable, verifiable and replicable. Investors require reliable information during investment decision-making process. 'Externally generated' measures may be considered subjective as they are based on perceptions and individual judgements. The investor, while making investment decisions, may thus be apprehensive of 'externally generated' subjective information. Investors thus might not have as much confidence when 'externally generated measures' are used to disclose customer satisfaction in their assessment of financial position, financial performance, investment risk and share price during investment decision-making as they might have when 'internally generated' measures are used to customer satisfaction in the annual reports. Table 4.1 therefore hypotheses:

Table 4.1: Hypotheses H2a – H2d

H2a	Disclosure of 'internally generated' measures of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of financial position of the reporting entity as compared to disclosure of 'externally generated' measures of customer satisfaction in the annual report of an entity.
H2b	Disclosure of 'internally generated' measures of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of financial performance of the reporting entity as compared to disclosure of 'externally generated' measures of customer satisfaction in the annual report of an entity.
H2c	Disclosure of 'internally generated' measures of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of investment risk of the reporting entity as compared to disclosure of 'externally generated' measures of customer satisfaction in the annual report of an entity.
H2d	Disclosure of 'internally generated' measure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of share price of the reporting entity as compared to disclosure of 'externally generated' measures of customer satisfaction in the annual report of an entity.

The research hypotheses developed in this section will be tested by means of an experimental instrument discussed in Chapter 8. The results of the experimental instrument testing are discussed in Chapter 10.

4.6 Conclusion

This chapter aims to provide a theoretical framework for assessing the reaction of the users of annual reports to disclosure of 'internally generated' and 'externally generated' performance measures relating to intangible assets like customer satisfaction in the annual reports. Intangible assets are non-physical assets that cannot be recognised in the financial statements. It is thus suggested in Section 4.2 that performance measures relating to intangible assets in the annual reports need to be included in the annual reports to increase the relevance of annual reports. These performance measures for the purpose of the research study are classified as 'externally generated' and 'internally generated'. 'Internally generated' measures as discussed in Section 4.3 are event based measures that are generated from internal records and are thus perceived to possess characteristics like objectivity, reliability, verification and replication. 'Externally generated' measures are opinion based measures that are based on assessment of perceptions and are obtained from external sources. They may be thus perceived as subjective and biased. Customer satisfaction as stated in Section 4.2 might be disclosed using 'internally generated' performance measures like the number of days taken to process a complaint or 'externally generated' performance measures like customer satisfaction surveys.

In the absence of prior research in the area of preference for 'internally generated' and 'externally generated' performance measures in the annual reports, performance measurement and incentive contract literature was reviewed to construct a theoretical framework for assessing the reaction of the users of annual reports to disclosure of subjective 'externally generated' and objective 'internally generated' performance measures relating to intangible assets like customer satisfaction in the annual reports in Section 4.4. The literature review undertaken in Section 4.4 suggests that objective 'internally generated' measures because of their characteristics like objectivity, reliability, relevance and replication are considered superior to 'externally generated' measures that are considered subjective. It can be concluded from the discussion in Section 4.4 that 'externally generated' measures like surveys may be useful in providing an insight into perceptions regarding the performance of intangible assets but they should be used only along with 'internally generated' measures as they are based on perceptions and prone to individual biases and errors.

Based on the discussion in Section 4.4, research hypotheses are proposed in Section 4.5 for assessing the reaction of the users of annual reports to the disclosure of 'externally generated' and 'internally generated' performance measures. These research hypotheses state that users of annual reports will have more confidence in their assessments of financial position, financial performance, investment risk and share price when customer satisfaction measure are disclosed by means of perceived objective 'internally generated measures' as opposed to perceived subjective 'externally generated' measures. These research hypotheses are tested by means of an experimental instrument discussed in Chapter 8. The next chapter discusses the research hypotheses for assessing the reaction of the users of annual reports to the disclosure of positive and negative information about performance measures relating to intangible asset like customer satisfaction in the annual reports.

CHAPTER 5

Reaction to Disclosure of Positive and Negative Customer Satisfaction Information in the Annual Reports

5.1. Introduction

The research as stated in Chapter 1 endeavours to answer the research question that how customer satisfaction may be disclosed in the annual reports. The different types of disclosure of customer satisfaction under consideration in this research study as stated in Figure 3.3 are positive, negative, qualitative, quantitative, 'internally generated' and 'externally generated' measures of customer satisfaction. The objective of this chapter is to set the theoretical scene for suggesting research hypotheses for evaluating the reaction of the users of annual reports to disclosure of positive and negative customer satisfaction information in the annual reports. This chapter is divided into six sections. Section 5.2 is a prologue to this chapter. The framework for reporting customer satisfaction suggested in Section 3.3 states that positive or negative customer satisfaction information might be included in the annual reports. Section 5.2 reviews reporting of positive and negative information in the annual reports from a theoretical perspective. Section 5.3 specifically sets out the theoretical framework for proposing research hypotheses for assessing the reaction to disclosure of positive and negative customer satisfaction information in the annual reports by critically evaluating the historical evolution of framing effects over the last three decades. Section 5.4 expands on the discussion of construction of theoretical framework for assessing reaction to positive and negative information by analytically reviewing the Affective Reaction Model. Section 5.5 based on the theoretical evaluation of the literature in Section 5.2 and 5.3 suggests research hypotheses for assessing reaction to disclosure of positive and negative customer satisfaction information in the annual reports. Section 5.6 is a conclusion to this chapter.

5.2. Disclosure of positive and negative information

A framework for reporting customer satisfaction was suggested in Figure 3.3. It suggests that a balanced approach should be undertaken in the disclosure of intangible assets like customer satisfaction in the *Operating and Financial Review*. This implies that negative as well as positive customer satisfaction information should be reported in the annual reports. The main aim of this chapter as already stated in Section 5.1 is to construct a theoretical framework for suggesting research hypotheses for assessing the reaction of the users of annual reports to disclosure of positive and negative customer satisfaction information in the annual reports. This section briefly reviews the theoretical framework for reporting of positive and negative information in the annual reports. The disclosure of intangible assets other than goodwill is a voluntary disclosure. The common theme of the voluntary disclosure literature is that in the absence of any standards or regulations governing the format and content of voluntary disclosure, a firm's voluntary disclosure policy reflects its exclusive concern with the reaction of either financial or product markets. The disclosure policy therefore is a trade-off between a firm's desire to achieve value maximisation in the financial markets and its need to protect proprietary information from rival firms and new entrants (Darrough and Stoughton, 1990).

Proprietary information is information about sources of competitive advantage, for example intangible assets like customer satisfaction. It is considered commercially sensitive and thus in making decisions about disclosing proprietary information, firms trade-off the costs of revealing proprietary information (e.g. losing competitive advantage) with the resulting benefits (e.g. a more accurate share price) (Verrecchia, 1983; Dye, 1985 and Scott, 1994). The disclosure of favourable proprietary information will raise financial markets valuation but it may also encourage others to enter the market or provide useful information to competitors. Conversely, the release of unfavourable proprietary information has the effect of lowering financial market valuation but it may also deter new entrants.

Empirical evidence suggests that market considerations (i.e. decreased cost of capital and increased chances to raise capital) result in positive voluntary disclosure of proprietary information and product considerations (i.e., a rival's potential entry into the incumbent firm's product market) result in negative voluntary disclosure of proprietary information (Evans and Sridhar, 2002; Clarkson, Kao and Richardson, 1994; Frankel, McNicholas and Wilson, 1995 and Korajczyk, Lucas and McDonald, 1991).

Verrechia (1983) and Dye (1985) state that usually firms are keen to disclose positive proprietary information if it does not result in a loss of competitive advantage. They are reluctant to release unfavourable information due to its negative effect on the share price. This results in a partial disclosure equilibrium where the firm voluntarily discloses good news provided the perceived benefits (higher market value) exceed the proprietary costs (e.g. encouraging a new entrant to enter the market in view of the lucrative nature of the market thus resulting in decreased profits or cash flow) associated with disclosure but avoids disclosure of negative proprietary news. Verrechia (1983) states that, with regard to favourable news, there is still an incentive to disclose the news even if there are high proprietary costs in the form of loss of competitive advantage but in the case of unfavourable news even very low proprietary costs result in the exclusion of negative voluntary disclosure from the annual reports.

Whetten (1980, p.162) states that "in some cases business managers deliberately hide negative financial data so as not to alarm stockholders and bankers." Clarkson, Kao and Richardson (1994) found a good news bias where firms were willing to discuss the good news in their forecasts but not bad news in the qualitative section of the annual reports. Lev and Penman (1990) found that the firms in their sample of seasoned U.S. firms are more likely to voluntarily forecast when they have good news than when they have bad news. Elfred and Simnet (2002) noticed that companies with good news were more likely to voluntarily disclose management perspective comments if they are optimistic in nature and withhold them otherwise.

It can thus be concluded that preparers use communication strategies that favour their own interests (Pfeffer, 1981; see, for example, Chambers and Penman, 1984 and Watts and Zimmerman, 1990). They thus have a tendency to delay the release of bad news and accelerate the release of good news (Abrahamson and Park, 1984; Chambers and Penman, 1984; Pastena and Ronen, 1979). This strategy in some cases results in the concealment of bad news that might be useful or essential for evaluating organisational results. This is called a concealment strategy (Sutton and Callahan, 1987).

A number of reasons have been identified for this concealment strategy. Verrecchia (1983) and Dye (1985) conclude that managers prefer to disclose negative information only when it is mandated by accounting firms' formal accounting releases rather than through more 'timely' management voluntary disclosures to the market. This is because the stock price response to bad news disclosure is larger than the response to good news (Skinner, 1994 and Kasznik and Lev, 1995). Empirical evidence suggests that investors over react to negative news and under react to good news (Patell, 1976; Penman, 1980; Waymire, 1984 and Lev and Penman, 1990). Negative news is dramatic and unexpected news. Investors "over react" to unexpected and dramatic news as they weigh the probabilities of outcomes on the "distribution of impressions" rather than on an objective calculation based on historical probability distributions (Thaler and DeBondt, 1985) This results in an under-reaction (over-reaction) to positive (negative) news causing a marked difference in the response of reported earnings to good news (represented by positive stock returns) and bad news (represented by negative stock returns) (Basu, 1997; Pope and Walker, 1999). Conrad, Cornell and Landsman (2002) conclude that the market reaction to good news is relatively small as compared to negative news that generates a larger negative return, as the surprise factor of negative news is higher than that of the positive news. (See Daniel, Hirshleifer and Subrahmanyam, 1998 and Lakonishok, Shleifer, and Vishy, 1998 and for a review see Thaler and De Bondt, 1985). This asymmetric reaction to negative news is also one of the main reasons for the non-inclusion of voluntary negative information about intangible assets.

This non-inclusion of voluntary negative information is in stark contrast to one of the main concepts of financial reporting namely faithful representation (ASB,1999). This concept states that information must faithfully represent the transactions and other events that it either purports to represent or could reasonably be expected to represent (ASB, 1999). The representational faithfulness of financial statements may be evaluated by how well it represents the economic resources and obligations of the company, and by how well the transactions and events that change those resources and obligations are described. Intangible assets like customer satisfaction are important resources of the company. They should thus be faithfully represented in the annual reports. Transactions and events relating to intangible assets should thus be described faithfully. If information relating to intangible assets have to be included in the annual reports due to the increasing importance of intangible assets, then negative as well as positive performance measures relating to intangible assets should be reported in the annual reports.

It can be concluded from the above brief discussion that voluntary disclosure is not regulated by accounting standards and regulations. It is the discretion of the preparers of annual reports to include or exclude any voluntary information. Intangible assets are resources of a business thus positive as well as negative information relating to intangible assets should be included in the annual reports to ensure fair disclosures. Preparers might not be willing to take a balanced approach towards reporting intangible assets in the annual reports. They might adopt a concealment strategy where they disclose positive performance measures but might not disclose negative performance measures due to the asymmetric reaction of investors to disclosures of negative information in the annual reports.

Investors are the defining class of users of annual reports (ASB, 1999). Preparers will not voluntarily include any information in the annual reports that might adversely affect investors' assessment of the company. This research, by investigating the differences in reaction to disclosure of positive and negative customer satisfaction information, aims to find out the reaction of the users (namely investors) to disclosure of positive and negative information relating to intangible assets like customer satisfaction. If users react asymmetrically to disclosure of negative customer satisfaction performance measures as discussed in this section, then despite the suggestions of policy makers and standard setters discussed in Chapter 3 relating to voluntary reporting of positive and negative information about intangible assets, preparers might not be willing to include negative information relating to intangible assets in the annual reports.

If this is the case, then policy makers need to examine this issue and develop suggestions for ensuring the balanced reporting of intangible assets like customer satisfaction. This is important as the concealment of negative information relating to intangible assets like customer satisfaction might result in a diminution of the qualities of relevance, decision usefulness and faithful representation. Thus the research consistent with the literature reviewed in Chapter 3 extends the literature on reporting performance measures relating to intangible assets. It suggests a balanced approach to reporting performance measures relating to intangible assets. It however also aims to investigate whether the preparers of financial statements will take a balanced approach in voluntary reporting intangible assets by assessing the differences in reaction of users of annual reports to disclosure of positive and negative customer satisfaction performance measures in the annual reports. This is one of the main contributions of this research study to the existing literature on the development and reporting of performance measures relating to intangible assets.

The framing of a problem has an important role in decision-making as people are affected by whether the problem is positively framed or negatively framed. This is referred to as a 'framing effect'. In the development of a theoretical framework for assessing the reaction to disclosure of positive and negative information about customer satisfaction in the annual reports, the historical evolution of framing effects is discussed so as to build the theoretical framework for development of research hypotheses (see Section 5.5) for assessing the reaction of the users of annual reports to disclosure of positive and negative customer satisfaction information in the annual reports.

5.3. The historical evolution of framing effects

Systematic differences in the ways people encode and respond to positive and negative information have been empirically documented (Peeters and Czapainski, 1990; Simon, 1967 and Taylor, 1991). The reaction to negative news is much stronger than to equally intense positive news (Lewicka, 1997). This difference in reaction is mainly attributed to the higher informational value of negative information as compared to positive information, the scarcity of negative information in the environment relative to positive information and the ability of negative news to stimulate attributional questions and counterfactual thoughts (Fiske, 1980; Wong and Weiner, 1981; Peeters and Czapinski, 1990 and Lewicka, 1997).

The main objective of this section is to provide a theoretical basis for suggesting research hypotheses for assessing reactions to disclosure of positive and negative customer satisfaction information at the end of the chapter. This objective is achieved by reviewing the theoretical framework for assessing reaction to positive and negative information by discussing the historical evolution of framing effects over the last three decades. This section thus is divided into five sub sections. Section 5.3.1 briefly discusses the framing effects proposed by the Prospect Theory. Section 5.3.2 examines the framing effects suggested by the Reflection Effect. Section 5.3.3 proposes a typology of framing effects. The Attribute Framing Effects are critically reviewed in Section 5.3.4 while Section 5.3.5 evaluates the Goal Framing Effects. This section concludes in Section 5.3.6.

5.3.1 Prospect Theory

Any discussion of framing effects will not be complete without a brief critical review of Prospect Theory. Prospect Theory (Tversky and Kahneman, 1979 and 1981) states that the framing of a problem has an important influence on decision-making as people tend to be affected by the way problems are framed (Tversky and Kahneman, 1981). This phenomenon is called the "Framing Effect" (Allais, 1953; Savage, 1954; Tversky and Kahneman, 1981; Raiffa, 1968 and Bazerman, 1984). One of the main characteristics of framing effects is that decision outcomes can be biased if objectively equivalent information is framed as positive versus negative (Kahneman and Tversky, 1979). Decision frames are partly controlled by the formulation of a problem or the representation of the problem in the frame, and partly controlled by the norms, habits, and characteristics of decision makers (Frisch, 1993; Kahneman and Tversky, 1981; McNeil, Pauker, Sox and Tversky, 1982). For a meta analysis of framing effects see Kuhberger, 1998 and for an explanation of framing effects see Kahneman and Tversky 1979 and 1981; McNeil, Pauker, Sox, and Tversky, 1982.

The Asian Disease problem outlined in Table 5.1 is a well known example of framing effects illustrated by Prospect Theory (Tversky and Kahneman, 1981).

Table 5.1
Asian Disease Problem
Framing effects illustrated by Tversky and Kahneman (1981)

Positive frame

Problem 1 (N=152) Imagine that the US is preparing for the outbreak of an unusual Asian disease, which is expected to kill 600 people. Two alternative programmes to combat the disease have been proposed. Assume that the exact scientific estimates of the consequences of the programs are as follows:

If program A is adopted, 200 people will be saved. (72% of subjects preferred this alternative)

If program B is adopted, there is 1/3 probability that 600 people will be saved and 2/3 probability that no people will be saved. (28% preferred this option)

Which of the two programs would you favour?

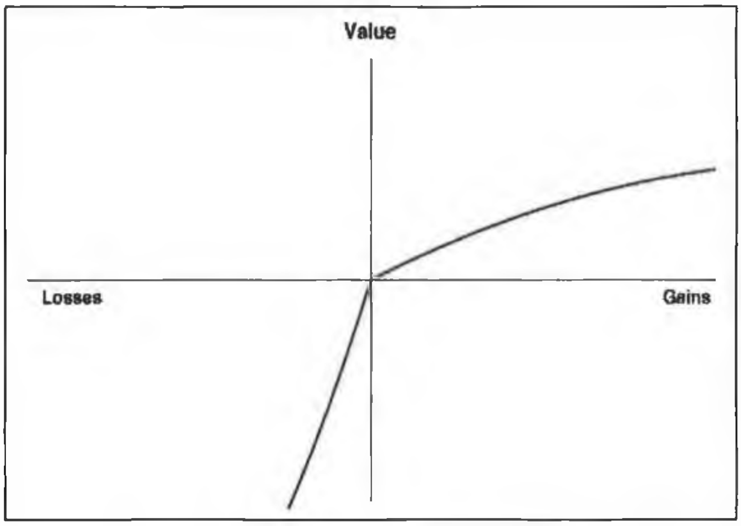
Negative Frame

Problem 2 (N=155) If program C is adopted, 400 people will die. (22% preferred this option)

If program D is adopted, there is 1/3 probability that nobody will die and 2/3 probability that 600 people will die. (78% preferred this option)

It can be concluded that, for the positively worded problems (the domain of gains), subjects preferred a risk-averse programme while, for the negatively worded problems (the domain of losses), subjects preferred a risk-seeking programme even though programmes A and B are similar to programmes C and D. Programme A is preferred in the positive frame and programme C is not preferred in the negative frame even though they both result in the same outcome i.e. 200 lives saved and 400 lives lost. The way the problem is framed in programme A is different to programme C. In programme A, the emphasis is on saving people and, in programme C, the emphasis is on people dying even though they both result in the same outcome. This is what Tversky and Kahneman considered framing effects – objectively equivalent information when framed differently result in different decisions. Tversy and Kahneman (1979) explain this contradictory, asymmetric behaviour of choice reversal in terms of prospect theory's S-shaped value function outlined in Figure 5.1.

Figure 5.1: S value



Prospect Theory states that the valuation rule is a two-part cumulative function, and that the value function is S-shaped and the weighting functions is inverse S-shaped as shown in Figure 5.1. Prospect Theory classifies objects of choice as prospects framed in terms of gains and losses. After editing and evaluating each separate prospect, outcomes are perceived as gains or losses relative to some neutral reference points (Kahneman and Tversky, 1984; Thaler, 1985; Puto, 1987). The S-shaped value function is believed to be convex for loss outcomes and concave for gain outcomes. The value function curve for losses is therefore steeper than the corresponding curve for gains. This represents the conclusion that individuals will make relatively risky decisions in the loss domain supporting risk seeking in the negative framing condition and relatively cautious decisions supporting risk aversion in the positive framing condition where gains are involved. This is because of bias in human judgement classified as anchoring and adjustment by Kahnemen and Tversky (1979).

It is because of this bias that individuals often anchor their thinking about a situation on certain information that is a reference point and then fail to sufficiently adjust from that anchor. In the example of Asian Disease Problem outlined in Table 5.1, the individual bias in the form of anchoring and insufficient adjustment is evident. In problem one in the positive frame the reference point is the word 'saving'. Individuals in their role as decision makers anchor their decision on the word saving and decide that Programme A is better than Programme B even though objectively equivalent information is being presented in both the Programmes. In both the programmes 200 people will be saved and 400 people will die. The only difference in Programme A and B is that programme A does not explicitly mention that 400 people will die while in programme B it is stated that there is 2/3 possibility that no one will be saved. 78% decision makers prefer programme A for they anchor their decision on the information that 200 people will be saved and do not adjust this anchor based on other information in problem one which states that even Programme A will result in death of 400 people.

Such framing effects are important from the perspective of this research. It is possible that investors, because of the strong informational value of negative disclosure, anchor their investment decision on any kind of negative disclosure and then do not adjust this decision based on other information. The asymmetric reaction to negative voluntary disclosure discussed in Section 5.2 can also be explained on the basis of anchoring and insufficient adjustment. Negative information has a stronger surprise element and higher informational value than positive information. The decision maker might consider the negative information more informative than positive disclosure and thus anchor his/her decision on the negative information. They might not sufficiently adjust the anchor based on other possible positive information. This is particularly important in the context of the customer satisfaction disclosure. Disclosures about intangible assets like customer satisfaction are rare and negative disclosures are almost non-existent. If negative information relating to intangible assets like customer satisfaction is included in the annual reports then users might anchor their decision on this disclosure. This may be due to its informational value, the surprise element and the rarity of customer satisfaction disclosure. They might not sufficiently adjust their anchor even if there is positive information relating to other aspects of the company's performance.

Since the seminal pioneering studies by Kahneman and Tversky (e.g., Kahneman and Tversky, 1979 and Tversky and Kahneman, 1981), a number of research studies have supported the findings of Prospect Theory, concluding that the framing effects proposed by Tvesky and Kahneman (1979) appear to be a general and persistent choice phenomenon as outlined in Table 5.2.

Table 5.2: Results of framing studies confirming the findings of Tversky and Kahneman's Prospect Theory (1979)

Banks, Salovey, Greener, Rothman(1995)	Negative frame results in greater message compliance as compared to positive frame in mammography screening
Robberson and Rogers, (1988)	Positive frame was found to be more effective to promote exercise as a means of enhancing self- esteem
Thaler (1985)	Consumers would prefer gains to losses
Puto (1987)	Industrial buyers made a greater proportion of risk averse choices when the message was framed positively than when the message was framed negatively
Weber and Ben Or (1997)	Impact of the loss-framed message was much stronger than the impact of the gain framed message in consumer marketing.
Block and Keller (1995)	Negative frames are more persuasive than positive frames in the context of sexually transmitted diseases.
Smith (1996)	Positively framed advertising messages has a more favourable impact than negatively framed messages on purchase decision judgments for transformational products
Andreoni (1995)	People were significantly more willing to exhibit cooperative behaviour in a public goods experiment when the situation was posed in positive terms rather than negative terms.
Ganzach and Karsahi, (1995)	The losses credit card customers could suffer from not using a specific credit card was more persuasive than emphasising the gains they could obtain from the card.
Neale and Bazerman (1985)	Positive frame led to a more concessionary behaviours and successful performances than a negative frame

Table 5.2 illustrates a preference for positive frames as compared to negative frames. Maroney and Ó hÓgartaigh (2005) used the Prospect Theory for explaining the reaction of investors to increases and decreases presented in 20-F reconciliations. The research concludes that investors perceive reconciliation increases as gains and the reconciliation decreases as losses thus resulting in asymmetric reaction between firms even where the underlying U.S. GAAP earnings and stockholders' equity are the same across those firms. They explained their results using the Prospect Theory and concluded that investors will potentially react asymmetrically to increases/decreases in reported earnings and stockholders' equity by perceiving them as gains and losses from a reference point or 'anchor'. The research results indicate that subjects' perceptions of risk – a key determinant of stock price – are significantly higher for a firm when it reports a reconciliation decrease relative to when it reports a reconciliation increase or when it reports under U.S. GAAP. Furthermore, when the assessments of subjects most likely to invest in international stocks are analyzed, perceptions of financial performance – another key determinant of stock price – are significantly lower for the firm when it reports a reconciliation decrease relative to when it reports a reconciliation increase or when it reports under U.S. GAAP.

Even though the framing effects suggested by Prospect Theory have been observed in auditing research studies (Asare, 1992; Trotman and Sng, 1989; Cohen and Trompeter, 1998; Emby 1994; Emby and Finley, 1995; O'Clock and Devine, 1995), managerial accounting (Rutledge and Harrell, 1994; Sharp and Salter 1997) and taxation research studies (Elffers and Hessing, 1997; Newberry, Reckers and Wyndelts, 1993; Weber, Willis, Christian and Gupta, 1994; Schadewald 1989; Schepanski and Kelsey 1990; Schepanski and Shearer 1995; Schneider, Kirchler and Maciejovsky, 2001), the disclosures of positive and negative customer satisfaction information in the annual reports under consideration in this research are different from the positive and negative frames explained by the Prospect Theory. Prospect Theory explains positive frames as a problem that occurs when available options of varying risk and return generally promise acceptable expected values. An example of a positive frame of the Prospect Theory is Problem One in the Asian Disease Problem outlined in Table 5.1. Both the options of Problem One have acceptable expected values and are description of objectively equivalent information with varying risks and returns. Disclosure of positive information is different to the positive frame of Prospect Theory. An example of disclosure of positive information outlined in Chapter 3 is reproduced in Table 5.3 for illustration purposes. This example is taken from the Exposure Draft on *Operating and Financial Review* (ASB, 2004).

Table 5.3: Example of disclosure of positive information

Market Share Quantified data: Five year trend data				
2001	2002	2003	2004	2005
17%	18%	17%	19%	20%

It can be concluded from Table 5.3 that disclosure of positive information does not involve options with varying risk and return promising acceptable expected values. A disclosure of positive information is a description of a positive performance. It can be concluded from Table 5.3 that the market share has increased over the period of 5 years. This is positive information. Users of annual reports only have to make a decision based on positive information given to them. They will not make their decision based on a positive frame with varying risk and return promising acceptable expected values.

Prospect Theory explains negative frames as a problem that occurs when available options generally promise unacceptable expected values (Wiseman and Gomez-Mejia, 1998, p.135). Problem 2 in the Asian Disease example outlined in Table 5.1 is an example of a negative framing problem. The disclosure of negative information in the annual reports is different to the negative frame of the Prospect Theory. An example of a disclosure of negative information outlined in Chapter 3 is reproduced in Table 5.4 for illustration purposes. This disclosure is taken from the ICAEW (2003) report titled "Inside Out".

Table 5.4: Example of disclosure of negative information

(Extract from the 1998/99 annual report of the Companies House)
Quality The fiche quality target for 98% of current fiche to be error-free was missed by 2%, largely due to difficulties in our London office. These were primarily difficulties of timing, rather than quality, which fortuitously came to be measured in the quality target. The target for 1999-2000 remains at 98%.

It can be concluded from Table 5.4 that disclosure of negative information is a description of negative performance. In the above example, the Companies House has not been able to meet the target set for quality. This is an example of disclosure of negative information. The reader of this information will have to make a decision based on this disclosure. The user will not have options of unacceptable expected value on basis of which they have to make a decision as stated by the Prospect Theory.

The present research is interested in investigating the reaction of the users of annual reports to disclosure of positive and negative customer satisfaction information in the annual reports. Prospect Theory evaluates reaction to two similar outcomes alternatively phrased as though they were gains or as though they were losses whereas this research study is interested in investigating reaction to two different outcomes of a company's customer satisfaction performance, one outcome describes positive customer satisfaction performance whereas the other describes negative customer satisfaction performance.

While the framing effects explained by Prospect Theory are thus of limited significance for the purpose of this research, they are outlined here as the necessary background to other cognitive theories which are significant in this context. The research thus explores other framing effects in subsequent sub-sections so as to build the theoretical framework for proposing research hypotheses for assessing reaction to disclosure of positive and negative information about performance measures relating to customer satisfaction in the annual reports.

5.3.2 Reflection Effect

Fagley (1993) suggests that the concept of "reflection effects" is separate from the "pure" framing effects suggested by Tversky and Kahneman (1979). Fagley (1993) states that Prospect Theory only explains pure framing effects as it outlines a response to two similar outcomes alternatively phrased as though they were gains or as though they were losses (saving one-third of the lives or losing two-thirds).

Prospect Theory does not explain "reflection" effects: neither does it distinguish between "pure" framing effects and "reflection" effects. The Asian disease problem (see Table 5.5) is an example of "pure" framing effects as the same outcomes are alternatively phrased as though they are gains or losses. The reflection effect (also called the domain effect by Kahneman and Tversky, 1979, p .268) on the other hand outlines the response to positive and negative prospects when the signs of the outcomes are reversed so that gains are replaced by losses (See Hershey and Schoemaker, 1980; Kahneman and Tversky, 1979; Schneider and Lopes, 1986). Table 5.5 illustrates Reflection Effects (reproduced from Tversky and Kahneman, 1979).

Table 5.5

Preference between positive and negative prospects

Positive prospects	Negative prospects
Number of subjects = 95	
Problem 1 : (\$4000,.80) < (\$3,000)	Problem 1' : (\$-4,000,.80) > (\$-3,000)
(20%) (80%)	(92%) (8%)
Number of subjects = 95	
Problem 2: (\$4000,.20) > (\$3,000,.25)	Problem 2': (\$-4,000,.20) < (\$-3,000,.25)
(65%) (35%)	(42%) (58%)

It can be concluded from Table 5.5 that 'the preference between negative prospects is the mirror image of the preference between positive aspects' (Tversky and Kahneman, 1978).

The reflection of prospects around zero reverses the preference order thus illustrating a "reflection effect". The subjects prefer a sure gain of $3,000 over a 20% chance of winning $3,200 thus exhibiting risk averse behaviour in the positive frame. In the negative frame they exhibit a risk seeking behaviour by choosing 80% chance of losing $4,000 over a certain loss of $3,000. The outcomes actually involve different domains (gain versus loss), that is, they differ in sign (+$4,000versus -$4,000).

As Prospect Theory predicts reflection and framing effects by the S-shape of the value function, most studies view these terms similarly but it is important to distinguish between the two effects. The framing effect refers to changes in responses from different descriptions of the same problem, whereas the reflection effect refers to different responses because there are two different problems (Kuhberger, 1995 and Li, 1998). The reflection effect can also only be observed by considering two gambles where one gamble involves gains having a positive expected value and the other gamble involve losses having negative expected value (Arkes, 1991).

In reviewing framing effects, the actual problem domain remains unchanged but information is presented in different ways: hence framing manifests a decision bias (Emby and Finley, 1995; Rutledge, 1995), but a reflection effect requires different domains, irrespective of problem frames as outlined in Table 5.6.

Table 5.6 Separation of reflection from framing effects in the Asian disease problem

Statement	**Domain**	**Frame**
200 will be saved	Gains	Positive
200 will be saved and 400 will not be saved	Gains	Mixed
1/3 that 600 will be saved and 2/3 that 0 will be saved	Gains	Mixed
400 will not be saved.	Gains	Negative
400 will die	Losses	Negative
400 will die and 200 will not	Losses	Mixed
1/3 that 0 will die and 2/3 that 600 will die.	Losses	Mixed
200 will not die	Losses	Positive
Effect	Reflection	Framing

Researchers face problems when they do not distinguish between framing and reflection effects (Schadewald, 1989 and Sanders and Wyndelts, 1989). In accounting, Chang, Yen and Duh (2002) cautioned that there should be a distinction between framing effects and reflection effects. While designing a reporting system, accountants should focus on appropriate approaches for alleviating framing effects, not reflection effects. In order to alleviate framing effects, accountants might consider transforming a problem into a standard representation to prevent managers being affected by framing effects (Arkes, 1991; Jamal, Johnson and Berryman, 1995).

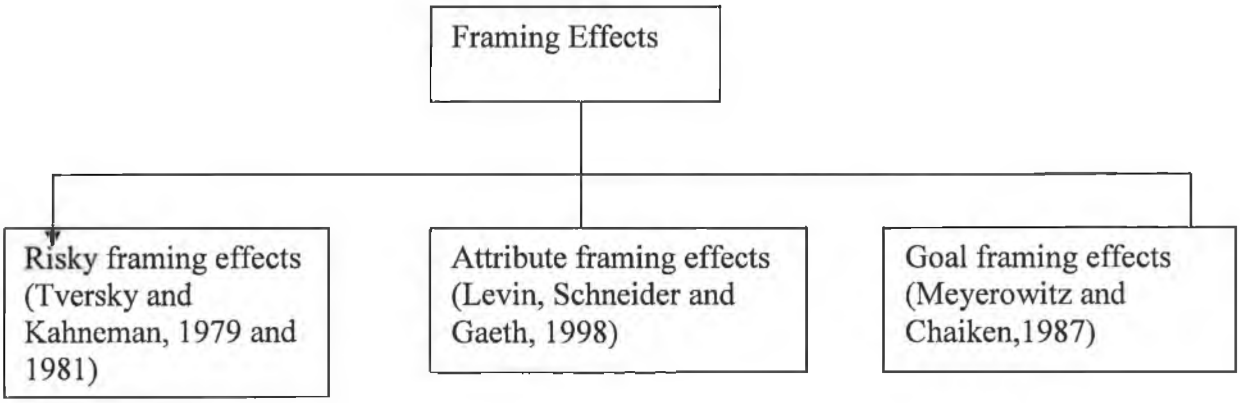
Even though the reflection effect does indicate reaction to positive and negative frames, even then there is risk involved and an evaluation has to be made between two options. One is positive and the other is negative. The reflection effect thus can only be observed when there are two gambles one having a positive expected value and the other having a negative expected value (Arkes, 1991). Disclosures of positive and negative information relating to intangible assets like customer satisfaction are different to positive and negative frames of the reflection effect.

Users of annual reports do not have to make a decision based on two gambles or two options involving risk. In the context of this research, users will either have to make a decision based on positive customer satisfaction information or negative customer satisfaction information. So even though reflection effects do provide a direct insight into the preferences between positive and negative options even then it is not significantly useful for the purpose of developing a theoretical framework for assessing the reaction to disclosure of positive and negative customer satisfaction information in the annual reports. For the purpose of the development of the theoretical framework of this research, an important conclusion of the brief review of the reflection effect is that decision makers prefer positive frames to negative frames i.e. gains to losses. The next sub-sections evaluate other framing effects for the purpose of the development of theoretical framework for assessing reaction to disclosure of positive and negative customer satisfaction information in the annual reports.

5.3.3 Extensions of framing effects

The framing effects that are illustrated in examples of framing effects and reflection effects are examples of what Levin, Schneider and Gaeth (1998) identify as 'risky framing effects'. Prospect Theory, despite being considered as an important economic theory is not in a position to explain all framing effects. Kuhberger (1998) in his meta-analysis of framing effects concludes that varieties of framing phenomena 'cannot be understood adequately within purely formal models such as prospect theory, but requires additional cognitive and motivational constructs.' Levin *et al*'s (1998) criticism of Prospect Theory was based on the premise that the presence of risk in risky framing effects limits the study of framing effects only to situations involving risky choices thus limiting the use of Prospect Theory as a versatile model to explain various framing effects. The presence of risk in risky framing effects suggested by Prospect Theory and the Reflection Effect makes it difficult to assess whether positive and negative frames influence the decision or the presence of risk influences the decision. Levin *et al.* (1998) thus suggest the following typology of framing effects shown in Figure 5.2 to include framing effects other risky framing effects.

Figure 5.2: Typology of Framing Effects



As outlined in Figure 5.2, Levin *et al.* (1998) propose attribute framing and goal framing as two other categories of framing (besides risky choice framing). This typology of framing effects is a significant event in the historical evolution of framing effects. Research involving framing effects traditionally has been confined to risky framing effects. The extension of framing effects to include attribute framing effects and goal framing effects has been proposed to address the limitations of the risky framing effects.

Beside the typology of framing effects outlined by Levin *et al.* (1998), a number of other research studies have also proposed different types of framing effects. Rothman, Salovey, Antone, Keough, and Martin (1993) – with the help of a medical test – present the concept of "same consequences' and "different consequences" framing manipulations which are the same as goal framing and attribute framing. Mandel (2001) suggests the concept of descriptor and outcome formulator, which are the same as attribute framing (descriptor formulator) and risky choice framing (outcome formulator). The emphasis of attribute and goal framing effects is on valence (positive or negative) information processing. The research in answering the research question as to how customer satisfaction may be disclosed in the annual reports aims to investigate the effect of disclosure of positive and negative customer satisfaction information on decisions of users of annual reports. This is also valence information processing. Unlike the risky choice framing of Prospect Theory, there is no element of risk being manipulated in the Attribute Framing Effects and Goal Framing Effects. In the next two-sub sections, attribute framing effects and goal framing effects are critically evaluated for the purpose of development of theoretical framework for proposing research hypotheses at the end of the chapter.

5.3.4 Attribute framing effects

Attribute framing effects are useful in developing an understanding of how positive and negative frames influence information processing during decision-making. The Attribute Framing Effects occurs when a single attribute is framed positively or negatively with the positive or negative frame affecting item evaluation. Levin and Gaeth (1988) and Levin *et. al* (2002) state that "attribute framing effects occur when evaluations of an object or event are more favourable if a key attribute is framed in positive rather than negative terms . . . Positive labels tend to evoke positive associations while negative labels tend to evoke negative associations" (Levin *et al.* 2002, p. 413.) These associations lead to, respectively, favourable and unfavourable evaluations of the attribute being framed. The main characteristic of attribute framing is that, unlike the risky framing effects of Prospect Theory, where the presence of risk deters attention from positive and negative options, attribute framing effects encourage selective attention to only the positive or negative attributes of the gamble, thus leading to the accessing of only positive or negative associations in the memory (Van Schie and der Pligt, 1995).

An example of the attribute framing effects would be labelling a sample of beef in positive light (75% lean) as compared to in a negative light (25% fat) (Levin and Gaeth, 1998). The decision is between 75% lean beef and 25% fat beef. One is positive and one is negative. There is no risk involved. Levin and Gaeth (1998) discovered that consumers in the role of decision makers preferred 75% lean beef as compared to 25% fat beef. Thus they preferred positive frames to negative frames. This is because information is encoded relative to its descriptive valence, causing valence-consistent shifts.

Positive information is encoded as positive and negative information is encoded as negative. Positive attribute frames evoke favourable associations in memory and encourage the recruitment of positive information, whereas negative frames evoke unfavourable associations in memory and encourage the recruitment of negative information. As all recruited information is integrated into an evaluation, a positive frame results in a positive judgment and a negative frame results in a negative judgement. It is thus the attribute of the frames that decide the subsequent judgement that is made by the decision maker. A positive attribute frame results in a positive judgement and a negative attribute frame results in a negative judgement.

Attribute framing effects have been shown to influence evaluations in the following three types of judgements:

a. item evaluations, which describe performance using a positively or negatively valenced attribute label (Levin et al., 1998; Levin, 1987; Levin and Gaeth, 1988)
b. performance evaluations, which describe performance in terms of success versus failure rates (Davis and Bobko, 1986; Dunegan, 1993; Levin, Schnittjer and Thee, 1988 and Linville, Fischer and Fischoff, 1993)
c. gambles, which describe outcomes of a single gamble in terms of the probability of winning or losing (Levin et al., 1985; Levin et al., 1986).

Attribute framing has been observed in consumer judgment (Levin and Gaeth, 1998), gambling (Levin, Johnson, Deldin, Carstens, Cressey and Davis, 1986; Levin, Synder and Chapman, 1989), job placement programs (Davis and Bobko, 1986), industry project teams (Dunegan, 1993), medical treatments (Levin, Schnittjer and Thee, 1988; Linville, Fischer, and Fischhoff, 1993) and sports (Levine, 1987). These research studies concluded that alternatives were rated more favourably when described positively than when described negatively (See Levin, Schnittjer, and Thee, 1988).

Attribute framing effects (Levin et al., 1998) have also been used in auditing research studies. Kida (1984) used experienced auditors to assess whether a firm was likely to remain a going concern and framed the task as either predicting failure or predicting viability. Kida found that auditors judged negative cues (i.e. information suggesting failure of the firm) to be more relevant than positive cues (i.e. information suggesting viability) across hypothesis-framing conditions. Trotman and Sng's (1989) findings were consistent with Kida's, as auditors generally judged negative information to be more relevant than positive information across these manipulations. Sanders and Wong-on-Wing (1987) found that auditors who received negatively framed information were more likely to assess the current year's warranty liability as inadequate when compared to subjects who received positively framed information. O'Clock and Devine (1995) state that when uncertainty exists regarding the going concern status of a business, auditors react to negative information much more than to positive information which at times result in modification of the audit reports also. Bedard, Graham and Lynford (1994) conclude that when an auditor is asked to recall certain facts about a client's problem, auditors tended to recall negative statements and the facts relating to negative statements more than positive or neutral statements.

Auditing research studies using attribute framing effects have stated that negative information is given more attention than positive information. This can be explained on the basis of the positive-negative asymmetry proposed by Lewicka (1997). This refers to the asymmetrical way in which people encode, process, and react to positive and negative signals (Peters and Czapinski, 1990). An important characteristic of this asymmetry is the "negative effect," which is a stronger reaction to negative stimuli than to equally intense, positive ones.

It can be concluded from the discussion of attribute framing effects that, unlike risky framing effects, attribute-framing effects concentrate specifically on assessing the reaction to positive and negative information. Research studies outlined in this chapter indicate that a positive framed results in favourable associations in memory resulting in a positive judgement relating to that frame. A negative frame results in unfavourable associations resulting in a negative judgement about that frame. Thus in a choice between positive and negative information (75% lean vs. 25% fat beef), decision makers prefer positive information as compared to negative information. Auditing research studies using attribute framing effects suggest that negative information is given more importance as compared to positive information. This was explained on the basis of positive negative asymmetry where negative information results in stronger reaction as compared to positive information.

It can be concluded based on the discussion in this section that research studies using attribute-framing effects give an insight into how positive and negative information is processed. Attribute framing effects is in a much better position than risky framing effects to explain the reaction of the users of annual reports to disclosure of positive and negative customer satisfaction information in the annual reports. Attribute Framing Effects suggest that positive information results in favourable associations and favourable judgement. In the context of this research, it can thus be stated that disclosures of positive customer satisfaction information will result in favourable associations and favourable judgement. On the other hand, negative information results in unfavourable associations and negative judgement. Thus disclosure of negative customer satisfaction will result in unfavourable associations and negative judgement. Disclosure of positive customer satisfaction information will thus result in a more favourable investment decision and disclosure of negative customer satisfaction will result in a less favourable investment decision. In the next subsection, the suitability of goal framing effects for the purpose of the development of the research hypotheses for this chapter is discussed.

5.3. 5 Goal framing effects

Risky framing effects involve a choice between two options with different risk levels with both framed either positively or negatively. Attribute framing effects involve a choice specifically between positive and negative options. Goal framing effects - the third type of framing effects suggested by Levin et al. (1998) involves a choice between two consequences of engaging in an activity as an opportunity to gain a benefit or avoid a loss. For example, the benefit of engaging in breast self-examination results in an increased chance of finding a tumour at an early stage of the disease. This is the benefit/positive frame. The loss of not engaging in a breast self examination on the other hand results in a decreased chance of finding a tumour at an early stage of the disease. This is a loss/negative frame (Meyerowitz and Chaiken 1987). In goal framing effects, the impact of a persuasive communication thus depends on whether the original message stresses the positive consequences of performing the behaviour (increased chance of finding a tumour) or the negative consequences of not performing the behaviour (decreased chance of finding a tumour). Meyerowitz and Chaiken (1987) concluded that subjects decided to undergo breast self examination because of the loss frame. The decreased chance of finding a tumour compelled them to undertake breast self-examination. Thus the negative frame was preferred over the positive frame. Research studies using goal framing effects in health behaviour have illustrated that negative frames result in more compliance (Meyerowitz and Chaiken, 1987; Wilson, Wallston and King, 1987). (For examples of studies of goal framing effects see Levin *et al.*, 1998). There is no evidence of any accounting study belonging to this type of framing (Chang, Yen and Duh, 2002).

Disclosure of positive and negative customer satisfaction information under consideration in this research are not the same as the positive and negative frames of goal framing effects. Goal framing effects are important for studying framing effects but are not of much significance for the purpose of this research and are only discussed here to facilitate a complete review of the framing literature.

5.3.6 Conclusion

The review of the historical evolution of framing effects over the last three decades in this Section discussed the Prospect Theory, the Reflection Effect, the Attribute Framing Effects and the Goal Framing Effects. It can be concluded that all the framing effects, despite their differences, show substantial consistency resulting in preference reversals or choice shifts. In risky choice framing effects of the Prospect Theory and the Reflection Effect, choice shift typically occurs such that positive frames result in risk averse behaviour and negative frames result in risk seeking behaviour. In attribute framing, attributes are judged more favourably when labelled in positive terms rather than negative terms. In goal framing, a negatively framed message emphasising losses tends to have a greater impact on a given behaviour than a comparable positively framed message emphasising gains. From the context of this research study attribute framing effects are more important than risky framing effects or goal framing effects. The findings of this section will be reviewed in Section 5.5 where research hypotheses will be proposed for assessing reaction to disclosure of positive and negative customer satisfaction information in the annual reports. The next section reviews the Affective Reaction

Model for the purpose of development of research hypotheses for this chapter in Section 5.6.

5.4. Affective Reaction Model

The term 'Affect' encompasses a range of reactions including moods, emotions and evaluations (Fiske and Taylor, 1991). Affective reaction is an evaluative response to a set of data such as good/bad or favourable/unfavourable that represents a positive or negative valence in memory structure (see Kida and Smith, 1995; Kida and Smith, 1998; Fiske and Taylor, 1991). Lewicka (1997) suggests that decision-making is a combination of both cognitive and affective processes and which of the two prevails depends on a number of factors including the cognitive focus of a person (Lewicka, 1997). Aronson, Wilson and Akert (1995) explain that an affective reaction is an unconscious expression of positive or negative emotion towards an evaluation, while descriptive reaction (cognition) based on objective features is a product of rational argumentation.

Kida and Smith (1995) illustrate the need to study the role of affect in accounting decision making for a better understanding of accounting decision makers' behaviour. Kida, Smith and Moreno (2002) proposed the Affective Reaction Model based on the assumption that managers consider their affective reactions along with financial data during decision-making. Decision makers tend to reject investment alternatives that elicit negative affect and accept alternatives that elicit positive affect, resulting in risk taking (avoiding) in gain (loss) contexts. This is contrary to the propositions of the Prospect Theory that decision makers exhibit risk taking (avoiding) in loss (gain) context. Wang (1996) states that the kind of behaviour exhibited by decision makers illustrated by Prospect Theory is a default strategy exhibited in the absence of other decision-relevant characteristics like affect (Wang, 1996). In the presence of affect the risky behaviour changes and managers tend to reject investment alternatives that elicit negative affect and accept alternatives that elicit positive affect, resulting in risk taking (avoiding) in gain (loss) contexts. Affect influences investment decisions to such an extent that managers tend to reject investment alternatives that 'elicit negative emotional responses, even though the rejected alternatives have higher expected value.' (Kida, Smith and Moreno, 2001, p.481)

This role of affect has also been confirmed by Rose (2001) who found that decision-makers chose investments that were consistent with differences in affective responses to multimedia, rather than investment consistent with financial data. Affective reactions caused decision-makers to favour investments consistent with a positive media response rather than with a higher expected value. The importance of affective reaction in accounting context has also been confirmed by Rose (2002), Rose and Wolfe (2000) and Roberts, Rose and Rose (2003). Maroney and Ó hÓgartaigh (2005) while investigating the impact of increases and decreases presented in 20-F reconciliations on perceptions of the risk of investing in the reporting firm and the financial performance of the reporting firm concluded that significant effects on the assessments of risk and financial performance are most likely due to a negative affect attached to the reconciliation decrease. Decision-makers perceive reconciliation decreases as losses and reconciliation increases as gains, with losses having a more significant effect than gains on decision making.

The importance of affect is important from the perspective of this research study also. It can be concluded from the discussion in this section that disclosure of positive customer satisfaction information will result in a positive affect and disclosure of negative customer satisfaction information will result in a negative affect. A positive affect results in an acceptance of investment alternative and negative affect results in a rejection of investment alternatives. Affective Reaction Model thus provides a framework for suggesting that disclosure of positive information will result in a positive affect and a favourable assessment of the company whereas disclosure of negative information will result in a negative affect and an unfavourable assessment of the company.

The next section outlines the research hypotheses for assessing reaction to disclosure of positive and negative customer satisfaction information in the annual reports.

5.5. Research hypotheses: Reaction to positive and negative customer satisfaction information in the annual reports

The research reports reviewed in Chapter 3 had stated that in view of the increasing importance of intangible assets, intangible assets should be reported in the annual reports. A balanced approach needs to undertaken in the reporting of intangible assets i.e. positive as well as negative information relating to intangible assets like customer satisfaction should be included in the annual reports. Customer satisfaction disclosure is a voluntary disclosure. It is at the discretion of the preparers of annual reports to include or exclude any information relating to customer satisfaction in the annual reports. Customer satisfaction disclosure as discussed in Section 5.2 is also proprietary information. The preparers of annual reports adopt a concealment strategy where negative proprietary information is withheld from the users of annual reports and positive information is keenly provided to the users of annual reports. This is because of the possible asymmetric reaction of the defining class of users namely investors to negative information in the annual reports. Investors over react to negative news and under react to positive news. The over reaction of the investors to negative news may result in the non-disclosure of negative proprietary information. This asymmetric reaction of investors to negative news raises the question that whether preparers are willing to disclose customer satisfaction negatively in the annual reports or whether they adopt a concealment strategy by withholding negative information about customer satisfaction and releasing positive information about customer satisfaction. In these circumstances intangible assets like customer satisfaction may not be faithfully represented in the annual reports.

The research aims to provide a framework for analysing this information asymmetry in the voluntary reporting of proprietary information relating to intangible assets in the annual reports by assessing the differences in reaction of the users of annual reports to disclosure of positive and negative customer satisfaction information in the annual reports. If the defining class of users of annual reports, namely investors, show asymmetric reaction to disclosure of negative customer satisfaction information in the annual reports, the preparers of annual reports might be reluctant to include negative customer satisfaction information in the annual reports. In these circumstances, policy makers might have to reconsider the suggestion of voluntary balanced disclosure of customer satisfaction and look towards other ways of ensuring balanced disclosure of intangible assets like customer satisfaction. This might involve considering mandated disclosure of intangible assets like customer satisfaction in the long-term.

The historical developments of framing effects in the last three decades were reviewed in Section 5.3 so as to come up with a theoretical framework for assessing reaction to disclosure of positive and negative customer satisfaction information in the annual reports. The risky framing effects, attribute framing effects and goal framing effects were thus discussed. The risky framing effects of the Reflection Effect illustrate the preference of positive risky options to negative risky options. The main aim of this element of research is to assess the differences in reaction to disclosure of positive and negative customer satisfaction information in the annual reports. It may be suggested based on the review of risky framing effects that users of annual reports will prefer positive customer satisfaction information to negative customer satisfaction information. The presence of risk in risky framing effects however is a limiting factor as it might be due to the presence of risk that decision makers might prefer positive information to negative information. It was thus concluded in Section 5.3 that risky framing effects are of limited use in developing a theoretical framework for this research and thus attribute framing effects were studied.

The Attribute Framing Effects discussed in Section 5.3 emphasise valence information processing i.e. how positive and negative information affect decision making. Positive attribute frames are preferred to negative attribute frames. This is because positive attribute frames result in favourable associations in memory resulting in a favourable judgement. Negative frames result in unfavourable associations in memory resulting in an unfavourable judgement. This result in a preference for positive attribute frames vis-à-vis negative attribute frames.

Disclosure of positive customer satisfaction information is an example of a positive attribute frame. It will result in favourable associations in memory and result in favourable evaluation of the company during investment decision by investors. Disclosure of negative customer satisfaction information is an example of negative attribute frame that will result in unfavourable associations in memory and thus result in unfavourable evaluation of the company during investment decisions by investors. It can thus be concluded that investors will form a better judgment of the company if there is positive customer satisfaction information than if there is negative customer satisfaction information.

The Affective Reaction Model reviewed in Section 5.4 states that affect plays an important role in decision-making. The importance of affect in decision-making can be judged from this fact that decision makers tend to reject investment alternatives that elicit negative affect even if they have higher expected values and accept alternatives that elicit positive affect even if they have lower expected valued. Positive information results in positive affect resulting in favourable decisions. Negative information results in negative affect resulting in unfavourable decisions.

Based on the review of the Affective Reaction Model and the Attribute Framing effects, it can be concluded that disclosure of positive customer satisfaction information will result in more favourable assessment of the company measured in terms of financial position, financial performance, investment risk and share price by the users of annual reports namely investors during investment decision making process. The disclosure of negative customer satisfaction information will result in unfavourable assessment of the company measured in terms of financial position, financial performance, investment risk and share price by the users of annual reports namely investors during investment decision-making process. This is because positive information results in positive affect as suggested by the Affective Reaction Model thus resulting in favourable associations as suggested by the Attribute framing effects. The favourable associations as demonstrated by the Affective Reaction and the Attribute Framing Effects result in favourable evaluation of the company having positive customer satisfaction disclosure. The disclosure of negative customer satisfaction information results in negative affect resulting in unfavourable associations that result in unfavourable evaluation of the company.

Thus from the review of the literature in this chapter and from the brief discussion in this section it can be concluded that disclosure of positive customer satisfaction information will result in a higher assessment of financial position, financial performance and share price and a lower assessment of investment risk than a disclosure of negative customer satisfaction information in the annual reports by the users of annual reports. The following research hypotheses were formulated after consideration of research hypotheses suggested by Maines and McDaniel (2000) and Maroney and Ó hÓgartaigh (2005) in similar kinds of accounting studies.

Table 5.7

Research Hypotheses H3a – H3d

H3a	A disclosure of positive customer satisfaction information results in a higher assessment of the financial position of the reporting entity than a disclosure of negative customer satisfaction information.
H3b	A disclosure of positive customer satisfaction information results in a higher assessment of the financial performance of the reporting entity than a disclosure of negative customer satisfaction information.
H3c	A disclosure of positive customer satisfaction information results in a lower assessment of the investment risk of the reporting entity than a disclosure of negative customer satisfaction information.
H3d	A disclosure of positive customer satisfaction information results in a higher assessment of the share price of the reporting entity than a disclosure of negative customer satisfaction information.

The exploration of research hypotheses H3a to H3d in Chapters 9 to 11 will help in investigating one of the research aims of trying to find out the differences in reactions to disclosure of positive and negative customer satisfaction information in the annual reports so as to answer the research question that how customer satisfaction may be disclosed in the annual reports. This is important. As reviewed in this Section 5.1, investors overreact to negative information in the annual reports. This overreaction may result in the exclusion of negative voluntary information relating to intangible assets from the annual reports thus depriving users of annual reports of relevant information that might effect decision-making. This exclusion is also contrary to the balanced approach advocated by policy makers for voluntary reporting intangible assets like customer satisfaction in the annual reports. The differences in reaction will thus provide evidence for assessing whether due to the differences in reaction to disclosure of positive and negative customer satisfaction information; disclosure of negative customer satisfaction information might be avoided by the preparers of annual reports and disclosure of positive customer satisfaction information included in the annual reports. This behaviour has been classified as concealment strategy in Section 5.2. This strategy is adopted due to asymmetric reaction of investors to negative information in the annual reports.

An analysis of whether users of annual reports show asymmetric reaction to negative information relating to intangible asset is important. An assessment of differences in reaction by exploration of research hypotheses H3a to H3d will provide preliminary evidence of asymmetric reaction to negative customer satisfaction information but this asymmetric reaction also need to be analysed. Customer satisfaction is a voluntary disclosure. Voluntary disclosure of positive information as suggested by the discussion in Section 5.2 is preferred by the preparers of annual reports as it creates a favourable impression of the company. The investors however do not react as favourably to positive information as adversely as they react to negative information. This is because negative news is more dramatic and has higher informational value than positive information.

The preparers of annual reports as suggested in Section 5.2 are more likely disclose positive information than negative information. The real issue in the context of customer satisfaction might be the exclusion of negative information relating to customer satisfaction. It is thus important to investigate whether disclosure of negative customer satisfaction information results in asymmetric reaction by the defining class of users of annual reports namely investors. Customer satisfaction is rarely disclosed in the annual reports. Thus the investors are usually not aware of the customer satisfaction performance of the company. When disclosed the information relating to customer satisfaction can be positive or negative. When customer satisfaction information in the annual reports is positive, it should result in a higher assessment of financial position, financial performance and share price and lower assessment of investment risk by the investors as compared to when customer satisfaction is not disclosed. Investors however due to asymmetric reaction do not react as strongly to disclosure of positive customer satisfaction information as they do to disclosure of negative customer satisfaction information. Due to this asymmetry, disclosure of positive customer satisfaction information might not result in significant differences in investors' assessment of financial position, financial performance, investment risk and share price of the company. It is thus hypothesised:

Table 5.8: Research Hypotheses H3e-H3h

H3e	Assessments of the financial position of a firm reporting positive customer satisfaction information will not be significantly higher than the financial position of a firm not disclosing customer satisfaction in the annual reports.
H3f	Assessments of the financial performance of a firm reporting positive customer satisfaction information will not be significantly higher than the financial performance of a firm not disclosing customer satisfaction in the annual reports.
H3g	Assessments of the investment risk of a firm reporting positive customer satisfaction information will not be significantly lower than the investment risk of a firm not disclosing customer satisfaction in the annual reports.
H3h	Assessments of the share price of a firm reporting positive customer satisfaction information will not be significantly higher than the share price of a firm not disclosing customer satisfaction in the annual reports.

The asymmetric reaction discussed in Section 5.2 states that investors react strongly to negative news. Thus disclosure of negative customer satisfaction information should result in significantly lower assessment of financial position, financial performance, share price and higher assessment of investment risk. It is thus hypothesised:

Table 5.9: Research Hypotheses H3i-H3l

H3i	Assessments of the financial position of a firm reporting negative customer satisfaction information will be significantly lower than the financial position of a firm not disclosing customer satisfaction in the annual reports.
H3j	Assessments of the financial performance of a firm reporting negative customer satisfaction information will be significantly lower than the financial performance of a firm not disclosing customer satisfaction in the annual reports.
H3k	Assessments of the investment risk of a firm reporting negative customer satisfaction information will be significantly higher than the investment risk of a firm not disclosing customer satisfaction in the annual reports.
H3l	Assessments of the share price of a firm reporting negative customer satisfaction information will be significantly lower than the investment risk of a firm not disclosing customer satisfaction in the annual reports.

The exploration of research hypotheses H3e to H3l will help in investigating whether users of annual reports exhibit asymmetric reaction to disclosure of negative customer satisfaction information in the annual reports. If investors exhibit behaviour indicated in research hypotheses H3e to H3l i.e. they react more strongly to disclosure of negative customer satisfaction information and not to disclosure of positive customer satisfaction information then a strong case can be built for arguing that policy makers need to reconsider their suggestions for voluntary balanced disclosure of intangible assets in the annual reports.

These research hypotheses are tested by means of an experimental instrument discussed in Chapter 8. The results of the testing of the experimental instrument are discussed in Chapter discussed in Chapter 10 whereas these research hypotheses are discussed in Chapter 9 and 11 with the users and preparers of annual reports.

5.6 Conclusion

In order to answer the research question that why customer satisfaction should be disclosed in the annual reports, the research intends to explore the impact of the disclosure of customer satisfaction on investment decision-making. In this context, this chapter aimed to suggest research hypotheses for assessing reaction to disclosure of positive and negative customer satisfaction information in the annual reports. For this purpose, a number of theories and literature were discussed so as to build a theoretical framework for proposing research hypotheses in Section 5.5.

In Section 5.2, the asymmetric reaction of investors to disclosure of voluntary negative information is identified as the reason for the concealment strategy adopted by the preparers of annual reports where they are keen to voluntarily disclose positive information relating to intangible assets but reluctant to disclose negative information. The implications of this kind of strategy in the context of customer satisfaction disclosure are discussed while suggesting research hypotheses in Section 5.5. Risky framing effects, attribute framing effects and goal framing effects are reviewed in Section 5.3. It is stated in Section 5.3 that from the context of this research attribute framing effects are more useful in explaining the reaction of the users of annual reports to disclosure of positive and negative customer satisfaction information in the annual reports. The Affective

Reaction Model is critically analysed in Section 5.4. It is concluded that according to Affective Reaction Model positive information results in positive affect and negative information results in negative affect. Positive affect results in favourable association and favourable judgement whereas negative affect results in unfavourable association and unfavourable judgement. This conclusion is explored in Section 5.5 where research hypotheses are suggested. The research hypotheses are tested by means of an experimental instrument discussed in Chapter 8. This experimental instrument aims to assess the reaction of the users of annual reports to different types of disclosure of customer satisfaction. In the next chapter the theoretical framework for assessing reaction to qualitative and quantitative disclosure of intangible asset like customer satisfaction is discussed.

Chapter Six: Reaction to Qualitative and Quantitative Disclosure of Customer Satisfaction in the Annual Reports

6.1. Introduction

One of the main objectives of this research is to explore how customer satisfaction may be disclosed in the annual reports. The framework outlined in Figure 3.3 for disclosure of customer satisfaction in the annual reports identify qualitative and quantitative disclosure of customer satisfaction as two possible means of disclosure of customer satisfaction in the annual reports. The main aim of this chapter is to construct a theoretical framework for suggesting research hypotheses for assessing the differences in reaction of the users of annual reports to qualitative and quantitative disclosure of customer satisfaction in the annual reports. As to answer the research question that how customer satisfaction should be disclosed in the annual reports, the research investigates the preferences of the users of annual reports with regards to voluntary qualitative and quantitative disclosure of customer satisfaction in the annual reports. It recognises that as discussed later some of the recent standards like FRS 13 advocate mandated qualitative and quantitative disclosure but this research is about voluntary qualitative and quantitative disclosure within the *Operating and Financial Review* of the annual reports.

This chapter is divided into four sections other than the present introductory section. Section 6.2 reviews the current state of qualitative and quantitative disclosure of intangible assets in the annual reports. It also reviews the accounting literature analysing differences in reaction of decision makers to disclosure of qualitative (narrative) and quantitative (numerical) information in the annual reports. Section 6.3 discusses the Fuzzy Trace Theory as a relevant theory for assessing individual differences in reaction to qualitative and quantitative information. As a result of the critical evaluation of the literature assessing differences in reaction to qualitative and quantitative information in Sections 6.2 and 6.3, research hypotheses for assessing differences in reaction to qualitative and quantitative disclosure of customer satisfaction in the annual reports are proposed in Section 6.4. The chapter concludes in Section 6.5. The next section reviews relevant literature for assessing differences in reaction to disclosure of qualitative and quantitative information in the annual reports as well as traces the increasing importance of narrative reporting in the annual reports.

6.2 Narrative reporting in the annual reports

An annual report is a communication instrument (Lusk, 1973). It communicates information to users of annual reports to help them make decisions (ASB, 1999). One of the main objectives of the annual report should thus be to communicate such relevant and reliable information to the users of annual reports that will facilitate informed and efficient decisions. Financial statements form an essential part of an annual report. Monetary measurement is an important convention of current financial reporting framework (Alexander and Britton, 2001). The financial statements are concerned only with recognition of economic events and transactions that can be captured in quantitative terms and do not contemplate the importance of inclusion of those events and transactions that cannot be measured in quantitative terms (Oslen, 2002).

As discussed in Chapter 2, intangible assets because of their non-physical nature and the uncertainty of future benefits associated with intangible assets cannot be measured reliably in monetary terms. As intangible assets cannot be measured in monetary terms they cannot be recognised in the financial statements. It was stated in Chapters 2 and 3 that intangible assets that have a positive relationship with the economic performance of the company and their inclusion provides relevant information to the users of annual reports but cannot be recognised in the financial statements maybe voluntarily disclosed in the annual reports. This disclosure may take place in the narrative section of the annual reports namely *Operating and Financial Review* (ASB, 2005), Management Commentary (IASB, 2006) or the Management Discussion and Analysis (SEC, 2003) section. This will help increase the relevance and decision usefulness of the annual reports to the users of annual reports (Rutherford, 2002).

An *Operating and Financial Review* is:

> "... a narrative explanation, provided in the annual report, of the main trends and factors underlying the development, performance and position of an entity during the financial year covered by the financial statements, and which are likely to affect the entity's future development, performance and position.' (ASB, 2004, p.14)

Canadian Securities Administration Form 51-102FI, Part 1(a) (2004) describes MD&A as:

> "... a narrative explanation, through the eyes of management, of how your company performed during the period covered by the financial statements, and of your company's financial condition and future prospects."

The common feature of both the above definitions is the use of word "narrative." *Operating and Financial Review* and *Management and Discussion Analysis* thus may be classified as narrative reporting. Rutherford (2002) states that there is no standard definition of narrative reporting, but it can include the Chairman's statement, the directors' report, the *Operating and Financial Review* or the *Management Discussion and Analysis* (MD&A), remuneration, corporate governance and environmental reports (Rutherford, 2002). Narrative reporting thus is all the information within the annual report except the statutory financial statements and the accompanying notes.

Tenyson, Ingram and Dugan (1990, p.391) state that 'the narrative portion of an annual report is management's unique opportunity to communicate directly with present and potential stockholders and creditors.' The demand for the inclusion of narrative disclosure in the annual reports evolved as the need to 'bridge the gap between what financial statements are able to achieve and the objectives of financial reporting became urgent' (IASB, 2006, p.11).

The provision of narrative information in company reports is however not a recent development, although the volume of such disclosures has increased dramatically over the last few years. A survey by Arthur Andersen (2000) concluded that, at some point between 1996 and 2000, the weight of the words tipped the balance so that now more than half the annual report consists of narrative reporting. The other sections of the annual reports like the financial statements and accompanying notes are regulated by well-established financial reporting standards and laws whereas the standards and laws for narrative disclosure in annual reports are only beginning to evolve.

One important factor instrumental in the development of narrative reporting in UK and Ireland was the publication in 1993 of a Statement by ASB encouraging companies to publish an *Operating and Financial Review* (OFR). The document was not mandatory but was 'commended' as a 'formulation and development of best practice' by the Financial Reporting Council, the Hundred Group of Finance Directors and the London Stock Exchange, so that it exerted considerable influence. Several amendments and extensions have been suggested to the *Operating and Financial Review* (ASB, 1993 and 2005) to improve the quality of financial reporting. The idea of narrative reporting is much more familiar in US, where, since 1968, the SEC's disclosure requirements have included '*Management's Discussion and Analysis (MD&A) of Financial Condition and Results of Operations*' (Rutherford, 2003). The narrative disclosures contained in Management Discussion and Analysis are widely regarded as valuable by sophisticated users such as financial analysts (Weetman and Collins, 1994).

Management's Discussion and Analysis is an essential element of the annual report for public companies in North America. There is a requirement in Canada that the financial statements and the MD&A for public companies should be approved by the board (or, in the case of interim reporting, the audit committee), and neither document is to be distributed without the other. In Germany there has been a requirement for narrative reporting in the form of Management Commentary since 1930s. In 1978 the European Union introduced a requirement that the reporting package of financial information should consist of financial statements and the annual report saying that the annual report '...must include at least a fair review of the development of the company's business and of its position' (Article 46, Fourth Directive, 1978.) The requirements for Management Commentary type of reporting are set out in various legal instruments adopted by the European Union, in particular the Fourth and Seventh Company Law Directives (1978 and 2003).

The International Federation of Accountants (IFAC) is also taking a keen interest in development of an updated series of best practices for improving narrative reporting globally. The International Organisation of Securities Commission (IOSCO) is also encouraging 'internationalisation' of narrative reporting in its project on prospectuses. The International Organization of Securities Commissions (IOSCO) issued a report *General Principles Regarding Disclosure of Management's Discussion and Analysis of Financial Condition and Results of Operations* in February 2003. The report summarises the objectives of MD&A, identifies principles for preparers and highlights areas where preparers should be cautious. According to the report one of the main objectives of the MD&A should be to provide the information that is necessary for an investor's understanding of the company's financial condition, changes in financial condition and results of operations.

Companies are required to include in their annual reports a fair review of their business in their Directors' Report[1]. This review should include a balanced and comprehensive analysis of the development and performance of the company during the financial year and the position of the company at the end of the year; a description of the principal risks and uncertainties facing the company; and analysis using appropriate financial and non-financial key performance indicators (including those specifically relating to environmental and employee issues)

The International Accounting Standard Body (IASB) issued a *Discussion Paper on Management Commentary* in April 2006. The paper outlines the importance of narrative reporting to bridge the gap between financial statements and additional information that might be of use to the users of annual reports. The document identifies Management Commentary as the primary component of an annual report beside financial statements and accompanying notes and states that:

> "Management commentary is information that accompanies financial statements as part of an entity's financial reporting. It explains the main

[1] Directive 2003/51/EC of the European Parliament and of the Council of 18 June 2003 amending Directives 78/660/EEC, 83/349/EEC, 86/635/EEC and 91/674/EEC on the annual and consolidated accounts of certain types of companies, banks and other financial institutions and insurance undertakings.

> trends and factors underlying the development, performance and position of the entity's business during the period covered by the financial statements. It also explains the main trends and factors that are likely to affect the entity's future development, performance and position." (IASB, 2006, p.15)

IASB definition of Management Commentary unlike the earlier definition of OFR and of MD&A does not use the word narrative in explanation of the Management Commentary as it is of the opinion that the Management Commentary should have qualitative and quantitative disclosures and identifying it as a narrative explanation may prove to be misleading. Even though OFR is identified as a narrative explanation yet as stated in Chapter 3, OFR may include qualitative and quantitative disclosure in the annual reports. Intangible assets thus as discussed in Chapter 3 may be disclosed qualitatively or quantitatively in the annual reports (OECD, 1999, Kaplan and Norton, 1992 and 1996; FASB, 2001). The framework for reporting customer satisfaction outlined in Figure 3.3 also proposes qualitative and quantitative disclosure of customer satisfaction in the *Operating and Financial Review* of the annual reports. The key issue is to consider the reaction of the users of annual reports to qualitative and quantitative disclosure of intangible assets in the narrative section i.e. *Operating and Financial Review*.

This is one of the main contributions of this research study towards development of performance measures for reporting intangible assets like customer satisfaction in the annual reports. Research studies have proposed qualitative and quantitative disclosure of intangible assets like customer satisfaction in the *Operating and Financial Review* or the *Management Discussion and Analysis* Section of the annual reports but have not investigated the reaction of the users of annual reports to qualitative and quantitative disclosure of intangible assets in the annual reports. This investigation of users' needs would be helpful to policy makers and the preparers of annual reports in designing effective communication systems for reporting intangible assets in the annual reports.

FRS 13 'Derivatives and other Financial Instruments: Disclosures' (ASB, 1998) lays down detailed requirements on both the content and location of both qualitative and quantitative disclosures in the annual reports. The qualitative and quantitative disclosures are perceived as having distinct but complementary roles. The mandatory qualitative disclosures, which may be included in an accompanying statement such as the *Operating and Financial Review*, establish the context within which the entity holds or issues financial instruments. The quantitative disclosures are intended to show how the policies and objectives outlined in the narrative were implemented, and help the reader to evaluate significant and potentially significant exposures (Woods and Marginson, 2004). FRS 13 disclosure requirements vary according to the type of reporting entity. The qualitative disclosures are common to all entities, but the requirements for quantitative disclosures are higher for banks and financial institutions. Woods and Marginson, (2004) conducted research of the UK banking sector with the aim of facilitating assessment of the combined quality of both the qualitative and quantitative disclosures in respect of derivatives and financial instruments required by FRS 13. They conclude that whilst qualitative disclosures are strong on providing general information, they are weak on the specific. Reliability is difficult to assess because of the generic nature of much of the narrative. Relevance is limited by the need to refer to numerical details to confirm an entity's level of risk exposure and comparability is compromised because of significant variation across institutions in terms of narrative length. Finally, understandability is undermined, because the language used is both opaque and vacuous, and statements cannot be fully understood without additional reference to quantitative data. They concluded that the usefulness of qualitative disclosures appears questionable without the support of the quantitative disclosures. Woods and Marginson (2004) however state that there is a need to enhance the quality of both the qualitative and quantitative disclosure in the annual reports. Accounting organisations as already discussed in Chapter 3 and then in this Section around the globe are addressing this issue in a variety of ways, looking for best practices or legislation that will effectively provide solutions to the opaque and vacuous nature of disclosure in the annual reports. This research also aims to contribute towards development of disclosure of intangible assets in the annual reports. In the next section, the relevant literature regarding reactions to qualitative and quantitative accounting information is reviewed.

6.2.1 Reaction to qualitative and quantitative disclosures

Smith (1999) suggests two methods of representation of accounting information namely quantitative and qualitative. MacKay and Villarreal (1987), Moriarity, 1979; Hard and Vanecek (1991), and Stock and Watson (1984) provide evidence that the presentation format of information affects decision-making. Information from a variety of studies has established that decision makers use different strategies when presented with qualitative and quantitative information (Simkin and Hastie, 1987, Stone and Schkade, 1991, Wallsten, 1990). Smith and Taffler (1995) state that there would be some conflict in the relative importance of messages conveyed by qualitative and quantitative disclosure when users of annual reports are evaluating them as numbers imply measurement, so that for many users numerical messages must be assumed to be both more precise and more authoritative than non-numerical messages (Cherry, 1966 and Oliver, 1971).

Quantitative disclosure is the hard data that is the substance of financial disclosure (Bagby and Kintzele, 1987; Courtis, 1986 and Tenyson, Ingram and Dugan, 1990). An example of quantitative disclosure of intangible asset outlined in Chapter 3 is reproduced in Table 6.1. This example is taken from the Exposure Draft on the *Operating and Financial Review* (ASB, 2004).

Table 6.1: Example of quantitative disclosure

Average revenue per user (customer)				
Quantified target: To increase ARPU by 15%per annum for pre-pay customers and 5%per annum for post pay customers.				
Quantified data				
Pre-pay	2004 –£121	2005 –£141	growth of 16.5%,	
Post-pay	2004 –£503	2005 –£525	growth of 4.4%.	
No changes have been made to the source of data or calculation methods used.				

The above is an example of quantitative disclosure of an intangible asset in the *Operating and Financial Review*. The data is expressed in numbers. Quantitative disclosure of customer satisfaction for the purpose of this research study is considered as a numerical disclosure of customer satisfaction performance measures. Decision makers prefer quantitative disclosure because of characteristics like reliability, authenticity and verification as it results in more precise judgement (Boritz, Gaber and Lemon, 1987; Chesley 1979, 1986; and Moonitz, 1961).

Moonitz (1961, p 21) postulates that:

> "… quantitative data are helpful in making rational economic decisions, i.e. in making choice among alternatives so that actions are correctly related to consequences."

A survey of decision-makers conducted by Wallsten, Budescu and Zwick (1993) concludes that in terms of reliability, decision makers consider quantitative disclosure as superior to qualitative disclosure in annual reports. Stone and Dilla (1994) state that experienced auditors' classification of risk may be more accurate when judgement is expressed in numbers as compared to words as numerically stated judgements are considered more precise. Stone and Dilla (1994) state that consensus among auditors is higher when risk judgments are expressed quantitatively as compared to qualitatively. Auditors increasingly rely on decision aids where risk judgements are expressed quantitatively instead of qualitatively (Boritz, 1985; Messier, 1992; Dirsmith and Haskins, 1991; Wallace, 1991).

> "Words in large measure ambiguously communicate uncertainty. Until further study can find a reason for their use, it is suggested, … that a number scale for probability communication be adopted." (Chesley, 1986)

Boritz (1987) states that use of quantitative information during auditing results in increased consensus, confidence and consistency among auditors. Cherry (1996) and Oliver (1972) argue that numbers imply measurement and are therefore assumed to be both more precise and more authoritative than non-numerical messages. Empirical research shows that excessive use of words should be avoided when risks are being communicated as decision makers seem to handle qualitative information about uncertainty but want to receive information about probabilities in a numerical mode. This is because qualitative terms are considered vague and their ambiguousness might result in hasty and /or drastic decisions (Hamm, 1991; Erev and Cohen, 1990). Decision analysts prefer information to be presented quantitatively (e.g.80%) rather than qualitatively (e.g. very likely) as quantitative information is commonly perceived as precise and unambiguous communications while qualitative information is considered vague, subject to different interpretations by different people, and not useful for meaningful calculations. The quality of quantitative information can be evaluated, whereas that of qualitative ones cannot be evaluated (von Winterfeldt and Edwards 1986; Wallsten, Budescu and Zwick, 1993).

Users, because of their past experience, training and education, may also prefer quantitative disclosure of customer satisfaction to qualitative disclosure of customer satisfaction. Ijiri, Jaedcike and Knight (1966), in considering the behavioural implications of accounting measurement, observe that a decision maker has to adjust his/her decision process to allow for accounting changes if the decision has to be optimal. Otherwise they would make a decision affected by their personal biases dictated by their training, education or experience. Ijiri, Jaedcike and Knight (1966) underline two possible reasons why such an adjustment may not take place – lack of feedback on the change or its effect on the decision and functional fixity. Functional fixedness is a concept from psychology that labels a behaviour as 'fixated' if prior experience within an object inhibits ones ability to see new and novel uses for the object (Birnberg and Shields, 1989). Functional fixedness is defined as the decision maker's inability to appropriately adapt to a modified environment involving a change in the use of various accounting principles. A functionally fixated person is one who would use a particular object exactly the same way or one who would attribute a specific quality to a particular number or piece of information irrespective of the object's or the number's composition.

Research evidence indicates that subjects demonstrate an inability to change their decision rules, causing the researchers to conclude that decision makers were often functionally fixated with respect to financial statement information, particularly net income (Birnberg and Shields, 1989; Abdel-khalik, 1994).

As traditionally accounting has been concerned with reporting information quantitatively, it is possible that functional fixedness has been developed in terms of quantitative information. The concept of functional fixedness basically means that the users of annual reports because of their training, education and background consider quantitative information to be reliable and thus do not take into consideration qualitative information. For a decision to be optimal, it should not matter to the decision maker whether the information is qualitative or quantitative but functional fixedness might result in different decisions.

Non-numerical messages are qualitative disclosures. An example of qualitative disclosure outlined in Chapter 3 taken from Department of Trade and Industry Report "Accounting for People" Report is reproduced in Table 6.2.

Table 6.2: Example of qualitative disclosure

Qualitative disclosure We use Management Information about our people to help measure progress towards strategic and operational goals, validated by external benchmarking wherever possible. A key component is the annual People Assurance Survey, which is managed independently and has elements that are benchmarked within member companies. It assesses the following major components of organisational effectiveness: • diversity and inclusion • leadership effectiveness • employee motivation and performance • the ability to attract and retain good people • internal communications • internal brand perception • ethical conduct. The last year survey showed that employees are generally satisfied with BP.

The above is an example of a qualitative disclosure of intangible asset in the annual report. It is a textual disclosure. The disclosure is descriptive in nature as it describes the process of employees' survey and outlines benchmarks. Whereas in Table 6.1, the data relating to average revenue per customer is outlined numerically, the employee survey results in Table 6.1 are described textually. Qualitative disclosure for the purpose of this research study is considered a textual disclosure of customer satisfaction performance measures. Bell (1984) concludes that users of annual reports express more confidence in non-numerically presented information because it has been placed in a contextual frame of reference. Research studies have found instances where auditing firms prefer words to number to express risk judgements (Dirsmith and Haskins 1991; Boritz, 1987 and Janell and Wright 1991). Wallsten (1990), Rennie (1995) and McFadgen and Waller (1991) suggest that in view of vague nature of inherent risk, assessment risk might be expressed qualitatively as qualitative information has the advantage of communicating vagueness and auditors are more confident and comfortable with vague (i.e., linguistic) risk assessments expressed in the form of words. Waller (1993) concludes that auditors have significantly lower confidence in their judgements when they communicate them in numbers relative to words.

Kahnemann and Tversky (1972) and Joyce and Biddle (1981) have demonstrated bias in decision judgments through the use of 'soft' qualitative data in preference to 'hard' quantitative data, in respectively the cognitive psychology and audit environments. Empirical research demonstrates preference for qualitative estimates as they are perceived more natural, easier to understand and communicate, and that they convey the vagueness, or softness, of one's opinions (Budescu and Wallsten 1986 and 1993). Deloitte & Touche (2003) report *Carrots to sticks: a survey of narrative reporting in annual reports* found that 92% of respondents agreed that quantitative indicators alone in the *Operating and Financial Review* cannot adequately capture companies' strengths and weaknesses. Even though quantitative measures received a high rating from survey respondents in helping the board and the CEO make short-term decisions and in formulating strategy, quantitative measures were considerably less helpful in making mid and long-term decisions and in achieving what respondents considered an appropriate valuation in the capital markets. PricewaterhouseCoopers (2004) report *Trends 2005: Good Practices in Corporate Reporting* asked respondents (management and investors) to rate a number of industry-specific measures. Even in the banking and insurance industries, where traditional financial measures might be expected to have greater importance, more than 75 percent of the measures that management and investors ranked as important were qualitative.

It can be concluded from the discussion in this section that narrative reporting has become important over the last few years due to a number of reasons including increasing importance of intangible assets. Intangible assets are non-physical and non-monetary assets. They cannot be easily quantified in monetary terms and thus may be disclosed qualitatively or quantitatively in the annual reports. The main question that raises then is how users of annual reports react to quantitative and qualitative disclosure of intangible assets like customer satisfaction in the annual reports. This question becomes very important when one considers that traditionally annual reports have comprised of numbers. A number of research studies reviewed in this Section have outlined that decision makers might prefer numbers to words due to characteristics of reliability, precision and accuracy (Birnberg 1964; Boritz, Gaber and Lemon, 1987; Chesley 1979, 1985; Smith, 1999 and Moonitz, 1961). A number of research studies reviewed in this Section, however do outline that when vagueness and uncertainty has to be communicated, words might be better than numbers (Wallsten, 1990; Rennie, 1994 and McFadgen and Waller, 1991).If words are better than numbers to communicate non-physical and non-monetary intangible assets then should intangible assets be reported in the annual reports qualitatively? This raises an important question that if intangible assets are reported qualitatively then how would users of annual reports react to disclosure of qualitative information relating to intangible asset in the annual reports. Based on the discussion in this section, research hypotheses regarding reaction of users of annual reports about qualitative and quantitative disclosure of customer satisfaction are suggested in Section 6.4. The next Section reviews the Fuzzy Trace Theory – a theory that critically analyses the reaction of decision makers to qualitative and quantitative information.

6.3 Fuzzy Trace Theory

The main aim of this chapter is to construct a theoretical framework for proposing research hypotheses for assessing differences in reaction to the qualitative and quantitative disclosure of customer satisfaction in the annual reports. In the previous section, the current state of qualitative and quantitative disclosure in the annual reports was discussed. In this section, the Fuzzy Trace Theory and the use of Fuzzy Trace Theory (from the psychology literature) in financial reporting research studies is reviewed so as to construct a theoretical framework for developing the research hypotheses in Section 6.4.

Fuzzy Trace Theory is a relatively new theory of psychology for assessing differences in reaction of individuals to qualitative and quantitative information. The main assumption of the fuzzy trace theory is that processing of data is usually "non-quantitative and people encode multiple representations of information that vary in precision from detailed 'verbatim' traces to vague 'gist' (Reyna and Brainerd, 1995 and 1998). According to the fuzzy trace theory, people during the process of decision-making exhibit a fuzzy processing preference. They tend to operate on the least precise level of representation that can be used to accomplish a judgement or decision-making task. Fuzzy trace theory therefore concludes that individuals tend to process information using qualitative patterns (gist) rather than precise quantities (verbatim) such as probability values or numerical outcomes. The theory suggests that, only when the information cannot be pictured qualitatively (i.e. at the gist level), then decision makers tend to process information at a numerical level (Reyna, 1992). In certain circumstances, quantitative information might have to be used in order to solve complex problems and that information encoded and retrieved is represented along the quantitative representation to qualitative representation continuum. (For a review of the main findings of Fuzzy Trace Theory see Titcomb and Reyna, 1995 and Reyna and Brainerd, 1993, for criticism of the Fuzzy Trace Theory see Acredolo, 1995, for an explanation of gist see Clark and Clark 1977; Kintsch 1974; Reyna 1981 and for a review of verbatim trace and gist trace in psychology see Clark and Clark, 1977; Glucksberg and Danks, 1975 and Lindsay and Johnson, 1987).

Reyna and Brainerd (1991) and Reyna and Fulginiti (1992) explain the preference for qualitative information by decision makers as compared to quantitative information by using the following framing problems suggested by Tversky and Kahneman (1981) (see Chapter 4 for explanation of the framing effect suggested by Tversky and Kahnemen, 1981):

Table 6.3 Framing problems

Framing problems suggested by Tversky and Kahneman (1981) Problem 1 (N=152) Imagine that the US is preparing for the outbreak of an unusual Asian disease, which is expected to kill 600 people. Two alternative programmes to combat the disease have been proposed. Assume that the exact scientific estimates of the consequences of the programs are as follows: **Positive frame** If program A is adopted, 200 people will be saved. (72% of the subjects preferred this alternative) If program B is adopted, there is 1/3 probability that 600 people will be saved and 2/3 probability that no people will be saved. (28% preferred this option) Which of the two programs would you favour? **Negative Frame** Problem 2 (N=155) If program C is adopted, 400 people will die. 22% preferred this option) If program D is adopted, there is 1/3 probability that nobody will die and 2/3 probability that 600 people will die. (78% preferred this option) **Framing problems suggested by Reyna and Brainerd (1991) and Reyna and Fulginiti (1992)** Problem 1 Imagine that the US is preparing for the outbreak of an unusual Asian disease, which is expected to kill 600 people. Two alternative programmes to combat the disease have been proposed. **Positive Frame** If program A is adopted some people will be saved. (55% of the subjects preferred this alternative) If program B is adopted some people will be saved or no one will be saved. (45% of the subjects preferred this alternative)

Negative Frame
If program C is adopted some people will die. (45% of the subjects preferred this alternative)
If program D is adopted nobody will die or some people will die. (55% of the subjects preferred this alternative)

It can be concluded from the above table that quantitative information has been replaced by qualitative information but the same results were obtained. Reyna and Brainerd (1991) and Reyna and Fulginiti (1992) concluded that framing differences are obtained in all conditions. The sure option was preferred more often in the gain frame than in the loss frame. Hence, individuals preferred Program A to Program B and Program D to Program C. The important finding therefore is that framing effects are not removed when numerical information is removed. This finding challenge the traditional claim that the presence of numbers in the problem information is essential to the decision making process and for the framing effects explained in chapter four. Fuzzy trace theory, therefore, concludes that numerical information is not necessary for these effects and those qualitative distinctions are sufficient to produce patterns of preferences.

Based on these experiments, Reyna and Brainerd (1991) and Reyna and Fulginiti (1992) concluded that numbers are neither necessary nor sufficient to produce well-known decision phenomena like framing or reflection effects (see Chapter 5). Numbers could be removed entirely from standard problems without eliminating standard effects. In framing problems, qualitative distinctions like 'more' versus 'less' in probability judgement, 'some' versus 'none' in framing problems are the main reasons for well known empirical patterns. Reyna and Brainerd however concluded that, even though qualitative information is sufficient for making decisions, in some cases numerical information might be necessary to make decisions and that subjects are capable of processing the numerical information. Fuzzy trace theory therefore concludes that decision phenomena are the result of qualitative reasoning, as opposed to the psychophysics of numbers or their statistical properties, in spite of the fact that decision makers encode and can process quantitative information correctly (Reyna and Brainerd, 1995).

Fuzzy Trace Theory has also been utilised in the context of financial reporting. Stone, Yates and Parker (1994) conclude that fuzzy-trace theory better explains framing effects than Prospect Theory. They claim and confirm that people describe the difference between risks of .006 and .003 as "low, but significant, risk." On the other hand, people perceive the difference between risks of .000006 and .000003 as "essentially null risk". That is, a fuzzy-processing preference serves to drive the representation of quantities down to a hierarchy of gist. People therefore convert quantitative information into qualitative information.

Chang, Yen, and Duh (2002) use the fuzzy trace theory to study framing effects in accounting related decisions. They conclude that the same kind of framing effects suggested by Reyna and Brainerd (1991) and Reyna and Fulginiti (1992) are observed in a managerial accounting context but only when the information was simple and can be assessed at a gist level. Framing effects are however absent when the information can not be simplified and have to be processed at the numeric level. They therefore suggest that the framing effects observed by Reyna and Brainerd (1991) and Reyna and Fulginiti (1992) depends upon the format of information. It the information is simple, qualitative information might be sufficient but if the information is complex then quantitative information might be required.

In summary, it can be concluded that, even though the Fuzzy Trace Theory states that qualitative information is sufficient for making decisions and the same framing effects are observed for qualitative and quantitative information, in order to solve complex problems, quantitative information might be preferred to qualitative information. Investment decisions are complex decisions and investors in their role as users of annual reports may prefer quantitative information to qualitative information. Fuzzy Trace Theory thus is of limited use when complex decisions regarding investment are to be made. The brief discussion of the Fuzzy Trace Theory however will be useful in development of research hypotheses regarding reaction to qualitative and quantitative disclosure of customer satisfaction based on the theoretical review of literature in Sections 6.2 and 6.3 in Section 6.4.

6.4 Research hypothesis: Reaction to qualitative and quantitative disclosures of customer satisfaction in the annual reports

The main aim of this chapter as already stated is to build a theoretical framework for proposing research hypotheses for assessing differences in reaction to qualitative and quantitative disclosure of customer satisfaction. For that purpose a theoretical review of relevant literature was undertaken in Sections 6.2 and 6.3.

It was stated in Section 6.2 that as an annual report is a communication instrument, it should communicate such relevant and reliable information to the users of annual reports that would help them make informed and efficient decisions. Intangible assets due to their non-physical nature and the uncertain future benefits cannot be measured reliably in monetary terms and reported quantitatively in the financial statements of annual reports. Due to the increasing importance of intangible assets as discussed in Chapters 2 and 3 and briefly in Section 6.2, there is a need to report intangible assets in the annual reports. It was concluded in Chapter 3 that as intangible assets can not be recognised in the financial statements they should be disclosed qualitatively or quantitatively in the *Operating and Financial Review* of the annual reports (ASB, 2005).

One of the main reasons outlined in Section 6.2 for developments in narrative reporting in the last few years is increasing importance of intangible assets. As intangible assets can not be measured monetarily and reported quantitatively in the financial statement of the annual reports, narrative reporting statements like the *Operating and Financial Review* and the Management Discussion and Analysis sections have become important (ASB,2005). A number of standard setting boards as outlined in Section 6.2 including the International Accounting Standards Board are working on projects relating to narrative reporting. It is important to outline that in these narrative statements information may be reported qualitatively or quantitatively (ASB,2005). As discussed in Chapter 3, studies have suggested qualitative disclosure of intangible in the annual reports as intangible assets are vague in characteristic and described more appropriately by qualitative disclosure rather than quantitative disclosure (GRI,2002). The key question is that how will users of annual reports who have been used to quantitative information in the annual reports react to qualitative disclosure of intangible assets. They might be appreciative of quantitative disclosure of intangible assets but might not be appreciate of qualitative disclosure of intangible assets.

It was stated in Section 6.2 that auditors prefer textual information about inherent risk due to its vagueness (Dirsmith and Haskins 1991; Graham 1985; Boritz, 1987 and Janell and Wright 1992). Vague information is more effectively epitomized by qualitative information. Intangible assets are non-physical in nature and thus their future benefits are uncertain. This uncertainty makes intangible assets vague in nature. Qualitative disclosure that is descriptive in nature may be a much better reflection of uncertain and vague nature of intangible assets. Qualitative information may also be preferred as it presents information in contextual frame of reference (Bell, 1984). Moreover qualitative information is considered more natural, easier to understand and communicate (Budescu and Wallsten 1985, 1987 and 1990).

As discussed in Section 6.2, Woods and Marginson, (2004) concluded after a study of the UK banking sector that assessed the relative quality of both the narrative and numerical disclosures in respect of derivatives and financial instruments required by FRS 13 that while narrative disclosures are strong on providing general information, they are weak on the specific. Due to issues of reliability and vagueness, the usefulness of qualitative disclosures appears questionable without the support of the numerical disclosures. A number of other research studies reviewed in Section 6. 2, also state that decision makers prefer quantitative disclosure as it results in more precise judgement due to characteristics of precision, reliability and certainty (Wallsten, 1990; Rennie, 1994 and McFadgen and Waller, 1991). It might be because of these characteristics of precision and reliability that users might have more confidence in quantitative disclosure as compared to qualitative disclosure of intangible assets even when it comes to reporting an intangible asset like customer satisfaction.

Furthermore, as stated in Section 6.2, numbers imply measurement (Cherry, 1996). Even though research studies reviewed in Section 6.2 have concluded that qualitative disclosure may be preferred to quantitative disclosure as qualitative information reflects vague information more accurately but then research studies have also concluded that the characteristic of vagueness and ambiguity of qualitative information is precisely the reason for preference of quantitative information to qualitative information (Hamm, 1991; Erev and Cohen, 1990). Thus in order to make complex decisions like rational investment decision, users of annual reports in their capacity as decision makers may consider quantitative information to be more reliable than qualitative information (Wallsten, Budescu and Zwick, 1993).

The fuzzy trace theory states that even though qualitative information is sufficient to make decisions but to make complex decisions quantitative information may be required. It is possible, that to make a complex (investment) decision quantitative information may be considered reliable and essential by investors. This may be that due to the characteristics of numbers like precision, authoritativeness and certainty, users of annual reports might consider quantitative information much more useful, reliable and relevant than qualitative information in making complex investment decisions.

Fuzzy Trace Theory states that when information cannot be pictured qualitatively that quantitative information is used. In the context of users of annual reports it can be stated that may be because annual reports have traditionally comprised of quantitative information and that quantitative information is considered more reliable than the qualitative information which might be considered as vague and uncertain that users of annual reports might find it difficult to picture qualitative disclosure of intangible assets and thus rely on quantitative disclosure.

Based on the theoretical review of literature in Sections 6.2 and 6.3 and brief discussion in Section 6.4 it can be hypothesised that users, because of the characteristics of quantitative information like precision and certainty might consider quantitative disclosure more reliable as compared to qualitative disclosure. While making an investment decision they will thus have more confidence in quantitative disclosure of customer satisfaction as compared to qualitative disclosure of customer satisfaction in annual reports. It is thus hypothesised that, while making investment decisions, investors will have more confidence in the assessment of financial position, financial performance, investment risk and share price when customer satisfaction is disclosed quantitatively as compared to when customer satisfaction is disclosed qualitatively.

Table 6.4: Hypotheses H4a-H4d

H4a	A quantitative disclosure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of financial position of the reporting entity as compared to qualitative disclosure of customer satisfaction in the annual report of an entity.
H4b	A quantitative disclosure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of financial performance of the reporting entity as compared to qualitative disclosure of customer satisfaction in the annual report of an entity.
H4c	A quantitative disclosure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of investment risk of the reporting entity as compared to qualitative disclosure of customer satisfaction in the annual report of an entity.

H4d	A quantitative disclosure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of share price of the reporting entity as compared to qualitative disclosure of customer satisfaction in the annual report of an entity.

The above research hypotheses outlined in Table 6.4 will be explored by means of development of a research instrument in Chapter 8. The results of the testing of the instrument will be discussed in Chapter 10. These research hypotheses will also be discussed with the users of annual reports (see Chapter 9) and preparers of annual reports (see Chapter 11).

6.5 Conclusion

One of the main objectives of this thesis is to explore how to disclose customer satisfaction in the annual report. The framework for reporting customer satisfaction suggested in Chapter 3 states that 'externally generated' or 'internally generated' measures of customer satisfaction might be disclosed qualitatively or quantitatively in the annual report. These performance measures should highlight positive and negative aspects of the performance of customer satisfaction. An important aim of this research is to suggest research hypotheses for assessing the reaction of the users of annual reports to these six types of disclosures of customer satisfaction namely 'externally generated', 'internally generated', positive, negative, qualitative and quantitative. The research hypotheses for assessing reaction to the disclosure of 'externally generated' and 'internally generated' performance measures were suggested in Chapter 4 and research hypotheses for assessing reaction to disclosure of positive and negative customer satisfaction information in the annual reports were discussed in Chapter 5. The main aim of this chapter was to formulate a theoretical basis for suggesting research hypotheses for assessing the reaction of users of annual reports to qualitative and quantitative disclosure of customer satisfaction in the annual reports. Quantitative disclosure of customer satisfaction for the purpose of this research study was defined as numerical illustration of customer satisfaction performance in the annual reports and qualitative disclosure of customer satisfaction was defined as textual description of customer satisfaction performance.

It was stated in Section 6.2 that the increasing importance of intangible assets has resulted in suggestions for qualitative and quantitative disclosure of intangible assets in the annual reports to address the problem of declining relevance and decision usefulness of annual reports. The developments in narrative reporting such as the *Operating and Financial Review* have provided a framework for disclosing qualitative and quantitative disclosure about intangible assets in the annual reports. The main issue identified in the context of qualitative disclosure of intangible asset like customer satisfaction in this chapter is the reaction of users of annual reports to qualitative disclosure of intangible assets in the annual reports.

As a result of the discussion in Section 6.2 it was stated that even though a number of research studies discussed in Section 6.2 do state that decision makers might prefer words to numbers to communicate vague information but generally decision makers prefer quantitative information to qualitative information due to characteristics of quantitative information like reliability, precision and certainty. Fuzzy Trace theory reviewed in Section 6.3 states that decision makers prefer qualitative information and it is only when they cannot picture qualitative information or when they have to make a complex decision that quantitative information is used. Replacing qualitative information with quantitative information does not result in elimination of framing differences and the presence of numbers is not necessary for making decisions. It was concluded that in order to make an optimal decision it should not matter whether the information given to the decision maker is qualitative or quantitative but in the context of the users of annual reports they may prefer quantitative information due to characteristics of accuracy and certainty.

Based on the discussion in this chapter, research hypotheses were proposed in Section 6.4. It was stated that user of annual reports because of characteristics of quantitative disclosure like precision and certainty will have more confidence in their assessments of financial position, financial performance, share price and investment risk when customer satisfaction is disclosed quantitatively as opposed to when it is disclosed qualitatively. The next chapter outlines the research approach undertaken to test the research hypotheses and questions outlined in Chapters 2 to 6.

CHAPTER 7

THE RESEARCH APPROACH

7.1 INTRODUCTION

Chapters 1 to 6 identified the research questions of this thesis: in broad terms, why should customer satisfaction be disclosed in the annual reports, how should customer satisfaction be disclosed in the annual reports and how do users of annual react to different disclosures of customer satisfaction in the annual reports. The research hypotheses for investigating the research questions drawing on the theories discussed in Chapters 2 to 6 were proposed in Chapters 4 to 6. The main objective of this chapter is to discuss the research approach used in this research study. This discussion will provide a framework for testing the research hypotheses and exploring the research questions in Chapters 9-11.

This chapter is divided into six main sections. Section 7.2 briefly outlines the specifications of the theoretical framework developed for exploring the research questions in Chapters 1 to 6. Section 7.3 describes the research approach used in this research study for reviewing research questions and exploring research hypotheses. Section 7.4 specifies research methods adopted in the research study for testing the research hypotheses. Section 7.5 explains the experimental design used in this research study for the purpose of testing the research hypotheses. Section 7.6 is a conclusion to this chapter.

7.2 THE SPECIFICATION OF THE THEORETICAL FRAMEWORK

The main objective of this section is to briefly outline the theoretical framework that has been developed in Chapters 1 to 6 for exploring research questions and proposing research hypotheses. This brief summarisation of the theoretical framework developed in Chapters 1 to 6 is considered necessary as it will help in evaluating the suitability of the research approach and research methods used in this research study in Sections 7.3 and 7.4.

Intangible assets like customer satisfaction have become critical success factor and important source of value creation of a company. As discussed in Chapter 2 intangible assets are non-physical, non-current and non-monetary source of probable future economic benefits. It is because of these characteristics that despite the increasing importance of intangible assets (see Chapter 2) they are excluded from the financial statements of the annual reports as it is difficult to measure the future service potential of intangibles due to the non-physical nature of intangible assets. As intangible assets cannot be directly controlled by the entity, their future benefits are uncertain. As their future benefits are uncertain, their values are uncertain and subject to variations: therefore intangible assets are not recognised in the financial statements. Financial statements prepared under current financial reporting framework are concerned only with recording economic events and transactions that can be captured in quantitative terms. The exclusion of intangible assets from the financial statements is identified as one of the reasons for the declining relevance and decision usefulness of the annual reports to the users of annual reports in Chapter 2. There have thus been a number of suggestions as discussed in Chapter 3 for inclusion of intangible assets in the annual reports. As a result of the discussion in Chapter 3, it was concluded that instead of recognition of customer satisfaction in the financial statements, there is a need to explore the possibility of disclosure of an intangible asset like customer satisfaction in the annual reports.

One of the most important research questions of this research study is why should customer satisfaction, which is not recognised as an asset by the current financial reporting framework, be disclosed in the annual reports? The criteria for inclusion of customer satisfaction in the annual reports set out in Chapter 2 is the existence of a positive relationship between customer satisfaction and the economic performance of the company and the relevance of the disclosure of customer satisfaction to the users of annual reports. The existence of empirical evidence of positive relationship between economic performance and customer satisfaction was demonstrated in Chapter 2.

This research study thus aims to assess the relevance of customer satisfaction disclosure to the users of annual reports. Relevance as defined in Chapter 2 is any information that affects decisions made by the users of annual reports. The users of annual reports for the purpose of this research study have been classified as investors in Chapter 2. If the relevance of customer satisfaction disclosure to investors can be illustrated then a strong case exists for disclosure of customer satisfaction in the annual reports. This will also help us in mediating the limitations of measurement technologies. The issue of relevance of customer satisfaction disclosure to the users of annual reports was discussed in Chapter 2. This issue will be further explored in Chapter 10 where the research hypotheses for assessing the relevance of customer satisfaction disclosure to users of annual reports will be proposed.

Another important research question of this research study is how customer satisfaction should be disclosed in the annual reports. A framework for reporting customer satisfaction in annual reports was outlined in Figure 3.1. It is reproduced in Figure 7.1. The framework was developed after a review of a number of research reports relating to reporting intangible assets in the annual reports (FASB, 2001, GRI, 2002; SEC, 2001; OECD, 1999; ASB, 2001). As a result of the review of reports it was concluded that performance measures relating to customer satisfaction may be reported in the annual reports voluntarily in the *Operating and Financial Review* of the annual reports. These performance measures may be opinion based 'externally generated' measures like customer satisfaction surveys or event based 'internally generated' measures like number of customer complaints and time taken to process a complaint. The 'externally generated' or 'internally generated' performance measures may be reported qualitatively i.e. textually or quantitatively i.e. numerically in the *Operating and Financial Review* of the annual reports. The performance measures may depict positive customer satisfaction or negative customer satisfaction information.

Figure 7.1: Framework for reporting customer satisfaction in the annual reports

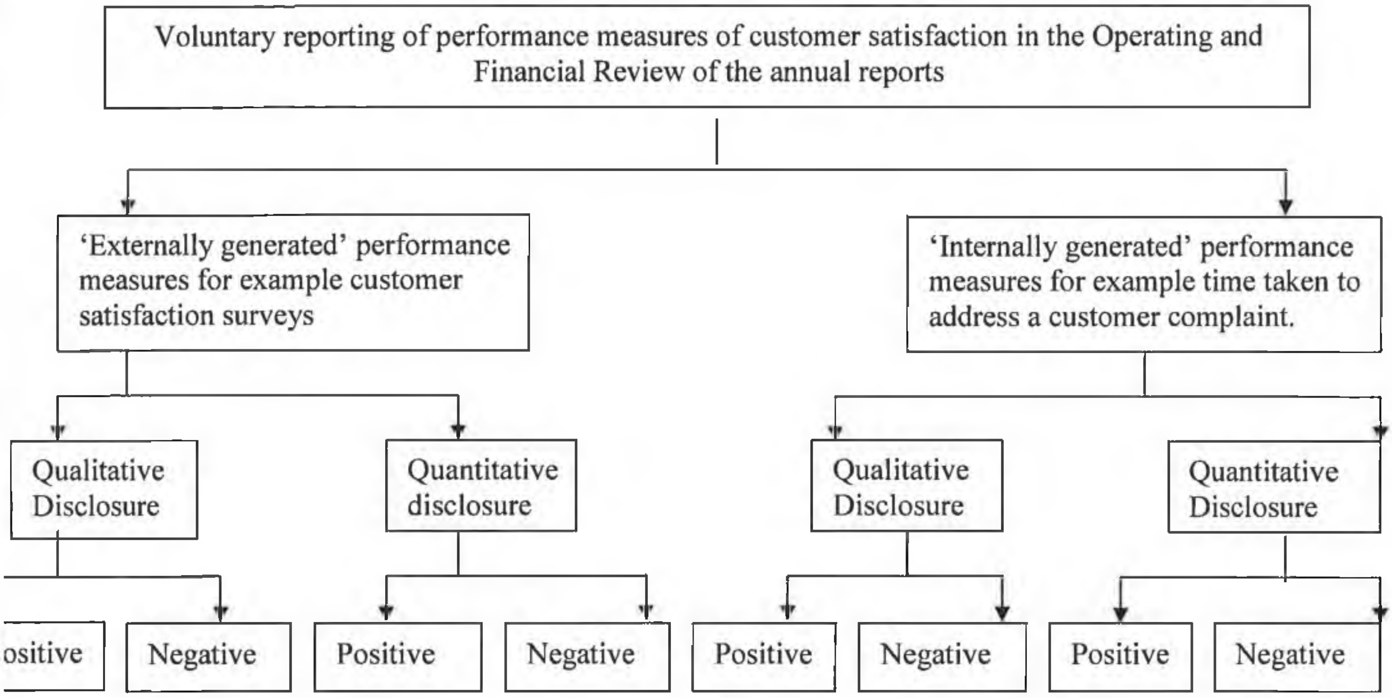


Figure 7.1 provides a framework for the assessment of the research question regarding how customer satisfaction should be disclosed. This research study in Chapters 4-6 develops a theoretical framework for proposing research hypotheses for assessing reaction of the users of annual reports to the six different types of disclosures of customer satisfaction in the annual reports outlined in Figure 7.1. The next section discusses the research approach undertaken in this research study to test the research hypotheses and answer the main research questions.

7.3 THE RESEARCH APPROACH

This research study is a descriptive and exploratory research study. It is descriptive as it aims to provide systematic explanation of different formats of disclosures of customer satisfaction in the annual reports and describe reaction towards different disclosures of customer satisfaction. It is exploratory at it explores the possibility of reporting customer satisfaction in the annual reports – an area where there is little prior research and research hypothesis are almost non-existent. For this reason it can also be classified as an *ex-ante* research study. From a financial reporting context, there are two types of research namely *ex-ante* and *ex-post*. *Ex-post* research focuses on monitoring standards after they have been issued and applied for some time. The information required for this analysis is not available until after standards have been issued and have been in place for a period of time (Birnberg and Shields, 1989; Schipper, 1993). Thus, the analysis of information *ex-post*, even though important in providing some value to standard setters, does not provide *ex-ante* data for assessing behavioural implication of new disclosures in the annual reports in advance of the incorporation of such disclosures in accounting standards (Searfoss, 1993).

Ex-ante research methods, on the other hand, are particularly appropriate for studying behavioural implications of new disclosures in the annual reports. *Ex-ante* research helps in the identification of *'ex-ante'* questions - that is, those 'before the fact' questions that arise in identifying issues, distinguishing alternatives, and selecting an alternative (Beresford, 1994, p. 191). It also provides *ex-ante* information mainly because of its focus on 'descriptive explanations of the world as it is' and its ability to conduct 'what if' analysis by use of experimental methods in which the effects of alternative accounting methods on decisions can be examined. *Ex-ante* research also helps answer *ex-ante* questions like which alternative provides the 'best' solution in terms of theoretical consistency, technical feasibility and practical consequences? Do the expected benefits of improved reporting exceed the perceived costs of a new standard?

This research explores the possibility of reporting customer satisfaction in annual reports. It is a new disclosure in annual reports that is almost non-existent in the annual reports of Irish companies (see Chapter 8). In arguing for its inclusion in the annual reports, this research aims to answer research questions as to why and how to report customer satisfaction. The research thus reviews 'before the facts' questions like the reasons for the inclusion of customer satisfaction, identify issues like possible implications of disclosure of customer satisfaction for preparers and users, and investigates alternative methods of reporting customer satisfaction in the annual reports.

All this cannot be done by *ex-post* research, as the data for performing *ex post* research is not available. In this situation either the kind of research being undertaken by the research study should be abandoned or other options should be explored. As Beresford (1994, p. 194) states:

> '.. academics tell us that sophisticated research tools can not be employed if the prerequisite data are lacking, which often is the case with "before the fact" questions. But what then? Should academics do nothing? Or

should they use tools that are available, even if the tools
are not sophisticated as those currently in favour?'

Rosman and Hussein (1992) suggest that either the researchers can go on with *ex-post* examination of the information content of a new reporting standard and argue that it helps in assessing behavioural implications of new accounting standards and assessing relevance after they had been issued. Alternatively, other methods – most importantly behavioural research – could be used to provide data for conducting *ex-ante* research by assessing behavioural implication of new accounting standards and relevance of new disclosures (Rosman and Hussein, 1992; Maines, 1994 and Beresford, 1994). The latter option is the one adopted by this research.

This research aims at coming up with policy recommendations regarding relevance of customer satisfaction disclosure to users of annual reports and assessing implication of different types of customer satisfaction disclosures in the annual reports so as to increase the decision usefulness of annual reports to the users of annual reports. Behavioural research with its roots in facilitation of decision-making function in financial reports and user-oriented approach towards research financial reporting issues is considered useful in achieving the research objectives (Libby, Bloomfield and Nelson, 2000; AICPA, 1994; Maines, 1994; Ijiri, Jaedicke and Knight, 1966).

Unlike the market based research (see Watts and Zimmerman, 1990; Gonedes and Dopuch, 1974; Fama, 1970 and Ball and Brown, 1968) behavioural research helps assess 'how people, individually or in combination, actually use and are affected by accounting information, rather than how people should use or be affected by such information if they behave according to "rational man" economic theories' (Maines, 1994, p.204) – an approach advocated by capital market researchers. Behavioural research argues that individuals are not completely rational as suggested by the Efficient Market Hypotheses (Dickhaut, 1973; Wright, 1978; Swieringa and Gibbins, 1976; Joyce and Biddle, 1981). Their rationality is bounded and their decisions affected by individual biases (Payne, Bettman, and Johnson, 1993; Simon, 1982). They therefore do not process information rationally and according to normative theorems as assumed by the Efficient Market Hypotheses (Dietrich, Kachelmeier, Kleinmuntz and Linsmeier, 2001). Einhorn (1976, p. 98) notes:

> "Of course the fascinating but unanswered question remains as to how the sub-optimal individual behaviour can lead to 'rational' behaviour at the aggregate level (if indeed that exists)."

This sub-optimal individual behaviour is due to a number of individual biases exhibited by individuals in processing information. The Efficient Market Hypotheses (EMH) suggest that individual biases are washed out in aggregate market setting, thus making individual biases immaterial in setting market prices. However recent research indicates that market prices may reflect 'biases' in judgement suggesting that some errors are systematic and will not 'wash out' in aggregated setting (Bernard and Thomas, 1989; Hand, 1990).

These individual biases are important for the research questions under consideration. The research is interested in exploring the reaction of the users to different types of disclosures of customer satisfaction. It was stated in Chapter 5 that individual biases like framing effects, over reaction effect and affective reaction may result in asymmetric reaction to the disclosure of negative customer satisfaction information in the annual reports. In Chapter 6 functional fixedness was discussed as a possible reason for the reference for quantitative disclosure as compared to qualitative disclosure. This research, in the development of a theoretical framework for proposing research hypotheses, argues that individual biases may affect the individual assessment of share price of a company. The recognition of individual biases in decision making by behavioural researchers is also one of the reasons for the adoption of the behavioural research approach for this research study.

As the research aims to examine the reaction of the users of annual reports to different types of customer satisfaction disclosure, market efficiency research is not helpful in achieving this research objective as one of the main assumptions of the efficient market research is that the presentation of information is irrelevant to decision making at the aggregate market level as it will not affect the market price as the price already reflects all the information (Libby, 1981). EMH thus states that provision of information is important not the format. Behavioural researchers state that the presentation format is important as presentation can influence how individuals classify information and thereby impact their perceptions of information during decision-making thus affecting the market prices also (Maines and McDaniel, 2000; Bloomfield *et al.*, 2002; Ketz and Wyatt, 1983).

As the research intends to answer the research question that how customer satisfaction should be disclosed in the annual reports by assessing the reaction of the users of annual reports to different types of customer satisfaction disclosures. Behavioural research thus provides the required framework for assessing the behaviour of users of annual reports to different types of customer satisfaction disclosures.

Behavioural research, unlike capital market research, emphasises an interdisciplinary approach, grounded in accounting knowledge, using more than economic theory to study disclosures in annual reports and solve financial accounting problems (Wilson, 1996 and Reiter and Williams, 2002, Maines 1994 and 1995). Maines (1994) expressed a preference for the use of psychological and sociological theories for the purpose of development of hypotheses for behavioural research studies investigating reporting/disclosure alternatives. Khalik (1994) emphasised triangulation in theories used by behavioural researchers in developing their theoretical frameworks so as to enhance the richness and relevance of their research findings. This is precisely what this research study aims at while developing the theoretical framework for this research study in Chapters 2-6. Economic theories, for example the Prospect Theory and Reflection Effect, were used in the development of the theoretical framework but so were other theories like the Fuzzy Trace Theory (psychology) and the Affective Reaction Model (financial reporting). Accounting and non-accounting literature was thus used in the development of the theoretical framework of the research.

A number of reasons were discussed in this section for the adoption of the behavioural research approach in this section. The research study proposes that for an exploratory *ex-ante* research study like the present one, behavioural research approach is in a much better position to answer the research questions involved. The behavioural research tools like experiments help explore the reaction of individual users of annual reports towards customer satisfaction disclosures in the annual reports. Chua (1996) states that financial reporting under the influence of EMH has moved away 'to a point just beyond the reach (and beneath the notice) of policy-makers, practising accountants and the public at large' (p. 147). The goal of this research is to obtain results which will contribute to knowledge of the researcher, the users, the preparers of annual reports and the policy makers. EMH is not in a position to do that but behavioural research tools are. In the next section the research methods used in this research study are discussed.

7.4 Research Methods

Research method refers to the procedural framework within which the research is conducted (Remenyi, Williams, Money and Swartz, 1998). Experiments, observations, interviews, surveys and market based research have been identified as research methods that can be used in financial reporting research studies (Wallace, 1991 and Ryan, Scapens and Theobald, 1992). Research method should be chosen as a function of the research approach (Yin, 1994). In Section 7.3 it was indicated that, due to the *ex-ante* nature of this research study, behavioural research approach will be used in this research study. The adoption of behavioural research approach implies the adoption of behavioural research methodology for achieving research objectives and testing research hypotheses.

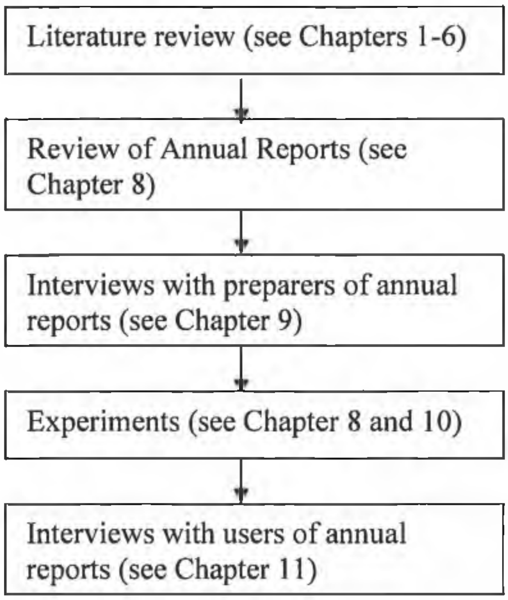
Experiment is the main research method used in behavioural research studies. The main research method thus used in this research study is also experiment. Hogarth (1982) suggests adoption of multiple research methods in financial reporting studies. The use of multiple research methods is referred to as triangulation. Triangulation means incorporating a multi-method, multi-trait combination of research methods in the study of the same phenomenon (Fellows and Liu, 1997; Campbell and Fiske 1959; Webb, Campbell, Schwartz, and Grove, 1966 and Yin, 1994). Khalik (1994) emphasises the need for triangulation in behavioural research.

The effectiveness of triangulation rests on the premise that the weaknesses in each single method will be compensated by the counter-balancing strengths of another thus introducing both testability and context into the research (Kaplan and Duchon, 1988). The use of triangulation ensure deeper understanding of the issue under consideration and initiates new lines of thinking through attention to surprises or paradoxes thus providing fresh insights into the phenomena under consideration (Rossman and Wilson, 1995).

This research also adopts a triangulation approach in selection of research methods. Triangulation in this research study was achieved by the use of experiments as the main research method supplemented by interviews. This triangulation approach helped obtain an in-depth examination of the research aims and objectives. The testing of the experiments, as discussed in Chapter 10, focuses on gaining measurable results and being able to determine the probability of such results. In interviews with preparers and users of annual reports (discussed in Chapters 10 and 11) the focus is on analysing responses in-depth and attempting to extract meanings.

A review of annual reports was also used as a research method so as to obtain an understanding of the current state of reporting customer satisfaction in the annual reports. The research methods used in this research study are outlined in Figure 7.2:

Figure 7.2: Research Methods



Each of the research methods used is explained briefly in this section.

7.4.1 Literature review

The main aim of the literature review was to suggest a theoretical framework for exploring research questions and aims as well as suggesting research hypotheses for the purpose of this research study. The results of the literature review are discussed in Chapters 1-6.

7.4.2 Review of annual reports

The review of annual reports was considered imperative so as to obtain an understanding of the current state of reporting customer satisfaction in the annual reports in Ireland and to obtain examples of customer satisfaction disclosure in the annual reports that could be used in the development of the experimental instrument (see Chapter 8). In view of the rarity of customer satisfaction disclosure in annual reports of Irish companies (see Chapter 8 for a detailed discussion of the review and results of the review of annual reports), the review of annual reports was extended to include the annual reports of the Top 100 Forbes companies as well as annual reports of companies outlined by the literature review as having disclosures of customer satisfaction in the annual reports. The main objective of the extension of the review of annual reports was to obtain examples of customer satisfaction disclosure that could be used in the development of the experimental instrument (discussed in Chapter 8) used for testing the main research hypotheses and exploring research aims .

7.4.3 Interviews

Interviews are an important research method for obtaining a rich and in-depth understanding of the problem under consideration as interviews focus on analysing responses in an attempt to extract meaning (Howard and Peters, 1990; King, 1994) (See Denzin and Lincoln, 1994 and Benney and Hughes, 1956 for a detailed explanation of the interview method). Interviews enable the interviewer to see the research topic from the perspective of the interviewee, and to understand how and why the interviewees have come to this particular perspective thus enabling the interviewer to develop a strong understanding of real life situations regarding the problem under consideration (Kvale, 1996 and Miles and Humberman, 1994). Behavioural researchers have advocated the use of interviews to supplement the experiments (Howard and Peters, 1990).

The phenomenon under consideration in this research study is reporting customer satisfaction in the annual reports. It is essential to obtain the opinion of the preparers and users about the possibility of disclosure of customer satisfaction in the annual reports before making any recommendations in Chapter 12 regarding the possibility of including of customer satisfaction disclosure in the annual reports as well as the format of customer satisfaction disclosure in the annual reports. The interviews with users and preparers of annual reports bring richness and depth to this research study.

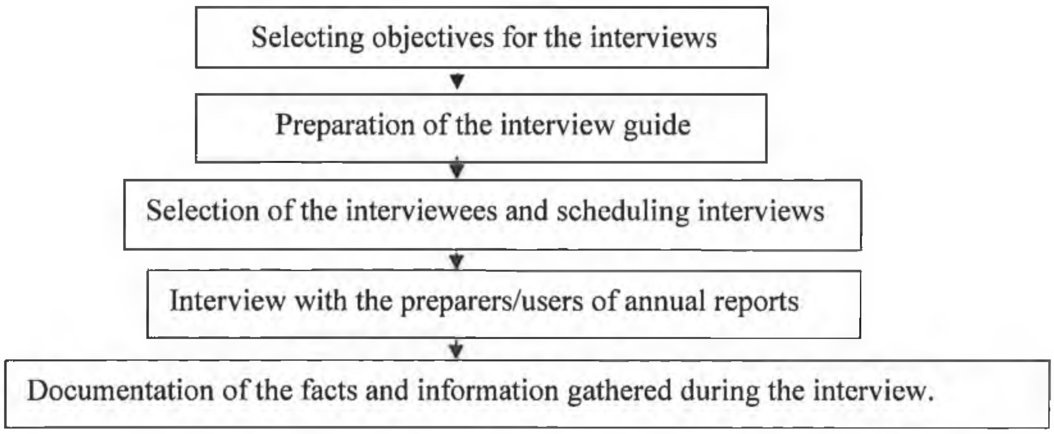
Interviews are usually classified into three types namely structured, semi structured or un-structured. Converse and Schuman (1974, p.153) observe that 'there is no single interview style that fits every occasion or all respondents'. Denzin (1989) emphasises triangulation in the use of interview styles. An interviewer therefore in the course of an interview should be flexible enough to make proper adjustments for unanticipated developments (Kahn and Cannell, 1957). For the purpose of this research study, semi structured interviews were used. The main reason for the use of this approach was that semi structured interviews having a number of open-ended and closed ended questions are highly flexible and are capable of producing data of great depth (King *et al.*, 1994). Open-ended questions ensure flexibility and closed ended questions ensure focus. Flexibility is important as it gives a chance to the interviewers to express their opinion freely – a characteristic that is important for an exploratory research study such as the present one. It is however very important that focus should not be compromised. The focus should remain on customer satisfaction disclosure and this is obtained through the inclusion of closed ended questions (See Shaughnessy and Zechmeister, 1997 for an explanation of various types of interviews).

These interviews were conducted in two stages. In the first stage the preparers of annual reports were interviewed. The main objective of these interviews was to obtain the opinion of the preparers of annual reports about the experimental instrument developed to test the research hypotheses. The results of the interviews with preparers of annual reports are discussed in Chapter 9.

The second stage of interviews was conducted after the testing of the experimental instrument. In this stage, the users of annual reports were interviewed. The objective of these interviews was to obtain the opinion of the users regarding the results of the testing of the experimental instrument (discussed in Chapter 10). The results of the interviews with users of annual reports are discussed in Chapter 11.

The following interview process was thus undertaken in conducting interviews with the preparers and users of annual reports.

Figure 7.3: The Interview Process



The characteristics of the interviewees and the interview processes are discussed in more detail in Chapters 9 and 11.

7.4.4 Experiments

Anthony (1960) classified accounting research into four categories:

(a) those not based on any evidence;

(b) those based on evidence of one company's experience;

(c) those based on surveys; including market research and

(d) those based on experiments.

He believed that if accounting research aims to achieve respectable position as compared to physical and biological sciences, evidence based on experiments must eventually become the most important kind of research. The main objective of financial accounting experiments is to use the comparative advantages of the experimental approach to determine how, when and (ultimately) why important features of financial accounting settings influence behaviour of users of annual reports. Financial accounting experiments thus provide useful and practical illuminations into the decision making process, illustrating the reaction to changes in the form and/or substance of accounting information (see e.g. Dyckman, Hoskin, and Swieringa, 1982). The use of experiments in financial accounting was very popular in the 1960s and 1970s especially in the context of judgment and decision-making research (Libby, Bloomfield and Nelson, 2002). In the mid seventies, experimental studies faced criticism resulting in the loss of interest in experiments as a possible research methodology in accounting (e.g. Gonedes and Dopuch, 1974).

The major criticisms of use of experiments in financial reporting studies were:

> '(1) the irrelevance of individual behaviour in market settings, in which competitive forces will eliminate individual "errors"; (2) poor matching of research methods to research questions; (3) the lack of psychological or economic theory to predict effects and specify the mechanisms through which they occur; and (4) failure to capture relevant aspects of the decisions of interest, in particular, decision maker attributes and institutional features.' (Libby *et al*, 2002, p. 775)

This trend lasted until the early 1990s when there was a renewed interest in experimental research in financial reporting. The reasons for this renewed interest were changing views of market efficiency, recognition of the strengths and weaknesses of experimental methods in addressing financial accounting questions, the availability of new theoretical bases for the research by use of psychological and sociological theories (Libby *et al*, 2002; Maines 1995). Simon (1976) states that experiments in themselves are a sufficient research methodology to be used as they help accomplish all the important phases of a successful research process. Davis and Holt (1992) outline seven reasons for the use of experiments by economists namely

(i) to test a theory, or discriminate between theories,
(ii) explore the cause of a theory's failure,
(iii) establish empirical regularities as a basis for new theory,
(iv) compare environments,
(v) compare institutions,
(vi) evaluate policy proposals and
(vii) using the laboratory as a testing ground for institutional design.

This research uses experiments as the main research method for the following reasons:

a) **Disclosure of customer satisfaction is an example of *ex-ante* disclosure**

The framework within which the different types of disclosures of customer satisfaction are studied is evolutionary and constitutes an extension of, rather than a radical departure from, current accounting conventions. Even though the suggestions for the disclosure of customer satisfaction in the annual reports are largely based on proposals from the standard setting and professional bodies (see Chapter 3), the types of disclosures proposed in the development of the experimental instrument do not currently appear on a systematic basis in the financial statements of reporting entities (see Chapter 8). The disclosures proposed are therefore constructed and artificial in order to explore in a structured way the potential for new disclosures such as those envisaged in this research. The research concerning disclosure of customer satisfaction thus is an example of *ex-ante* research for which the relevance of experiments is empirically supported (Maines, 1995, Beresford, 1994, Libby, Bloomfield and Nelson, 2002, Maroney and O hOgartaigh, 2005). Market reaction to *ex-ante* disclosures is not possible, as they do not exist in the market.

In this scenario, experiments are the most relevant research method to answer the research questions and to test the research hypothesis. They also have the advantage that they are not limited to the 'particular combinations and magnitudes of variables and the timing that occurs in natural events' (Helmstadter, 1970, p. 118) and therefore can add a great deal to an *ex-ante* research. Customer satisfaction disclosures add to the information disclosed in a financial reporting context. Similarly, the experimental approach can add to our understanding of the role of different types of customer satisfaction disclosures in investment decision-making scenario.

b) The need for control

Lambert (1998) states that an important objective of any customer satisfaction disclosure recommendation should be to specify how much flexibility is allowed to companies to report customer satisfaction. Customer satisfaction disclosure due to its subjective nature and the multitude of customer satisfaction performance measures available needs to be controlled. The objective of the various pronouncements and reports of standard setting bodies and professional accountancy bodies (see Chapter 3) in the context of intangible assets reporting has been to control the sporadic reporting of intangible assets reporting that at times can not be comprehended by the users of annual reports due to the use of technical jargon.

Experiments are useful from the context of control as 'the economic environment is very fully under the control of the experimenter' (Roth, 1988, p. 974). Roth (1998) argues that 'it is precisely this control of the environment and access to the (decision-making) agents (sufficient to observe and measure attributes that are not controlled) that give laboratory experiments their power'. Coolican (1994, p. 69) also comments that

> 'if the aim of the experiment is to reduce relevant extraneous variables by strict control then this is best achieved in a laboratory setting, particularly where highly accurate recordings of human cognitive functions (such as memory, perception, selective attention) is required'.

Thus it can be concluded that the need to control customer satisfaction disclosures in the annual reports make experiments the most relevant main research method to use for this research study.

c) The decision-making context of the research

One of the aims of this research study is to answer the research question that how customer satisfaction may be disclosed in the annual reports. The research in answering this question assesses the differences in reaction of the users to different types of disclosures of customer satisfaction during the investment decision-making process. Maines (1995) states that experimental methods are the best research method available for the creation of a decision-making scenario in which the effects of alternative accounting formats and measures on decisions is to be examined.

Research regarding customer satisfaction may have the objective of exploring opinions (through surveys), market reaction (through market-based research) or individual reaction (through field or laboratory experimentation or protocol analysis). This research adopts the latter objective and, for the reasons outlined earlier, proposes to use laboratory experiments as the main research method of examining the reactions of individuals who are users of financial statements to such disclosures.

7.4.5 Conclusion

In this section the research methodology for this research study was discussed. It was stated that one of the essential criteria for a successful behavioural research study is the employment of a number of research methods called triangulation. This research study thus uses a number of research methods namely literature review, interviews with users and preparers of annual reports and review of annual reports to bring richness and depth to research findings. Experiments that is the most important method of a behavioural research study is used in this research study as it provides an excellent framework for exploring research objectives and testing research hypotheses developed for the purpose of this research study. The reasons for the use of experiments as the main research method are discussed in Section 7.4.4. The next section specifically discusses the experimental design used in this research study.

7.5 THE EXPERIMENTAL DESIGN

The objective of an experiment is mainly to discover or confirm cause-effect relationships among variables and to measure them quantitatively. The basis of any experimental design is that one or more independent variables are manipulated and the effect on the dependent variable(s) is observed (Bickman and Rog, 1998; Swieringa, and Weick, 1982 and Trotman, 1996; see Tull and Hawkins, 1984; Sekaran, 1992 for an explanation of experiments). The main characteristics of a successful experimental design are experimental realism, internal validity, external validity and mundane realism (Aronson and Carlsmith, 1968; Swieringa and Weick, 1982; Campbell and Stanely 1963). Each of these criteria is discussed in this section.

a) Experimental realism

Experimental realism refers to the degree of involvement of the subject in the experiment, i.e. that the subject participating in the experiment is aroused and interested rather than bored and detached (Aronson and Carlsmith, 1968). The experimental design used for the purpose of this research study (see Chapter 8) satisfies the criteria of experimental realism. The main aim of the experimental design is to assess the relevance of customer satisfaction disclosure in the annual reports to the users of annual reports and to assess the differences in reaction of the users of annual reports to different types of customer satisfaction disclosure in the annual reports. This experimental design thus specifically aims to obtain the opinion of the users of annual reports. The subjects used as users of annual reports are postgraduate or executive accounting/finance/investment analysis students. It is assumed that these subjects are or will be users of annual reports. The users of annual reports will be aroused by customer satisfaction disclosure. The different types of customer satisfaction disclosure will interest them and might affect their investment assessment of the company.

b) Mundane realism

Mundane realism refers to those experiments where the event occurring in the laboratory is likely to occur in the "real world" (see Swieringa and Weick, 1982 for review of mundane realism). The experimental design used for the purpose of this research study satisfies this criterion of mundane realism. The experimental design aims to explore the possibility of reporting customer satisfaction in the annual reports. Customer satisfaction disclosure is an *ex- ante* disclosure in the context of Irish annual reports but the different types of customer satisfaction disclosures used in the development of the research instrument are extracted from the annual reports of companies (see Chapter 8). Thus, the kind of disclosure that is being proposed in the experimental instrument already exists in the real world. This research study aims to build a case for the inclusion of customer satisfaction disclosure in the annual report of Irish companies.

c) Internal validity

Internal validity is concerned with whether the experimental conditions, in fact, cause the observed outcomes. Internal validity is possible when the results of hypothesis tests can be believed and refers to the ability of the experiment to unambiguously show such relationships. An experiment is said to be satisfying the criteria of internal validity if the research design is appropriate to the problem. Research design encompasses all of the important factors in the environment and all significant relations among those factors, independent variables are controlled so that extraneous and unwanted sources of systematic bias have limited opportunity to operate and subjects are randomly assigned to reduce the problem of systematic bias.

Campbell and Stanely (1963) stated that internal validity can be improved by the use of control groups which are exposed to the same confounding events, but not to the treatment. The experimental design in this research study aims for high internal validity by randomly assigning the subjects to different groups, controlling the independent variable i.e. customer satisfaction and using a control group beside eight experimental groups. The experimental design is developed (see Chapter 8) in a manner that the only difference between the eight experimental groups is the format of the independent variable i.e. the customer satisfaction disclosure.

d) External validity

External validity refers to the extent to which results of the experiment can be translated and extended to situations and conditions beyond the experiment. External validity seeks to obtain assurance whether the findings of the research study can be generalised on a broader basis then the specified case in hand. External validity in financial reporting is possible when the results of the experiment have a significant influence on the financial reporting issue being studied and is useful for policy-making purposes.

The experimental design aims for external validity. One of the main aims of the experimental design is to test the research hypotheses regarding relevance of customer satisfaction disclosure to the users of annual reports. If the relevance of customer satisfaction disclosure to the users of annual reports can be illustrated then a strong case can be built for the inclusion of customer satisfaction in the annual reports.

A number of research studies have suggested different types of intangible assets disclosures in the annual reports (see Chapter 3). The experimental design aims to investigate these suggestions by exploring the preferences of the users of annual reports so as to come up with the preferred type of format of customer satisfaction disclosure (qualitative or quantitative) or measure of customer satisfaction ('externally generated' or 'internally generated'). The experimental design also aims to investigate the suggestion of a balanced approach towards the disclosure of intangible assets by investigating that how do users of annual reports react to disclosure of positive and negative customer satisfaction information in the annual reports.

If users of annual reports react more strongly to negative information as compared to positive information, preparers of annual reports may be reluctant to report intangible assets negatively in the annual reports. In this scenario, policy makers may need to look towards other options for ensuring a balanced approach towards reporting intangible assets.

This research thus aims to satisfy the criterion of external validity as it seeks to come up with such recommendation relating to disclosure of customer satisfaction in the annual reports that will be useful for policy making purposes.

It can be concluded from the above discussion that the experimental design aims to satisfy the criteria of a successful experimental design namely internal validity, external validity, mundane realism and experimental realism. In the next Section the different types of experimental designs are explored.

7.5.1 Types of experimental design

Campbell (1957) discussed a number of experimental designs. The two most commonly used experimental designs are within subjects and between subject designs. The within subjects experimental design is also called pretest-posttest design or repeated measure design. This research study is interested in assessing the reaction of the uses of annual reports to different types of customer satisfaction disclosure. The six different types of customer satisfaction disclosure outlined in Chapter 3 and in Section 6.2 are positive, negative, 'externally generated', 'internally generated', qualitative and quantitative. The within subjects experimental design for the purpose of this research study would be as follows:

$$X_1 \quad O_1 \quad X_2 \quad O_2 \ldots X_N O_N$$

where X_1 = no disclosure, X_2= (for example) the disclosure of positive customer satisfaction information, X3= disclosure of negative customer satisfaction and so on and $O_1 \ldots O_N$ = subjects' reaction respectively.

The within subjects experimental design will thus involve presenting to the subjects an information set where there is no disclosure of customer satisfaction as well as an information set having positive, negative, qualitative, quantitative, 'externally generated' and 'internally generated' disclosures of customer satisfaction. The research study aims to assess the relevance of customer satisfaction disclosure to users and to assess the differences in reaction to 'externally generated' and 'internally generated' measures of customer satisfaction/ disclosure of positive and negative customer satisfaction information and qualitative and quantitative disclosure of customer satisfaction.

Campbell (1957, p. 298) states that in within subjects experimental design there are several 'extraneous variables left uncontrolled which . . . become rival explanations of any difference between O_1 and O_2 confounded with the possible effect of X.'

The most immediate of these is that the participant reacts purely to the fact of disclosure rather than to its form or content. Intuitively it would appear that most incremental disclosures would elicit a reaction and therefore appear relevant. This is true in the case of the research. The participants will react to the disclosure of customer satisfaction and not to the different types of customer satisfaction disclosure. This research study is interested in investigating the differences in reaction to different types of customer satisfaction disclosures.

'Ordering' and 'demand' effects also reduce the feasibility of using within subjects experimental design for the purpose of this research. The first of these suggests that participants will be influenced by the order in which the disclosures are presented rather than the disclosures themselves. The second hypothesised in the field of psychology by Orne (1962) suggests that, by exposing participants to all the disclosures, they may discern the objective of the experiment and react accordingly.

The 'major cost' of within-subjects design writes Libby (1979, p. 41) is 'what is called 'experimental demand', where knowledge of the manipulation allows the subject to uncover the experimenter's hypothesis and to behave accordingly.' In the context of this research repeated customer satisfaction disclosure may signal to subjects that the experimenter wants them to respond to customer satisfaction disclosure thus their reaction may be biased

One response to such limitations has been to conduct experiments over a period of time, to allow for example a period of months to elapse between X_1 and X_2. This gives rise to further confounding variables such as history, maturation and mortality. The first of these describes the potential effect of news (other than X) on the participants. Second, the participants may mature, becoming older, wiser, hungrier, more tired. Third, some participants may not be available for various reasons for the later experiment. The latter two of these effects imply that, effectively, the group at X_1 may not the same group as at X_2.

This research study therefore uses an experimental design called post-only design or between subjects design (see Bickman and Rog, 1998 for an explanation). This design varies the disclosures presented to participants *between* groups instead of within groups as illustrated in Table 7.1:

Table 7.1: Control and Experimental groups used in the research study

Group	Type of disclosure	Discussed in Chapter
Control Group	No disclosure of customer satisfaction	
Group A1-A4	Disclosure of 'externally generated' measures of customer satisfaction	Chapter 4
Groups P1-P4	Disclosure of 'internally generated' measure of customer satisfaction	Chapter 4
Group A1, A3, P2 and P4	Disclosure of negative customer satisfaction information	Chapter 5
Groups A2, A4, P2 and P4	Disclosure of positive customer satisfaction information	Chapter 5
Groups A1, A2, P1 and P2	Qualitative disclosure of customer satisfaction	Chapter 6
Groups A3, A4, P3 and P4	Quantitative disclosure of customer satisfaction	Chapter 6

The control group does not have any disclosure of customer satisfaction. The control group, as discussed previously, increases the internal validity of the experimental design. The eight experimental groups as outlined in Table 7.1 have eight different types of customer satisfaction disclosure. The disclosure of customer satisfaction is thus varied across the groups and not within the group. This type of experimental design will help in investigating the main aims of the research study namely the relevance of customer satisfaction disclosure to the users of annual reports and the reaction of the users of annual reports to different types of customer satisfaction disclosure in the annual reports. This approach is not without its limitations.

The most significant of these is the question of whether differences between the reactions of the groups are due to differences between groups rather than the disclosures themselves. Campbell (1957) and others (e.g. Donaldson and Suppes, 1957; Forcese and Richer, 1970 and Kinney, 1986) suggest that this confounding factor may be limited by the random allocation of participants to each group and by having large enough groups that individual differences will be diluted. This research study therefore uses large enough groups and allocates participants randomly to each group. As for the differences in groups there are no significant differences in the nine groups as outlined in Section 7.5.3.

To summarise, a between-groups experimental design is proposed with some consideration of measuring and controlling between-groups to mitigate some of the limitations of between-group design as outlined. The next sub-section describes the experimental design setting.

7.5.2 Experimental design setting

The experiments were conducted in classroom setting. The use of classrooms to conduct experiments has been criticised on the grounds that they are different from the real world and thus limit the generalisibility of the research findings to the real world. However, Hochberg (1964, page 36) states:

> "When an artist wants to draw a recognisable scene ....his intention is roughly as follows....: *to create a stimulus object to which people will respond in much the same way as they would respond to the countryside itself....* he intends to produce a *surrogate* of the countryside. He obviously cannot do this in its entirety."

It is the same with experiments. The aim of the experiment is to produce a surrogate of the real world and to explore how people respond in this surrogated environment to the stimulus that in this research study is disclosure of customer satisfaction. Morris Zelditch in his article "Can you really study an army in the laboratory states (1969, pp 533-39):

> "An experiment aims only to reproduce that part of a concrete entity that is made relevant by some particular system of abstract variables. Therefore we do not even try to study armies in the laboratory, if by that is meant an army in the concrete set of the word. We try only to create those aspects of armies relevant to some theory. Neither the organisational experiment, nor any other kind of experiment, attempts to create a completely "real" instance of any concrete organisation in the laboratory."

Customer satisfaction is a new kind of disclosure, before it is tested in the real world; it needs to be studied in a surrogated world. Experiments provide a framework for studying customer satisfaction in a surrogated world. The next sub-section describes the characteristics of experimental subjects.

7.5.3 Description of the experimental subjects

The experimental subjects were students. The use of students in accounting experiments is referred to as surrogation (see Dickhaut, Leslie and Watson, 1971 for an explanation of the concept). It was stated in Chapters 2 and 3 that for the purpose of this research investors are classified as the defining class of users of annual reports. Students are used as surrogates for investors in this research study. The use of students in experiments is criticised as students are considered as unrepresentative subjects due to a lack of common skills and experience (Birnberg and Nath, 1967). However, a number of decision-making research studies have however found similarities between decisions and the information-processing behaviour of student and non-student groups (Ashton and Kramer, 1980; Khalik, 1974; Slovic, Fleissner, and Bauma, 1972; Hofstedt, 1972). The results from such research have been accepted for publication in high-quality academic journals such as *The Accounting Review, Behavioural Accounting Research and Accounting, Organisation and Society.* Psychological research studies have also provided evidence that real-world decision makers and students possess similar information-processing characteristics and biases (Lichtenstein and Slovic, 1973; Tversky and Kahneman, 1971; Tversky and Kahneman, 1974; Chapman and Chapman; 1967 and 1969; Slovic, Fischoff, and Lichtenstein, 1977). In general, the use of student subjects is well-documented and well-defended as a recurring component of experimental research (see, for example Snowball, 1989).

It can be concluded from this discussion that there is empirical evidence supporting the use of students in experiments involving decision-making like the current research study. Even if students do not have the same skills and experience as professionals might have, their decisions and information processing process is the same. This research is an *ex-ante* research study. It explores the possibility of reporting customer satisfaction in the annual reports. It identifies issues and raises a number of questions that can be potential research areas.

The use of professionals would have limited the prospect of replication of this research study. As Maines (1994) stated, an *ex-ante* disclosure should first be analysed in a surrogated environment using students as subjects and then having analysed the effects of the new disclosure it should be studied in the real world. Students used as subjects in this research study are taking courses that are either specialised courses in accounting or have a strong element of analysis of accounting information. They will thus have a reasonable understanding of financial statements and intangible assets. They can thus be used as surrogates for investors identified as defining class of users of annual reports in Chapters 2 and 3. They can also be used as subjects for an experimental instrument developed for exploring the research objectives namely the prospect of reporting customer satisfaction in the annual reports and for assessing the reaction of the users of annual reports to different types of disclosures of customer satisfaction in the annual reports.

In order to counter the criticism that students do not have the same learning skills and experience as professionals have, the research uses the triangulation approach in the use of research methods and subjects. Some of the subjects used are professionals who are users of annual reports. Interviews are also conducted with the professionals to obtain their opinion about the research objectives, research hypotheses, the experimental instrument and the results of the testing of the experimental instrument. In this context, users (for example investment analysts) and preparers (for example finance directors) are interviewed. This triangulation approach will also enable to counter the criticism that the use of students as subjects limits the generalisability of the experimental findings to real world.

262 subjects took part in the research. The average age of the subjects for all the groups was in the range of 21-25 years (see Table 7.2)

Table 7.2: Age of experimental subjects

Age in years	21-25		26-30		31-35		>40		Total
Groups	Number	%	Number	%	Number	%	Number	%	
Group A	21	70	4	13	3	10	2	7	30
Group A1	21	68	3	10	6	19	1	3	31
Group A2	21	70	5	17	4	13			30
Group A3	19	67	5	17	5	17	1	3	30
Group A4	19	67	3	10	6	21	1	3	29
Group P1	20	71	3	11	4	14	1	4	28
Group P2	19	68	4	15	4	14	1	4	28
Group P3	19	68	5	18	3	11	1	4	28
Group P4	19	68	4	14	4	14	1	4	28
Total	**178**	**68**	**36**	**14**	**39**	**15**	**9**	**3**	**262**

145 (55%) of the subjects were attending a course of study in University College Dublin, 104 (40%) in Dublin City University and the remaining 13 (5%) at the University College Cork.

Table 7.3: Institution attendance of experimental subjects

Institutions	UCD		DCU		UCC		Total
Groups	No.	%	No.	%	No.	%	
A	19	63%	9	30%	2	6.7%	30
A1	17	55%	12	39%	2	6.5%	31
A2	16	53%	12	40%	2	6.7%	30
A3	16	53%	12	40%	2	6.7%	30
A4	16	55%	12	41%	1	3.4%	29
P1	14	50%	13	46%	1	3.6%	28
P2	17	61%	10	36%	1	3.6%	28
P3	16	57%	11	39%	1	3.6%	28
P4	14	50%	13	46%	1	3.6%	28
Total	**145**	**55%**	**104**	**40%**	**13**	**5%**	**262**

154 (58.8%) were Masters in Accounting students, 83 (31.7%) were MBA students and the remaining 25 (9.5%) were students on the M.Sc. in Investment and Treasury (see Table 7.4). Each of these courses is specialised accounting courses (Masters in Accounting) or has a strong element of analysis of accounting information. A number of research studies have used subjects such as the one used in this research study. Chen (1974), Birnberg and Slevin (1976), King (1991) and Maroney and OhOgartaigh (2005) used MBA students and Chesley (1986) used MBA and chartered accounting students.

Table 7.4: Course attendance of experimental subjects

Courses	Masters in Accounting		MBA		MSc. In Investment &Treasury		Total
Groups							
A	18	60%	9	30%	3	10%	30
A1	22	70%	6	20%	3	10%	31
A2	18	60%	9	30%	3	10%	30
A3	18	60%	9	30%	3	10%	30
A4	17	59%	10	34%	2	7%	29
P1	16	57%	9	32%	3	10%	28
P2	15	53%	10	36%	3	10%	28
P3	17	60%	9	28%	2	7%	28
P4	13	46%	12	43%	3	11%	28
Total	**154**	**59%**	**83**	**32%**	**25**	**9%**	**262**

69 (27.1%) of the subjects were in employment. The average years in their current employment of these subjects was 3 years, ranging from 1 year to 30 years. 102 (40%) were members of a profession, 93 of which related to accounting or investment research (i.e. the Institute of Chartered Accountants in Ireland, the Chartered Institute of Management Accounting and the Institute of Investment Management and Research).

17 (6.5%) were employed in 'Big 4' accountancy firms, 1 (.4%) was in other accountancy firms, 22 (8.4%) in financial institutions, while the remaining 30 (11.4%) were in manufacturing, service or other organisations (see Table 7.5). Of those in employment, 31 (45%) were in roles which required the use of financial statements.

Table 7.5: Employment of experimental subjects

	None		Big 4		Financial institution		Manufacturing organisation		Service Organisation		Others		Total
Groups		%		%		%		%		%		%	
A	24	80	1	3	3	10			2	7			30
A1	24	77	2	7	3	10	2	7					31
A2	23	77	3	10	2	7	1	3			1	3	30
A3	22	73	3	10	2	7	1	3	2	7	-	-	30
A4	21	72	1	3	3	10			2	7	2	7	29
P1	20	71	3	10					2	7	3	11	28
P2	18	64	3	11	3	11	1	3	3	11			28
P3	15	54	7	25	2	7	1	4	2	7	1	4	
P4	21	75	1	4	2	7	2	7	2	7			28
Total	**188**	**72%**	**24**	**9**	**20**	**8**	**8**	**3**	**15**	**6**	**7**	**3**	**262**

Levene's test of homogeneity of variance was conducted and it was concluded that there were no significant differences between the groups in terms of age, course of study, institution attended and employment as these groups were tested for any significant differences. These experimental subjects whose characteristics are outlined in Tables 7.1 to 7.5 are used for testing the experimental instrument developed in Chapter 8.

7.6 CONCLUSION

The main objective of this chapter was to review the research approach adopted and the research method used in this research study. The theoretical framework developed in Chapters 1 to 6 for reviewing research questions and research hypotheses was briefly outlined in Section 7.2. In Section 7.3, the reasons for using behavioural research approach to explore the possibility of inclusion of an *ex-ante* disclosure like customer satisfaction are discussed. The reasons outlined for identification of behavioural research approach for studying the research objectives and questions are user oriented approach of behavioural research to researching financial reporting issues, deep roots of behavioural research in facilitating decision making research, helpfulness of behavioural research in assessing individual behaviour to different disclosure alternatives and interdisciplinary approach of behavioural research encompassing economic, psychological, marketing and financial reporting theories in development of theoretical framework for studying issues under consideration.

As stated in Section 7.4 the research uses multiple research methods to reap the benefits of triangulation. The research methods used are literature review, review of annual reports, interviews with preparers and users of annual reports and experiments using postgraduate students as subjects. All the research methods help in the review of the possibility of disclosure of customer satisfaction in the annual reports. The primary research method adopted in the research is between-group experimental design using subjects drawn from the accounting and business students' Dublin City University, University College Dublin and University College Cork. One of the main reasons for adoption of experiments as the main research method is that the most important behavioural research method is experiment. Customer satisfaction as explained in Section 7.4.4 is an example of *ex-ante* disclosure for which relevance of experiments is well documented. The experimental design is reviewed in Section 7.5. The suitability of the experimental design with regards to the main characteristics of experimental design namely experimental realism, mundane realism, internal validity and externally validity is evaluated and a conclusion was reached in Section 7.5 that the experimental design satisfied the criteria of a successful experimental design namely internal validity, external validity, mundane realism and experimental realism.

The two main types of experimental designs – namely within subjects and between subjects experimental designs – are evaluated in Section 7.5.1 After discussing the merits and demerits of both the experimental designs, a decision is taken to adopt between subjects experimental design as the experimental design used in the research study varies the disclosures presented to participants between groups instead of within groups. The experimental design setting is also reviewed and it is concluded that as customer satisfaction is relatively a new disclosure, it needs to be tested in a surrogated world provided by classroom setting before it can be tested in the real world. The use of students as experimental subjects is critically evaluated in Section 7.5.3.

The empirical evidence in favour of using students as experimental subjects is discussed in Section 7.5.3. The characteristics of experimental subjects are also discussed in Section 7.5.3.

It can be concluded from the discussion in this Chapter that due to the exploratory nature of the research study the use of experiments as the research method would help in exploration of the main research objectives and questions of the research study. The next Chapter i.e. Chapter 8 outlines the design and execution of the experiments and experimental tasks to test these hypotheses.

CHAPTER 8

THE RESEARCH INSTRUMENT

8.1 INTRODUCTION

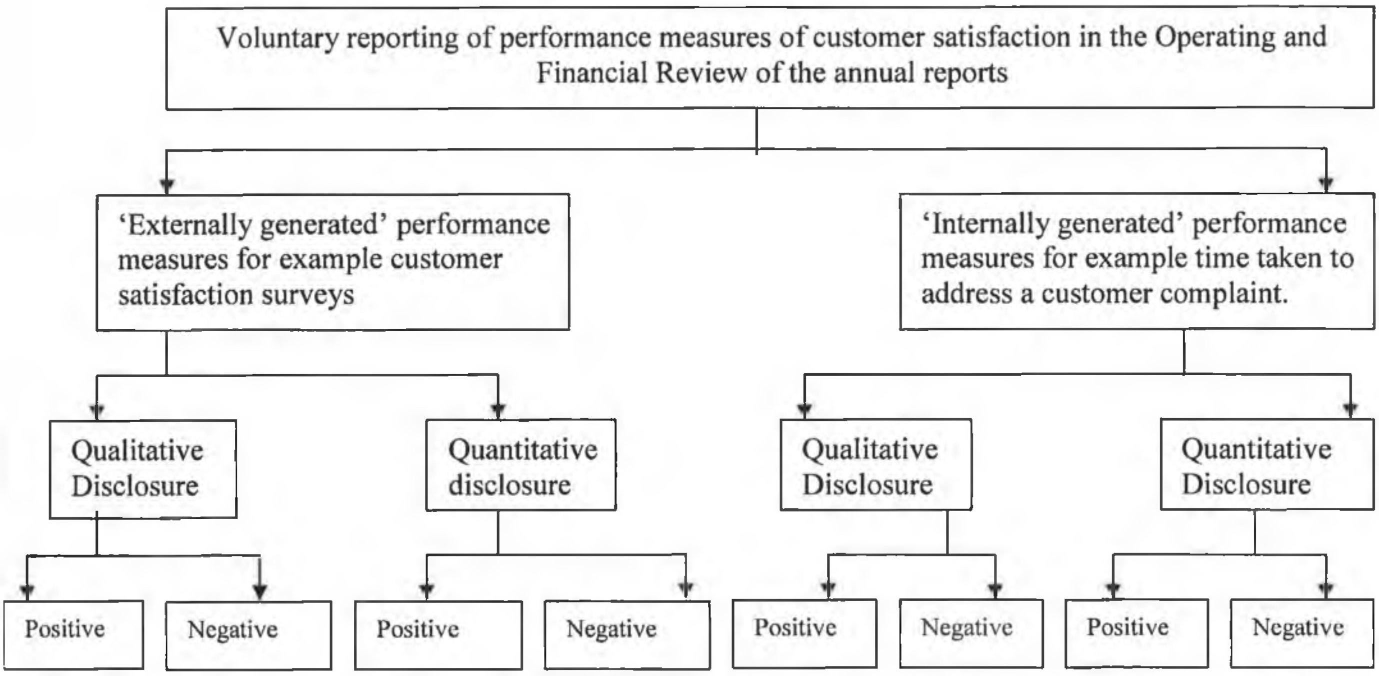
The research as outlined in Chapter 1 aims at exploring the possibility of disclosure of customer satisfaction in the annual reports. In doing so it aims at answering the research question that why and how customer satisfaction may be disclosed in the annual reports. In answering these questions the research intends to explore the potential impact of the disclosure of customer satisfaction in the annual reports and to examine the reaction of the users of annual reports to different alternatives of customer satisfaction disclosures in the annual reports. Chapter 7 outlines the use of behavioural research approach to test the research questions and hypotheses proposed in Chapters 1 to 6. Experiment is the main research method used in this research study. The main aim of this chapter is to discuss the experimental instrument developed to test the research hypotheses.

This chapter is divided into three main sections. Section 8.2 reiterates briefly the framework within which the experimental instrument will be developed. Section 8.3 outlines the process undertaken to develop the research instrument. Section 8.4 explains the main characteristics of the final research instrument. The method of implementation of the research instrument is discussed in Section 8.5. Section 8.6 is conclusion to the chapter.

8.2 The Disclosure of Customer Satisfaction

This research studying in answering the main research questions sets out exploration of relevance of disclosure of customer satisfaction to the users of annual reports and assessment of reaction to different disclosures of customer satisfaction in the annual reports as the main research aims to be explored in the research study in Chapter 1. The current position regarding the disclosure of intangible assets like customer satisfaction was discussed in Chapter 3. Based on that review a framework for reporting customer satisfaction in the annual reports was developed in Chapter 3 (see Figure 3.1) that is reproduced in Figure 8.1.

Figure 8.1: Framework for reporting customer satisfaction in the annual reports



From the above figure it can be concluded that 'externally' and 'internally' generated measures of customer satisfaction may be disclosed voluntarily in the *Operating and Financial Review* o the annual reports if as stated in Chapter 2 it satisfies the criteria of relevance to the users of annual reports and has a positive relationship with the economic performance of the company. The characteristics of these 'externally generated' or 'internally generated' performance measures may be reported qualitatively or quantitatively in the annual reports. The performance measures may depict positive or negative performance. Thus the framework outlined in Figure 8.1 suggests six possible types of customer satisfaction disclosure as outlined in Table 8.1:

Table 8.1: Disclosure of customer satisfaction

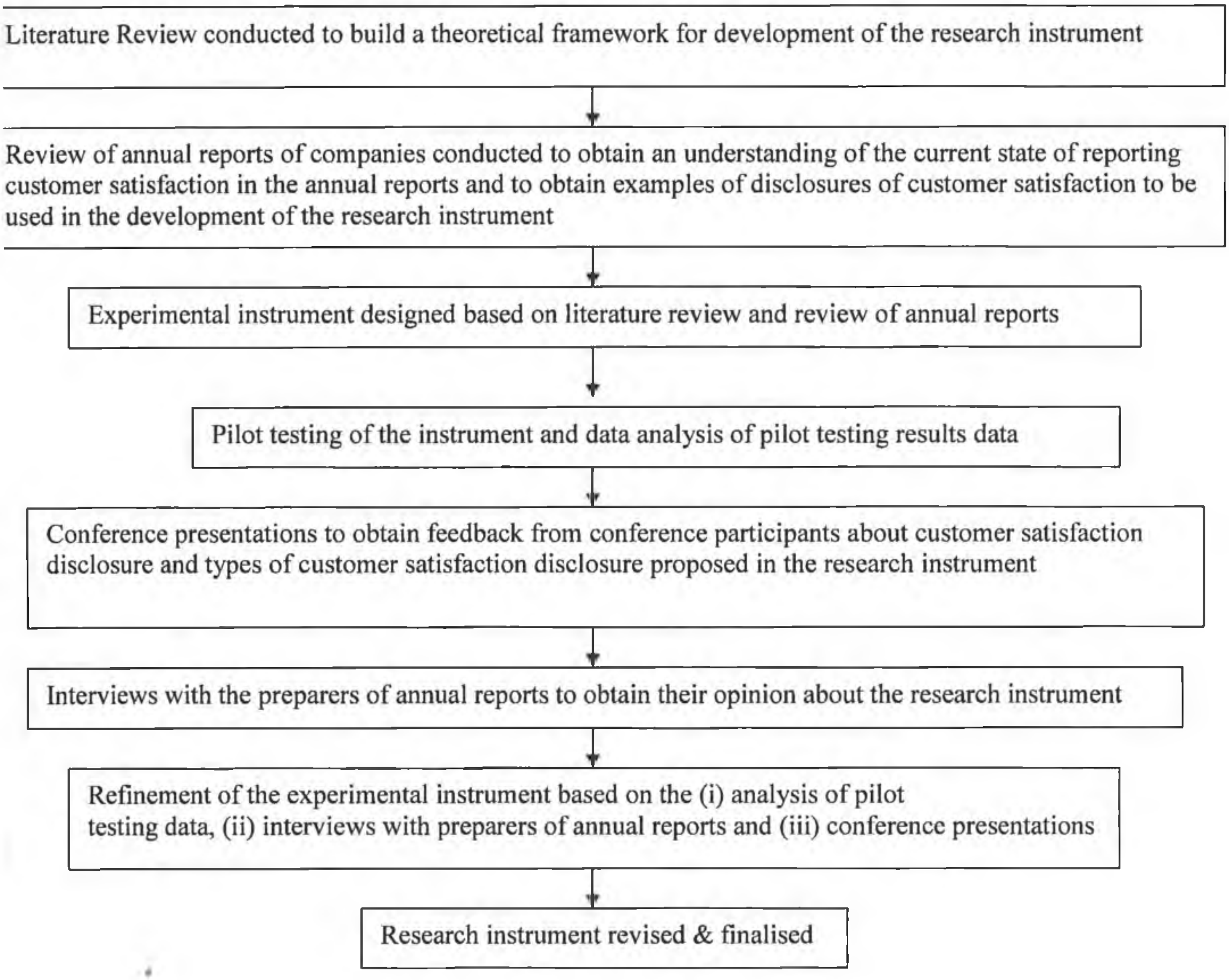
Type of disclosure	Type of disclosure	Chapters
Disclosure based on 'externally generated'/ 'internally generated' measures	Disclosure based on 'externally generated'/ 'internally generated measures'	Discussed in Chapter 3
Disclosure of positive customer satisfaction information	Disclosure of negative customer satisfaction information	Discussed in Chapter 4
Qualitative disclosure	Quantitative disclosure	Discussed in Chapter 5

The research in an attempt to answer the research question that how customer satisfaction may be reported in the annual reports aims to assess the reaction of the users of annual reports to the six types of disclosure of customer satisfaction outlined in Table 8.1 and in this context research hypotheses are outlined in Chapters 4 to 6. It is within the theoretical framework discussed in Chapters 1 to 6 that the experimental instrument, which is the main research instrument, will be developed. The next section outlines the process of the development of the research instrument.

8.3 Development of the research instrument

It was stated in Chapter 7 that experiment is the main research method used in this research study. For that purpose an experimental instrument was developed. The key stages in the development of the experimental instrument are outlined below:

Figure 8.2: Diagrammatic illustration of the process of development of the research instrument



The process of the development of the final research instrument is described as following:

8.3.1 Literature review

The main aim of the experimental instrument is to help in the exploration of the main research questions namely why and how should customer satisfaction be reported in the annual reports. It was thus considered necessary to conduct a literature review before the experimental instrument could be designed so as to obtain theoretical answers to why and how should customer satisfaction be reported. The literature review helped in the development of a framework for reporting customer satisfaction (see Figure 8.1) that was used as the basis for the development of the research instrument discussed in this chapter. The literature review also identified a few examples of disclosures of intangible assets (see Chapter 3) in the annual reports that provided ideas for development of the research instrument. The literature review thus provided the theoretical framework for the development of the research instrument and for analysis of the results of the testing of the experimental data in Chapter 10.

8.3.2 The review of Annual Reports of companies

The theoretical framework constructed after the literature review suggests voluntary disclosure of customer satisfaction in the annual reports as well as outlines different types of customer satisfaction disclosures in the annual reports. It was considered necessary to measure propensity of Irish companies to disclose customer satisfaction in annual reports so as to assess whether the type of disclosure being suggested by the theoretical framework exist in the annual reports of Irish companies. Before constructing the research instrument, a review of annual reports of companies was undertaken so as to obtain an understanding of the current state of reporting customer satisfaction in the annual reports. It was also hoped that the review of the annual reports of companies would help identify examples of customer satisfaction that might be used in the development of the research instrument.

The review of annual reports of companies was completed in two stages. The first stage involved the review of annual reports (2001/02) of companies quoted on the Irish Stock Exchange. There is no prior evidence of this kind of a review carried out in Ireland or any other country. This review concluded that less than 2% of the companies (11 companies) quoted on the Irish Stock Exchange disclosed customer-related information in the *Operating and Financial Review* or the *Chairman's Statement*. The inclusion of customer related disclosures in *Operating and Financial Review* and the *Chairman's Statement* was an important finding as it provided additional support for voluntary reporting of customer satisfaction in the *Operating and Financial Review* of annual reports as suggested by framework outlined in Figure 8.1. Table 8.2 outlines the names of the companies having customer related disclosure as well as the disclosures in question.

Table 8.2: Examples of disclosures of customers in the annual reports (2001/02) of Irish companies

Company	Location of disclosure	Customer disclosure
Glanbia plc	Chairman's Statement	"I want to thank our customer and shareholders for their continued support for the Company."
Kenmare	Operating and Financial Review	"Sale contract signed with major customer."
First Active	Chairman's Statement	"On behalf of the board, I would like to express our appreciation to our shareholders, customers and staff for their continuing loyalty, support and commitment to First Active."
Ryanair	Chairman's Report	"We have also continued to focus customer service by improving punctuality, reducing lost baggage and customer complaints. Last year also saw Ryanair again improve our other customer service measures. The number of passenger complaints almost halved from 1.49 to .82 per 1,000 passengers. Our rate of mishandled baggage continued to decline from 1.00 to .88 per 1,000 passengers…."
	Chief Executive's Report	"Nobody but nobody beats Ryanair in the overall delivery of this customer service package, and that's why we remain Europe's fastest growing airline, because only Ryanair delivers what customers really want. There always will be knockers and begruders, but as long as we continue to enjoy the support of our customers then this airline will continue to grow and prosper – and to hell with the begrudges!"
Horizon technology group plc	Chief Executive Review	"The division has a strong customer base in the UK, Ireland and Europe with whom it enjoys strong repeat business. During the period, the division has won large contracts with a number of prestigious new customers."
Heiton Buckley plc	Chief Executive Review	"Consumer sentiment has recently been depressed by unseasonal adverse weather patterns. To meet the increasing needs of our customers, we are undertaking a new marketing development programme designed to introduce new products in the division."
Kerry Group plc.	Business review	"Consumer demand for quality and convenience continue to significantly influence developments in the food sector across Europe."
Norish plc	Chief Executive Review	"We drew encouragement, not only from the modest recovery in the second half-year, but also from the development of partnerships with some major customers."
Irish Continental Group plc.	Operating and Financial Review	"Recognising the changing nature of that market, we will also implement changes in our marketing strategy to embrace other travel opportunities whilst changing the structure of our distribution to customers via telephone and the Internet."
Jury's Doyle Hotel Group plc	Operating and Financial Review	"To enhance our focus on our regular guests we launched our Priority Guest Programme in November with the aim of recognising and rewarding our key clients in a formal context."
Power Leisure plc.	Operating Review	"We continue to enhance our in-shop broadcasting and display systems in line with our obsession to deliver enhanced customer satisfaction."

It can be concluded from Table 8.2 that only Power Leisure plc and Ryanair specifically included customer satisfaction disclosure in the annual reports. Whereas Power Leisure plc only states its commitment to customer satisfaction qualitatively, Ryanair discloses customer satisfaction by means of 'internally generated' performance measures i.e. number of complaints and rate of mishandled baggage. The Ryanair disclosure is illustrative in the context of this research study. The inclusion of 'internally generated' performance measures in Ryanair's annual report indicates that, even though very rarely but 'internally generated' customer satisfaction performance measures are being included in the annual reports in Ireland.

It is worth mentioning that the review of the annual reports of Irish companies was conducted in December 2002 before the experimental instrument was designed as one of the main aims of the review was to obtain examples of disclosure of customer satisfaction in the annual reports of companies. In view of the very few examples of disclosure of customer satisfaction in the annual reports of Ireland, the review was not of much use in outlining examples of disclosures of customer satisfaction in the annual reports nor was it useful in illustrating whether the different types of customer satisfaction disclosure suggested by the theoretical framework exists in the Irish annual reports. Hence, it was decided to broaden the scope of the review of annual reports of companies.

The second stage of the review of annual reports of companies therefore included a review of annual reports of the Forbes Top 100 companies as well as of annual reports of companies outlined by the literature review for example Dell, Nokia, Bank of America, British Telecom, Microsoft and Hewlet Packard as having disclosures of customer satisfaction. The purpose of this review, unlike the earlier review, was not to measure the propensity to disclose but to identify examples of the disclosure of customer satisfaction in the annual reports that can be used to develop the research instrument as well as to investigate whether the six types of customer satisfaction disclosure outlined by the framework suggested in Figure 8.1 exist in the annual reports of companies. Table 8.3 outlines a few examples of disclosures of customer satisfaction discovered as a result of the review of annual reports of companies.

Table 8.3 Disclosure of customer satisfaction within the annual reports of companies

Name of company	**Disclosure**
Wachovia Annual Report 2001	INTENSE FOCUS ON CUSTOMER SERVICE "Our No. 1 operational goal is to ensure that we continually improve the service that our customers experience. Service quality is monitored constantly and measured through 60,000 customer surveys quarterly. Based on these surveys, customer satisfaction has improved for 11 straight quarters. In addition to focusing on fast and friendly service, we also develop new products and services with customer satisfaction in mind. Wachovia led its industry peer group with a score of 72 percent in the University of Michigan Business School's 2001 American Customer Satisfaction Index. Improving Customer Service 3Q00 4Q00 1Q01 2Q01 3Q01 4Q01 Overall Customer Satisfaction* Scale = 1 to 7 6.22 6.27 6.29 6.32 6.33 6.35 Customer Satisfaction Profile** Scale = 0 to 100% 86% 87% 88% 89% 90% 90% * As measured by the Gallup Organisation. ** As measured by mystery shoppers."
Annual report of Australian Communication Authority 2001/2002.	"For the fourth consecutive year, the ACA conducted a consumer satisfaction survey as part of its telecommunications industry monitoring and reporting responsibilities. …. The main findings of the 2001 satisfaction survey were: • dissatisfaction with fixed phone fault repair services remain high for both households (20 percent overall) and small businesses (22 per cent overall), especially with the length of the time taken for fault repair, • 87 per cent of households and 83 per cent of small businesses expressed satisfaction with the overall performance of their mobile phone service, although concerns remain about drop-out rates and coverage." Percentage of satisfied customers across all measured attributes Fixed phones- fault repair Household 57% Small business 48% Percentage of dissatisfied customers across all measured attributes Fixed phones- fault repair Household 38% Small business 34 %
British Telecom Chief Executive's Review 2002/2003	"Our passion for customers is at the heart of every thing we do. This is essential to drive down customer dissatisfaction, which remains the critical goal for us. In the 2004 financial year, we reduced dissatisfaction by 22%. As customer dissatisfaction is driven down, so is the cost of failure."
ANZ Annual Report 2002 Customer Service Charter	"…. we have focussed on measuring our performance against service levels for account opening, 24-hour, 7-day accessibility, clear and concise communication, valuing our customers' privacy and complaint resolution…. We have performed better than our 24 hour, 7-day accessibility targets with the exception in May and November where internet banking availability was marginally below the promised 99%. Our customer satisfaction score with our communication has improved from 6.9 to 7.2 out of 10. Performance indicators for complaint resolutions **Our Promise**: Resolving complaints – if we make a mistake, we will put it right. Respond to complaints addressed to our National Customer Liaison Unit within 48 hours. Resolve complaints within 10 working days. Advise how much longer it will take to resolve those complaints if it takes more than 10 working days. **Our Performance** We responded to 100% of complaints received by our National Customer Liaison Unit within 48 hours. We resolved 70% of complaints within 10 days. "

The above examples provided suggestions about how to disclose customer satisfaction in the annual reports. Some sections of the disclosures outlined in Table 8.3 did fit within the type of disclosures suggested by the framework (see Table 8.1) as outlined in Table 8.4.

Table 8.4: Classification of disclosures of customer satisfaction in the annual reports

Disclosure of positive customer satisfaction information	Wachovia
Disclosure of negative customer satisfaction information	Australian Communications Authority
Qualitative disclosure	British Telecom
Quantitative disclosure	Australian Communications Authority
Disclosure based on 'externally generated' measures	Wachovia and Australian Communications Authority
Disclosure based on 'internally generated' measures	ANZ

The examples of customer satisfaction disclosure of Wachovia, Ryanair, ANZ and British Telecom were used in the development of the research instrument. It can be concluded from the review of annual reports that as outlined by the literature review customer satisfaction may be disclosed in the *Operating and Financial Review*. As to how it was to be disclosed, Table 8.2 and 8.3 provides examples of how customer satisfaction can be disclosed in the annual reports. These examples will be used in the development of the research instrument. As outlined in Table 8.4 the customer satisfaction disclosures identified as a result of review of annual reports do fall into the classification of different types of customer satisfaction disclosures outlined in Figure 8.1 as a result of the literature review. Having completed the literature review and conducted a review of the annual reports, the research instrument was designed based on the findings of the literature review and review of annual reports.

8.3.3The design of the research instrument

The main aim of the research instrument is to test the research hypotheses and explore research aims and objectives outlined in chapters 2 to 6. The instrument therefore aims to answer the main research questions as why and how customer satisfaction may be disclosed in the annual reports. In exploring the answer to the research question that why customer satisfaction may be disclosed in the annual reports the instrument is designed so as to explore the relevance of disclosure of customer satisfaction in the annual report. The instrument is also designed to examine the reaction of the users of annual reports namely investors (classified as defining class of users of annual reports in Chapters 2 to 6) towards different types of disclosure of customer satisfaction in the annual reports so as to answer the research question that how may customer satisfaction be disclosed in the annual reports.

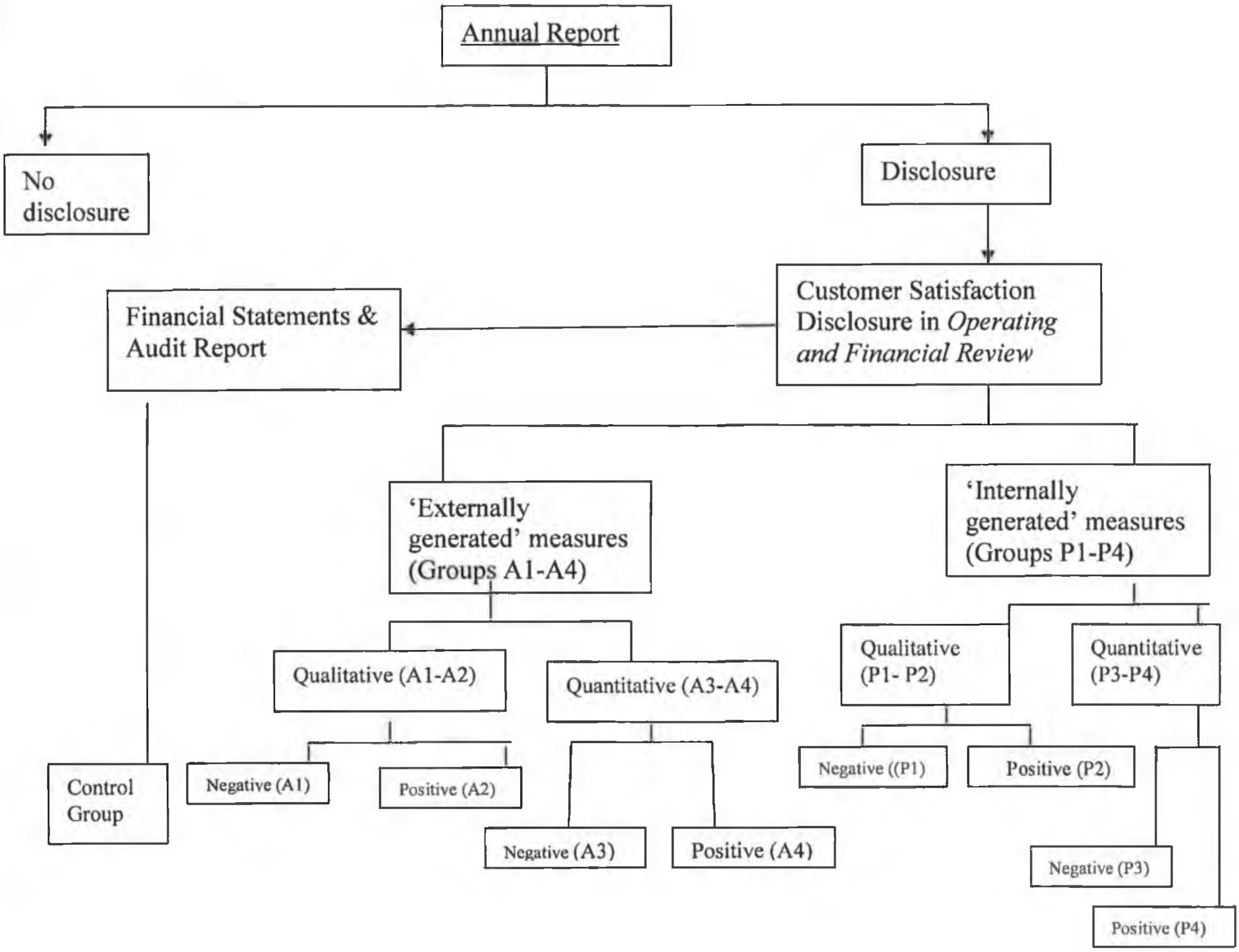
The research instrument was designed based on the findings of the literature review discussed in Chapters 1 to 6 and the review of the annual reports discussed in Section 8.3.2. The framework outlined in Figure 8.1 provided the foundation for the development of the research instrument.

One of the main aims of the research study is the practicality of any suggestion made in the context of disclosure of customer satisfaction in the annual reports. The review of the annual reports provided practical evidence of voluntary disclosure of customer related information in the *Operating and Financial Review* by outlining examples of the disclosure of customer related information (see Table 8.2 and 8.3). The annual report review also outlined examples of customer satisfaction disclosure that fell within the types of disclosure of customer satisfaction suggested by the framework outlined in Figure 8.1 thus providing practical evidence of the existence of the types of disclosures suggested in Figure 8.1 (see Table 8.4). Furthermore it was considered essential to include simple and straightforward customer satisfaction disclosures in the annual reports so as to avoid information overload (ASB, 2005, AICPA 1994 and FASB, 2001)

The research instrument outlined in Figure 8.3 based on the findings of the literature review and review of the annual reports proposes disclosure of customer satisfaction in the *Operating and Financial Review* of the annual reports. The research instrument like the literature review and review of annual reports proposes six types of disclosures of customer satisfaction namely positive customer satisfaction information disclosure, negative customer satisfaction information disclosure, 'externally generated', 'internally generated', qualitative and quantitative.

The instrument is divided into **one control group** and **eight experimental groups**. The diagrammatic illustration of the research instrument is outlined in Figure 8.3:

Figure 8.3: Diagrammatic illustration of the research instrument



It can be concluded from Figure 8.3 that the research instrument is divided into nine groups, the Control group and eight experimental groups (Group A1, Group A2, Group A3, Group A4, Group P1, Group P2, Group P3 and Group P4). This was done to facilitate subsequent coding of the results and to facilitate organised conducting of the experiment and subsequent statistical analysis. Each of the nine groups is given the Financial Statements and Audit Report of a company. The financial statements are of a company operating a chain of retail stores selling a diverse range of products including groceries, electronics and wines. The company has issued share capital of 7,240,000,000 with a nominal value of 5 cents each.

The financial statement includes a profit and loss account and a balance sheet for the five years period 1998-2002. The figures for basic earnings per ordinary share and the price earnings ratio for the five years are also provided along with the price-earnings ratio of the sector in which the company operates for the last five years. The financial statements illustrate a company having a steady growth of profits. In the design of the financial statements, the figure for the year ended 31st December 2002 were taken from the annual report of a medium sized chain of retail stores in Ireland – Tesco. These figures were used as base figures and the figures for the year 1998-2001 were adjusted accordingly to show a growth rate of 3-6% for most of the numbers reported in the financial statements. An unqualified audit report is given for the financial year ending 31st December 2002.

The Control Group did not receive any disclosure of customer satisfaction while the experimental groups (Groups A1-A4 and P1-P4) received different types of customer satisfaction disclosures. One of the main aims of the research study is to explore why customer satisfaction should be disclosed in the annual reports. It was suggested in Chapter 2 that if the disclosure of customer satisfaction provides relevant information to the users of annual reports then it should be disclosed in the annual reports. The research instrument has therefore been designed to find out whether customer satisfaction disclosure provides relevant information or not to the users of annual reports. This is done by the inclusion of a Control Group that does not have customer satisfaction disclosure. Whereas the other experimental groups (A1 to A4 and P1 to P4) have customer satisfaction disclosures, the control group did not receive the customer satisfaction disclosure. The Control Group answers the same questions with regards to the assessment of the company as the other groups subjects and by comparing the results of the answers of the Control Group and the experimental

Groups, it will be examined whether the disclosure of customer satisfaction (in whatever form) results in more confidence in the assessment of the company while making investment decisions. This will help in exploration of research hypotheses H1a to H1d proposed in Chapter 10.

As the research intends to answer the research question that how customer satisfaction may be disclosed in the annual reports, the examination of the reaction of the users of annual reports to different types of customer satisfaction disclosure in the annual reports is considered necessary for answering the research question. The research instrument thus aims to assess the reaction of the users of annual reports to six different types of customer satisfaction disclosures namely positive, negative, 'externally generated', 'internally generated', qualitative and quantitative. The experimental groups receive six different types of customer satisfaction disclosure as part of the experimental instrument. Groups A1-A4 receive disclosure of 'externally generated' measures of customer satisfaction whereas Groups P1-P4 receive disclosure of 'internally generated' measures of customer satisfaction. The aim is to explore the differences in the level of confidence of users in 'externally generated' and 'internally generated' performance measures while making decisions thus testing the Research Hypotheses (H2a to H2d) outlined in Chapter 4.

Groups A1, A2, P1 and P2 receive a qualitative disclosure of customer satisfaction while Groups A3, A4, P3 and P4 receive a quantitative disclosure of customer satisfaction. The objective here is to test the research hypotheses H4a to H4d outlined in Chapter 6 for assessing differences in level of confidence of users of annual reports in qualitative and quantitative disclosure of customer satisfaction in the annual reports while making decisions.

Groups A1, A3, P1 and P3 receive a disclosure of negative customer satisfaction information whereas Groups A2, A4, P2 and P4 receive a disclosure of positive customer satisfaction information in the annual reports. The purpose is to examine the different reactions of the users of annual reports to the disclosure of positive and negative information regarding customer satisfaction in the annual reports. This will enable exploration of research hypotheses H3a to H3d outlined in Chapter 5. Table 8.5 outlines different types of customer satisfaction disclosures received by the nine groups.

Table 8.5: Types of customer satisfaction disclosures received by the groups

Control group: No disclosure.
Group A1= Qualitative 'externally generated' disclosure of negative customer satisfaction information.
Group A2= Qualitative 'externally generated' disclosure of positive customer satisfaction information
Group A3 = Quantitative 'externally generated' disclosure of negative customer satisfaction information.
Group A4 = Quantitative 'externally generated' disclosure of positive customer satisfaction information.
Group P1 = Qualitative 'internally generated' disclosure of negative customer satisfaction information.
Group P2 = Qualitative 'internally generated' disclosure of positive customer satisfaction information.
Group P3 = Quantitative 'internally generated' disclosure of positive customer satisfaction information.
Group P4= Quantitative 'internally generated' disclosure of positive customer satisfaction information

The customer satisfaction disclosures received by the eight experimental groups are outlined in Figure 8.4 to 8.11. The examples of disclosures of customer satisfaction in the annual reports of companies outlined in Tables 8.2 and 8.3 and by literature review in Tables 3.1 and 3.2 are used with necessary modifications in the development of the research instrument so as to ensure practicality of any suggestion made within the context of reporting customer satisfaction in the annual reports.

Figure 8.4: Disclosure A1- Qualitative 'externally generated' disclosure of negative customer satisfaction information

Extract from the Operating and Financial Review

Intense focus on customer satisfaction

We are committed to ensuring the highest standards of customer satisfaction in all that we do. It is our belief that by talking to our customers we will be able to obtain opinion about standards of customer satisfaction offered by us. Customer satisfaction is therefore constantly measured and monitored by us through 120,000 customer satisfaction surveys conducted annually on our behalf by an independent marketing research company – the Gallup organisation. These customer satisfaction surveys provide feedback about our standards of customer satisfaction along important business areas. The results of the 2002 customer satisfaction surveys indicate that customer satisfaction standards have declined over the last five years. These results therefore indicate that a majority of our customers are dissatisfied with our customer satisfaction performance.

Figure 8.5: Disclosure A2- Qualitative 'externally generated' disclosure of positive customer satisfaction information

Extract from the Operating and Financial Review

Intense focus on customer satisfaction
We are committed to ensuring the highest standards of customer satisfaction in all that we do. It is our belief that by talking to our customers we will be able to obtain opinion about standards of customer satisfaction offered by us. Customer satisfaction is therefore constantly measured and monitored by us through 120,000 customer satisfaction surveys conducted annually on our behalf by an independent marketing research company – the Gallup organisation. These customer satisfaction surveys provide feedback about our standards of customer satisfaction along important business areas. The results of the 2002 customer satisfaction surveys indicate that customer satisfaction standards have improved over the last five years. These results therefore indicate that a majority of our customers are satisfied with our customer satisfaction performance.

Figure 8.6: Disclosure A3- Quantitative 'externally generated' disclosure of negative customer satisfaction information

Extract from the Operating and Financial Review
Intense focus on customer satisfaction
We are committed to ensuring the highest standards of customer satisfaction in all that we do. It is our belief that by talking to our customers we will be able to obtain opinion about standards of customer satisfaction offered by us. Customer satisfaction is therefore constantly measured and monitored by us through 120,000 customer satisfaction surveys conducted annually on our behalf by an independent marketing research company – the Gallup organisation. These customer satisfaction surveys provide feedback about our standards of customer satisfaction along important business areas.

Results of customer satisfaction survey

	2002	2001	2000	1999	1998
Overall customer satisfaction*	-6.35	-5.18	-4.21	-3.12	-2.20
Customer Satisfaction Profile **	-90%	-82%	-71%	-62%	-56%

* As measured by the Gallup organisation - Scale -7 to 7
** As measured by mystery shoppers - Scale -100% to 100%

Figure 8.7: Disclosure A4- Quantitative 'externally generated' disclosure of positive customer satisfaction information

Extract from the Operating and Financial Review

Intense focus on customer satisfaction
We are committed to ensuring the highest standards of customer satisfaction in all that we do. It is our belief that by talking to our customers we will be able to obtain opinion about standards of customer satisfaction offered by us. Customer satisfaction is therefore constantly measured and monitored by us through 120,000 customer satisfaction surveys conducted annually on our behalf by an independent marketing research company – the Gallup organisation. These customer satisfaction surveys provide feedback about our standards of customer satisfaction along important business areas.

Results of customer satisfaction survey

	2002	2001	2000	1999	1998
Overall customer satisfaction*	6.35	5.18	4.21	3.12	2.20
Customer Satisfaction Profile **	90%	82%	71%	62%	56%

* As measured by the Gallup organisation - Scale -7 to 7
** As measured by mystery shoppers - Scale -100% to 100%

Figure 8.8: Disclosure P1- Qualitative 'internally generated' disclosure of negative customer satisfaction information

Extract from the Operating and Financial Review

Customer satisfaction - our priority

We aspire for the highest possible standards of customer satisfaction in all that we do. In order to successfully achieve these standards we constantly measure and monitor our customer satisfaction progress along a number of key performance measurements encompassing important business areas. For the financial year ended 31st December 2002, we identified resolution of complaints within forty-eight hours as one of the most important performance measure. We were unsuccessful in achieving our target of resolving all complaints received by the customer centre within forty-eight hours. In order to ensure courteous and professional services to our customers, we aimed to process all refund claims within fifteen minutes. For the financial year ended 31st December 2002, we were unsuccessful in achieving our target of processing all refund claims within fifteen minutes.

Figure 8.9: Disclosure P2- Qualitative 'internally generated' disclosure of positive customer satisfaction information

Extract from the Operating and Financial Review

Customer satisfaction - our priority

We aspire for the highest possible standards of customer satisfaction in all that we do. In order to successfully achieve these standards we constantly measure and monitor our customer satisfaction progress along a number of key performance measurements encompassing important business areas. For the financial year ended 31st December 2002, we identified resolution of complaints within forty-eight hours as one of the most important performance measure. We were successful in achieving our target of resolving all complaints received by the customer centre within forty-eight hours. In order to ensure courteous and professional services to our customers, we aimed to process all refund claims within fifteen minutes. For the financial year ended 31st December 2002, we were successful in achieving our target of processing all refund claims within fifteen minutes.

Figure 8.10: Disclosure P3- Quantitative 'internally generated' disclosure of negative customer satisfaction information

Extract from the Operating and Financial Review

Intense focus on customer satisfaction

We aspire for the highest possible standards of customer satisfaction in all that we do. In order to successfully achieve these standards we constantly measure and monitor our customer satisfaction progress along the following two performance measurements encompassing important business areas.

Customer Satisfaction Performance Measurements	2002	2001	2000	1999	1998
Time taken to process a refund claim (in minutes)	23	21	19	17	15
Number of days taken to process a complaint	10	8	6	4	2

Figure 8.11: Disclosure P4- Quantitative 'internally generated' disclosure of positive customer satisfaction information

Extract from the Operating and Financial Review

Customer satisfaction - our priority

We aspire for the highest possible standards of customer satisfaction in all that we do. In order to successfully achieve these standards we constantly measure and monitor our customer satisfaction progress along the following two performance measurements encompassing important business areas.

Customer Satisfaction Performance Measurements	2002	2001	2000	1999	1998
Time taken to process a refund claim (in minutes)	15	17	19	21	23
Number of days taken to process a complaint	2	4	6	8	10

The one control group and the eight experimental groups are asked to perform the experimental task assigned to them based on the financial statements or customer satisfaction disclosure given to them. All the nine groups receive the same instructions on how to complete the task assigned to them. They are asked to write their comments (if any) on the task assigned to them and the usefulness of the material given to them in performing the task assigned to them. Each of the nine groups is to assume that they are investment analysts who have been approached by a client for advice regarding investing in the company. They are asked eight questions relating to the company based on the information given to them. They are asked to give their assessment of the financial position of the company (q. 1), the financial performance of the company (q. 3) and investment risk (q. 5) on a scale which was divided into deciles having endpoints of 0 to 100 labelled 'poor' and 'excellent' respectively with a midpoint of average. This is similar to the mechanism adopted by Moser (1989), Maines and McDaniel (1995) and Maroney and OhOgartaigh (2005). They are asked to give an assessment of the share price per share in Euro (q. 7). In the context of each decision in questions 1, 3, 5 and 7, they are asked to indicate their level of confidence in the assessment on a scale of 0 to 100. Participants are asked to indicate their confidence (on a scale of 0 to 100) in their assessments of performance and position. They were not asked to stake any investment or other wealth in the companies. This was to avoid the potentially confounding effects of risk attitude discussed, for example, by Selto and Cooper (1990). The means of the assessment of performance, position, investment risk and share price and the expression of confidence will be statistically compared by way of t-tests and ANOVA as discussed in Coolican (1994) and Myers and Well (1991). The results of these tests will be discussed in Chapter 10.

Each of the nine groups is requested to fill in the details about the following for statistical purposes.

- Gender
- Educational qualifications
- Membership of professional bodies
- Employed/not
- Sector of employment if employed

- Position of employment
- Years in current employment s
- Use of financial statements in employment

The design of the research instrument was discussed in this section. (See Appendix 1 to this chapter for the research instrument). The next section outlines the results of the pilot testing of the research instrument.

8.3.4 Pilot testing of the instrument and data analysis of pilot testing results data

It was decided that before the final testing of the research instrument, the research instrument and experimental design should be pilot tested under the same circumstances as the final research instrument so as to resolve any possible problems that the instrument design might have before the final testing of the research instrument. The pilot testing was also considered essential so as to obtain some feedback whether the research instrument design would be successful in exploring the main research objectives and hypotheses.

The research instrument was thus pilot tested with 57 postgraduate students specialising in accounting and business administration at the Dublin City University. These 57 postgraduate students (comprising students of the MBS in Accounting and the Executive MBA) were not subsequently part of the experiment and did not have significantly difference experience of financial statements than the experimental group used in the final testing of the instrument. The students were encouraged to comment on the pilot test and were told of the purpose of the testing. The results of the pilot test are shown in table 8.6.

Table 8.6: Results of the pilot testing of the instrument

	A	A1	A2	A3	A4	P1	P2	P3	P4
	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean
Assessment of financial position (Q.1)	0.63	0.72	0.66	0.64	0.74	0.68	0.77	0.65	0.67
Level of confidence in the assessment of financial position (Q.2)	0.61	0.53	0.6	0.62	0.73	0.67	0.55	0.66	0.59
Assessment of financial performance (Q.3)	0.79	0.65	0.64	0.68	0.64	0.61	0.65	0.63	0.65
Level of confidence in the assessment of financial performance (Q.4)	0.61	0.6	0.68	0.68	0.68	0.67	0.58	0.63	0.59
Assessment of investment risk (Q.5)	0.46	0.51	0.48	0.59	0.43	0.42	0.47	0.3	0.49
Level of confidence in the assessment of investment risk (Q.6)	0.58	0.43	0.58	0.58	0.63	0.67	0.57	0.66	0.6
Assessment of the value of the stock (in Euro) (Q.7)	2.9	15.5	33	11.9	8.08	9.54	6.92	10.3	4.76
Level of confidence in the assessment of the value of the stock (Q.8)	0.47	0.46	0.5	0.59	0.51	0.44	0.48	0.47	0.39

One of the main aims of the pilot testing was to obtain preliminary evidence that the research instrument will help in exploration of the research hypotheses. The research hypotheses suggested in Chapter 4 state that users of annual reports will have more confidence in 'internally generated' customer satisfaction measures as compared to 'externally generated' customer satisfaction measures when assessing financial position, financial performance, investment risk and share price of the company. Table 8.7 outlines comparison of means of confidence in financial position, financial performance, investment risk and share price of experimental groups having disclosure of 'externally generated' and 'internally generated' measures of customer satisfaction.

Table 8.7: Comparison of mean of 'Externally generated' measures disclosure Groups and 'Internally Generated' measures disclosure Groups

	'Externally generated' measures disclosure	'Internally generated' measures disclosure
	Mean	Mean
Level of confidence in the assessment of financial position (Q.2)	.61	.63
Level of confidence in the assessment of financial performance (Q.4)	.66	.62
Level of confidence in the assessment of investment risk (Q.6)	.55	.63
Level of confidence in the assessment of the value of the stock (Q.8)	0.32	.45

It can be concluded from Table 8.7 that the mean level of confidence in the assessment of financial performance of groups receiving the 'externally generated' measures disclosure of customer satisfaction is higher than the groups receiving the 'internally generated' measures disclosure of customer satisfaction. On the other hand the mean level of confidence in the assessment of the financial position, investment risk and value of the stock of groups having disclosure of 'externally generated' measures of customer satisfaction is less than the groups having disclosure of 'internally generated' measures of customer satisfaction. It can thus be tentatively concluded that users of annual reports have more confidence in the assessment of financial position, investment risk and value of stock when customer satisfaction is disclosed using 'internally generated' measures as opposed to when it is disclosed using 'externally generated' measures. This finding provides preliminary evidence that users of annual reports as suggested by the research hypotheses have more confidence in 'internally generated' measures as opposed to 'externally generated' measures.

The research hypotheses outlined in Chapter 5 proposed that the disclosure of negative customer satisfaction information will result in lower assessment of the financial position, financial performance and value of the stock and higher assessment of investment risk as compared to disclosure of positive customer satisfaction information in the annual reports. Table 8.8 outlines the means of groups having disclosures of negative and positive customer satisfaction information.

Table 8.8: Comparison of means of Negative Customer Satisfaction Information Groups and Positive Customer Satisfaction Information Groups

	Negative groups A1, A3, P1 and P3	Positive groups A2, A4, P2 and P4
Assessment of financial position (Q.1)	.67	0.71
Assessment of financial performance (Q.3)	.64	0.65
Assessment of investment risk (Q.5)	.46	0.46
Assessment of the value of the stock (in Euro) (Q.7)	11.81	13.19

It can be concluded from Table 8.8 that the mean of assessment of the financial position, financial performance and value of the stock of negative customer satisfaction information groups is less than the positive customer satisfaction information groups. This provides tentative support for the research hypotheses outlined Chapter 5. The mean of investment risk of positive and negative customer satisfaction information groups is the same. This may be due to small sample size.

The research hypotheses stated in Chapter 6 state that users of annual reports will have more confidence in their assessment of financial position, financial performance, investment risk and share price when customer satisfaction is disclosed quantitatively as opposed to when it is disclosed qualitatively. Table 8.9 outlines the comparison of means of groups having qualitative and quantitative disclosure of customer satisfaction in the annual reports.

Table 8.9: Comparison of means of the Quantitative disclosure Groups and the Qualitative disclosure groups

	Qualitative disclosure (A1, A2, P1, P2)	Quantitative disclosure group (A3, A4, P3 and P4)
Level of confidence in the assessment of financial position (Q.2)	0.59	0.65
Level of confidence in the assessment of financial performance (Q.4)	0.63	0.65
Level of confidence in the assessment of investment risk (Q.6)	0.56	0.62
Level of confidence in the assessment of the value of the stock (Q.8)	0.47	0.49

It can be concluded from Table 8.9 that the mean level of confidence in the assessment of financial performance, financial position, investment risk and value of the stock of groups having quantitative disclosure of customer satisfaction is higher than the groups having qualitative disclosure of customer satisfaction. It can thus be tentatively concluded that the users of annual reports have more confidence in the assessment of financial position, financial performance, investment risk and value of stock when customer satisfaction is disclosed quantitatively as opposed to when it is disclosed qualitatively. Thus this research finding provides preliminary support for the research hypotheses suggested in Chapter 6.

Although no firm or statistical conclusions can be drawn from these tests due to their preliminary nature and the relatively small numbers involved, the results offer a basis for proceeding with the experiments. The results provide preliminary evidence that the research instrument will help in the exploration of the research hypotheses.

It appeared from both the comments of the participants in the pilot-test and the results of the pilot testing that the assessment of the value of the stock caused some confusion, with a wide dispersion and no particular pattern to the estimates. Many participants enquired as to how the stock price might be calculated. This resulted in consideration of the option of discarding the question relating to the assessment of the value of the stock price. It was however decided not to discard the question in view of the research studies illustrating the affect of customer satisfaction on share price. The wording of the question was however changed from an assessment of the value of the stock price to an estimate of the value of the share price.

Previous research studies have asked experimental subjects to give an estimate of the share price for example Maines and McDaniel (1995). In view of these research studies the change from assessment to estimate was considered. The change from assessment to estimate was also considered imperative for another reason. Whereas the word 'assessment' may imply that an exact figure for the stock price is required, the word 'estimate' implies that only an approximate figure of the stock price is needed. Subjects may be comfortable giving an approximate figure but may not be comfortable giving an exact figure. It was thus decided to change assessment of stock price to estimate of share price.

The participants in the pilot group found the task manageable and understandable. They were able to finish the task in time (approximately 20 minutes). They found the rating scales used to express their assessments satisfactory. The comments of the groups concerning the understandability of the information disclosed and the structure of the tasks were particularly encouraging. The groups also identified a number of limitations of the research: for example, the limited disclosures and other information that would assist them in assessing the performance and position of the reporting entity were specifically mentioned. These limitations are discussed in chapter 12.

8.3.5 Conference presentation and review by faculty

After the pilot testing of the instrument the research instrument was presented at the British Accounting Association Doctoral Colloquium in March/April 2003. The objective was to get feedback/suggestions from the participants of the conference as well as the reviewers. The conference participants in general and the reviewers in particular gave helpful suggestions and feedback with regards to the instrument. The instrument was also discussed at one of the six months faculty review meetings held as part of the evaluation process of full time PhD students enrolled at the Dublin City University. This also resulted in important feedback.

Some of the suggestions related to the financial statements and the audit report used in the design of the research instrument. The reviewers at the conference and the six months review meeting were concerned that the financial statements used in the research instrument presented a company in a very strong financial position. This strong financial position might bias the results of the testing of the instrument as the subjects might become functionally fixated with the strong financial position and performance and thus may ignore the customer satisfaction disclosure. In this context, the reviewers noted that instead of using the financial statements of a large construction company having strong financial position and financial performance, financial statements of a medium sized retail store might be used. This was also considered important because customer satisfaction may not be a significant critical success factor for a construction company but is one of the most significant critical success factors for a retail store. Thus it was decided to use the financial statements of a medium sized chain of retail stores located in Ireland. Furthermore the positive trend was moderated by only showing an increase in profits of 3% to 6% during the five years period whose statements were given to experimental subjects.

An extract of the audit report was included in the research instrument. It was suggested that to increase the proximity of the annual reports to real annual reports the complete audit report should be included as users of annual reports in actual life do come across the full audit report while making investment decisions. A full audit report is thus included in the final research instrument outlined in the Appendix to this Chapter.

It can be concluded that the conference presentation and the presentation to the faculty at the Dublin City University review meeting provided important feedback that resulted in some changes to the research instrument.

8.3.6 Interviews with the preparers of the annual reports

It was decided to interview the preparers of annual reports before finalising the research instrument. The review of annual reports of Irish companies had demonstrated that there is limited evidence of customer related disclosure in the annual reports. The research instrument suggests customer satisfaction disclosure and outlines different types of customer satisfaction disclosures. It was thus considered necessary to obtain the opinion of the preparers of annual reports about the possibility of disclosing customer satisfaction in the annual reports and to different types of customer satisfaction disclosures proposed in the research instrument.

The result of the review of annual reports of companies quoted on the Irish stock exchange (discussed earlier in section 8.3.2) concluded that less than 2% of Irish companies (11 companies) disclosed customer related information in the annual reports. It was decided to conduct interviews with the finance directors of those eleven companies. The finance directors of eight companies agreed to participate in the research study. The finance directors of Power Leisure plc, Norish plc and Ryanair declined to participate in the research study as they stated that official guidelines precluded them from giving interviews for research purposes.

Customer satisfaction is an important asset of the banking industry. The review of annual reports of Irish companies discussed in Section 8.3.2 had not outlined any example of disclosure of customer satisfaction in the reports of Irish banks. It was thus decided, that, in view of the importance of customer satisfaction from the perspective of the banking industry, the finance directors of Allied Irish Bank, Bank of Ireland, Irish Permanent and Ulster Bank should be contacted to obtain their opinion on the research instrument. The finance directors of Bank of Ireland and Ulster Bank declined to participate in the research study as official guidelines did not allow them to participate in research studies. The finance directors of Allied Irish Bank and Irish Permanent suggested names of other officers who could participate in the research study and give information that was relevant to the research study. The head of the Strategic Development Unit and a representative of the investor relations unit of the Allied Irish Bank and Marketing Director of the Irish Permanent were thus interviewed.

The name of Superquinn has been synonymous with customer satisfaction in the Republic of Ireland (Excellence Ireland, 2004). Superquinn is not a listed company and it was thus not a part of the review of annual reports discussed in Section 8.3.2. In view of the commitment of Superquinn to customer satisfaction it was decided to interview Fergal Quinn, CEO and founder of Superquinn for the purpose of this research study. The objective of this interview was to obtain the opinion of Mr. Fergal Quinn on the type of disclosure and the format of disclosure being proposed in the research instrument. In view of his busy schedule, he could not be part of the research study and suggested that the Managing Director of the Superquinn may be interviewed for the purpose of the research study. The Managing Director of Superquinn was thus interviewed. Table 8.10 outlines the names of the interviewees. The process undertaken to contact the interviewees, the interview guide and the interview process are discussed in Chapter 9.

Table 8.10 Names of interviewees

Name of company	Name of the person interviewed	Designation
Heiton plc	Peter Byers	Finance Director
Horizon Technology	Cathal O' Caoimh	Chief Financial Officer
Jurys Doyle Hotel	Paul McQualin	Finance Director
Kenmare Resources plc.	Diedre Corcoran	Finance Director
Aer Lingus plc.	Brian Dunne	Finance Director
Glanbia plc.	Geoffrey J Meagher	Group Finance Director
Irish Continental Group	Mr.Gearoid O'Dea	Group Finance Director
First Active	Name confidential	Confidential
Permanent TSB	Eymard Walsh	Finance Officer
Allied Irish Bank	Confidential	Confidential
Superquinn	Mr. Eamonn Quinn	Managing Director

The results of the interviews are discussed in detail in Chapter 9. The specific aim of the interviews was to obtain the reaction of the interviewees to the disclosure of customer satisfaction in the annual reports and to the different types of customer satisfaction disclosures suggested by the research instrument. The preparers of annual reports were unanimous in their appreciation of customer satisfaction as an important intangible asset and were willing to voluntarily disclose positive customer satisfaction measures quantitatively in the annual reports if its relevance could be demonstrated. A few reservations were expressed about negative, qualitative and disclosure of externally generated measures of customer satisfaction in the annual reports. Chapters 9 to 11 address these reservations when the results of the experimental instrument and interviews with users and preparers of annual reports are discussed. It was however concluded from the interviews with the preparers of annual reports that they were generally appreciative of customer satisfaction disclosure suggested by the research instrument.

8.3.5 Research instrument finalised

The research instrument was finalised by November 2003. The final design of the research instrument was carefully considered in the light of the comments obtained from the pilot testing, feedback obtained from the conference, faculty members and interviews with the preparers of the annual reports. The final instrument was tested during the period December 2003 to April 2004. The testing of the instrument is explained in the section 8.4. The final research instrument is produced in the Appendix to this chapter.

8.4 The Execution of the Experiments

There were 262 participants in the experiments. These comprised postgraduate students of Masters Programme at DCU, UCD and UCC for the academic year 2003/2004. (Chapter 7 discusses in detail the benefits and limitations of availing of such participants). The programme directors of the MBS in Accounting, Masters in Investment and Treasury and MBA of the universities were contacted with a request to conduct the experiments in their classes. To maximise participation, they were given a choice to select a date and time of their own convenience during the period December 2003- April 2004. The programme directors were given details of the research instrument, the nature of the research study and were informed of the conditions of the experiments. The main conditions outlined were that the experiment has to be conducted in classroom conditions and that it would be personally administered. After obtaining consent from the programme directors, the experiments were conducted at the time and date specified by the programme directors after consultation with the faculty members in whose class the experiments were to be conducted. Table 8.11 outlines the date and time of the experiments conducted.

Table 8.11: Date and time of the experiments conducted

Date	Time	Venue	Class
17th December 2003	1130 hours	Dublin City University	MBS (Accounting)
16th February 2004	1030 hours	Dublin City University	International MBA
20th February 2004	1130 hours	University College Dublin	Masters in Accounting
17th March 2004	1700 hours	Dublin City University	Executive Masters in Business Administration (Year II)
22nd March 2004	1330 hours	University College Cork	Masters in Corporate Finance and Accounting
31st March 2004	1730 hours	Dublin City University	Masters in Investment and Treasury (Year I)
16th April 2004	1015 hours	University College Dublin	Masters in Business Administration

There was no contact between the subjects throughout the experiments. The experiment took between twenty to twenty five minutes to complete. It was made clear at the very beginning that all the instruction and information required to complete the experiment is contained in the material given to the participants. No further information was given to the participants. The nature and purpose of the research was not disclosed. The research instrument was distributed randomly as discussed in Chapter 7.

The characteristics of the subjects were also discussed in Chapter 7 and it was concluded that there are no significant differences in the characteristics of the participants of the nine groups. The experiment was conducted in classroom conditions. The merits and demerits of experiments conducted in classroom conditions were discussed in Chapter 7 and it was concluded that for an *ex-ante* kind of research study like the present one, the best approach was to conduct experiments in classroom conditions.

Responses were anonymous. Participants were asked to indicate any views that they had on the experimental process or the documentation provided. Most commented that the assignment was 'challenging and interesting' although a few felt that the information given was insufficient for them to assess the performance and position of the companies adequately. This limitation was also identified during the pilot testing. These limitations will be explored in the final chapter.

8.5 Conclusion

The chapter has outlined the development of the research instrument used in the research. It explored the evolution of the experimental framework adopted and the rationale for such a framework in the light of the disclosure of customer satisfaction suggested. The instrument was refined through pilot testing, interviews with the preparers of annual reports and review by conference participants and DCU faculty members. The results of the pilot testing provided preliminary evidence that the research instrument will be able to achieve its main objective that is exploration of the research hypotheses outlined in Chapters 4 to 6. The execution and results of the pilot-testing was discussed in some detail, including the main refinements to the research instrument as a result of the pilot testing, interviews with preparers of the annual reports and review by conference participants and faculty members. The implementation of the experiments was then discussed, including the profile of the participants and the process by which the profiles were contacted.

To summarise, the subjects are given the research instrument reproduced in the appendix to this chapter. The research participants are divided into nine groups. The control group does not have any disclosure of customer satisfaction while the eight experimental groups have eight different kinds of disclosures of customer satisfaction. All the nine groups receive the same financial statements and audit report. They are all asked the same questions. Section A of the research instrument requires the subjects to assess the financial position, financial performance, investment risk and share price. They are also asked to indicate their level of confidence in the assessment of financial position, financial performance, investment risk and share price. Section B of the research instrument requests the participants to give information about themselves for statistical purposes with regards to age, qualifications and employment.

The research approach used to test the experimental instrument was outlined in Chapter 7. The following chapters will explore the results of the testing of the research instrument and interviews with the preparers and users of the annual reports.

Appendix to Chapter 8
The Research Instrument

The Research Instrument is divided into two Sections. The outline of the instrument is as following:

Cover Page

Introduction and Instructions

Section A

Comments (if any)

Profit and loss accounts and balance sheet for the period 1998-2002

Independent Auditor's Report

Extract from the Operating and Financial Review -Disclosures

(For Groups A1-A4 and P1-P4)

Experimental Task

Section B

Note: The research instrument is outlined in sections here for ease of understanding. Each section has a brief introduction at the beginning. The experimental subjects received only the elements comprising the research instrument (shown in Italics). The instrument was completed in two parts, part A and part B as outlined in section 8.4. The research instrument was pilot-tested as described in section 8.3.

1. Introduction and instructions

This element of the research instrument represents the instructions given to each subject at the outset of the experiments. These instructions are discussed in section 8.3.

Introduction

This exercise comprises part of a PhD. thesis researching disclosures in financial reporting context. Your response will be anonymous and will be treated entirely for the research. They will not be used for any other purpose.

You are asked to consider the tasks assigned carefully. Please do not communicate with others during the exercise. Thank you for agreeing to participate.

During the exercise, you will not be given any more information other than the information contained in the documentation supplied.

Instructions

You will be given the financial statement of a company. The company has issued share capital of 7,240,000,000 nominal value of 5 cents each.

The company operates a chain of retail superstores selling a diverse range of products including groceries, electronics and wine. You are to assume that you are an investment analyst who has been approached by a client for advice regarding the company.

In Section A, you are asked to answer eight questions relating to the company whose financial statement is presented to you. In the context of each decision, you are asked to indicate your level of confidence in your assessment on a scale of 0 to 100.

When you have completed the tasks assigned in Section A, please indicate to the administrator who will collect your responses.

Your comments are welcome. Please write them on the front page of Section A.

You are requested to fill in the details in Section B, which are for statistical purposes only.

The subjects were asked to write any comments that they may have had about the research instrument or the experimental task.

Section A

Comments (if any)

The financial statements

The same financial statements (balance sheet and profit and loss account) of the same reporting entity were presented to all the experimental subjects of all the nine groups. These financial statements are reproduced below and discussed in Section 8.2.

Profit and Loss Account For the Year Ended 31December

	2002	2001	2000	1999	1998
	€m	€m	€m	€m	€m
Turnover	23,615	22,434	21,313	20,247	19,235
Operating Profit	762	724	688	653	621
Profit on ordinary activities before taxation	639	586	542	499	458
Tax on profit on ordinary activities	(128)	(122)	(116)	(110)	(105)
Profit on ordinary activities after taxation	511	464	426	389	353
Minority Interests	-	-	-	-	-
Profit attributable to shareholders	511	464	426	389	353
Dividends	(146)	(136)	(130)	(123)	(117)
Retained profit for the period	365	328	296	266	236
Earnings per ordinary share -basic	7.05c	6.7c	5.9 c	5.6c	5 c
Price earning ratio	11.5	11	10.5	10	9.5
Price earning ratio – sector	11	10.5	10	9.5	9

	2002	2001	2000	1999	1998
	€m	€m	€m	€m	€m
Net Assets Employed					
Fixed assets	14,086	13,159	12,294	11,507	10,776
Current assets	2,440	2,294	2,156	2,027	1,905
Creditors(amounts falling due within one year)	(5,372)	(5,050)	(4,747)	(4,462)	(4,194)
Net Current liabilities	(2,932)	(2,756)	(2,591)	(2,435)	(2,289)
Total assets less current liabilities	11,154	10,403	9,703	9,072	8,487
Creditors (amounts falling due after more than one year)	(4,005)	(3,806)	(3,618)	(3,466)	(3,315)
Provision for liabilities and charges	(590)	(553)	(505)	(453)	(406)
	6,559	**6,044**	**5,580**	**5,153**	**4,766**
Capital and reserves					
Called up share capital	362	344	327	310	295
Share Premium account	2,465	2,342	2,225	2,113	2,008
Other reserves	40	38	36	34	33
Profit and loss account	3,649	3,284	2,956	2,660	2,394
Shareholder's funds	6,516	6,008	5,544	5,117	4,730
Minority shareholders' equity interest	43	36	36	36	36
	6,559	**6,044**	**5,580**	**5,153**	**4,766**

The following Audit Report was given to subjects of all the experimental groups.

Independent Auditor's Report
We have audited the Group's financial statements for the year ended 31st December 2002, which comprise the profit and loss account, statement of total recognised gains and losses, balance sheet, cash flow statement and the related notes 1 to 32. These financial statements have been prepared on the basis of the accounting policies set out therein.

Respective responsibilities of directors and auditors
The Director's responsibilities for preparing the Annual report and the Financial Statements in accordance with the applicable Irish law and accounting standards are set out in the Statement of Director's Responsibilities.

Our responsibility is to audit the financial statements in accordance with relevant legal and regulatory requirements, Auditing Standards issued by the Auditing Practice for use in Ireland and the United Kingdom and the Listing Rules of the Irish Stock Exchange.

We report to you our opinion whether the financial statements give a true and fair view and are prepared in accordance with the Company Acts. We also report to you our opinion as to whether proper books of accounts have been kept by the Company; whether at the balance sheet date, there exists a financial situation which may require the convening of an extraordinary general meeting of the Company; and whether the information given in the Directors' report is consistent with the financial statements. In addition, we state whether we have obtained all the information and explanations we consider necessary for the purpose of our audit and whether the Company balance sheet is in agreement with the book of accounts.

We report to you if, in our opinion, any information specified by law or by Listing Rules regarding Directors' remuneration and transactions with the Group is not given and, whether practicable, include such information in our report.

We review whether the Corporate Governance statement reflects the Company's compliance with the seven provisions of the Combined Code specified for our review by the Listing Rules, and we report if it does not. We are not required to consider whether the Board's statement on internal control cover all risks and controls, or form an opinion on the effectiveness of the Group's corporate governance procedure or its risk and control procedures.

We read the other information contained in the Annual report and consider whether it is consistent with the audited financial statements. This other information comprises the Director's report, Chairman's statement, Chief Executive's review, Operations reviews, Finance review and the corporate governance statement. We consider the implications for our report if we become aware of any apparent misstatement or material inconsistencies with the financial statements. Our responsibilities do not extend to any other information.

Basis of audit opinion
We conducted our audit in accordance with Auditing Standards issued by the Auditing Practice Board. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgements made by the Directors in the preparation of the financial statements and of whether the accounting policies are appropriate to the Company's circumstances, consistently applied and adequately disclosed.

We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial statements are free from material misstatements, whether caused by fraud or other irregularity or error. In forming our opinion we also evaluated the overall adequacy of the presentation of information in the financial statements.

Opinion
In our opinion the financial statements give a true and fair view of the state of affairs of the Company as at 31st December 2002 and of the profit of the Group for the year then ended and have been properly prepared in accordance with the provision of the Companies Acts, 1963 to 2002 and the European Communities (Companies: Group Accounts) Regulation, 1992.

We have obtained all the information and explanations we consider necessary for the purpose of our audit. In our opinion proper books of account have been kept by the Company. The Company balance sheet is in agreement with the books of account.
In our opinion the information given in the Directors' report is consistent with the financial statements.

In our opinion the balance sheet does not disclose a financial situation which, under the provisions of the Companies (Amendment) Act, 1983 would require the convening of an extraordinary general meeting of the Company.

Peter and Fiona
Registered Auditors
Dublin
4th March, 2003

Disclosures

For illustrative purposes, the disclosure to Group A1 (the qualitative negative disclosure of 'externally generated measures') is reproduced here. The other 7 disclosures comprising the disclosures of customer satisfaction are in Figures 8.4 to 8.11 inclusive. The control group receives no disclosure, only the balance sheet and the profit and loss account of the reporting entity.

Disclosure to Group A1 (as in Figure 8.5)

Extract from the Operating and Financial Review

Intense focus on customer satisfaction

We are committed to ensuring the highest standards of customer satisfaction in all that we do. It is our belief that by talking to our customers we will be able to obtain opinion about standards of customer satisfaction offered by us. Customer satisfaction is therefore constantly measured and monitored by us through 120,000 customer satisfaction surveys conducted annually on our behalf by an independent marketing research company – the Gallup organisation. These customer satisfaction surveys provide feedback about our standards of customer satisfaction along important business areas. The results of the 2002 customer satisfaction surveys indicate that customer satisfaction standards have declined over the last five years. These results therefore indicate that a majority of our customers are dissatisfied with our customer satisfaction performance.

The experimental task

The development and testing of the experimental task is set out in sections 8.3 and 8.4. The experimental task for all groups was identical.

Q.1) My assessment of the financial position of the company is (mark a point on the scale):

0	10	20	30	40	50	60	70	80	90	100
Poor					*Average*					*Excellent*

Q.2) My level of confidence in this assessment is (mark a point on the scale):

0	10	20	30	40	50	60	70	80	90	100
Poor					*Average*					*Excellent*

Q.3) My assessment of the financial performance of the company is (mark a point on the scale):

0	10	20	30	40	50	60	70	80	90	100
Poor					*Average*					*Excellent*

Q.4) My level of confidence in this assessment is (mark a point on the scale):

0	10	20	30	40	50	60	70	80	90	100
Poor					*Average*					*Excellent*

Q.5) Based on the information provided, the risk of investing in the company is:

0	10	20	30	40	50	60	70	80	90	100
Low					*Medium*					*High*

Q.6) My level of confidence in this assessment is (mark a point on the scale):

0	10	20	30	40	50	60	70	80	90	100
Poor					*Average*					*Excellent*

Q.7) My assessment of the value of the share (per share in Euro) is:

Q.8) My level of confidence in this assessment is (mark a point on the scale):

0	10	20	30	40	50	60	70	80	90	100
Poor					Average					Excellent

Summary information

Summary information of each participant was requested, including age, experience, education and employment. The summary information is used to develop a profile of participants discussed in chapter 7.

Section B

Summary Information
This information is for statistical purposes only.

- *Age: (please tick)*

≤ 20 *21-25* *6-30*

31-35 *36-40* *40*

- *Gender: (please circle)* *M* *F*
- *Which of the following best describes your educational qualifications? (Please tick one.)*

Graduation

Masters

PhD

Any other

- *Are you a member of any of the following professional bodies (Please tick one):*

ACCA

ICAI

CIMA

IIMR

Any other

- *Are you currently employed (please tick):*

Yes ___ *No _____*

- *If yes, please indicate sector of employment:*

Big 4 accountancy firm

Financial institution

Service company

Other accountancy firm

Manufacturing company

Others: please specify

- *If yes, please indicate position:*

- *If yes, please indicate years in current employment:*

- *If yes, does your employment require the use of financial statements:*

Yes ___ *No* ____

Chapter Nine

Interviews with the preparers of Annual Reports

9.1 Introduction

The research aims to explore the possibility of disclosure of customer satisfaction in the annual reports by the development of an experimental instrument. In view of the exploratory nature of the research study it was considered essential that the opinion of the users and preparers of annual reports be obtained about the possibility of disclosure of customer satisfaction in the annual reports by means of interviews. The importance of the involvement of preparers and users in standard setting process is well documented (Collins, Davie and Weetman, 1996; Georgiou, 2004; Hooks and van Staden, 2004; Purdy, 1998). There is however no evidence of prior research into investigation of preparers' preferences with regards to disclosure of customer satisfaction in the annual reports.

The main objective of the interviews with the preparers of annual reports was to obtain their reaction to the research instrument discussed in Chapter 9. As the research instrument aims to answer the research questions that why and how customer satisfaction may be reported in the annual reports thus the interviews with the preparers aimed at obtaining the opinion of preparers of annual reports about the relevance of customer satisfaction disclosure as well as the reaction to the different types of customer satisfaction disclosures being proposed by the research instrument. This was considered useful in obtaining leads for analysis of the research instrument data in Chapter 10. This chapter is divided into four sections. Section 9.1 is the current introductory section. Section 9.2 discusses the interview process. Section 9.3 analyses the interview findings. Section 9.4 is a conclusion to this chapter.

9.2 The interview process

The interview process was outlined in Chapter 7 (Figure 7.2). The main objective of this Section is to briefly discuss each step of the interview process.

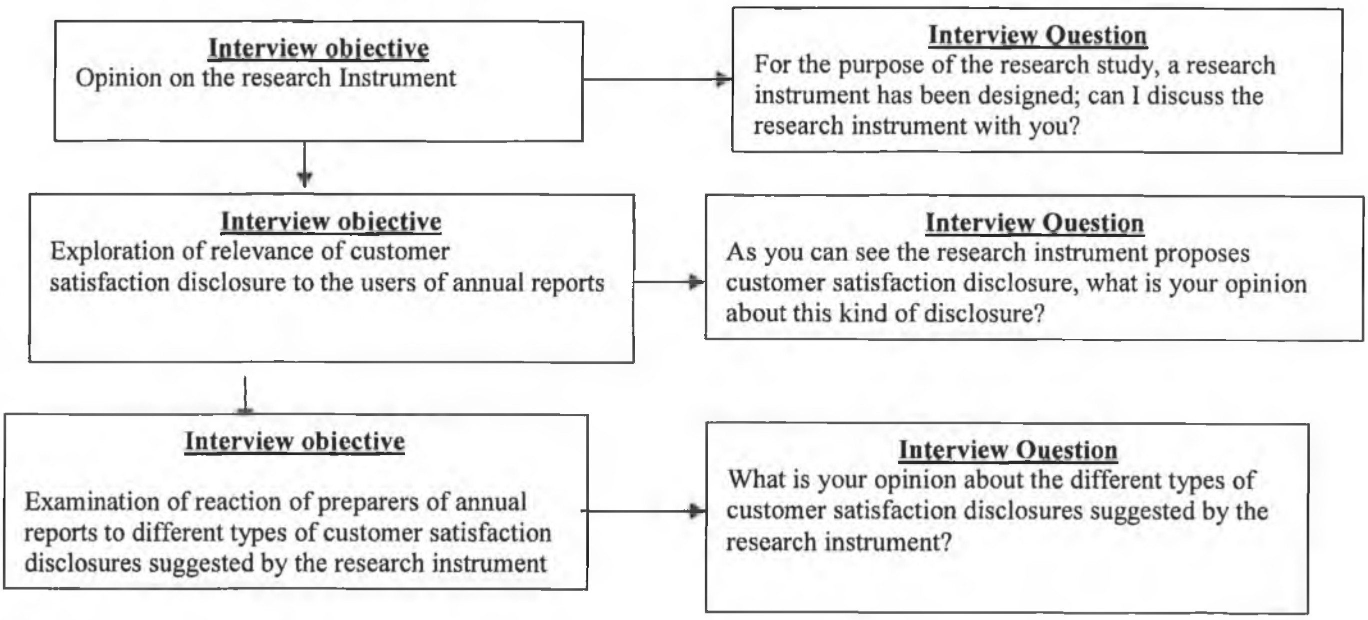
9.2.1 Selecting the interview objectives

The main objective of the interviews with the preparers of annual reports was to find out their views about the research instrument.

9.2.2 Designing the interview guide

The main objective of an interview guide is to outline rules and questions for ensuring that interview achieve its most important objective i.e. gathering complete and accurate information about the interview objectives (Howard and Peters, 1990). As the main objective of the interviews was to obtain the opinion of preparers of annual reports about the research instrument, an attempt was made to include such questions in the interview guide that could be linked to the interview objectives as illustrated in Figure 9.1.

Figure 9.1: Relationship between interview questions and interview objectives



The interview guide thus was designed with an emphasis on including questions having a direct relationship with interview objectives and indirect relationship with research objectives/questions. It must however be mentioned that the interview questions included in the interview guide were general guidelines. These questions provided the structure to the interview thus ensuring that the focus remained on the interview objectives. The interview guide was nevertheless flexible, if there were certain issues relevant to the research study that were raised during the interview they were addressed by asking appropriate questions.

The interview guide also had questions that did not have a direct relationship with the interview objectives but were necessary. This was because customer satisfaction disclosure was a new concept to the interviewees. Thus such opening questions were included that encouraged the interviewees to talk about customer related disclosures, customer satisfaction measurements, customer satisfaction programmes. After the opening questions, specific questions having a relationship with interview objectives were asked. This approach was considered necessary to establish rapport and trust with the interviewees (Denzin and Lincoln, 1994; Kvale, 1996; Miles and Humberman, 1994 and Benney and Hughes, 1956).

9.2.3 Selection of the interviewees and scheduling interviews

Once the interview objectives and the interview guide had been finalised, the interviewees were contacted through letters. The process of selection of interviewees was discussed in Chapter 8. The letters were followed up with call/calls and by email/emails if necessary (Denzin and Lincoln, 1994; Kvale, 1996; Miles and Humberman, 1994).

The interviews were conducted during the periods October 2003 to February 2004 depending on the availability of the interviewees. The preference was to have face-to-face interviews but if the interviewee desired, interviews were conducted over the telephone. Table 9.1 briefly outlines information about the interviewees interviewed for the purpose of this research study.

Table 9.1 Names of persons interviewed

Name of company	Name of the person interviewed	Designation	Date of the interview	Type of interview
Heiton plc	Peter Byers	Finance Director	23rd January 2004	Telephonic
Horizon Technology	Cathal O' Caoimh	Chief Financial Officer	20th October 2003	Face to face
Jurys Doyle Hotel	Paul McQualin	Finance Director	22nd January 2004	Telephonic
Kenmare Resources plc.	Diedre Corcoran	Finance Director	12th December 2003	Face to face
Aer Lingus plc.	Brian Dunne	Finance Director	11th November 2003	Telephonic
Glanbia plc.	Geoffrey J Meagher	Group Finance Director	17th October 2003	Telephonic
Irish Continental Group	Mr.Gearoid O'Dea	Group Finance Director	22nd October 2003	Face to face
First Active	Name confidential	Confidential	5th October 2003	Telephonic
Permanent TSB	Eymard Walsh	Finance Officer	21st February 2004	Telephonic
AIB	Confidential	Confidential	24th February 2004	Face to face
Superquinn	Eamonn Quinn	Managing Director	27th January 2004	Face to face

The interview started with personal introduction followed by a brief introduction to the research study. Then permission was obtained from the interviewees to record the interview as well as to use the name and interview data for use in the research study. The actual interview was conducted after obtaining permission to start the interview. The interview concluded by summarising the main issues discussed in the interview and asking the interviewee if he/she wanted to add something or ask any question (Denzin and Lincoln, 1994 and Benney and Hughes, 1956).

The interview process was guided by the rules contained in the interview guide. The interview was however semi-structured (see Shaughnessy, 1997 for explanation of semi-structured interviews). This approach was adopted in view of the exploratory nature of customer satisfaction disclosure. As customer satisfaction information is potentially sensitive information, it was considered essential to obtain the interviewee's trust at the beginning of the interview. It was emphasised at the beginning of the interview that candour and honesty would be appreciated and nothing would be published without the consent of the interviewee. A polite tone was adopted during the interviews. This helped in getting an honest opinion about the customer satisfaction measurement process adopted by the company as well as the opinion on disclosure of customer satisfaction information in the annual reports. The interviewee was allowed to do maximum talking and questions asked were close and open but the emphasis was on making the interviewees talk but at the same time covering all the questions included in the interview guide. A tight control was maintained through out the process of interview with the help of the interview guide. This was considered essential because even though the emphasis was on obtaining as much information as possible from the interviewees yet a focus was necessary so as to get information relevant to research hypotheses, research objectives and research questions (King *et al.*, 1994). The time frame for the interview was 20 to 30 minutes and, in view of the tight schedule of the interviewees, this time frame was strictly adhered to. Notes were taken down during the interview but the interviews were also recorded if the interviewee did not have any objections to recording the interviews. The next sub-section outlines the process adopted for documenting facts and information gathered during the interview.

9.2.4 Documentation of the facts and information gathered during the interview

The interviews were recorded and were transcribed the day that they were recorded. Table 9.2 outlines the mode of documentation of the interviews.

Table 9.2: Mode of documentation of the interviews

Heiton plc.	Recorded
Horizon Technology	Recorded
Jurys Doyle Hotel	Notes taken
Kenmare Resources plc.	Recorded
Irish Continental Group	Recorded
Permanent TSB	Recorded
Allied Irish Bank	Recorded
Superquinn	Recorded
Glanbia plc.	Notes taken
Aerlingus plc.	Notes taken
First Active	Notes taken

The main reason for taking down notes instead of recording the interview was the reluctance of the interviewee to record an interview. It was, however, agreed at the beginning of the interview that the interviewee would talk slowly and at the same time if needed would repeat what had been said. The interviews were transcribed the day they were conducted. After the interviews were transcribed and documented, the interviews were analysed. The analysis process is outlined in the next sub section.

9.2.5 Analysis of interviews

A good analysis of interview is very important. The analysis should

> '...focus on the research question, using relevant data from the transcript, including counter examples and communicates the richness of the participants' experiences. Good analysis explores the participants' meanings and enlarges understanding of the research topic' (Goodley, 2002, p.36).

The interviews were analysed using content analysis. Content analysis is a research method, which draws inferences from data by systematically identifying characteristics within the data. Holsti (1969, p.25) views content analysis as:

> "... any technique for making inferences... by objectively and systematically identifying specified characteristics of messages...."

There are two major complementary approaches to content analysis namely thematic and syntactic analysis. Both of these approaches are subsets of content analysis but they have different objectives. The objective of syntactic analysis is to analyse and quantify the cognitive difficulty of reading the message.

The objective of thematic analysis is to extract and analyse themes inherent within the message. It identifies specific trends, attitudes, or content categories from the text and then draws inferences from them. The primary strength of thematic analysis is its ability to identify the motivations and concerns of interviewees (Benner, 1985; Leininger, 1985; Taylor & Board, 1984). As this research study aims to extract and analyse themes inherent within the interviews relating to interview objectives as well as identify the motivation and concerns of the interviewees with regards to customer satisfaction disclosure suggested by the research instrument, thematic analysis was used to analyse the transcribed interviews.

The transcribed conversation was categorised into different themes that emerged from the interviews. The answer to each question was the unit of analysis. These answers were grouped into themes. While reading and transcribing the interview, focus/themes were identified. In order to be classified as a theme, a rule emerged from the data set to the effect that a topic or an issue needed to be mentioned at least twice by each of eleven different respondents to be considered a theme (Smythe and Nikolai, 2002). The main aim of the interviews was to obtain the opinion of the preparers of annual reports about the research instrument, thus obtaining the opinion of the preparers of annual reports about the relevance of customer satisfaction disclosure suggested by the research instrument as well as the opinion of the preparers of annual reports about the various types of disclosures of customer satisfaction suggested by the research instrument. Thus while identifying themes the emphasis was on identifying themes relevant to the main objectives of the interviews. The categories used and the themes that emerged as a result of the analysis of the interviews are outlined in Table 9.3.

Table 9.3: Categories and themes

General reaction to the instrument	This is the way forward.
Disclosure of customer satisfaction in the annual reports as suggested by the research instrument	Customer satisfaction may be disclosed in the annual reports as its disclosure will provide relevant information to the users of annual reports. Customer satisfaction may be disclosed in the annual reports as it has a positive relationship with financial performance of the company Reservations about customer satisfaction disclosures
Reaction to different types of disclosures of customer satisfaction suggested by the research instrument	Disclosure of positive customer satisfaction information Disclosure of negative customer satisfaction information Disclosure of externally generated measure of customer satisfaction Disclosure of internally generated measure of customer satisfaction Qualitative disclosure of customer satisfaction Quantitative disclosure of customer satisfaction

Reliability of the category system was established. This was considered essential as reliability is the main objective of content analysis (Neuendorf, 2002). The use of inter-coder or inter-judge reliability is one of the ways to increase reliability of content analysis

(Kolbe and Burnett, 1991). A fellow post graduate research student Marianne Osborne was asked to look independently at the categorisation outlined and theme categorisation and significant inter coder reliability of 0.92 was obtained. The next section discusses each category and theme outlined in Table 9.3.

9.3 Analysis of interviews – discussion

As discussed the interviews were analysed using thematic analysis. Table 9.3 outlined the main themes and categories that emerged out of the analysis of the interviews with the preparers of annual reports. In this section the categories and themes are discussed in detail using quotations from interviews. The discussion is structured into sub-sections with each sub-section critically analysing each theme using quotations from the interviews.

9.3.1 Reaction to the research instrument

As the main objectives of the interviews was to obtain the opinion of the interviewees about the research instrument, at the beginning of the interviews the interviewees were shown the research instrument and asked to comment on the research instrument. The objective was to firstly obtain general opinion about the research instrument before specific questions relating to the research instrument could be asked. The following main theme emerged from the analysis of the general comments regarding the research instrument.

- This is the way forward

This theme is analysed in this section

9.3.1.1 This is the way forward

All the eleven interviewees were appreciative of the customer satisfaction disclosure suggested by the research instrument. They agreed that, in the medium to long term, disclosures about intangible assets like customer satisfaction suggested by the research instrument will be considered an essential part of the annual report. The interviewees commended the proactive approach taken by the research instrument in exploring an *ex-ante* disclosure like customer satisfaction in the annual reports.

> "In five to ten years time, I see more disclosure in areas like customers and intangible assets. I am not saying that these things cannot be done now but I

> think companies are reluctant to do them when there are no trends. They do not want to be onerous over here. They do not want to be a pioneer but having said that yes there is a need to explore the option of disclosing customers as shown in here (research instrument). This is the way forward but it is something that will take time. We do not want to be proactive and pioneers." (Interview with Peter Byers, finance director of Heiton plc.)

The AIB interviewee commented:

> "I think that it (customer satisfaction) is something that we will have to think about. This (research instrument) may be the way forward. But there are so many explosives, so many issues. But having said all this I do not think that it is out of question. I fervently believe that people are looking towards companies for more than just figures, their financial figures. How that manifests itself in terms of reporting, it would be interesting but we do not want to experiment. May be if other companies include this (research instrument customer satisfaction disclosure) in their annual reports we will be tempted to include it in our annual reports." (Interview with officer of the AIB).

The interviewees thus were appreciative of the customer satisfaction disclosure suggested by the research instrument but were not willing to be pioneers. They wanted others to take the lead thus refusing to take a proactive approach towards disclosure of customer satisfaction in the annual reports.

As discussed in Chapter 2, users want information about intangible assets (Wallman, 1995; AICPA, 1994; Lev, 1996). It can be concluded from the discussion in this Section that even though there is appreciation of the need to disclose intangible assets in the annual reports but even then there is a reluctance to include customer satisfaction disclosure in the annual reports. The preparers identify the disclosure of customer satisfaction as suggested by the research instrument as the way forward but they would like to be followers rather than leaders thus preferring to maintain the status . This is consistent with the characterisation of 'the politics of intangible assets' by Lee (1989) and Lev (2001) referred to in Chapter 2. The politics of intangible assets is discussed in further detail in Section 9.3.2.

9.3.2 Disclosure of customer satisfaction in the annual reports as suggested by the research instrument

One of the main objectives of the interviews was to obtain the opinion of the preparers of annual reports about the possibility of disclosure of customer satisfaction in the annual reports as suggested by the research instrument. The following themes emerged as a result of the analysis of the category relating to disclosure of customer satisfaction in the annual reports as suggested by the research instrument.

- Customer satisfaction may be disclosed as it has a positive relationship with financial performance of the company.
- Customer satisfaction may be disclosed in the annual reports as its disclosure will provide relevant information to the users of annual reports
- Reservations about customer satisfaction disclosures

9.3.2.1 Customer satisfaction may be disclosed in the annual reports as it has a positive relationship with financial performance of the company

One of the main aims of the interviews conducted with the preparers of annual reports was to obtain their opinion about the possibility of disclosure of customer satisfaction suggested by the research instrument.

> "Customer satisfaction is very important to us. That would be our number one priority. It is clear from all the research that we do that customer satisfaction bears a big impact on the level of the business and on the level of future business and the

> future attraction and retention of the customers and importantly on the financial performance of the company. It is clear now, more clear than it ever was certainly to every one from the very top of the company to people down in the company that customer satisfaction is important to ensure good financial performance... ...if you are not looking after your customer satisfaction then the potential for losing market share exists which obviously would have a bearing on profitability. So customer satisfaction disclosure in annual reports is useful to shareholders as it has a relationship with the financial performance of our company and our shareholders need to have that information" (Interview with Finance Officer of the Permanent TSB).

It can be concluded from the above quotation that the disclosure of customer satisfaction in the annual reports is useful in the opinion of the Finance Officer of the Permanent TSB as there is a positive relationship between customer satisfaction and financial performance. The reason for this positive relationship is that he thinks that customer satisfaction results in customer attraction, retention and increased market share. If customers are not satisfied, customer retention as well as attraction will not be possible. This might adversely affect the market share of a company. His remarks are consistent with the literature review relating to customer satisfaction discussed in Chapter 2. The importance of customer satisfaction was discussed in Chapter 2 from the context of the positive relationship between customer satisfaction and market share (Ahmad and Buttle, 1996). It was stated in Chapter 2 that increased customer satisfaction leads to positive word of mouth (Anderson and Fornell, 1994; Howard and Sheth, 1969; Reichheld and Sasser, 1990 and Richins, 1983) which results in customer attraction and retention subsequently resulting in improved market share (Reichheld and Sasser, 1990; Reicheheld, 1996; LaBarbera and Mazursky, 1983; Rust and Williams, 1994 and Oliver and Swan, 1989). On the contrary, customer defection has a negative impact on customer satisfaction (Fornell and Wernerfelt, 1987 and 1988). Reichheld and Sasser (1990) state (see Chapter 2) that customer defections have a stronger impact on a company's profits than "sale, market share, unit costs, and many other factors usually associated with competitive advantage". The finance director of Heiton plc has the same opinion about customer defections:

> "Customer satisfaction is an important attribute of reputation. If customers trust you it results in profits. Increasing customer satisfaction means increasing profits. Failure to maintain customer satisfaction results in the possibility of losing customers. When you lose customers, you lose profits, you lose market share." (Interview with Finance Director of Heiton plc)

Thus, in the opinion of the finance director of Heition plc, customer satisfaction has a positive relationship with the financial performance of the company. The Finance Director of Permanent TSB was also of the same opinion. A number of research studies discussed in Chapter 2 provide empirical evidence of positive relationship between customer satisfaction and financial performance of the company measured in terms of share price (Reichheld, 1996; Ittner and Larcker, 1996 and 1998; Grant, 1998) and profitability (Anderson and Fornell, 1994; Agus, Latifah and Kadir, 2000; Bernhardt, Donthu and Kennett, 2000; Rust and Zahorik 1993; Storbacka, Starndvik and Gonroos, 1994; Banker, Potter, and Srinivazan, 1998). The officer of AIB had the following comments on the relationship between customer satisfaction and financial performance of the company:

> "Customer satisfaction brings loyalty, it ensures people come back to do business and continuous business results in long-term profits. Customer satisfaction has a positive relationship with financial performance. It is my opinion too that based on that relationship it should be disclosed in

the annual reports. It will give shareholders useful information." (Interview with AIB interviewee).

It can be concluded from the above statements that in the opinion of the AIB interviewee as customer satisfaction has a positive relationship with financial performance of the company, the disclosure of this positive relationship will give shareholders useful information. It was stated in Chapter 2 that a strong case exists for inclusion of an intangible asset in the annual reports if it can be proved that a positive relationship exists between the intangible asset and economic performance of the company measured in terms of profitability, share price or long-term shareholders' returns (Leadbetter, 1999 and 2000).

It can be concluded from the discussion in this sub-section that the preparers of annual reports acknowledge the importance of customer satisfaction as an important intangible asset. This is in conformation with the literature review outlined in Chapter 2 where it was stated that in today's customer centric world, customer satisfaction has become an important intangible asset, value driver and critical success factor of a company's performance (Johanson, Martensson and Skoog, 2001; Kohli and Jaworski, 1990; Aaker 1992 and Bitner and Hubbert, 1994; ASB, 2003; AICPA, 1994; Kaplan and Norton, 1996). The preparers are also appreciative of the positive relationship between customer satisfaction and financial performance of the company and thus are of the opinion that customer satisfaction disclosure will provide useful information to shareholders. The literature review discussed in Chapter 2 as already stated in this Section suggests that one of the criteria for disclosure of an intangible asset in the annual reports is a positive relationship between the intangible assets and financial performance of the company.

The other criterion for disclosure of an intangible asset like customer satisfaction in the annual reports is relevance of the disclosure to users of annual reports. The next section explores the opinions of the interviewees regarding the relevance of customer satisfaction disclosure to users of annual reports.

9.3.2.2 Customer satisfaction may be disclosed in the annual report as its disclosure will provide relevant information to the users of annual reports.

As discussed in Section 9.3.1 the preparers of annual reports considered disclosure of customer satisfaction proposed by the research instrument as the way forward. The disclosure was considered useful and important as in the opinion of the preparers of annual reports; customer satisfaction if disclosed in the annual reports as suggested by the research instrument provides relevant information to the users of annual reports.

> "Shareholders are important to us. Any disclosure, which adds to the shareholders' value, is included in the annual reports. Shareholders want information about customers. It will help them to make decisions. We will thus like to include customers in the financial statements. As there is measurement problem with their inclusion in the financial statements, customers can be included in the annual reports just like in here (research instrument)." (Group Finance Director of Glanbia plc.)

A very interesting observation was made by the Finance Director of Glanbia plc. He states that, due to measurement problems, if the recognition of customer satisfaction is problematic then information relating to customers may be reported in the *Operating and Financial Reviews* as suggested by the research instrument. It was stated in Chapter 3 that until such time that concrete measures are developed for reporting intangible assets in the financial statements, intangible assets like customer satisfaction may be reported in the *Operating and Financial Review* (ICAEW, 2001; Task Force on Human Capital Management, 2003; ASB, 2005; Brennan, 1999). The research instrument based on literature review suggests disclosure of customer satisfaction in the *Operating and Financial Review* of the annual reports. Thus the suggestion of the Finance Director is consistent with the literature discussed in Chapter 3.

It can also be concluded from the above quotation from the Finance Director of Glanbia plc that customer related information is considered as adding to shareholder value. Customer related information moreover helps in the decision making of shareholders, thus providing relevant information to users of annual reports. Relevant information as discussed in Chapter 2 is information that helps users of annual reports in making decisions. It can thus be concluded that the preparers of annual reports are of the opinion that customer related information provides relevant information to the defining class of users of annual reports namely shareholders. This view is reaffirmed by the following quotation:

> "Business has changed. Our reputation now depends upon our intangible assets, on our customers, upon satisfying them and we aim for hundred per cent customer satisfaction in every thing that we do. Customers are therefore the number one priority for us. We will have to include them in the annual reports for our shareholders. Customers are an asset. Annual reports are about our assets. Our shareholders seek information about all our assets. This makes shareholders' decisions easier." (Finance Director, Jurys Doyle Hotel).

The importance of intangible assets like customer satisfaction in the changing business environment was outlined in Chapter 2. It was stated in Chapter 2 that, in view of the increasing importance of intangible assets like customer satisfaction, there is a need to assess the relevance of intangible assets disclosure and to include such assets in the annual reports whose relevance to the users of annual reports can be proved (Leadbetter, 2000). It can be concluded from the interviews with the preparers of annual reports that there is preliminary support for customer satisfaction disclosure to users of annual reports. This preliminary evidence of relevance will be explored in detail in Chapter 10 when the results of the testing of the research instrument are discussed. Interviews with users of annual reports discussed in Chapter 11 will also enable the exploration of the relevance of customer satisfaction disclosure to users of annual reports. However, some reservations were also expressed in this regard: these are explored in the next section.

9.3.3 Reservations about customer satisfaction disclosure as suggested by the research instrument

It can be concluded from the discussion in this section that the users of annual reports are of the opinion that, as customer satisfaction has a positive relationship with financial performance of the company and its disclosure provides relevant information to the users of annual reports, it should be disclosed in the annual reports. It is worth mentioning that, as stated in Chapter 8, eight interviewees were the finance directors of those companies who included customer related disclosures in the annual reports but none of the interviewees included customer satisfaction disclosure specifically in the annual reports. They were thus asked whether they have explored the possibility of inclusion of customer satisfaction disclosure in annual reports as suggested by the research instrument as in their opinion customer satisfaction has positive relationship with financial performance of the company and provides relevant information to the users of annual reports. A number of reservations were expressed by the interviewees about customer satisfaction disclosure in the annual reports. These reservations are explored in this sub-section.

One of the preparers of annual reports made a very interesting observation in this context:

> "Customer satisfaction has a relationship with financial performance. It is useful to shareholders. Disclosure of customer satisfaction in the annual reports is meaningless to the users of the annual reports. They might be interested in the year-to-year customer satisfaction survey results trend but performance indicators are meaningless. They (customer satisfaction measures) are for our internal use not for disclosure to the external world. It is kind of sensitive information that might help our competitors. We are not required to publish this information." (Interview with AIB interviewee)

While the AIB interviewee is willing to accept the importance of customer satisfaction to shareholders and states that customer satisfaction has a positive relationship with the financial performance of the firm the interviewee is not willing to disclose customer satisfaction in the annual reports as it is meaningless to the users of annual reports. This raises two questions. The first one is how can information that is useful to shareholders be also meaningless to shareholders. If it is considered meaningless, then how can it be rendered meaningful especially when it relates to an asset that has a positive relationship with the financial performance of the company and provides relevant information to users of annual reports? The second part of the question is very important. The relevance of customer satisfaction disclosure to the users of annual reports is acknowledged by the preparers of annual reports as discussed in Section 9.3.2. If customer satisfaction is relevant then it should be disclosed for its disclosure can not be meaningless: the manner of its disclosure may not be meaningful but the disclosure, in principle, has relevance. On that basis, this study aims to assess the framing – as well as the incidence – of such disclosure . If as stated by the AIB officer customer satisfaction surveys might provide useful information then efforts should be made to include this kind of disclosure in the annual reports. If in the present form they are sensitive then may be changes should be made to come up with such disclosures that is considered meaningful as well as not perceived as sensitive.

This preparer of annual report furthermore states that users may be interested in year-to - year trends of customer satisfaction surveys but then dismisses their disclosure in the annual reports by stating that it is sensitive information. One is left wondering whether this interviewee realises that if this information is not included in the annual reports, then users are deprived of relevant information. It appears that the preparer is hesitant about the disclosure of customer satisfaction in the annual reports. The preparer has no doubt about the relevance of customer satisfaction disclosure and positive relationship between customer satisfaction and financial performance of the company but uses sensitivity of customer satisfaction disclosure as a pretext to avoid disclosure of customer satisfaction in the annual reports.

The preparers of annual reports are also apprehensive of disclosure of customer satisfaction in the annual reports as they fear the costs of the disclosure will outweigh the benefits.

> "Actually it (customer satisfaction) is something that we have been looking at. Customer satisfaction is important to our shareholders. We thus want to disclose it but I imagine it would be difficult to report it in the annual reports. The costs are high and the benefits may not be that high." (Permanent TSB)

On the one hand the interviewee accepts that customer satisfaction is important but then states that due to cost/benefit considerations the disclosure of customer satisfaction is difficult to envisage. It is noteworthy that for the preparer the benefits of importance of customer satisfaction to shareholders are not sufficient to outweigh the costs of disclosure of customer satisfaction in the annual reports. Information that is important to shareholders is relevant to shareholders. Relevant information helps in informed decision making. The facilitation of decision making is one of the main objectives of the annual reports (ASB, 1999). The interviewee is depriving shareholders of information that they consider useful only because, in his opinion, the costs of disclosure of relevant information that might be helpful in decision- making is higher than the benefits. This situation becomes more complex when one considers the following statement of the same person.

> "We measure customer satisfaction, have been doing it for a number of years but see no point in including it in the annual reports. Why will the shareholders be interested in our internal measurements of customer satisfaction" (Permanent TSB)

One might as well answer the above question by saying that because, for shareholders, disclosure of customer satisfaction information is important. The measurement issue along with the sensitivity of customer satisfaction information is one of the main reservations expressed by the preparers of annual reports with regard to the disclosure of customer satisfaction in the annual reports.

> "The measurement issue is a problem. ... You need a transparent measure. So you can say that we guarantee that we would answer the phone before it rings ten times. Then you can say that we have a 100% record in terms of our standard for a phone answer. Another company can have a standard of answering phone in two rings. They might only be getting it 50% of the times, for the remaining 50%

calls the phone might be going to three bells. So which company is the best, the one who attains 100% record or the one only getting to the standard in 50% cases? So you just have to be careful about how you measure them. .... it is hard, very hard to find a common platform as different companies do things differently like the phone bells example."
(Managing Director of Superquinn).

It can be concluded from the above comment that the absence of standardised benchmarks or metrics for measuring customer satisfaction is another main obstacle in disclosure of intangible asset like customer satisfaction in the annual reports. It was stated in Chapter 3 that the problem of absence of standardised benchmarks can be overcome by encouraging industry specific transparent, inclusive, auditable, complete, relevant, accurate, comparable, timely, clear and neutral performance measures (FASB, 2001; GRI, 2002). The development of measures relating to intangible assets is at an evolutionary stage and it was thus concluded as a result of the review of research reports in Chapter 3 that it is not advisable at this early stage to introduce standardised metrics or measures (OECD, 1999; FASB, 2001; AICPA, 1994; SEC, 2001). The approach suggested with regards to disclosure of intangible assets in the annual reports is experimentation as out of vigorous experimentation standards will emerge. The preparers of annual reports instead of using measurement issue as a scapegoat to avoid disclosure of customer satisfaction in the annual reports need to take a proactive approach towards the measurement of customer satisfaction as done by the research instrument.

Customer satisfaction disclosure even in the opinion of the preparers of annual reports provides relevant information. The measurement problems relating to disclosure of customer satisfaction can only be overcome if initiatives are undertaken to solve the problem. It is also important to mention that measurement of customer satisfaction only becomes a problem when customer satisfaction is to be disclosed in the annual reports. Otherwise, companies do measure customer satisfaction internally by means of surveys or performance indicators but are reluctant to disclose these publicly. This makes one wonder whether the measurement problem is used as a scapegoat to escape from the voluntary reporting customer satisfaction in the annual reports.

> "Our annual report is fairly standardised. It is made according to accounting standards and it fulfils the requirements of accounting standards. It is a fairly standardised document, not an overly invested one. We want it to be an annual report, not a marketing document." (Finance Director of AerLingus)

The emphasis is on the preparation of a fairly standardised document, not a document that is of relevance to the defining class of users of annual reports, namely investors. It is feared that if intangible assets like customer satisfaction are disclosed in the annual reports, the annual report will become a marketing document for this interviewee. The exclusion of relevant information about intangible assets from annual reports as discussed in Chapter 2 is resulting in declining usefulness of annual reports (Amir and Lev, 1996; Jenkins, 1994; Lev and Zarowin, 1999; Eccles and Mavarinac, 1995; Grojer and Johanson, 2000 and Elliot, 1992).

The relevance of customer satisfaction is recognised by the preparers of annual reports, then the insistence not to publish relevant information shows the stubbornness and insecurity of the preparers of annual reports referred to as politics of intangible asset. Lev (2001) and Lee (1989) as discussed in Chapter 2 explain the politics of intangible assets as 'universal antipathy' of preparers of annual reports to the disclosure of intangible assets in the annual reports despite a number of benefits of disclosure of intangible assets like reduced investors uncertainty, improved share price of the reporting company, increased relevance and decision usefulness of annual reports (Lev, 2001). The politics of intangible assets is reflection of the traditional thinking of accountants where they are not comfortable reporting any thing that is not tangible and can not be quantified (Lev, 2001). The reporting of intangible assets requires the development of new measures and new measurement techniques. This will involve a change and a change creates insecurity among profession (Lee, 1989 and Lev, 2001). The preparers of annual reports are unwilling to disturb the status quo. In order to maintain the status quo, the preparers of annual reports have come up with reservations including the sensitivity of intangible asset information, costs benefit considerations and measurement problems.

It can be concluded from this discussion that preparers of annual reports accept that customer satisfaction is an important intangible asset and its disclosure as suggested by the research instrument is the way forward. They also are appreciative of the type of customer satisfaction disclosure suggested by the research instrument. In their opinion, customer satisfaction has a positive relationship with the financial performance of the company and provides relevant information to users of annual reports. Despite this the interviewees are not willing to disclose customer satisfaction in the annual reports as they have a number of reservations. These reservations were briefly examined in this Section and it was concluded that these reservation are in fact a manifestation of the universal antipathy of the preparers of annual reports towards the disclosure of intangible assets referred to as the 'politics of intangible assets' in Chapter 2. The reservations included sensitivity of customer satisfaction disclosure, cost-benefits analysis and measurement problems. The reservations of the preparers of annual reports will be explored in detail in Chapters 10 and 11 when the views of users of annual reports regarding relevance of customer satisfaction disclosure are examined in much detail. In Chapter 11 the reservations expressed by the preparers of annual reports will be discussed directly with the users of annual reports. The views of users will be interesting as they will help form a conclusion as to whether the reservations are genuine or an attempt to obstruct the provision of relevant information to users of annual reports. This will help in formulating conclusions in Chapter 12 about the possibility for disclosing customer satisfaction in the annual reports.

9.3.3 Reaction to different types of disclosures of customer satisfaction suggested by the research instrument

The research instrument suggests six different types of customer satisfaction disclosures namely 'externally generated', 'internally generated', qualitative, quantitative, positive and negative. One of the main objectives of the interviews with preparers was to obtain the opinion of the preparers of annual reports about the six types of customer satisfaction disclosure suggested by the research instrument. This Section thus discusses the opinion of the preparers of annual reports regarding the six types of customer satisfaction disclosure suggested by the research instrument. This discussion will be further explored in Chapters 10 and 11.

9.3.3.1 Reaction to disclosure of positive and negative customer satisfaction information in the annual reports

The research instrument proposes disclosure of positive and negative customer satisfaction information in the annual reports. The preparers of annual reports reacted positively to the disclosure of positive customer satisfaction information suggested by the research instrument.

> "There is no compulsion to print customer satisfaction in annual reports but if it is positive, it is good news and it will be good for the company if the shareholders come to know of this good news."
> (Interview with finance director of Aer Lingus plc.)

The disclosure of negative customer satisfaction information was one of the most extensively discussed aspects of the research instrument and the consensus was that this kind of a disclosure should not feature in the annual report as it would have an adverse effect on the investors' assessment of the company.

> "Negative customer satisfaction information has an adverse effect. It results in bad and negative press. If customer satisfaction falls down by say 50% or even 10% it results in negative press, which can have an effect on the share price also. It is also sensitive information which can tell your competitors much about your main source of your revenue i.e. customers. If in one year our customer satisfaction is 90% and the next year it is 70% and the customer satisfaction of our competitor has gone up or even remained the same, then we are in the dock. So why publish such information that might affect your reputation? On the other hand if our customer satisfaction goes up and is better than

> our competitor then it is good news and should be published." (Finance Director of Jurys Doyle Hotel)

It can be concluded from the above quotation that the preparer is willing to disclose positive customer satisfaction as it will create a good impression of the company but is not willing to disclose negative customer satisfaction as it will have a negative effect on the share price. One might conclude that in the opinion of the preparer of annual report positive customer satisfaction information is relevant and negative customer satisfaction information is irrelevant. A very interesting comment was made by another preparer.

> "We will not like to make a disclosure that might impact our share price negatively when it is not required by statutory requirements. If we ever have to disclose it (customer satisfaction), we would be more confident reporting it positively than negatively." (Interview with Peter Byers, Finance Director of Heiton plc.)

This preparer accepts that negative customer satisfaction information in the annual reports will have a negative impact on the share price. Thus the information is relevant to shareholders but the preparer is not willing to disclose customer satisfaction negatively. A very straight forward observation was made by one of the preparers of annual reports with regards to disclosure of customer satisfaction in the annual reports.

> "When you are doing customer services, there are going to be shortcomings identified. The job of the company is to deal with that. You do not necessarily go out and start shouting about it. You do not report negative information about customer satisfaction in the annual reports like you do it here (research instrument)... You may include positive information but not negative information." (AIB interviewee).

These opinions provided an insight into the thinking of the preparers of annual reports about disclosure of positive and negative customer satisfaction information in the annual reports. It can be concluded from the above quotation that one of the main reasons for the exclusion of customer satisfaction from the annual reports is the fear that adverse reporting of customer satisfaction will have a negative impact on the share price of the company.

Customer satisfaction is a voluntary disclosure that as stated in Chapter 5 is not regulated by any standards. In the absence of any standards, voluntary disclosure is a discretionary disclosure (Verrechia, 1983). The preparers of annual reports are willing to include positive voluntary disclosures as it will have a positive impact on the share price of the company but not willing to include negative voluntary disclosure relating to customer satisfaction as it will have a negative effect on share price of the company (Verrechia, 1983 and Dye, 1985). This results in a partial disclosure equilibrium discussed in Chapter 5 where the firm's voluntarily discloses good news provided the perceived benefits (higher market value) exceeds the proprietary costs (e.g. encouraging a new entrant to enter the market in view of the lucrative nature of the market thus resulting in decreased profits or cash flow) associated with disclosure but avoids disclosure of negative proprietary news (Verrechia, 1983). It was stated in Chapter 5 that with regard to favourable news there is still an incentive to disclose the news even if there are high costs in the form of loss of competitive advantage but in the case of unfavourable news even very low costs result in the exclusion of negative voluntary disclosure from the annual reports (Verrechia, 1983 and Dye, 1985). This is consistent with the opinion of the preparers of annual reports interviewed for the purpose of this research study. They are willing to disclose positive customer satisfaction information even though that information is also sensitive and may give advantage to competitors but not willing to disclose negative customer satisfaction information due to its adverse effect on share price.

Good news bias was also discussed in Chapter 5 where firms were willing to discuss the good news voluntarily but not bad news (Clarkson, Kao and Richardson, 1994). As stated in Chapter 5, the preparers of annual reports use a concealment strategy where they conceal negative relevant information or delay the release of negative information but are keen to disclose positive information in the annual reports so as to favour their own interests (Peffer, 1981; Sutton and Calahan, 1987). Preparers thus have a tendency to delay the release of bad news and accelerate the release of good news (Chambers and Penman, 1984; Bagley and Fischer, 1988; Pastena and Ronen, 1979). This strategy in some cases results in the concealment of bad news that might be relevant and helpful in decision-making. The preparers of annual reports interviewed for the purpose of this research study seem to be following this concealment strategy. They accept that negative customer satisfaction information may be relevant but are not willing to disclose it in the annual reports as it will have a negative effect on share price of the company. On the other hand if customer satisfaction information is positive, the preparers are willing to disclose customer satisfaction. This is what was discussed as Good News Bias in Chapter 5 and earlier in this Section. The preparers are thus willing to disclose sensitive information if it is positive but not willing to disclose any negative information in the annual reports.

It was stated in Chapter 3 that there is a need to adopt a balanced approach towards the voluntary disclosure of intangible assets in the annual reports (AICPA, 1994; FASB, 2001). It can be concluded from the discussion in this Section that the preparers of annual reports adopt a concealment strategy when it comes to disclosure of negative customer satisfaction information in the annual reports. They are willing to disclose positive information but not willing to disclose negative information even if it is relevant to users of annual reports. This approach might be resulting in declining relevance of annual reports. In this situation what should be the future course of action?

This research proposes that the future course of action should be to obtain the opinion of the users of annual reports. For this purpose a research instrument is designed. The research instrument assesses the reaction of users of annual reports to positive and negative customer satisfaction information in the annual reports (see Chapter 10 for results of the testing of the research instrument). The research findings are discussed with the users of annual reports in Chapter 11. If the users find negative information to be relevant to them and desire negative information about intangible assets like customer satisfaction to get a complete picture of a company's performance then there may be a need to look beyond voluntary, balanced disclosure of intangible assets in the annual reports. This option will be explored depending on the results obtained in Chapters 10 and 11 in formulating conclusions and recommendations in Chapter 12.

9.3.3.2 Reaction to 'externally generated' and 'internally generated' measures of customer satisfaction

The research instrument suggests that customer satisfaction may be reported by means of 'internally generated' or 'externally generated' measures in the annual reports. One of the interview objectives was thus to find the opinion of the preparers of annual reports about 'externally generated' and 'internally generated' measures of customer satisfaction suggested by the research instrument. The interviewees were very apprehensive of both the types of measures. The preparers felt that as they are not willing to disclose customer satisfaction in the annual reports, thus there is no reason for them to consider which one is better than the other.

> 'We still have to decide whether to include customer satisfaction or not. Only then we will think about survey or other measures (Chief Financial Officer, Horizon Technology).

Some interviewees felt that 'externally generated' measures like surveys were subjective and so could not be included in the annual reports. On the other hand 'internally generated' measures relating to customer satisfaction were sensitive information and thus could not be reported in the annual reports.

> "The customer satisfaction survey gives us scores. These scores may mean different things to different people. They can be interpreted in different ways. A comparison of like with like is not possible between customer satisfaction scores of competitors. There are no benchmarks, no standards against which to measure customer satisfaction. Customer satisfaction survey results are subjective and give rise to more questions than answers. Other measures are sensitive and internal. We will not like to include them in the annual reports." (Finance Director of Jurys Doyle Hotel).

It can be concluded from the above quotations that the preparers are not keen on disclosure of either 'externally' or 'internally generated' measures of customer satisfaction in the annual reports. The research instrument however based on the review of annual reports discussed in Chapter 8 and results of literature review examined in Chapter 3 suggests that customer satisfaction may be disclosed by means of 'externally generated' or 'internally generated' measures of customer satisfaction (GRI, 2002; ASB, 2005, Accounting for People Task Force, 2003; AICPA, 1994; ASB, 2005; FASB, 2001, GRI, 2002). The preparers of annual reports appear to be apprehensive of disclosure of 'internally' and 'externally generated' measures of customer satisfaction in the annual reports. It can be concluded that as discussed in Section 9.3.2 the preparers are appreciative of disclosure of customer satisfaction suggested by the research instrument, they are also supportive of disclosure of positive customer satisfaction information in the annual reports but do not seem inclined to include 'externally' and 'internally generated' measures of customer satisfaction in the annual reports. It may be because 'externally' and 'internally generated' measures are new measurement techniques that challenge the status quo. The disinterested approach of the preparers of annual reports towards 'externally generated' and 'internally generated' measurement of customer satisfaction will be further analysed in discussion of the testing of the research instrument in Chapter 10.

9.3.3.3 Reaction to qualitative and quantitative disclosure of customer satisfaction in the annual reports

Qualitative and quantitative disclosures of customer satisfaction are also suggested by the research instrument. An important interview objective thus was to obtain the opinion of the preparers of annual reports with regards to the disclosure of qualitative and quantitative disclosure of customer satisfaction in the annual reports as suggested by the research instrument. The interviewees, being accountants, were more supportive of quantitative disclosure of customer satisfaction as opposed to qualitative disclosure of customer satisfaction in the annual reports.

> "If we were to disclose customer satisfaction we would disclose them quantitatively. Investors are more confident with numbers." (Mr. Cathal O'

> Caoimh, Chief Finance Officer, Horizon Technology)

It is an interesting comment. An important theme that emerged in these interviews has been that investors' preferences are very important to the preparers of annual reports. If preparers of annual reports do not want to include negative disclosure of customer satisfaction they attribute it to investor's interests. In the above quotation the interviewee considers number useful as the investors consider numbers useful. One is left wondering whether investors prefer numbers or whether preparers of annual reports prefer numbers as is evident from the below quotation:

> "Well, I think as an accountant I prefer tables having numbers relating to customer satisfaction" (Finance Director of ICG).

This suggests that it is the preparers who prefer numbers. It was discussed in Chapter 6 that as monetary measurement is an important convention of financial reporting, financial reporting is only concerned with economic events and transactions that can be captured in quantitative terms and does not contemplate the importance of those events and forces that cannot be measured in quantitative terms (Oslen, 2002; Alexander and Britton, 2001). Accountants are trained according to the existing financial reporting framework and for that reasons might be apprehensive of qualitative disclosure of intangible assets. A number of research studies reviewed in Chapter 6 provide empirical evidence of preference of quantitative disclosure to qualitative disclosure as quantitative disclosure is hard and reliable (Bagby, Kintzele and Kintzele, 1988; Courtis, 1986; Steele, 1983; Birnberg 1964; Boritz, Gaber and Lemon, 1987; Chesley 1979, 1985; Smith, 1999; Moonitz, 1961; Tenyson, Ingram and Dugan, 1990; Wallsten, Budescu and Zwick, 1993; Stone and William, 1994; Dilla,1994; Boritz, 1985; Messier, 1992; Dirsmith and Haskins, 1991;.Cherry, 1996, Oliver, 1972 and Wallace, 1991).

> "Numbers are nice and always right. I would prefer quantitative disclosure but I do view certain categories of intangibles if you like hard to quantify, perhaps a bit misleading in terms of quantification in some instance. I think customer

> satisfaction is probably one of those. It is probably more accurately reflected qualitatively than any quantitative measure that could be disclosed. That is why I think there is no need to include in the annual reports. If you can not quantify something you need not have it in annual reports." (Finance Director of Kenmare Resources plc.).

The above quotation is manifestation of typical accounting thinking. This preparer does not sees any reason for disclosure of customer satisfaction in the annual reports only because it can not be reported quantitatively. It was discussed in Chapter 6 that as intangible assets become important there is a need to include qualitative disclosure in the annual reports (Beattie, 1999; Rutherford, 2002; Mallin, 2002; ASB, 2005; Tenyson, Ingram and Dugan, 1990). A number of research studies reviewed in Chapter 6 demonstrated the importance of qualitative disclosure (Bell, 1984; Dirsmith and Haskins 1991; Graham 1985; Janell and Wright 1992; Wallsten,1990; Rennie, 1994; McFadgen and Waller, 1991). The preparers of annual reports are however not willing to appreciate the importance of qualitative disclosure as revealed by the following quotation:

> "There is no statutory requirement to monitor value or disclose customer satisfaction so we do not do that. Our annual report is dictated by statutory requirement. I think those companies, which have disclosure relating to intangible assets like customer satisfaction might be trying to hype up their market value by such kinds of narrative disclosure, which is not audited or required .... Customer satisfaction is qualitative information, difficult to translate into numbers. Any thing like that is not quantitative has no place in the annual reports. .... Our annual report is a statement of financial position and financial performance. It is not a statement of qualitative operational issues like

customer satisfaction." (Finance Director of Glanbia plc.)

It can be concluded from the above quotation that as customer satisfaction cannot be reported quantitatively it should be excluded from the annual reports. Customer satisfaction is an intangible asset that may be reported quantitatively or qualitatively in the annual reports but the preparers are not appreciative of qualitative disclosure. This non-appreciation of qualitative disclosure of intangible asset may result in the exclusion of relevant information about customer satisfaction. The research thus aims to find out the reaction of users of annual reports to qualitative and quantitative disclosure of customer satisfaction by analysis of testing of research instrument (see Chapter 10) and interview findings with users of annual reports (see Chapter 11).

9.4 Conclusion

This chapter outlines the interview process undertaken in this research study to obtain the opinion of the preparers of annual reports about the research instrument discussed in Chapter 8. It was concluded from the thematic analysis of the interviews that the preparers of annual reports are appreciative of customer satisfaction disclosure suggested by the research instrument. They consider it as the way forward as in their opinion customer satisfaction disclosure provides relevant information to the users of annual reports and there is a positive relationship between financial performance and customer satisfaction. The preparers, however, have reservations regarding customer satisfaction disclosure in the annual reports. One of their reservations is sensitivity of customer satisfaction information. The absence of standardised measurement is also cited as a reservation for disclosure of intangible asset in the annual report. The reservations demonstrate the universal antipathy of the preparers towards the disclosure of intangible assets as they are not willing to change the status quo. These reservations were conceptualised as politics of intangible assets in Section 9.3.3. The main objective of financial reporting is to facilitate decision-making (ASB, 1999). If any disclosure provides useful information for decision-making then even if it is sensitive or its costs are high or it has measurement problems they should be resolved. The preparers acknowledge the importance of customer satisfaction disclosure but blatantly reject the proposition of its disclosure in the annual reports. This results in reservations about the intentional of the preparers. This also raises a question whether the preparers are using these reservations as scapegoat to avoid disclosure of intangible assets in the annual reports. If the disclosure of customer satisfaction is relevant then proactive approach needs to be taken to address the issues.

The other main objective of the interviews was to assess the reaction of the users of annual reports to different types of customer satisfaction disclosure suggested by the research instrument. It can be concluded that the preparers of annual reports are apprehensive of disclosures of negative customer satisfaction information in the annual reports. They are willing to disclose positive customer satisfaction information in the annual reports but are not willing to disclose negative customer satisfaction information in the annual reports as it will have an effect on the share price of the company. This information may be relevant to shareholders but they are not willing to disclose relevant negative customer satisfaction information in the annual reports.

Another of the interview objectives was to assess the reaction of the preparers of annual reports to disclosure of 'externally generated' and 'internally generated' measures of customer satisfaction in the annual reports. It was discovered that the preparers of annual reports were undecided about whether to disclose customer satisfaction using 'externally generated' measures or 'internally generated' measures in the annual reports.

The research instrument also proposes that customer satisfaction may be disclosed qualitatively or quantitatively in the annual reports. It was discovered that preparers of annual reports despite accepting the importance of customer satisfaction disclosure in the annual reports are apprehensive of qualitative disclosure of customer satisfaction in the annual reports. The next Chapter discusses the results of the testing of the research instrument set out in Chapter 8 and discussed with preparers of annual reports in this Chapter.

CHAPTER 10

Experimental Instrument Testing Results

10.1 INTRODUCTION

An important research question to be explored in this research is why customer satisfaction should be disclosed in the annual reports. It was stated in Chapter 2 that customer satisfaction should be disclosed in the annual reports if it can be demonstrated that it provides relevant information to the users of annual reports. The other important research question that the current research aims to address is that how customer satisfaction may be disclosed in the annual reports. A framework for reporting customer satisfaction was proposed in Figure 3.3. The framework identifies six types of customer satisfaction disclosures namely positive, negative, qualitative, quantitative, 'externally generated' and 'internally generated'.

The research hypotheses for assessing the relevance of customer satisfaction disclosure to the users of annual reports will be outlined in Section 10.2 whereas the research hypotheses for assessing the differences in reaction of the users of annual reports to different types of customer satisfaction disclosures were suggested in Chapters 4-6. A research instrument reviewed in Chapter 8 was designed to test the research hypotheses. The main aim of this chapter is to discuss the results of the testing of the research instrument and thus to arrive at a conclusion regarding the preferred format of customer satisfaction disclosures suggested by the framework outlined in Figure 3.3 and about the relevance of customer satisfaction disclosure to the users of annual reports reviewed in Chapter 2. The discussion of the results of the testing of the research instrument will also provide answers to the research questions that why and how customer satisfaction may be disclosed in the annual reports.

This chapter is divided into six sections. Section 10.1 is the current introductory section. Section 10.2 outlines and discusses the research hypotheses relating to the relevance of customer satisfaction disclosure to the users of annual reports. Section 10.3 discusses the research hypotheses proposed in Chapter 4 regarding the differences in confidence of the users of annual reports to disclosure of externally generated and internally generated measures of customer satisfaction in the annual reports while making decisions. Section 10.4 discusses the research hypotheses proposed in Chapter 5 concerning the differences in reaction of the users of annual reports to disclosure of positive and negative customer satisfaction information in the annual reports while making decisions. Section 10.5 discusses the research hypotheses proposed in Chapter 6 reviewing the differences in confidence of the users of annual reports to qualitative and quantitative disclosure of customer satisfaction in the annual reports. Section 10.6 is conclusion to the chapter.

10.2 Relevance of the disclosure of customer satisfaction to users of annual reports

It was stated in Chapter 2 that, as organisations move from a product centric to a customer centric approach, the importance of intangible assets as important value drivers and leading non-financial indicators of a company's performance has increased (Kohli and Jaworski, 1990; Aaker 1992 and Bitner and Hubbert, 1994). This has resulted in increasing demands for the inclusion of intangible assets like customer satisfaction in the annual reports (Wirtz, 2000; Ross and Georgoff, 1991; Ittner, Larcker, and Rajan, 1998; and Dholakia and Morwitz, 2002). It was outlined in Chapter 2 that the exclusion of intangible assets like customer satisfaction from the annual reports is resulting in a declining relevance and decision usefulness of the annual reports (Amir and Lev, 1996; Jenkins, 1994; Lev and Zarowin, 1999; Eccles and Mavarinac, 1995; Grojer and Johanson, 2000 and Elliot, 1992). One of the main research questions that the current research study aims to explore is that why customer satisfaction should be disclosed in the annual reports. It was emphasised in Chapter 2 that to include an intangible asset like customer satisfaction in the annual reports, it is important the intangible assets have a positive relationship with the financial performance of the company and the inclusion of information relating to the intangible asset in the annual reports provide relevant information to the users of annual reports (Leadbetter, 2000). Empirical evidence of positive relationship between customer satisfaction and financial performance of the company was illustrated in Chapter 2. It was stated that due to the positive relationship of customer satisfaction with customer loyalty, repurchase intentions and the negative relationship with customer defection, customer satisfaction has a positive relationship with financial performance of the company (Agus, Latifah and Kadir, 2000; Bernhardt, Donthu and Kennett, 2000; Rust and Zahorik 1993; Storbacka, Starndvik and Gonroos, 1994) . It was thus stated in Chapter 2 that as the research aims to answer the research question that why customer satisfaction should be disclosed in the annual reports, the research will thus explore the relevance of customer satisfaction disclosure to the users of annual reports. Customer satisfaction disclosure will be relevant if it has an impact on decisions made by the users of annual reports. It was stated in Chapter 2 that investors use annual reports for making investment decisions which among other assessments include assessment of the financial position, financial performance, investment risk and share price of the company. Customer satisfaction information in the annual reports will be relevant if it provides information that affects the assessment of the financial position, financial performance, investment risk and share price of the company. The research instrument is thus designed in a way to find out whether there are any differences in the assessments of the financial position, financial performance, investment risk and share price of the control group (having no disclosure of customer satisfaction) and the experimental groups (having disclosure of customer satisfaction).

This research does not set out to assess whether customer satisfaction disclosure result in 'better' decision making – as this is a value judgment – but whether disclosure of customer satisfaction influence decisions. If there are any differences in the assessments of the groups then it may be concluded that the different assessments are due to the disclosure of customer satisfaction in the annual reports. This approach is consistent with the ASB's definition of 'relevance' in financial accounting: "Information is relevant if it has the ability to influence the economic decisions of users and is provided in time to influence those decisions" (ASB, 1999, para. 3.2). This approach has been used by researchers such as, for example, Maines and McDaniel, 1995, Beresford, 1994, Libby, Bloomfield and Nelson, 2002, Maroney and O hOgartaigh, 2005 . Research hypotheses for the purpose of exploring the relevance of customer satisfaction disclosure to the users of annual reports are outlined in Table 10.1.

Table 10.1: Hypotheses H1a-H1h

H1a	The disclosure of customer satisfaction in the annual reports will result in significantly ($\leq .05$) different assessments of the financial position of the reporting entity.
H1b	The disclosure of customer satisfaction in the annual reports will result in significantly different ($\leq .05$) assessments of the financial performance of the reporting entity.
H1c	The disclosure of customer satisfaction in the annual reports will result in significantly different ($\leq .05$) assessments of the risk of investing in the reporting entity.
H1d	The disclosure of customer satisfaction in the annual reports will result in significantly different ($\leq .05$) assessments of the share price of the reporting entity.
H1e	The disclosure of customer satisfaction in the annual reports will result in significantly different ($\leq .05$) levels of confidence in the assessment of the financial position of the reporting entity.
H1f	The disclosure of customer satisfaction in the annual reports will result in significantly different ($\leq .05$) levels of confidence in the assessment of the financial performance of the reporting entity.
H1g	The disclosure of customer satisfaction in the annual reports will result in significantly different ($\leq .05$) levels of confidence in the assessment of the investment risk of the reporting entity.
H1h	The disclosure of customer satisfaction in the annual reports will result in significantly different ($\leq .05$) levels of confidence in the assessment of the share price of the reporting entity.

Having stated the hypotheses concerning such disclosures, the next sub-section discusses the research results regarding these hypotheses.

10.2.1 EXPERIMENTAL RESULTS

The statistical analysis of differences between the control group and the experimental groups comprise parametric tests of the comparison of means by between subjects' one-way analysis of variance (ANOVA) and independent samples t tests. These were performed after ensuring that the conditions for parametric tests were met as suggested by, for example, Coolican (1994). The level of measurement is ordinal. Normal distribution is assumed (*n* approximating 30) as the number of subjects in each group is either 30 or approximately 30. If the number of subjects in a group is approximately 30 then normal distribution can be assumed (Coolican, 1994). Each group was also positively tested (at the 95% level of significance) for homogeneity of variance using Levene's test of equality of variance.

The experimental conditions were as described in chapter 8. There was one control group (A) and eight experimental groups (A1-A4 and P1 - P4). The control group received the profit and loss account and balance sheet of a reporting entity for the last five years. The eight experimental groups also received the same financial statements for the last five years. The experimental groups – unlike the control group – also received an extract from the Operating and Financial Review of the reporting entity. This extract had a disclosure of customer satisfaction. Each of the eight groups received eight different kinds of disclosures of customer satisfaction as outlined in Figure 8.3.

10.2.2 Assessments of the performance, position, investment risk and share price of the reporting entity

As outlined in chapter 8, participants were asked to give their assessment of the financial position, financial performance, investment risk and share price of the reporting entity based on the information provided to them in the experimental instrument (explained in Section 8.3). The mean assessments of each of these items by the control group and the experimental groups are given in Table 10.2. The parametric test used was one-way analysis of variance and the significance level was 95%.

Table 10.2: Disclosure of customer satisfaction in the annual reports: Mean assessments of the position, performance, investment risk and share price of the reporting entity

	A[1]	A1	A2	A3	A4	P1	P2	P3	P4	ANOVA*[2]
n	30	31	30	30	29	28	28	28	28	
Financial position	59.1	52.8	61.9	50.8	61.6	66.3	59.2	58.9	67.1	.016#
Financial performance	68	60.7	62.5	59.8	63.6	70.00	69.8	65.	68.6	.072
Investment risk	44.1	49.2	51.1	51.8	41.8	50.6	42.1	51.8	40.8	.315
Share price	83.1	58.00	76.00	67.8	92.7	85.1	96.2	58.9	80.4	.028#

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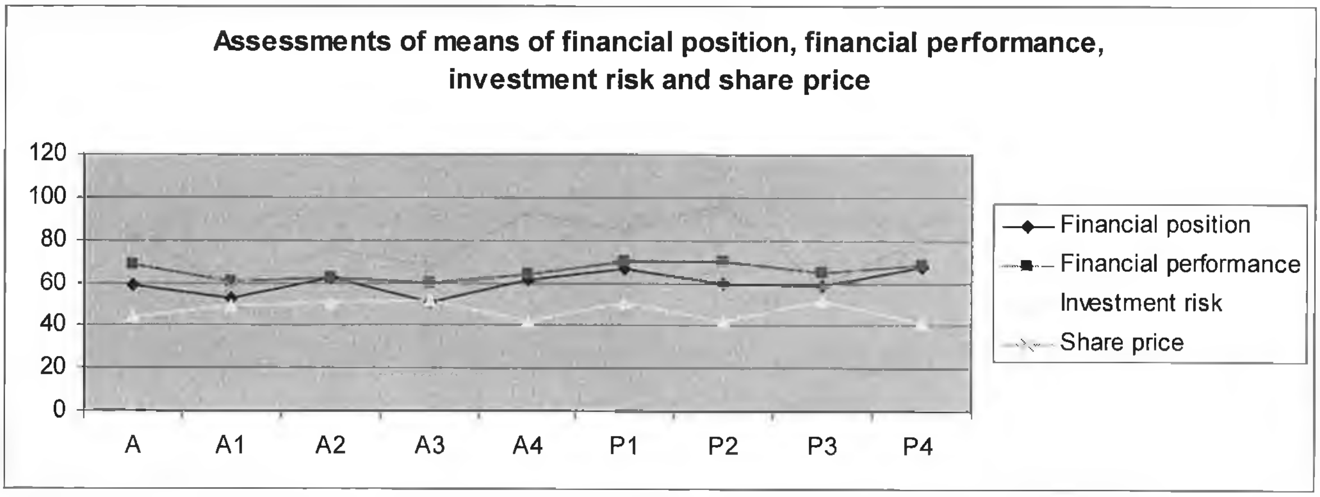
[1] A= Control Group
A1 = negative qualitative 'externally generated' disclosure of customer satisfaction
A2 = positive qualitative 'externally generated' disclosure of customer satisfaction
A3= negative quantitative 'externally generated' disclosure of customer satisfaction
A4= positive quantitative 'externally generated' disclosure of customer satisfaction
P1= negative qualitative 'internally generated' disclosure of customer satisfaction
P2= positive qualitative 'internally generated' disclosure of customer satisfaction
P3= negative quantitative 'internally generated' disclosure of customer satisfaction
P4= positive quantitative 'internally generated' disclosure of customer satisfaction

[2] # indicates significant at 95% level of significance, between subjects one way analysis of variance for comparison of means

Table 10.2 outlines that there are statistically significant differences between the control group and eight experimental groups in terms of financial position and share price. There were no outliners. These results are illustrated graphically in the Table 10.3.

Table 10.3: Assessments of means of financial position, financial performance, share price and investment risk



10.2.3 Expression of confidence in the assessments of performance, position, investment risk and share price of the reporting entity

As outlined in chapter 8, participants were asked to give their confidence in assessment of the financial position, financial performance, investment risk and share price of the reporting entity based on the information provided to them in the experimental instrument (explained in Section 8.3). The mean assessments of each of these items by the control group and the experimental groups are given in Table 10.4. The parametric test used was one-way analysis of variance and the significance level was 95%.

Table 10.4: Disclosure of customer satisfaction in the annual reports: Mean assessments of confidence in position, performance, investment risk and share price of the reporting entity

	A	A1	A2	A3	A4	P1	P2	P3	P4	ANOVA*[3]
n	30	31	30	30	29	28	28	28	28	
Confidence in										
Financial position	62.2	57.9	67.5	67.2	62.4	70.5	65.9	60	64	.21
Financial performance	61.2	60.5	68.2	70.7	62.7	62.5	65.5	62.4	66.	.45
Investment risk	61.7	59.5	68.1	70.9	66.7	63.7	58.3	66.5	63.3	.16
Share price	56.1	57.4	49.4	54.3	61.4	40.7	54.7	51.6	59.6	.049#

[3] # indicates significant at 95% level of significance, between subjects one way analysis of variance for comparison of means

Table 10.4 outlines that there are statistically significant differences between the confidence in assessment of the means of share price between the nine groups. There were no outliners. The graphical illustration of the results of Table 10.4 are outlined in Table 10.5.

Table10.5: Mean of confidence in financial position, financial performance, share price and investment risk

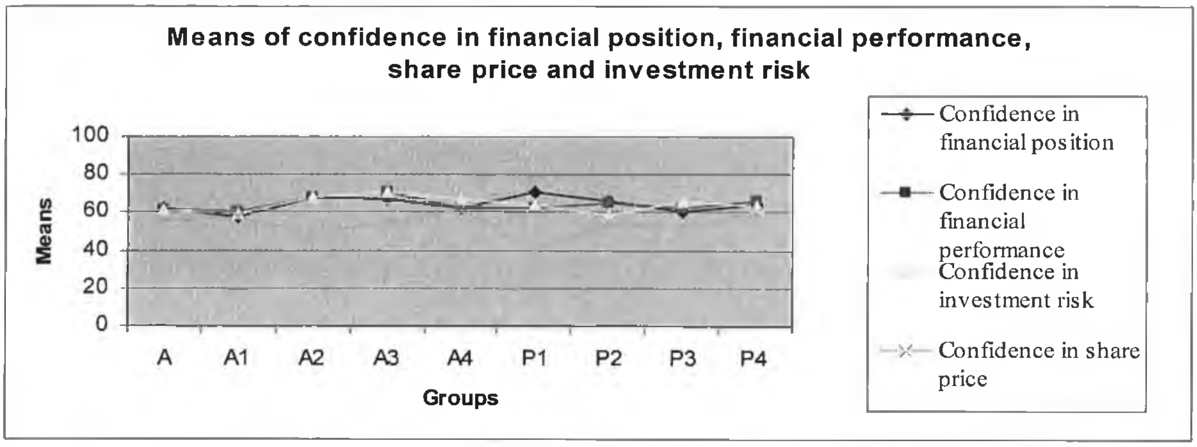


Table 10.6 outlines the summary of the results of the testing of the research hypotheses H1a to H1h while the results of the testing of the research hypotheses H1a to H1h are discussed in Section 10.2.4.

Table 10.6: Summary of the results of the testing of the experimental instrument

H1a	The disclosure of customer satisfaction in the annual reports will result in significantly (≤ .05) different assessments of the financial position of the reporting entity.	Supported by the experimental findings (See Table 10.2)
H1b	The disclosure of customer satisfaction in the annual reports will result in significantly different (≤.05) assessments of the financial performance of the reporting entity.	Not supported by the experimental findings (See Table 10.2)
H1c	The disclosure of customer satisfaction in the annual reports will result in significantly different (≤.05) assessments of risk of investing in the reporting entity.	Not supported by the experimental findings (See Table 10.2)
H1d	The disclosure of customer satisfaction in the annual reports will result in significantly different (≤.05) assessments of the share price of the reporting entity.	Supported by the experimental findings (See Table 10.2)
H1e	The disclosure of customer satisfaction in the annual reports will result in significantly different (≤.05) levels of confidence in the assessment of the financial position of the reporting entity.	Not supported by the experimental findings (See Table 10.4)

H1f	The disclosure of customer satisfaction in the annual reports will result in significantly different (≤.05) levels of confidence in the assessment of the financial performance of the reporting entity.	Not supported by the experimental findings (See Table 10.4)
H1g	The disclosure of customer satisfaction in the annual reports will result in significantly different (≤.05) levels of confidence in the assessment of the investment risk of the reporting entity.	Not supported by the experimental findings (See Table 10.4)
H1h	The disclosure of customer satisfaction in the annual reports will result in significantly different (≤.05) levels of confidence in the assessment of the share price of the reporting entity.	Supported by the experimental findings (See Table 10.4)

10.2.4 Discussion of the research findings

The main aim of research hypotheses H1a to H1h is to assess the relevance of customer satisfaction disclosure to the users of annual reports. Relevance as discussed in Chapter 2 is an essential criterion for recognition of an asset in the annual reports (ASB, 1999). Any new information that is to be included in the annual reports should contribute towards decision-making. When this information facilitates decision-making, then that information fulfils the criterion of relevance to the users of annual reports.

As discussed in Chapter 2, the criterion of relevance has become very important in view of the declining relevance and decision usefulness of annual reports (Amir and Lev, 1996; Jenkins, 1994; Lev and Zarowin, 1999; Eccles and Mavarinac, 1995; Grojer and Johanson, 2000 and Elliot, 1992) as there is an urgent need to disclose such intangible assets in the annual reports that provide relevant information to the users of annual reports (FASB, 2001; AICPA, 1994 and Leadbetter, 2000). It was stated in Chapter 2 that researchers should concentrate on illustration of relevance of intangible assets disclosure by direct involvement of the users of annual reports before making suggestions for disclosure of intangible asset in the annual reports (AICPA, 1994 and ICAS, 2002). It was stated in Chapter 2 that if customer satisfaction disclosure provides relevant information to the users of annual reports, then a strong case can be built for the inclusion of customer satisfaction in the annual reports (Leadbetter, 1999 and 2000).

In Chapter 2, relevance is defined as any information that has feedback value or predictive value (or both) for users and has the capacity to make a difference in investors', creditors', or other users' decisions. Information included in the annual reports is relevant if it changes the decision being made by the decision maker (ASB, 1999).

Customer satisfaction information in the annual reports will be relevant if it has feedback value as well as predictive value. It will have feedback value if it provides information that affects the assessment of financial position, financial performance, investment risk and share price. It will have a predictive value if customer satisfaction disclosure affects investors' assessment of level of confidence in the assessment of financial position, financial performance, investment risk and share price. Therefore, customer satisfaction information in annual reports, is relevant if disclosure of customer satisfaction in the annual reports results in provision of such information that affects or changes the decision makers' (investors) investment decision in the context of the assessment of financial position, financial performance, risk and share price as well as level of confidence in the assessment of financial position, financial performance, investment risk and share price. The main aim of research hypotheses H1a to H1h is to find out whether customer satisfaction disclosure provides feedback and predictive value to the users of annual reports thus providing relevant information to the users of annual reports.

It can be concluded from Table 10.2 that customer satisfaction disclosure in general has feedback value. This is because disclosure of customer satisfaction provides such information to the users of annual reports that affect the decision makers' investment decision in the context of financial position and share price. This conclusion has been reached on the basis of statistically significant results obtained as a result of the testing of research hypotheses H1a and H1d as outlined in Table 10.2.

Hypothesis H1b is not supported by the experimental findings implying that customer satisfaction disclosure does not have an affect on assessment of financial performance of the company. This research finding is surprising as a number of research studies outlined in Chapter 2 provide empirical evidence of a positive relationship between customer satisfaction and the financial performance of the company measured in terms of profitability (Anderson and Fornell, 1994; Agus, Latifah and Kadir, 2000; Bernhardt, Donthu and Kennett, 2000; Rust and Zahorik 1993; Storbacka, Starndvik and Gonroos, 1994). It is nevertheless worth mentioning that even though the results of one-way ANOVA for comparison of in terms of financial performance are not significant at 95% significance level they are significant at 90% significance level. Thus it can be concluded that customer satisfaction disclosure affects financial performance if not significantly then to some extent.

Hypothesis H1c is not supported by experimental findings implying that customer satisfaction disclosure does not affect assessment of mean of investment risk thus not providing relevant information to the users of annual reports in terms of investment risk. Based on the discussion of research hypotheses H1a to H1d in this section it can be concluded that the disclosure of customer satisfaction in the annual reports has feedback value to the users of annual reports in the assessment of financial position and share price of the company. If certain information has feedback value to the users of annual reports, then that information is relevant.

Provision of feedback value is one criterion of relevance. As previously suggested, the other criterion is whether customer satisfaction disclosure provides predictive value to the users of annual reports (ASB, 1999). It was stated that if customer satisfaction disclosure has a significant affect on the confidence in assessment of financial position, financial performance, share price and investment risk of the company then it provides predictive value to users. The main aim of the research hypotheses H1e to H1h is thus to find out whether disclosure of customer satisfaction provides predictive value to the users of annual reports. Only hypothesis H1h is supported by experimental findings. Thus only confidence in assessment of share price is affected by customer satisfaction disclosure. It can be concluded that whereas customer satisfaction disclosure has feedback value in the context of assessment of share price and financial position, customer satisfaction disclosure only has predictive value in terms of confidence in the assessment of the share price of the company.

It can be concluded from this discussion in this Section that there is a preliminary indication of relevance of customer satisfaction disclosure to users of annual reports as customer satisfaction disclosure has feedback value in terms of the financial position and the share price of the company. Further, it has predictive value in terms of the share price of the company. If information has an effect on assessment of share price and financial position then it is contributing to decision-making ability of the users of annual reports. Information that affects decision-making is considered relevant. In Chapter 9, the preparers of annual reports despite their reservations about disclosure of customer satisfaction in the annual reports had also stated that customer satisfaction disclosure provides relevant information to the users of annual reports. The final conclusion regarding relevance of customer satisfaction to users of annual reports will be made in Chapter 11 where the results of the testing of the research instrument are discussed with users of annual reports but on the basis of the results of the testing of the experimental instrument it can be stated that there is preliminary evidence of relevance of customer satisfaction disclosure to users of annual reports.

10.3 Reaction to 'externally generated' and 'internally generated' measures of customer satisfaction

The research studies reviewed in Chapter 3 had stated that intangible assets may be disclosed by means of performance measures (Kaplan and Norton, 1992 and 1996; AICPA, 1994; OECD, 1999; ICAEW; 2000; FASB, 2001). The examples of performance measures outlined were surveys (GRI, 2002; ASB, 2005) and industry-specific performance indicators (ASB, 2005; Accounting for People Task Force, 2003; Leadbetter, 2000). In Chapter 4 customer satisfaction surveys for the purpose of this research study were classified as 'externally generated' performance measures. It was stated that 'externally generated' performance measures are based on opinion of external stakeholders. As they are based on individual judgement and perceptions of different aspects of company's performance of different stakeholders like customers or suppliers, they may be considered subjective. On the other hand performance measures like time taken to address a complaint were classified as internally generated measures as they are event based and generated from internal records. They are free from individual bias, can be easily verified and thus may be considered objective. It was outlined in Chapter 4 that the research studies reviewed in Chapter 3 for reporting intangible assets had not classified performance measures as either 'externally generated' or 'internally generated'. This research study however has classified performance measures as 'externally generated' and 'internally generated' so as to investigate whether the users of annual reports while making decisions have more confidence in 'externally generated' subjective measures or 'internally generated' objective measures. In this context research hypotheses were proposed in Table 4.1. They are reproduced in Table 10.7.

Table 10.7: Hypotheses H2a-H2d

H2a	Disclosure of an 'internally generated' measure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of the financial position of the reporting entity as compared to disclosure of an 'externally generated' measure of customer satisfaction in the annual report of an entity.
H2b	Disclosure of an 'internally generated' measure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of the financial performance of the reporting entity as compared to disclosure of an 'externally generated' measure of customer satisfaction in the annual report of an entity.
H2c	Disclosure of an 'internally generated' measure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of the investment risk of the reporting entity as compared to

	disclosure of an 'externally generated' measure of customer satisfaction in the annual report of an entity.
H2d	Disclosure of an 'internally generated' measure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of the share price of the reporting entity as compared to disclosure of an 'externally generated' measure of customer satisfaction in the annual report of an entity.

The statistical analysis of differences between the two groups ('externally generated' and 'internally generated' measures of customer satisfaction) comprises parametric tests of the comparison of means of independent samples. These were performed after ensuring that the conditions for parametric tests were met as suggested by, for example, Coolican (1994), Myers and Well (1991) and Graveter and Wallnau (1992). The level of measurement was ordinal. It is assumed to be normally distributed (*n* more than 30). Each group was also positively tested (at the 95% level of significance) for homogeneity of variance using Levene's test of equality of variance.

The experimental conditions and the research instrument were reviewed in chapter 8. The subjects in the control group were not used in the parametric tests of the comparison of means of independent samples involving assessing differences in reaction to disclosure of 'externally generated' and 'internally generated' measures of customer satisfaction. This research approach was adopted as the main aim of the parametric tests was to assess the differences in level of confidence of the users of annual reports to disclosure of 'externally generated' and 'internally generated' customer satisfaction performance measures in the annual reports. The subjects of control group did not receive any customer satisfaction disclosure. Thus only those subjects who had received either a disclosure of 'externally generated' customer satisfaction measure or 'internally generated' measures of customer satisfaction in the annual reports were used for the purpose of the parametric tests conducted for testing the research hypotheses H2a to H2d. Thus only 232 participants of the remaining eight experimental groups were used. The 232 participants had received the same profit and loss account and balance sheet of a reporting entity for the last five years. They had all received disclosures of customer satisfaction (see figures 8.4 to 8.11) in the Operating and Financial Review as outlined in figure 8.3. The next section outlines the results of the parametric tests.

10.3.1 Expressions of confidence in the assessments of performance, position, share price and investment risk

As outlined in chapter 8, subjects were asked to indicate their confidence in their own assessments of the performance, position, share price and investment risk of the reporting entity. The results of these assessments of confidence of subjects in 'externally generated' and 'internally generated' measures of customer satisfaction are outlined in Table 10.8.

Table 10.8: 'Externally generated' and 'internally generated' measures of customer satisfaction in the annual reports: Mean expression of confidence in position, performance, investment risk and share price of the reporting entity

	'Externally generated' measure group	'Internally generated' measure group	
	(n=120)	*(n=112)*	
	Mean	**Mean**	**t-value*[4]**
Confidence in			
Financial position	63.71	65.08	.586
Financial performance	65.52	64.12	.581
Investment risk	66.23	62.96	.190
Share price	57.71	51.47	.094

It can be concluded from the above table that the disclosure of customer satisfaction based on 'externally generated' and 'internally generated' measures of customer satisfaction does not significantly affect the confidence of subjects in their assessments of the financial position, financial performance, investment risk and share price of the reporting entity. There were no outliners.

10.3.2 EXPLORATION OF THE RESEARCH FINDINGS - Tests of Hypothesis H2a to H2d

The results of the testing of the research hypotheses H2a to H2d are outlined in Table 10.9 while they are discussed in Section 10.3.3.

[4] * t-test for comparison of means: # indicates significant at 95% level of significance, t-value used is two-tailed

Table 10.9: Results of the testing of the research hypotheses

H2 a	Disclosure of 'internally generated' measure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of the financial position of the reporting entity as compared to disclosure of 'externally generated' measure of customer satisfaction in the annual report of an entity.	Not supported by the experimental findings – the mean of 'internally generated' disclosure group is higher than the mean of 'externally generated' disclosure group but the differences are not statistically significant. (See Table 10.8)
H2 b	Disclosure of 'internally generated' measure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of financial performance of the reporting entity as compared to disclosure of 'externally generated' measure of customer satisfaction in the annual report of an entity.	Not supported by the experimental findings- the mean of 'externally generated' measure disclosure group is higher than 'internally generated' measure disclosure group but the differences are not statistically significant. (See Table 10.8)
H2 c	Disclosure of 'internally generated' measure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of investment risk of the reporting entity as compared to disclosure of 'externally generated' measure of customer satisfaction in the annual report of an entity.	Not supported by the experimental findings- the mean of 'externally generated' measure disclosure group is higher than 'internally generated' measure disclosure group but the differences are not statistically significant. (See Table 10.8)
H2 d	Disclosure of 'internally generated' measure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of share price of the reporting entity as compared to disclosure of 'externally generated' measure of customer satisfaction in the annual report of an entity.	Not supported by the experimental findings- the mean of 'externally generated' measure disclosure group is higher than 'internally generated' measure disclosure group but the differences are not statistically significant. (See Table 10.8)

10.3.3 Discussion of the research findings

It can be concluded from Table 10.9 that none of the research hypotheses are supported by experimental findings. As there are no statistically significant findings as a result of the testing of the research hypotheses, no conclusions can be drawn from the results of the testing of the research hypotheses. Research hypotheses H2b, H2c and H2d state that users of annual reports will have more confidence in their assessment of the financial performance, investment risk and share price of the company when customer satisfaction is disclosed using 'internally generated' measures as opposed to 'externally generated' measures. The differences in the means of the two groups are not statistically significant but the mean of the 'externally generated' measure disclosure group is higher than the 'internally generated' measure disclosure group. This might mean that experimental subjects in their role as users of annual reports might have more confidence in 'externally generated' measures as opposed to 'internally generated' measures assessing financial performance, share price and investment risk of the company. This is an interesting finding as preference to 'externally generated' subjective measures like customer satisfaction surveys makes one wonder whether there a need to extend accounting measures to include 'externally generated' subjective measures like customer satisfaction surveys in the annual reports. As the research findings are not statistically significant no definite conclusions can be drawn but these are issues that can be explored in future research.

One of the main reasons for classification of performance measures in terms of 'externally generated' and 'internally generated' was to investigate whether users preferred objective 'internally generated' measures or subjective 'externally generated' measures so that recommendations could be made to policy makers in Chapter 12 about the desired type of performance measures to be used in disclosing intangible assets like customer satisfaction in the annual reports. It appears from the discussion of the experimental findings of research hypotheses H2a to H2d that even though the research hypotheses are not supported by experimental findings yet the higher mean of 'externally generated' measures as compared to 'internally generated' measures in the level of confidence in assessment of financial performance, investment risk and share price is interesting as it may be because users of annual reports consider customer satisfaction performance of the company to be based on perceptions of customers and customer satisfaction survey thus is in the best position to measure customer satisfaction.

It is note-worth to mention here that in Chapter 9 the preparers of annual reports had stated that as they are not interested in reporting intangible assets in the annual reports, they do not want to consider which of the measures was better. It was also stated in Chapter 9 that one of the main reasons for non-disclosure of intangible assets in the annual reports was the absence of standardised measurement technology. It was however mentioned in Chapter 9 that measurements will only develop by experimentation as suggested by AICPA (1994), SEC (2001) and ASB (2005). This research thus experiment by involving users and suggests that even though the experimental findings are not statistically significant but they do give preliminary indication that 'externally generated' measures like surveys are preferred for assessing customer satisfaction performance. This finding will be discussed with the users of the annual reports in Chapter 11.

10.4 Reaction to disclosure of positive and negative customer satisfaction information in the annual reports

A number of research studies (FASB, 2001; AICPA, 1994, SEC, 2001; ASB, 2005) relating to disclosure of intangible assets outlined in Chapter 2 had stated that a balanced approach should be undertaken in reporting intangible assets in the annual reports. Positive as well as negative information relating to intangible assets should be disclosed in the annual reports. The theoretical framework for assessing reaction to disclosure of positive and negative customer satisfaction information in the annual reports was discussed in Chapter 5. In this context Attribute Framing Effects, Affective Reaction Model and Risky Framing Effects were discussed.

The Attribute Framing Effects (Levin and Gaeth, 1988) occur when a single attribute is framed positively or negatively with the positive or negative frame affecting item evaluation. Positive frames tend to evoke positive associations resulting in favourable evaluation of the item while negative frames tend to evoke negative associations resulting in unfavourable evaluation of the item. Positive frames thus result in positive judgement whereas negative frames result in negative judgement. Attribute framing has been observed in consumer judgment (Levin and Gaeth, 1998), gambling (Levin, Johnson, Deldin, Carstens, Cressey and Davis, 1986; Levin, Synder and Chapman, 1989), job placement programs (Davis and Bobko, 1986), industry project teams (Dunegan, 1993), medical treatments (Levin, Schnittjer and Thee, 1988; Linville, Fischer, and Fischhoff, 1993) and sports (Levine, 1987). These research studies concluded that alternatives are rated more favourably when described positively than when described negatively (See Levin, Schnittjer, and Thee, 1988). Attribute Framing effects as discussed in Chapter 5 have also been observed in auditing research studies (Kida, 1984; Trotman and Sng, 1989; and Wong-on-Wing, 1987).

The Affective Reaction Model (Kida, Smith and Moreno, 2002) discussed in Chapter 5 proposed that managers consider their affective reactions along with financial data during decision-making. Decision makers tend to reject investment alternatives that elicit negative affect and accept alternatives that elicit positive affect. Based on the review of the theoretical framework a number of research hypotheses were suggested in Table 5.7 and 5.8 which are reproduced in Table 10.10 a and 10.10 b.

Table 10.10 a
Research Hypotheses H3a-H3d

H3a	A disclosure of positive customer satisfaction information results in a higher assessment of the financial position of the reporting entity than a disclosure of negative customer satisfaction information.
H3b	A disclosure of positive customer satisfaction information results in a higher assessment of the financial performance of the reporting entity than a disclosure of negative customer satisfaction information.
H3c	A disclosure of positive customer satisfaction information results in a lower assessment of the investment risk of the reporting entity than a disclosure of negative customer satisfaction information.
H3d	A disclosure of positive customer satisfaction information results in a higher assessment of the share price of the reporting entity than a disclosure of negative customer satisfaction information.

Parametric tests involving comparison of means of independent samples were used to test the above research hypotheses. The tests were conducted after the conditions set out by Coolican (1994), Myers and Well (1991) and Graveter and Wallnau (1992) for parametric tests had been satisfied. The level of measurement used is ordinal and normal distribution has been assumed (*n* more than 30). Each group was also positively tested (at the 95% level of significance) for homogeneity of variance using Levene's test of equality of variance.

The experimental conditions and the research instrument were outlined in Chapter 8. The subjects in the control group were not used in the parametric tests of the comparison of means of independent samples involving assessing reaction to positive and negative customer satisfaction information as the main purpose of this testing was to test the research hypotheses H3a to H3d involving comparison of groups having received positive and negative customer satisfaction information in the annual reports. Only 232 participants of the remaining eight experimental groups were used. The 232 participants had received the same profit and loss account and balance sheet of a reporting entity for the last five years. They had all received disclosures of customer satisfaction (see figures 8.4 to 8.11) in the Operating and Financial Review as outlined in figure 8.3.

As stated in Chapter 8, the experimental task involved assessment of the financial position, financial performance, investment risk and share price of the reporting entity. The mean assessments of each of these items by the two groups are given in Table 10.11 including their significance at a 95% level in a t-test for the assessment of differences in means.

Table 10.11: Disclosure of positive and negative customer satisfaction information in the annual reports: Mean assessments of the position, performance, investment risk and share price of the reporting entity

	Positive group (n=115)	Negative group (n=117)	
	Mean	**Mean**	**t-value*[5]**
Financial position	62.43	57	.038#
Financial performance	66.07	63.73	.269
Investment risk	44.06	50.81	.030#
Share price	88.84	67.78	.003#

The positive group reached a higher assessment of the performance, position and share price of the reporting entity than the negative group. For investment risk, the positive group reached a lower assessment than the negative group. These differences are significant at a 95% level of confidence in the case of the financial position, share price and investment risk of the reporting entity. In the case of share price it is significant at 99% level of significance. There were no outliners. In order to further investigate the above results, further statistical analysis was conducted. The results of the statistical analysis are outlined in Tables 10.12a to 10.12i.

Table 10.12 a: Negative quantitative 'externally generated' measure of customer satisfaction vs. positive quantitative 'externally generated' measure of customer satisfaction: Mean assessment of the position, performance, investment risk and share price of the reporting entity

	Negative quantitative 'externally generated' measure (n=30)	Positive quantitative 'externally generated' measure (n=29)	
	Mean	**Mean**	**t-value*[6]**
Financial position	50.83	61.62	.065
Financial performance	59.83	63.62	.406
Investment risk	51.77	41.79	.156
Share price	67.91	92.66	.076

[5] * t-test for comparison of means: # indicates significant at 95% level of significance, t value used is two tailed

[6] * t-test for comparison of means: # indicates significant at 95% level of significance

The positive quantitative 'externally generated' measure group reached a higher assessment of the performance, position and share price of the reporting entity than the negative quantitative 'externally generated' measure group. For investment risk the positive group reached a lower assessment than the negative group. These differences are however not significant.

Table 10.12 b : Negative quantitative 'internally generated' measure of customer satisfaction vs. positive quantitative 'internally generated' measure of customer satisfaction: Mean assessment of the position, performance, investment risk and share price of the reporting entity

	Negative quantitative 'internally generated' measure	Positive quantitative 'internally generated' measure	
	(n=28)	*(n=28)*	
	Mean	**Mean**	**t-value*[7]**
Financial position	59.83	67.11	.115
Financial performance	65.04	68.64	.312
Investment risk	51.75	40.82	.097
Share price	58.85	89.37	.023#

The positive quantitative 'internally generated' measure group reached a higher assessment of the performance, position and share price of the reporting entity than the negative quantitative 'internally generated' measure group. For investment risk the positive group reached a lower assessment than the negative group. These differences are significant at a 95% level of significance in the case of the share price of the reporting entity.

Table 10.12 c: Negative qualitative 'externally generated' measure of customer satisfaction vs. positive quantitative 'externally generated' measure of customer satisfaction: Mean assessment of the position, performance, investment risk and share price of the reporting entity

	Negative qualitative 'externally generated' measure	Positive quantitative 'externally generated' measure	
	(n=31)	*(n=29)*	
	Mean	**Mean**	**t-value*[8]**
Financial position	52.81	61.62	.078
Financial performance	60.65	63.62	.496
Investment risk	49.23	41.79	.197
Share price	58.00	92.66	.011#

[7] * t-test for comparison of means: # indicates significant at 95% level of significance

[8] * t-test for comparison of means: # indicates significant at 95% level of significance

The positive quantitative 'externally generated' measure group reached a higher assessment of the performance, position and share price of the reporting entity than the negative qualitative 'externally generated' group. For investment risk the positive group reached a lower assessment than the negative group. These differences are significant at 95% level of significance in the case of share price.

Table 10.12 d: Positive qualitative 'externally generated' measure of customer satisfaction vs. negative quantitative 'externally generated' measure of customer satisfaction: Mean assessment of the position, performance, investment risk and share price of the reporting entity

	Positive qualitative 'externally generated' measure	Negative quantitative 'externally generated' measure	
	(n=30)	*(n=30)*	
	Mean	**Mean**	**t-value*[9]**
Financial position	61.87	50.83	.050#
Financial performance	62.53	59.83	.548
Investment risk	51.07	51.77	.915
Share price	76.07	67.91	.522

The positive qualitative 'externally generated' measure group reached a higher assessment of the performance, position and share price of the reporting entity than the negative quantitative 'externally generated' measure group. For investment risk the positive group reached a lower assessment than the negative group. These differences are significant at 95% level of significance in the case of financial position.

Table 10.12 e: Positive qualitative 'internally generated' measure of customer satisfaction vs. negative quantitative 'internally generated' measure of customer satisfaction: Mean assessment of the position, performance, investment risk and share price of the reporting entity

	Positive qualitative 'internally generated' measure	Negative quantitative 'internally generated' measure	
	(n=28)	*(n=28)*	
	Mean	**Mean**	**t-value*[10]**
Financial position	59.18	58.93	.960
Financial performance	69.82	65.04	.243
Investment risk	42.14	51.75	.165
Share price	96.24	58.85	.007#

9 * t-test for comparison of means: # indicates significant at 95% level of significance

10 * t-test for comparison of means: # indicates significant at 95% level of significance

The positive qualitative 'internally generated' measure group reached a higher assessment of the performance, position and share price of the reporting entity than the negative quantitative 'internally generated' measure group. For investment risk the positive group reached a lower assessment than the negative group. These differences are significant at 95% level of significance in the case of share price.

Table 10.12 f: Negative qualitative 'externally generated' measure of customer satisfaction vs. positive qualitative 'internally generated' measure of customer satisfaction: Mean assessment of the position, performance, investment risk and share price of the reporting entity

	Negative qualitative 'externally generated' measure	**Positive qualitative 'internally generated' measure**	
	(n=31)	*(n=28)*	
	Mean	**Mean**	**t-value*[11]**
Financial position	52.81	58.18	.212
Financial performance	60.65	69.82	.035#
Investment risk	49.23	42.14	.219
Share price	58.00	96.24	.006#

The positive qualitative 'internally generated' measure group reached a higher assessment of the performance, position and share price of the reporting entity than the negative qualitative 'externally generated' measure group. For investment risk the positive group reached a lower assessment than the negative group. These differences are significant at 95% level of significance in the case of financial performance and share price.

Table 10.12 g: Negative qualitative 'externally generated' measure of customer satisfaction vs. positive quantitative 'internally generated' measure of customer satisfaction: Mean assessment of the position, performance, investment risk and share price of the reporting entity

	Negative qualitative 'externally generated' disclosure	**Positive quantitative 'internally generated' disclosure**	
	(n=31)	*(n=28)*	
	Mean	**Mean**	**t-value*[12]**
Financial position	52.81	67.11	.008#
Financial performance	60.65	68.64	.040#
Investment risk	49.23	40.82	.119
Share price	58.00	89.37	.020#

11 * t-test for comparison of means: # indicates significant at 95% level of significance

12 * t-test for comparison of means: # indicates significant at 95% level of significance

The positive quantitative 'internally generated' measure group reached a higher assessment of the performance, position and share price of the reporting entity than the negative qualitative 'externally generated' measure group. For investment risk the positive group reached a lower assessment than the negative group. These differences are significant at 95% level of significance in the case of financial position, financial performance and share price of the reporting entity.

Table 10.12 h: Negative quantitative 'externally generated' measure of customer satisfaction vs. positive qualitative 'internally generated' measure of customer satisfaction: Mean assessment of the position, performance, investment risk and share price of the reporting entity

	Negative quantitative 'externally generated' measure	**Positive qualitative 'internally generated measure**	
	(n=30)	*(n=28)*	
	Mean	**Mean**	**t-value*[13]**
Financial position	50.83	59.18	.161
Financial performance	59.83	69.82	.029#
Investment risk	51.77	42.14	.174
Share price	67.91	96.24	.047#

The positive qualitative 'internally generated' measure group reached a higher assessment of the performance, position and share price of the reporting entity than the negative quantitative 'externally generated' group. For investment risk the positive group reached a lower assessment than the negative group. These differences are significant at 95% level of significance in the case of financial performance and share price of the reporting entity.

[13] * t-test for comparison of means: # indicates significant at 95% level of significance

Table 10.12 i: Negative quantitative 'externally generated' measure of customer satisfaction vs. positive quantitative 'internally generated' measure of customer satisfaction: Mean assessment of the position, performance, investment risk and share price of the reporting entity

	Negative quantitative 'externally generated' measure	Positive quantitative 'internally generated' measure	
	(n=30)	*(n=28)*	
	Mean	**Mean**	**t-value*[14]**
Financial position	50.83	67.11	.009#
Financial performance	59.83	68.64	.032#
Investment risk	51.77	40.82	.106
Share price	67.91	89.37	.119

The positive quantitative 'internally generated' measure group reached a higher assessment of the performance, position and share price of the reporting entity than the negative quantitative 'externally generated' group. For investment risk the positive group reached a lower assessment than the negative group. These differences are significant at 95% level of significance in the case of financial position and financial performance of the reporting entity.

Table 10.12 j: Positive quantitative 'externally generated' measure of customer satisfaction vs. negative quantitative 'internally generated' measure of customer satisfaction: Mean assessment of the position, performance, investment risk and share price of the reporting entity

	Positive quantitative 'externally generated' measure	Negative quantitative 'internally generated' measure	
	(n=29)	*(n=28)*	
	Mean	**Mean**	**t-value*[15]**
Financial position	61.62	58.93	.578
Financial performance	63.62	65.04	.736
Investment risk	41.79	51.75	.148
Share price	92.66	58.85	.013#

The positive quantitative 'externally generated' measure group reached a higher assessment of the position and share price of the reporting entity than the negative quantitative 'internally generated' group. For investment risk the positive group reached a lower assessment than the negative group. These differences are significant at 95% level of significance in the case of share price of the reporting entity.

[14] * t-test for comparison of means: # indicates significant at 95% level of significance

[15] * t-test for comparison of means: # indicates significant at 95% level of significance

10.4.1 Assessment of the impact of positive and negative information on assessments of performance, position, share price and investment risk

In Chapter 5 the theoretical framework for assessing the reaction of the users of annual reports to disclosure of positive and negative customer satisfaction information in the annual reports was discussed. It was stated that as customer satisfaction disclosure is a voluntary disclosure, preparers of annual reports may adopt a concealment strategy where negative information is withheld (Sutton and Calahan, 1987). This is because of the asymmetric reaction of the defining class of users of annual reports namely investors to negative information in the annual reports. Investors over react to negative news and under react to positive news. This over reaction of the investors to negative news results in the exclusion of negative information from the annual reports (Patell, 1976; Penman, 1980; Waymire, 1984 and Lev and Penman, 1990; Abrahmson and Park, 1994; Skinner, 1994 and Kasznik and Lev, 1995).

It was stated in Chapter 5 that customer satisfaction is rarely disclosed in the annual reports. When customer satisfaction information is disclosed it can be either positive or negative. The disclosure of positive customer satisfaction information in the annual reports should result in a higher assessment of financial position, financial performance and share price and lower assessment of investment risk by the investors as compared to when customer satisfaction is not disclosed as positive information about an important intangible asset is being provided to the users of annual reports. If investors however exhibit the asymmetric reaction discussed in Chapter 5, then the users of annual reports will not react as strongly to positive customer satisfaction information as they will to negative customer satisfaction information. Due to the potential asymmetric reaction, positive customer satisfaction information might not result in significant differences in investors' assessment of the financial position, financial performance, investment risk and share price of the company. On the other hand due to the asymmetric reaction discussed in Chapter 5, negative customer satisfaction information should result in significantly lower assessment of financial position, financial performance, share price and higher assessment of investment risk. Research hypotheses for testing the asymmetric reaction suggested in Table 5.8 are reproduced in Table 10.10 b.

Table 10.10 b

HypothesesH3e-H3l

H3e	Assessments of the financial position of a firm reporting positive customer satisfaction information will not be significantly higher than the financial position of a firm not disclosing customer satisfaction in the annual reports.
H3f	Assessments of the financial performance of a firm reporting positive customer satisfaction information will not be significantly higher than the financial performance of a firm not disclosing customer satisfaction in the annual reports.
H3g	Assessments of the investment risk of a firm reporting positive customer satisfaction information will not be significantly lower than the investment risk of a firm not disclosing customer satisfaction in the annual reports.
H3h	Assessments of the share price of a firm reporting positive customer satisfaction information will not be significantly higher than the share price of a firm not disclosing customer satisfaction in the annual reports.
H3i	Assessments of the financial position of a firm reporting negative customer satisfaction information will be significantly lower than the financial position of a firm not disclosing customer satisfaction in the annual reports.
H3j	Assessments of the financial performance of a firm reporting negative customer satisfaction information will be significantly lower than the financial performance of a firm not disclosing customer satisfaction in the annual reports.
H3k	Assessments of the investment risk of a firm reporting negative customer satisfaction information will be significantly higher than the investment risk of a firm not disclosing customer satisfaction in the annual reports.
H3l	Assessments of the share price of a firm reporting negative customer satisfaction information will be significantly lower than the investment risk of a firm not disclosing customer satisfaction in the annual reports.

Parametric tests of the comparison of means of independent samples were used to test the above research hypotheses after ensuring that the conditions for parametric tests were met as suggested by, for example, Coolican (1994), Myers and Well (1991) and Graveter and Wallnau (1992). Ordinal level of measurement is ordinal while normal distribution has been assumed (*n* more than 30). Using Levene's test of equality of variance, each group was also positively tested (at the 95% level of significance) for homogeneity of variance.

The experimental conditions and the research instrument were the same as discussed in Chapter 8. For testing research hypotheses H3e to H3l three groups were used namely control group, positive customer satisfaction information group and negative customer satisfaction information group. The main aim of the testing of the research hypotheses was to assess whether the users of annual reports show asymmetric reaction to disclosure of positive and negative customer satisfaction information in the annual reports. It was stated in Chapter 5 that in case of a voluntary disclosure like customer satisfaction that is at the discretion of the preparers of annual reports, users of annual reports show asymmetric reaction. When a positive voluntary disclosure is made in the annual reports users of annual reports are unaffected whereas in the case of a negative voluntary disclosure, users of annual reports over react. A total of 262 participants were involved in the testing of the research hypotheses. All the 262 participants had received the same profit and loss account and balance sheet of a reporting entity for the last five years. The control group had not received any disclosure of customer satisfaction in the annual reports. The positive group had received disclosure of positive customer satisfaction in the annual reports whereas the negative group had received disclosure of negative customer satisfaction in the annual reports.

For testing research hypotheses H3e to H3h only two groups – namely the control group and the positive customer satisfaction information disclosure groups – were used. As stated in Chapter 8, the experimental task involved assessment of financial position, financial performance, investment risk and share price of the reporting entity. The mean assessment of each of these items by the two groups is given in Table 10.13 including their significance at a 95% level in a t-test for the assessment of differences in means.

Table 10.13: Disclosure of positive customer satisfaction in the annual reports: Mean assessment of the position, performance, investment risk and share price of the reporting entity

	Control group	Positive group	
	(n=30)	*(n=115)*	
	Mean	**Mean**	**t-value*[16]**
Financial position	59.1	62.4	.373
Financial performance	68.0	66.1	.513
Investment risk	44.2	44.1	.981
Share price	83.1	88.8	.619

For testing research hypotheses H3i to H3l only two groups namely the control group and the negative groups were used. As stated in Chapter 8, the experimental task involved assessment of the financial position, financial performance, investment risk and share price of the reporting entity. The mean assessments of each of these items by the two groups are given in Table 10.14 including their significance at a 95% level in a t-test for the assessment of differences in means.

16 * t-test for comparison of means: # indicates significant at 95% level of significance

Table 10.14: Disclosure of negative customer satisfaction information in the annual reports: Mean assessment of the position, performance, investment risk and share price of the reporting entity

	Control group	Negative group	
	(n=30)	*(n=117)*	
	Mean	**Mean**	**t-value*[17]**
Financial position	59.1	57.0	.501
Financial performance	68.0	63.7	.158
Investment risk	44.2	50.8	.119
Share price	83.1	67.8	.071

The research findings are explored in the next section.

10.4.2 EXPLORATION OF THE RESEARCH FINDINGS - Test of Hypothesis H3a to H3l

The results of the testing of the research hypotheses are outlined in Table 10.15 and discussed in Section 10.4.3.

10.15: Results of the testing of the research hypotheses H3a to H3l

H3a	A disclosure of positive customer satisfaction information results in a higher assessment of the financial position of the reporting entity than a disclosure of negative customer satisfaction information.	Supported by the experimental findings. (See Table 10.11)
H3b	A disclosure of positive customer satisfaction information results in a higher assessment of the financial performance of the reporting entity than a disclosure of negative customer satisfaction information.	Not supported by the experimental findings – the mean of positive group is higher than negative group but the differences are not statistically significant. (See Table 10.11)
H3c	A disclosure of positive customer satisfaction information results in a lower assessment of the investment risk of the reporting entity than a disclosure of negative customer satisfaction information.	Supported by the experimental findings. (See Table 10.11)
H3d	A disclosure of positive customer satisfaction information results in a higher assessment of the share price of the reporting entity than a disclosure of negative customer satisfaction information.	Supported by the experimental findings. (See Table 10.11)
H3e	Assessments of the financial position of a firm reporting positive customer satisfaction information will not be significantly higher than the financial position of a firm not disclosing customer satisfaction in the annual reports.	Supported by the experimental findings. (See Table 10.13)
H3f	Assessments of the financial performance of a firm reporting positive customer satisfaction information	Supported by the experimental findings. (See Table 10.13)

[17] * t-test for comparison of means: # indicates significant at 95% level of significance

	will not be significantly higher than the financial performance of a firm not disclosing customer satisfaction in the annual reports.	
H3g	Assessments of the investment risk of a firm reporting positive customer satisfaction information will not be significantly lower than the investment risk of a firm not disclosing customer satisfaction in the annual reports.	Supported by the experimental findings. (See Table 10.13)
H3h	Assessments of the share price of a firm reporting positive customer satisfaction information will not be significantly higher than the share price of a firm not disclosing customer satisfaction in the annual reports.	Supported by the experimental findings. (See Table 10.13)
H3i	Assessments of the financial position of a firm reporting negative customer satisfaction information will be significantly lower than the financial position of a firm not disclosing customer satisfaction in the annual reports.	Not supported by the experimental findings – the mean of negative customer satisfaction information group is less than the control group but the differences are not statistically significant. (See Table 10.14)
H3j	Assessments of the financial performance of a firm reporting negative customer satisfaction information will be significantly lower than the financial performance of a firm not disclosing customer satisfaction in the annual reports.	Not supported by the experimental findings- – the mean of negative customer satisfaction information group is less than the control group but the differences are not statistically significant. (See Table 10.14)
H3k	Assessments of the investment risk of a firm reporting negative customer satisfaction information will be significantly higher than the investment risk of a firm not disclosing customer satisfaction in the annual reports.	Not supported by the experimental findings – the mean of negative customer satisfaction information group is higher than the control group but the differences are not statistically significant. (See Table 10.14)
H3l	Assessments of the share price of a firm reporting negative customer satisfaction information will be significantly lower than the investment risk of a firm not disclosing customer satisfaction in the annual reports.	Not supported by the experimental findings – the mean of negative customer satisfaction information group is less than the control group but the differences are not statistically significant at 95% significance level but are significant at 90% significance level. (See Table 10.14)

10.4.3 Discussion of the research findings

One of the main aims of the testing of research hypotheses H3a to H3l was to investigate the differences in reaction of the users of annual reports to disclosure of positive and negative customer satisfaction information in the annual reports while making decisions. Empirical evidence supporting the results of the testing of research hypotheses H3a, H3c and H3d are provided by the Attribute Framing Effects (Levin and Gaeth, 1988 and Levin *et. al,* 2002). Attribute Framing Effects state that positive frames are preferred to negative frames as positive labels tend to evoke positive associations while negative labels tend to evoke negative associations. Positive associations lead to favourable assessments whereas negative associations lead to unfavourable assessments. The findings of attribute framing effects are of direct relevance to this research study as attribute framing effect research studies concentrate specifically on reaction to positive and negative frames. A number of research studies have confirmed the attribute framing effect illustrating the preference of positive frames to negative frames as discussed in Chapter 5 (Levin and Gaeth, 1998; Levin, Johnson, Deldin, Carstens, Cressey and Davis, 1986; Levin, Synder and Chapman, 1989; Davis and Bobko, 1986). Attribute framing effects (Levin et al., 1998), as outlined in Chapter 5, has also been observed in auditing research studies (Kida, 1984; Trotman and Sng, 1989; Sanders and Wong-on-Wing, 1987; O'Clock and Devine, 1995; Bedard, Graham and Lynford, 1994). The main characteristic of these research studies was the conclusion that positive frames are preferred to negative frames by decision makers. This is because positive frames evoke favourable associations and negative frames evoke unfavourable associations. Favourable associations result in favourable judgement and unfavourable associations result in unfavourable judgement.

This can be used to explain the results of the testing of hypotheses H3a to H3d. Research hypotheses H3a and H3d state that disclosure of positive customer satisfaction results in a higher assessment of financial position and share price of the company as compared to a disclosure of negative customer satisfaction in the annual reports. Hypotheses H3c suggest that a disclosure of positive customer satisfaction results in lower assessment of investment risk as compared to disclosure of positive customer satisfaction in the annual reports. As noted from Table 10.15, research hypotheses H3a, H3c and H3d are supported by the experimental results. These research findings are consistent with Attribute Framing Effects. A disclosure of positive customer satisfaction results in a favourable association whereas a disclosure of negative customer satisfaction results in an unfavourable association. A favourable association results in higher assessment of financial position, share price and lower assessment of investment risk whereas with disclosure of negative customer satisfaction the results are opposite.

The Affective Reaction Model (Kida and Smith, 1998; Kida, Smith and Moreno, 2002) explained in Chapter 5 also help in exploration of results of testing of research hypotheses H3a to H3d. The 'Affective Reaction Model' states that decision makers tend to reject investment alternatives that elicit negative affect and accept alternatives that elicit positive affect, resulting in risk taking (avoiding) in gain (loss) contexts. Affect influences investment decisions to such an extent that managers tend to reject investment alternatives that 'elicit negative emotional responses, even though the rejected alternatives have higher expected value' (Kida, Smith and Moreno, 2001, p. 481). This role of affect has also been confirmed by Rose (2001) who found that decision-makers chose investments that were consistent with differences in affective responses to multimedia, rather than investments consistent with financial data. Affective reactions caused decision-makers to favour investments consistent with a positive media response rather than with a higher expected value. The importance of affective reaction in the accounting context has also been confirmed by Rose and Wolfe (2000) and Roberts, Rose and Rose (2003).

The Affective Reaction Model is also important for the exploration of the experimental results of testing of research hypotheses H3a to H3d. As outlined in Chapter 8, the same set of financial statements was given to all the experimental group. The positive and negative groups also received the same financial statements but the only difference was that one group received a disclosure of positive customer satisfaction information and the other group received a disclosure of negative customer satisfaction information. The disclosure of positive customer satisfaction information resulted in a positive affect and a higher assessment of financial position, financial performance, share price and a lower assessment of investment risk. The disclosure of negative customer satisfaction information resulted in a negative affect and a lower assessment of financial position, financial performance, share price and higher assessment of investment risk. As stated by the Affective Reaction Model, affect has an important influence on decision making. The influence at times is so strong that decision makers do not even take into consideration other information in the annual reports. In the context of this research study, as outlined in Table 10.15, there are statistically significant differences in the assessment of financial position, investment risk and share price between positive and negative disclosure group. Even though both the experimental groups received the same type of financial statements, the disclosure of negative customer satisfaction information may have had such an affect that the users may not have take into account any other information and thus statistically significant differences exist in the assessment of financial position, investment risk and share price between positive and negative groups.

It was stated in Chapter 5 that as the disclosure of intangible assets like customer satisfaction is a voluntary disclosure, because of the over reaction of the users of annual reports to negative disclosure of in the annual reports, preparers are reluctant to disclose intangible assets like customer satisfaction negatively in the annual reports. The asymmetric reaction of the users of annual reports to positive and negative customer satisfaction information in the annual reports was discussed in Chapter 5 (Verrecchia, 1983; Dye, 1985; Scott, 1994; Thaler and DeBondt, 1985; Patell, 1976; Penman, 1980; Waymire, 1984 and Lev and Penman, 1990 Abrahmson and Park, 1994; Skinner, 1994 and Kasznik and Lev, 1995). It was stated that users of annual reports over react to negative news and under react to positive news. Research hypotheses H3e to H3l were proposed to investigate potential asymmetric reaction of users of annual reports. It can be concluded from Table 10.15 that hypotheses H3e to H3h are supported by experimental findings. This implies that users of annual reports do under react to positive customer satisfaction information in the annual reports.

Research hypotheses H3i to H3l are not supported by experimental findings as outlined in Table 10.17. Even though the mean of financial position, financial performance and share price of negative customer satisfaction information group is lower than the mean of the control group and the mean of investment risk of negative customer satisfaction information group is higher than control group but the differences are not statistically significant. It can be concluded that even if the results are not statistically significant there are indications that users of annual reports do react adversely to negative information about customer satisfaction as outlined by the results of the testing of the research hypotheses H3i to H3l outlined in Table 10.15. The indications of adverse reaction to disclosure of negative customer satisfaction information may be considered preliminary evidence of over reaction to disclosure of negative customer satisfaction information in the annual reports. In the context of share price, the differences in the means of control group having no disclosure of customer satisfaction and experimental group having disclosure of negative customer satisfaction information is significant at 93 % level of significance whereas in the case of investment risk and financial performance the differences in the two groups are significant at 89% and 85% level of significance. This is preliminary evidence of overreaction of users of annual reports to disclosure of negative customer satisfaction information in the annual reports but as the results are not statistically significant no concrete conclusions can be drawn from the results.

It can be concluded from the discussion in this Section that decision makers prefer positive information to negative information. This is consistent with the theoretical framework outlined in Chapter 5. The experimental results indicate that positive customer satisfaction information will result in more favourable assessment of a company as compared to negative customer satisfaction information.

It was stated in Chapter 3 that a balanced approach should be undertaken in reporting of intangible assets in the annual reports. A balanced approach implies inclusion of positive and negative information relating to intangible assets in the annual reports. One of the main findings of the interviews conducted with the preparers of annual reports discussed in Chapter 9 was that the preparers of annual reports considered customer satisfaction as providing relevant information to users of annual reports but were unwilling to disclose customer satisfaction because if they start disclosing customer satisfaction, they will have to disclose negative customer satisfaction information also that will have an adverse impact on investor's assessment of the company.

Based on the results of the testing of the research hypotheses these concerns are valid. The key question in this situation thus is that whether disclosure of an intangible asset like customer satisfaction may be excluded from the annual reports mainly because negative information about customer satisfaction results in negative assessment of the company. It was discussed earlier in this Chapter that customer satisfaction disclosure provides relevant information to the users of annual reports. In Chapter 9, the preparers of annual reports also were of the view that customer satisfaction provides relevant information to the users of annual reports. It can thus be stated that may be relevant information is being excluded from annual reports only because of the reservation regarding negative disclosure of negative customer satisfaction information in the annual reports. Relevant information is any information that affects decision making. Negative customer satisfaction information in the annual reports as discussed in this Chapter affects decision making. Its exclusion is an exclusion of relevant information. This finding will be discussed in Chapter 11 also when the results of the testing of research hypotheses are discussed with the users of annual reports. The next section explores results of the testing of research hypotheses H4a to H4d.

It can be concluded from the results of the testing of the experimental instrument that the assessment of the share price of the company by the experimental subjects result in repeated statistically significant results. The experimental subjects assessed the financial position, financial performance, share price and investment risk based on the same information. Thus there could not have been any reason for the repeated statistically significant results in terms of the share price.

10.5 Reaction to qualitative and quantitative disclosure of customer satisfaction

The theoretical framework for assessing the reaction of the users of annual reports to qualitative and quantitative disclosure of customer satisfaction was discussed in Chapter 6. It was concluded that an understanding of the effect of qualitative and quantitative disclosures of customer satisfaction will help understand the effect of qualitative and quantitative disclosure of customer satisfaction disclosure on investment decisions. Based on the review of the theoretical framework following research hypotheses were suggested which are outlined in Table 10.

Table 10.16 (Research Hypotheses H4a – H4d)

H4a	A quantitative disclosure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of financial position of the reporting entity as compared to a qualitative disclosure of customer satisfaction in the annual report of an entity.
H4b	A quantitative disclosure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of financial performance of the reporting entity as compared to a qualitative disclosure of customer satisfaction in the annual report of an entity.
H4c	A quantitative disclosure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of investment risk of the reporting entity as compared to a qualitative disclosure of customer satisfaction in the annual report of an entity.
H4d	A quantitative disclosure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of share price of the reporting entity as compared to a qualitative disclosure of customer satisfaction in the annual report of an entity.

The statistical analysis of differences between the two groups (qualitative and quantitative disclosure of customer satisfaction) comprises parametric tests of the comparison of means of independent samples. These were performed after ensuring that the conditions for parametric tests were met as suggested by, for example, Coolican (1994), Myers and Well (1991) and Graveter and Wallnau (1992). The level of measurement is ordinal. It is assumed to be normally distributed (*n* more than 30). Each group was also positively tested (at the 95% level of significance) for homogeneity of variance using Levene's test of equality of variance.

As stated in Chapter 8, there were 262 experimental subjects drawn from postgraduate business and accounting students of DCU, UCD and UCC. As the control group did not have any disclosure of customer satisfaction, the 30 control group members were excluded from tests conducted to test research hypotheses H4a to H4d as the main purpose of the testing of research hypotheses H4a to H4d was to investigate the differences in level of confidence of users of annual reports in qualitative and quantitative disclosure of customer satisfaction in the annual reports. The remaining eight experimental groups had 232 participants. Experimental Groups A1, A2, P1 and P2 had qualitative disclosures of customer satisfaction. These four groups had 117 members. Experimental Groups A3, A4, P3 and P4 had quantitative disclosures of customer satisfaction. These four groups had 115 members. Thus in total there were 232 members involved in the parametric tests involving comparison of means of independent samples of qualitative and quantitative disclosure of customer satisfaction in the operating and financial review of the annual reports.

The experimental conditions were described in Chapter 8. The manner in which the experimental instrument was designed and tested was also explained in Chapter 8. All the 232 participants received the same profit and loss account and balance sheet of a reporting entity for five years. They had all received disclosures of customer satisfaction (see figures 8.4 to 8.11) in the Operating and Financial Review as outlined in figure 8.3.

10.5.1 Expressions of confidence in the assessments of performance, position, share price and investment risk.

As outlined in chapter 8, subjects were asked to indicate their confidence in their own assessments of the performance, position, share price and investment risk of the reporting entity. The results of these assessments of confidence are given in Table 10.17.

Table 10.17: Qualitative and quantitative disclosure of customer satisfaction in the annual reports: Mean assessment of expression of confidence in position, performance, investment risk and share price of the reporting entity

	Qualitative group	**Quantitative group**	
	(n=117)	*(n=115)*	
	Mean	**Mean**	**t-value[18]***
Confidence in			
Financial position	65.32	64.30	.444
Financial performance	64.16	65.53	.590
Investment risk	64.22	67.58	.035#
Share price	50.27	58.12	.020#

[18] * t-test for comparison of means, # indicates significant at 95% level of significance, t-value used is two-tailed.

The qualitative and quantitative disclosures of customer satisfaction significantly affect the confidence of subjects in their assessment of the share price and investment risk of the reporting entity. There were no outliners. The above results were further investigated by means of parametric tests. The results of the parametric tests are outlined in Tables 10.18 a to 10.18 d.

Table 10.18a: Qualitative negative 'externally generated' disclosure and Quantitative negative 'externally generated' disclosure of customer satisfaction in the annual reports: Mean assessment of expression of confidence in position, performance, investment risk and share price of the reporting entity

	Qualitative negative 'externally generated' disclosure	Quantitative negative 'externally generated' disclosure	
	(n=31)	*(n=30)*	
	Mean	**Mean**	**t-value*[19]**
Confidence in			
Financial position	57.9	67.2	.044#
Financial performance	60.5	70.7	.028 #
Investment risk	59.5	70.9	.003 #
Share price	57.4	59.3	.733

The quantitative negative 'externally generated' disclosure group had a higher level of confidence in assessments of performance, position, investment risk and share price of the reporting entity than the qualitative negative 'externally generated' disclosure group. These differences are significant at a 95% level of significance in the case of the confidence in assessment of financial position, financial performance and investment risk of the reporting entity.

[19] * t-test for comparison of means: # indicates significant at 95% level of significance, t-value used is two-tailed.

Table 10.18 b: Qualitative negative 'externally generated' disclosure and Quantitative positive 'externally generated' measure of customer satisfaction in the annual reports: Mean assessment of expression of confidence in position, performance, investment risk and share price of the reporting entity

	Qualitative negative 'externally generated' measure	Quantitative positive 'externally generated' measure	
	(n=31)	*(n=30)*	
	Mean	**Mean**	**t-value*[20]**
Financial position	57.9	62.4	.343
Financial performance	60.5	62.7	.664
Investment risk	59.5	66.7	.121
Share price	57.4	61.4	.488

The quantitative positive 'externally generated' group had a higher level of confidence in assessments of performance, position, investment risk and share price of the reporting entity than the qualitative negative 'externally generated' group. These differences are however not significant.

Table 10.18 c: Qualitative 'externally generated' positive and quantitative 'externally generated' negative measures of customer satisfaction in the annual reports: Mean expression of confidence in position, performance, investment risk and share price of the reporting entity

	Qualitative positive 'externally generated' measure	Quantitative negative 'externally generated' measure	
	(n=31)	*(n=30)*	
	Mean	**Mean**	**t-value*[21]**
Financial position	67.5	67.2	.960
Financial performance	68.2	70.7	.581
Investment risk	68.1	70.9	.493
Share price	49.4	59.3	.164

The quantitative negative 'externally generated' group had a higher level of confidence in assessments of performance, position, investment risk and share price of the reporting entity

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[20] * t-test for comparison of means: # indicates significant at 95% level of significance

[21] * t-test for comparison of means: # indicates significant at 95% level of significance

than the qualitative positive 'externally generated' group. These differences are however not significant.

Table 10.18 d: Qualitative 'internally generated' positive and quantitative 'externally generated' negative measures of customer satisfaction in the annual reports: Mean expression of confidence in position, performance, investment risk and share price of the reporting entity

	Quantitative negative 'externally generated' measure	**Qualitative positive 'internally generated' measure**	
	(n=30)	*(n=28)*	
	Mean	**Mean**	**t-value*[22]**
Financial position	67.2	65.9	.790
Financial performance	70.7	65.5	.279
Investment risk	70.9	58.2	.010#
Share price	59.3	54.7	.473

The quantitative negative 'externally generated' measure group had a higher level of confidence in assessments of performance, position, investment risk and share price of the reporting entity than the qualitative positive 'internally generated' group. These differences are significant at 95% level of significance for investment risk.

10.5.2 EXPLORATION OF THE RESEARCH FINDINGS – Test of Hypotheses H4a to H4h

The results of the testing of research hypotheses H4a to H4d are summarised in Table 10.19 while the results are discussed in Section 10.5.3.

Table 10.19

Results of the testing of research hypotheses H4a to H4d

H4a	A quantitative disclosure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of financial position of the reporting entity as compared to a qualitative disclosure.	Not supported by the experimental findings (See Table 10.17)
H4b	A quantitative disclosure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of financial performance of the reporting entity as compared to a qualitative disclosure.	Not supported by the experimental findings (See Table 10.17)
H4c	A quantitative disclosure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of investment risk of the reporting entity as compared to a qualitative	Supported by the experimental findings (See Table 10.17)

[22] * t-test for comparison of means: # indicates significant at 95% level of significance

	disclosure.	
H4d	A quantitative disclosure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of share price of the reporting entity as compared to a qualitative disclosure.	Supported by the experimental findings (See Table 10.17)

10.5.3 Discussion of the research findings

It can be concluded from Table 10.19 that the statistically significant differences in the means of level of confidence in assessment of share price and investment risk between qualitative and quantitative disclosure group are obtained thus supporting the research hypotheses H4 c and H4d. The mean of level of confidence in the assessment of financial performance of quantitative disclosure group is also higher than for the qualitative disclosure group but the differences are not statistically significant.

It was stated in Chapter 6 that traditionally the focus of financial reporting has been on provision of quantitative financial information. The current financial reporting framework states that only those items should be included in the financial statements that can be measured reliably in monetary terms and can thus be reported quantitatively in the financial statements of the annual reports (Olsen, 2002; Alexander and Britton, 2001). The increasing importance of intangible assets in the annual reports had resulted in suggestions that if intangible assets can not be recognised in the financial statements then they need to be disclosed in other sections of the annual reports (SEC, 2001; FASB, 2001; ASB, 2005). It was stated in Chapter 3 that due to the non-physical nature of intangible assets like customer satisfaction; intangible assets like customer satisfaction may be reported quantitatively or qualitatively in the *Operating and Financial Review* section of the annual reports (ASB, 2005). The research study aims to investigate the differences in reaction of the users of annual reports to qualitative and quantitative disclosure of customer satisfaction in the annual reports.

A number of financial reporting and auditing research studies (Bagby, Kintzele and Kintzele, 1988; Courtis, 1986; Steele, 1983 and Tenyson, Ingram and Dugan, 1990; Birnberg 1964; Boritz, Gaber and Lemon, 1987; Chesley 1979, 1985; Smith, 1999; Wallsten, Budescu and Zwick, 1993; Stone and William, 1994 and Moonitz, 1961) reviewed in Section 6.2 provided evidence of decision makers' preference for quantitative information as compared to qualitative information as quantitative disclosure is considered more reliable than qualitative disclosure. The reliability of quantitative disclosure in the opinion of decision makers results in more precise judgement as compared to qualitative disclosure. The decision makers as outlined in Chapter 6 were either auditors or users of annual reports who have been trained and educated to consider monetary measurement and quantitative disclosure as reliable (Boritz, 1985; Messier, 1992; Dirsmith and Haskins, 1991; Wallace, 1991). As qualitative disclosure of intangible assets is contrary to the education, training and experience of users of annual reports, the users of annual reports may not consider qualitative disclosure as reliable. Fuzzy Trace Theory (Reyna and Brainerd, 1995 and 1998), reviewed in Chapter 6, also states that to make complex decisions quantitative information may be required. Investment decisions made by users of annual reports are complex decisions and users of annual reports may prefer quantitative information as more reliable and essential in making complex investment decisions. Fuzzy Trace Theory also states that for an optimal decision presentation of information qualitative or quantitatively should not make any difference but this is not true in case of users of annual reports as suggested by the experimental findings discussed in this section. For the users of annual reports the format of disclosure is important. They consider quantitative information to be more reliable than qualitative information.

Even though the research studies reviewed in Chapter 3 advocate qualitative and quantitative disclosure of intangible assets but as illustrated by the results of the testing of the experimental instrument (see Table 10.17 and Table 10.18 a to 10.18d) the users of annual have more confidence in quantitative information as compared to qualitative disclosure. The literature review discussed in Chapter 6 as already outlined in this Section also provide evidence of preference for quantitative information as compared to qualitative information as decision makers consider quantitative information to be more reliable. This is an important research finding. Even though research reports reviewed in Chapter 3 stated that intangible assets may be reported quantitatively or qualitatively (Kaplan and Norton, 1992 and 1996; FASB, 2001; SEC, 2001, ASB, 2005, GRI, 2002), if the users of annual reports prefer quantitative information then policy makers need to concentrate on development of quantitative measures. The preparers of annual reports as discussed in Chapter 9 also were of the opinion that quantitative disclosure is more reliable than qualitative disclosure. One of their main reservations regarding disclosure of customer satisfaction in the annual reports was the qualitative nature of customer satisfaction disclosure.

This research has provided preliminary evidence that the users and preparers of annual report prefer quantitative disclosure as compared to qualitative disclosure. The important issue is that intangible assets like customer satisfaction need to be reported in the annual reports to address the declining relevance and decision usefulness of annual reports but an equally important issue is that the disclosure should be made in the format that is relevant to the users. Quantitative disclosure of customer satisfaction as outlined by the results of the testing of the experimental instrument is providing relevant information to the users of annual reports. It is important that policy makers and preparers of annual reports appreciate this finding and come up with suggestions that facilitate the provision of relevant information relating to intangible assets to users of annual reports.

This suggestion is also important in view of the *ex-ante* nature of customer satisfaction disclosure in the annual reports. Customer satisfaction disclosure as outlined in Chapter 8 is almost non-existent in the annual reports of Irish companies (see 8.3.2). The disclosure is relevant and this research based on the research findings in Chapters 9 and 10 have provided preliminary evidence of relevance of customer satisfaction disclosure to users of annual reports. If a disclosure is relevant but not being currently included in the annual reports then the question is how should it be disclosed? In Chapter 3 it was stated that rigorous experiments with regards to disclosure of intangible assets like customer satisfaction in the annual reports should be undertaken (AICPA, 1994; SEC, 2001, FASB, 2001) to come up with suggestions for disclosure of intangible assets like customer satisfaction in the annual reports. This research precisely does that and in doing that involves the users and preparers of annual reports. The conclusion it reaches is that users consider quantitative disclosure to be more reliable as compared to qualitative disclosure. This research finding will be discussed in Chapter 11 with investment analysts and also in Chapter 12 where conclusion and recommendations of the current research will be discussed.

10.6 Conclusions

The main aim of this chapter was to explore the results of the experimental testing of the research questions and research hypotheses outlined in Chapters 2 and 3 to 6. The research questions and hypotheses were designed to answer the main research questions namely why and how should customer satisfaction be disclosed in the annual reports.

It was stated in Chapter 2 that customer satisfaction may be disclosed in the annual reports if it can be empirically proved that the customer satisfaction has a positive relationship with the financial performance of the company and the disclosure of customer satisfaction provides relevant information to the users of annual reports (Leadbetter, 1999 and 2000). The empirical evidence of positive relationship between customer satisfaction and the financial performance of the company was discussed in Chapter 2 (Agus, Latifah and Kadir, 2000; Bernhardt, Donthu and Kennett, 2000; Rust and Zahorik 1993; Storbacka, Starndvik and Gonroos, 1994). It was thus stated in Chapter 2 that one of the main aims of the research study is to assess the relevance of customer satisfaction disclosure to the users of annual reports. Research hypotheses for assessing the relevance of customer satisfaction disclosure to the users of annual reports were outlined in Section 10.2. These research hypotheses were tested by means of an experimental instrument discussed in Chapter 8. The results of the testing of the research instrument discussed in Section 10.2 provide preliminary evidence of relevance of customer disclosure to the users of annual reports. This is an important research finding.

The importance of this research finding is enhanced when the main conclusions of Chapter 9 are also taken into consideration. In Chapter 9 the interviews with preparers of annual reports conducted for the purpose of obtaining their opinion on the experimental instrument were discussed. One of the main conclusions of Chapter 9 was that the preparers of annual reports despite reservations regarding disclosure of customer satisfaction in the annual reports were of the opinion that customer satisfaction disclosure provides relevant information to the users of annual reports. The results of the testing of the experimental instrument also provide preliminary evidence of relevance of customer satisfaction disclosure to the users of annual reports. It can thus be concluded that in view of the preliminary evidence of relevance of customer satisfaction disclosure to the users of annual reports and empirical evidence of positive relationship between customer satisfaction and financial performance of a company discussed in Chapter 2 a case exists for inclusion of customer satisfaction in the annual reports. This is an important research finding. The declining relevance of annual reports may be increased by inclusion of intangible assets like customer satisfaction that provide relevant information to the users of annual reports. Policy makers need to explore this research finding so as to come up with policies for disclosure of customer satisfaction in the annual reports.

One of the main aims of this research study as stated earlier in this Section is to answer the research question regarding how customer satisfaction should be disclosed in the annual reports. A framework for reporting customer satisfaction was outlined in Figure 3.3. The framework suggests that 'externally' or 'internally generated' measures of customer satisfaction may be reported qualitatively or quantitatively in the annual reports. The information about the customer satisfaction measures may be positive or negative. Research hypotheses for assessing the reaction of the users of annual reports to these six types of disclosures of customer satisfaction were outlined in Chapters 4 to 6. The results of the testing of the research hypotheses outlined in Chapters 4 to 6 are discussed in Sections 10.3 to 10.5.

The main aim of the research hypotheses outlined in Chapter 4 was to assess the reaction of the users of annual reports to disclosure of 'externally generated' and 'internally generated' measures of customer satisfaction. The results of the testing of research hypotheses H2a to H2d do not result in any statistically significant results. Even though experimental subjects had more confidence in the assessment of financial performance, investment risk and share price when subjective 'externally generated' measures of customer satisfaction like customer satisfaction surveys were disclosed in the annual reports as opposed to when objective 'internally generated' measures of customer satisfaction like performance indicators were disclosed in the annual reports yet the results are not statistically significant and thus can not be used to draw any concrete conclusions.

The research reports reviewed in Chapter 3 had stated that the disclosure of intangible assets should be balanced, thus positive as well as negative information about customer satisfaction should be included in the annual reports (FASB, 2001; SEC, 2001; ASB, 2005). The main aim of the research hypotheses H3a to H3l outlined in Chapter 5 was to assess the reaction of the users of annual reports to disclosure of positive and negative customer satisfaction information in the annual reports. It can be concluded from the discussion in Section 10.4 that the users of annual reports react adversely to disclosure of negative customer satisfaction as compared to disclosure of positive customer satisfaction in the annual reports. The experimental results are in consistence with the findings of the literature review discussed in Chapter 5 and briefly outlined in Section 10.4 where it was stated that decision makers react positively to positive news and negatively to negative news. This research finding has an important implication. Even though the research reports reviewed in Chapter 3 had stated that a balanced approach towards reporting intangible assets in the annual reports should be undertaken the preparers of annual reports as discussed in Chapter 9 were averse to the idea of inclusion of negative customer satisfaction information in the annual reports. They feared that negative customer satisfaction information will negatively affect the investors' assessment of the company. The experimental results provide evidence that negative customer satisfaction information results in negative assessment of the company as investors react negatively to negative customer satisfaction information in the annual reports. The important issue thus is that negative customer satisfaction information provides relevant information to users of annual reports and it can not be excluded from annual reports only because it negatively affects the assessment of the company. The fact that it affects decision making is a very good reason for its inclusion in the annual reports. The fact however also is that preparers will not be appreciative of the inclusion of negative information in the annual reports. The policy makers need to seriously consider this research finding. The concealment strategy adopted by the preparers of annual reports may be resulting in exclusion of relevant information from the annual reports. The disclosure of customer satisfaction is voluntary but the policy makers may have to look towards other options to ensure that a balanced approach is adopted towards disclosure of intangible assets in the annual reports. This research finding will be further explored in Chapters 11 and 12.

It was stated in Chapter 3 that intangible assets may be disclosed qualitatively or quantitatively in the annual reports. The research hypotheses H4a to H4d suggested in Chapter 6 aim to assess the reaction of the users of annual reports to qualitative and quantitative disclosure of customer satisfaction in the annual reports. The results of the testing of the research hypotheses by means of an experimental instrument were discussed in Section 10.5. It was concluded in Section 10.5 that the users of annual reports have more confidence in quantitative disclosure of customer satisfaction in the annual reports as opposed to qualitative disclosure of customer satisfaction in the annual reports. This important research finding is in consistence with the findings of the literature review discussed in Chapter 6 and restated in Section 10.5 where it was stated that quantitative information is preferred to qualitative information as it is considered more reliable and precise by decision makers. It can thus be concluded that even though the research reports reviewed in Chapter 3 state that intangible assets may be reported qualitatively or quantitatively, users of annual reports as illustrated by experimental results findings discussed in this Chapter are not appreciative of qualitative disclosure of intangible assets. It was stated in Chapter 9 that the preparers of annual reports also preferred quantitative disclosure of customer satisfaction in the annual reports. It can thus be concluded that policy makers should concentrate on development of quantitative performance measures for reporting intangible assets like customer satisfaction in the annual reports.

To conclude this chapter, the current research by using experiment as the main research method and adopting a user orientation approach has outlined some relevant suggestions for policy makers. The preliminary evidence of relevance of customer satisfaction disclosure is discussed. It is also stated with evidence that policy makers need to concentrate on development of relevant quantitative measures of disclosure of customer satisfaction in the annual reports. The policy makers also need to ensure that a balanced approach towards reporting customer satisfaction in the annual reports is undertaken. This is the contribution of the present research. The next chapter discusses the results of the interviews conducted with the users of annual reports to discuss the findings of the testing of the research hypotheses by means of an experimental instrument discussed in this Chapter. This will help in formulating conclusions and recommendations in Chapter 12.

Chapter Eleven

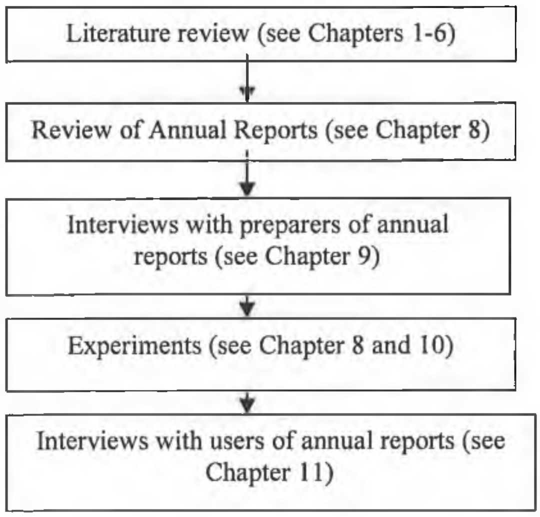
Interviews with users of Annual Reports

11.1 Introduction

The research approach adopted in this research study for testing the research hypotheses was outlined in Chapter 7. The main research methods were thus discussed in Chapter 7. The graphical illustration of the research methods used in this research study outlined in Chapter 7 is reproduced in Figure 11.1.

Figure 11.1

Research Methodology



It can be concluded from the above figure that a number of research methods have been used in this research study. The research aims to analyse the behaviour of the users of annual reports in the context of the possibility of disclosure of customer satisfaction in the annual reports as well as towards different types of customer satisfaction disclosures in the annual reports so as to answer the main research questions that why and how customer satisfaction should be disclosed in the annual reports. This is a behavioural research study and as outlined in Chapter 7 triangulation in behavioural research has been emphasised so as to conduct an in-depth examination of the problem under consideration (Khalik, 1994; Maines, 1994). Quantitative research methods like experiments introduce an element of rigour to a research by determining the factors which influence certain behaviour and the extent and direction of their influence (Dyckman, Hoskin, and Swieringa, 1982). Qualitative research methods like interviews on the other hand are helpful in conducting an in-depth investigation into the factors which influence behaviour and the extent and direction of this influence (Myers, 1971).

The main aim of this chapter is to discuss the main findings of the interviews conducted with investment analysts in their role as users of annual reports for obtaining their opinion on the results of the testing of the experimental instrument. The discussion of the testing of the experimental instrument in Chapter 10 identifies the factors which influence the behaviour of the users of annual reports to the possibility of disclosure of customer satisfaction as well as the factors which influence the behaviour of the users of annual reports to react differently to different types of customer satisfaction disclosure in the annual reports. Having found in Chapter 10, that the disclosure of customer satisfaction has an influence on decision making, and that different disclosures of customer satisfaction result in different reactions depending on how such disclosure is framed, a further, in-depth investigation of the factors which influence the behaviour of the users of annual reports towards customer satisfaction disclosures by means of interviews is undertaken (as suggested by King, 1994). It can thus be concluded that whereas the testing of the experimental instrument provided helpful evidence in Chapter 10 in the context of the research hypotheses, interviews with investment analysts in their role as users of annual reports discussed in this Chapter will help provide additional evidence regarding the test results thus increasing the reliability and relevance of the experimental results. This chapter is divided into five sections. The current section is the introductory section. Section 11.2 outlines the process undertaken to select the interviewees as well as the characteristics of the interviewees. Section 11.3 critically reviews the interview guide and the process employed to review the interviews. Section 11.4 analyses the interview findings. Section 11.5 is a conclusion to this chapter.

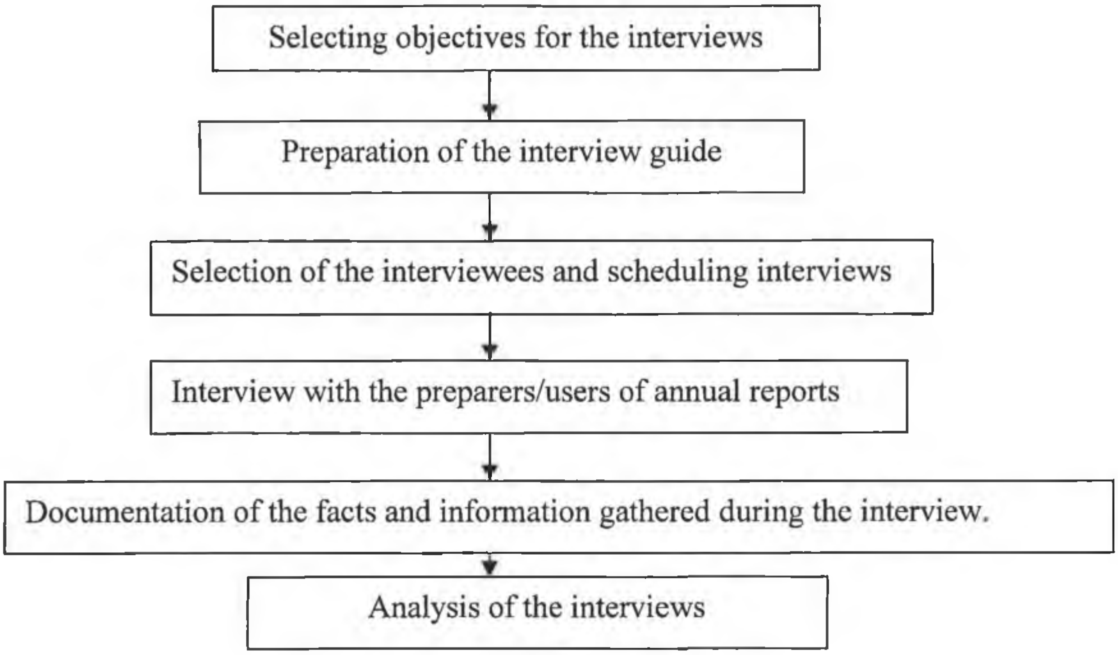
11.2 The interview process

As discussed in Chapter 7, the flexible and participatory nature of interviews make them the most challenging and rewarding research method as they help in gathering information and obtaining an in-depth practical understanding of the research area (Howard and Peters, 1990). Interviews are useful in obtaining the opinion of the interviewee about the real life experiences of the interviewees with respect to their interpretation of the meaning of the phenomena under consideration, thus enabling the interviewer to develop a strong understanding of real life situations regarding the problem under consideration (Kvale, 1996; Howard and Peters, 1990 and Humberman, 1994).

The problem under consideration in this research study is exploring the possibility of disclosure of customer satisfaction in the annual reports. This is an *ex-ante* research area as the instance of disclosure of customer satisfaction in the annual reports is rare and different customer satisfaction disclosures do not readily occur in natural settings. It is important to obtain the opinion of the users and preparers of annual reports about the possibility of reporting an intangible asset like customer satisfaction in the annual reports. The use of interviews helps obtain the perspective of the users and preparers of annual reports about the possibility of disclosure of customer satisfaction in the annual reports. This will enrich the findings of the research study and help in formulation of recommendations in Chapter 12. A semi-structured interview style was used for conducting interviews with the users of annual reports (King, 1994; Converse and Schuman, 1974; Denzin, 1989 and Kahn and Cannell, 1957). The interview process undertaken for the purpose of the research study outlined in Figure 7.3 is reproduced in Figure 11.2. The main objective of this Section is to briefly discuss each step of the interview process.

Figure 11.2

Interview Process



11.2.1 Selecting the objectives of the interviews

As stated in Section 11.1, the main objective of the interviews with investment analysts was to obtain the opinion of the investment analysts in their role as users of annual reports about the results of the testing of the experimental instrument discussed in Chapter 10.

11.2.2 Designing an Interview Guide

The main aim of the interview guide as outlined in Chapter 9 is to outline rules and questions for ensuring that the interview achieves its objectives (Howard and Peters, 1990; King, 1994). As explained in Chapter 9, the interview guide provides the structure to the interviews thus ensuring that the focus remains on the interview objectives. An interview guide was thus designed for conducting interviews with the users of annual reports after finalising the interview objectives. An interview guide also outlines the interview questions. The finalisation of the interview questions was a simple task as the approach adopted in the interviews with investment analysts was to outline the research hypotheses and the results of the testing of the research hypotheses at the beginning of the interview. The investment analysts were given a copy of the research hypotheses and the results of the testing of the research hypotheses. They were given five to ten minutes to review the research hypotheses and the results of the testing of the research hypotheses. If they had any questions, they were answered. Once they had reviewed the research hypotheses and the results, they were asked to comment on the results. As a result of the comments by the investment analysts if there were any clarifications required or any further information required, the investment analysts were asked questions. This approach was adopted as the main objective of the interview guide was to obtain the opinion of the investment analysts about the results of the testing of the research instrument discussed in Chapter 10.

11.2.3 Selection of the interviewees and the scheduling of interviews

Once the interview objectives and interview guide for the interviews with investment analysts in their role as users of annual reports were finalised; stock broking firms located in Dublin were contacted by means of telephone calls to their human resources departments. Six firms – namely Davy Stockbrokers, Goodbody Stockbrokers, Merrion Stockbrokers, Bloxhams Stockbrokers, Merryl Lynch and Pioneer Investment – agreed to participate in the research study. The remainder did not participate in the research study for a number of reasons for example, small size, time constraints and official policy.

The human resource departments of the stock broking firms who had agreed to participate in the research study were sent letters outlining the major details of the research study as well as the interview objectives. The letters were followed up with call/calls in the next two weeks and by email if necessary. Eight investment analysts of these six stock broking firms agreed to participate in the research study by agreeing to an interview.

The interviews were conducted during the month of June 2004. All the interviews were face-to-face interviews. This approach was considered essential as the results and the research instrument were to be discussed that might require clarifications. Table 11.1

outlines the names of the person interviewed, the dates, the time and the names of the companies.

Table 11.1 Names of interviewees

Name of company	Name of the person interviewed	Designation	Date of the interview	Type of interview	Mode of documentation
Goodbody Stockbrokers	Bernard Snow	Investment Analyst	18th June 2004	Face to face	Recorded
Davy Stockbrokers	Jack Gorman	Investment Analyst	5th June 2004	Face to face	Recorded
Davy Stockbrokers	James Furlong	Investment Analyst	5th June 2004	Face to face	Recorded
Merrion Stockbrokers	John Mattimoe	Investment Analyst	7th June 2004	Face to face	Recorded
Goodbody Stockbrokers	Neil Clifford	Investment Analyst	13th June 2004	Face to face	Notes taken
Bloxhams Stockbrokers	Peter Jackson	Investment Analyst	4th June 2004	Face to face	Recorded
Meryll Lynch	Sean McFlannagan	Investment Analyst	15th June 2004	Face to face	Recorded
Pionner Investment	Niamh Brodie	Investment Analyst	1st June 2004	Face to face	Recorded

The interview started with a personal introduction followed by a brief outline of the research study. Permission was obtained from the interviewees to record the interview as well as to use the name and interview data for use in the research study. The actual interview was conducted after obtaining permission to start the interview. The approach taken in the interview with the investment analysts was outlined in Section 11.2.2. The interview concluded by summarising the opinion of the investment analysts on the testing of the experimental instrument and asking the interviewee if he/she wanted to add something or ask any questions.

The interview process was guided by the rules contained in the interview guide. The time frame for the interview was 20 to 30 minutes and, in view of the tight schedule of the interviewees, this time frame was strictly adhered to. Notes were taken during the interview but the interviews were also recorded if the interviewee did not have any objections to recording the interviews. As outlined in Table 11.1, only one of the eight interviewees – namely Mr. Neil Clifford – expressed a reluctance to have the interview recorded. Thus notes were taken during the interview and the interview was emailed to the interviewee so that any discrepancy/discrepancies could be rectified. The next sub section outlines the process adopted for documenting facts and information gathered during the interview.

11.3.4 Documentation of the facts and information gathered during the interview.

The interviews were recorded and were transcribed the day that they were recorded.

11.3.5 Analysis of interviews

The importance of analysis of interviews was explained in Chapter 9. It was also outlined in Chapter 9 that thematic analysis – a branch of content analysis – was used to analyse the interviews. Thematic analysis (Benner, 1985; Leininger, 1985; Taylor and Board, 1984) explained in Chapter 9.5.2 was also used to analyse the interviews of the investment analysts (for an explanation of thematic analysis see Chapter 9). The analysis of interviews with investment analysts was straight forward as the main aim was to find out the opinion of the investment analysts about the results of the testing of the experimental instrument. The results of the analysis of the interview findings are discussed in the next section.

11.3 Analysis of interviews – discussion

The discussion of the interview findings analyses the opinion of the investment analysts in their role as user of annual reports on the results of the testing of research hypotheses discussed in Chapter 10. The discussion is divided into four sections. Section 11.3.1 analyses the opinion of investment analysts on the results of testing of research hypotheses H1a to H1h. Section 11.3.2 reviews the opinion of investment analysts in their role as user of annual reports on the results of testing of research hypotheses H2a to H2d. Section 11.3.3 examines the opinion of investment analysts on the results of testing of research hypotheses H3a to H3l. Section 11.3.4 reviews the opinion of the users of annual reports on the results of testing of research hypotheses H4a to H4d.

11.3.1 Exploration of the Research Hypotheses H1a to H1d

Research hypotheses H1a to H1h proposed in Section 10.2 for assessing the relevance of customer satisfaction disclosure to the users of annual reports were tested by means of an experimental instrument (see Chapter 8) and the results of the testing of the experimental instrument were discussed in Chapter 10. The results of the testing of the research hypotheses are outlined in Table 11.2.

Table 11.2: Results of the testing of research hypotheses H1a to H1h

H1a	The disclosure of customer satisfaction in the annual reports will result in significantly ($\leq$ .05) different assessments of the financial position of the reporting entity.	Supported by the experimental findings
H1b	The disclosure of customer satisfaction in the annual reports will result in significantly different ($\leq$.05) assessments of the financial performance of the reporting entity.	Not supported by the experimental findings
H1c	The disclosure of customer satisfaction in the annual reports will result in significantly different ($\leq$.05) assessments of risk of investing in the reporting entity.	Not supported by the experimental findings
H1d	The disclosure of customer satisfaction in the annual reports will result in significantly different ($\leq$.05) assessments of the share price of the reporting entity.	Supported by the experimental findings
H1e	The disclosure of customer satisfaction in the annual reports will result in significantly different ($\leq$.05) levels of confidence in the assessment of the financial position of the reporting entity.	Not supported by the experimental findings
H1f	The disclosure of customer satisfaction in the annual reports will result in significantly different ($\leq$.05) levels of confidence in the assessment of the financial performance of the reporting entity.	Not supported by experimental findings
H1g	The disclosure of customer satisfaction in the annual reports will result in significantly different ($\leq$.05) levels of confidence in assessment investment risk of the reporting entity.	Not supported by the experimental findings
H1h	The disclosure of customer satisfaction in the annual reports will result in significantly different ($\leq$.05) levels of confidence in the assessment of the share price of the reporting entity.	Supported by the experimental findings

The results outlined in Table 11.2 provide preliminary evidence of relevance of customer satisfaction disclosure to users of annual reports. These above research findings were discussed with the investment analysts. They were not shocked with the research findings. They were of the opinion that customer satisfaction disclosure provides relevant information to users of annual reports as customer satisfaction disclosure is useful in the long term evaluation of the company.

> "Customer satisfaction is important, it provides relevant information. The results show that. It does have an affect on the performance of the company. It helps in decision-making but I do not think it can ever be possible to include it in the annual reports. I do not think this can be done with any of the intangible assets. It is very hard to even visualise valuing intangibles and including them in the annual reports. I do know that customer satisfaction is measured in Ireland but I do not think so that companies even try to include them in the annual reports because they are so qualitative, sensitive and subjective." (Interview with Jack Gorman, investment analyst at Davy Stockbrokers)

Even though the investment analyst interviewed here is of the opinion that customer satisfaction disclosures provide relevant information, he is not keen to support the idea of inclusion of customer satisfaction disclosure in the annual reports. Investment analysts interviewed for the purpose of this research had same reservations as expressed by the preparers of annual reports discussed in Chapter 9 regarding the subjectivity and qualitative nature of customer satisfaction disclosure in the annual reports.

> "Irish companies do worry about customer satisfaction and they think it is useful for the value of the company but they will not disclose it in the annual reports as they worry about the affect of such a disclosure on the assessment of the company especially the affect of negative disclosure. (Interview with Jack Gorman, investment analyst at Davy Stockbrokers).

The investment analyst like the preparers of annual reports (see Chapter 9) has apprehensions about the negative impact of negative customer satisfaction disclosure on the assessment of the company. This is interesting. He is of the opinion that customer satisfaction disclosure has value to the company but its negative disclosure might have an adverse impact on the assessment of the company, thus it need not be included in the annual report. On one hand the investment analyst accepts that customer satisfaction disclosure provides relevant information, on the other hand he does not want the relevant information to be included in the annual report. It can be stated that relevant information is thus being withheld from the users of annual reports.

It can be concluded from the discussion in this Section that despite acceptance of relevance of customer satisfaction disclosure to users of annual reports, the investment analysts like the finance directors in Chapter 9 have apprehensions about qualitative and subjective nature of customer satisfaction disclosures as well as the impact of negative customer satisfaction disclosure on the assessment of the company. There is an urgent need to report those intangible assets in the annual reports that provide relevant information to the users of annual reports to address the issue of declining relevance and decision usefulness of annual reports (Amir and Lev, 1996; Jenkins, 1994; Lev and Zarowin, 1999; Eccles and Mavarinac, 1995; Grojer and Johanson, 2000 and Elliot, 1992). In Chapters 9 to 11 evidence of relevance of customer satisfaction disclosure to users of annual reports has been provided by interviews with users and preparers of annual reports as well as the testing of the experimental instrument. Despite this relevance, users and preparers of annual reports have reservations about customer satisfaction disclosure in the annual reports.

These reservations can be conceptualised as 'politics of intangible assets' (see Chapter 2 for explanation). Disclosure of customer satisfaction in the annual reports challenges the status quo as it involves development of new measurement techniques and disclosures (Lev, 2001; Lee, 1989). The preparers and users of annual reports are not willing to experiment with new measurement techniques. The reservations raised by the preparers and users of annual reports however raise the question that by withholding information about customer satisfaction, are the preparers not withholding relevant useful information from the users of annual reports? Relevant information as already discussed in Chapter 2 is information that provides useful information for making decisions (ASB, 1999). Decision making, as stated in Chapter 2, is one of the main functions of financial reporting (ASB, 1999). Reservations about the measurement of customer satisfaction disclosure or negative disclosure of customer satisfaction in the annual reports can be addressed by the involvement of users and preparers of annual reports in the development of appropriate measurement techniques. However, the exclusion of relevant information is potentially harmful for decision usefulness, relevance and the credibility of annual reports. The need of the hour is not to reject the possibility of disclosure of intangible assets like customer satisfaction in the annual reports but to experiment with preferred disclosures of those intangible asset that provide relevant information to users of annual reports (AICPA, 1994; FASB, 2001; ICAEW, 2001).

It can be concluded from discussions in Chapter 9, 10 and in this Section that despite reservations of users and preparers of annual reports customer satisfaction disclosure is considered relevant. This is important. Beattie (2000) states that a researcher's responsibility is only to outline a relevance of a disclosure, after that it is up to the policy makers to come up with recommendations regarding disclosure of an intangible asset. This research has provided preliminary evidence of relevance of customer satisfaction. This preliminary evidence will be explored further in Chapter 12 when recommendations for policy makers are suggested. The next section explores the opinions of investment analysts in their role as users of annual reports on the results of testing of research hypotheses H2a to H2d.

11.3.2 Exploration of Research Hypotheses H2a to H2d

The framework outlined in Figure 3.3 for reporting customer satisfaction in the annual reports had suggested that customer satisfaction may be reported by means of 'externally generated' or 'internally generated' performance measures. The results of the testing of the research hypotheses suggested in Chapter 4 for assessing the differences in reaction to disclosure of externally and internally generated measures of customer satisfaction in the annual reports by means of the experimental instrument were discussed in Chapter 10. The research hypotheses and the results of the testing of research hypotheses H2a to H2d are outlined in Table 11.3

Table 11.3

Results of the testing of research hypotheses H2a to H2d

H2a	Disclosure of 'internally generated' measure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of the financial position of the reporting entity as compared to disclosure of 'externally generated' measure of customer satisfaction in the annual report of an entity.	Not supported by the experimental findings – the mean of 'internally generated' disclosure group is higher than the mean of 'externally generated' disclosure group but the differences are not statistically significant.
H2b	Disclosure of 'internally generated' measure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of financial performance of the reporting entity as compared to disclosure of 'externally generated' measure of customer satisfaction in the annual report of an entity.	Not supported by the experimental findings- the mean of 'externally generated' measure disclosure group is higher than 'internally generated' measure disclosure group but the differences are not statistically significant.
H2c	Disclosure of 'internally generated' measure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of investment risk of the reporting entity as compared to disclosure of 'externally generated' measure of customer satisfaction in the annual report of an entity.	Not supported by the experimental findings- the mean of 'externally generated' measure disclosure group is higher than 'internally generated' measure disclosure group but the differences are not statistically significant.
H2d	Disclosure of 'internally generated' measure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of share price of the reporting entity as compared to disclosure of 'externally generated' measure of customer satisfaction in the annual report of an entity.	Not supported by the experimental findings- the mean of 'externally generated' measure disclosure group is higher than 'internally generated' measure disclosure group but the differences are not statistically significant.

It can be concluded from Table 11.3 that the results of the testing of the research hypotheses have not resulted in statistically significant findings. Even though experimental subjects in their role as users of annual reports have indicated a preference for 'externally generated' measures of an intangible asset like customer satisfaction as opposed to 'internally generated' measures of intangible asset like customer satisfaction in the annual reports but due to the absence of significant findings no concrete conclusion can be drawn from the testing of the research hypotheses. The investment analysts in their role as the users of annual reports were thus asked to comment on the above research findings. The investment analysts were surprised at the higher mean of externally generated measure disclosure group (H2b to H2d) as in their opinion ‘externally generated’ measures were less reliable as compared to ‘internally generated’ measures.

> “Would we use customer surveys? Not really is the answer. Companies use surveys but in annual reports there is no place for a survey. It is subjective and subjective information has no place in annual reports. We look more for what we call objective data like what you call ‘internally generated’ measures ..... rather than using surveys where you do not know the quality of the survey, do not know the quality of the company that has done the survey. So we kind of feel that it is not kind of objective enough data and the linkage between it and how the company has performed consequently and how we can form a judgement about how the company will perform is weak.” (Interview with Bernard Snow, investment analyst at Goodbody Stockbrokers)

It can be inferred from the above quotation that the investment analyst have more confidence in ‘internally generated measures’ as compared to ‘externally generated measures’ as surveys are considered subjective information and internally generated measures are considered objective information. It was discussed in Chapter 4 that ‘internally generated measures’ may be preferred to ‘externally generated measures’ as they are considered more reliable and free from biases and perceptual defects (e.g., Feldman, 1981; Heneman, 1986; Campbell, 1990; Hoskisson, Hitt, Johnson and Douglas, 1993; Dess and Robinson, 1984). It was thus hypothesised in Chapter 4 that users of annual reports will have more confidence in ‘internally generated’ objective measures as compared to ‘externally generated’ subjective measures.

A very interesting comment was made by another investment analyst:

> “Certainly if you have an independent consumer survey which is completely independent like you say Gallup or something like that if you have a

> huge survey where they say we interviewed 15,000 people and then tell you who the people were then that certainly would be a reliable customer satisfaction survey and an investor would say yes, this is an independent survey. It would have more value to an investment decision you know. It is some information that the investor would take into account and now I cannot say that how much into account and how much would it affect the investment decision but it would." (Interview with Peter Jackson, investment analyst at Bloxhams Stockbrokers)

It can be inferred from the above comment that there is an appreciation of customer satisfaction surveys. The investment analyst quoted is willing to take into consideration an independent customer satisfaction survey while making an investment decision. This is precisely what the research study is exploring. The research study does not aim to dispute the importance of reliable information in the annual reports. Reliable information is as important as relevant information but it is time that reliability is not used as a scapegoat to exclude relevant information relating to intangible assets. The need of the hour is to concentrate on assessing user needs and then developing measures for reporting intangible assets in the annual reports according to user needs. If users prefer subjective disclosure of intangible assets like customer satisfaction in the annual reports then policy makers and preparers of annual reports need to concentrate on development of reliable subjective measures for reporting intangible assets in the annual reports.

11.3.3 Exploration of Research Hypotheses H3a to H3l

In order to answer the research question that how customer satisfaction should be disclosed in the annual reports a framework for reporting customer satisfaction was proposed in Chapter 3. One of the recommendations of the framework was that a balanced approach should be adopted in reporting customer satisfaction in the annual reports i.e. positive as well as negative customer satisfaction information should be reported in the annual reports. Research hypotheses for assessing differences in reaction of the users of annual reports to disclosure of positive and negative customer satisfaction information in the annual reports were outlined in Chapter 5. The research hypotheses and the results of the testing of the research hypotheses are outlined in Table 11.4.

Table 11.4 - Results of testing of research hypotheses H3a to H3l

H3a	A disclosure of positive customer satisfaction information results in a higher assessment of the financial position of the reporting entity than a disclosure of negative customer satisfaction information.	Supported by the experimental findings.
H3b	A disclosure of positive customer satisfaction information results in a higher assessment of the financial performance of the reporting entity than a disclosure of negative customer satisfaction information.	Not supported by the experimental findings – the mean of positive group is higher than negative group but the differences are not statistically significant.
H3c	A disclosure of positive customer satisfaction information results in a lower assessment of the investment risk of the reporting entity than a disclosure of negative customer satisfaction information.	Supported by the experimental findings.
H3d	A disclosure of positive customer satisfaction information results in a higher assessment of the share price of the reporting entity than a disclosure of negative customer satisfaction information.	Supported by the experimental findings.
H3e	Assessments of the financial position of a firm reporting positive customer satisfaction information will not be significantly higher than the financial position of a firm not disclosing customer satisfaction in the annual reports.	Supported by the experimental findings
H 3 F	Assessments of the financial performance of a firm reporting positive customer satisfaction information will not be significantly higher than the financial performance of a firm not disclosing customer satisfaction in the annual reports.	Supported by the experimental findings
H3g	Assessments of the investment risk of a firm reporting positive customer satisfaction information will not be significantly lower than the investment risk of a firm not disclosing customer satisfaction in the annual reports.	Supported by the experimental findings
H3h	Assessments of the share price of a firm reporting positive customer satisfaction information will not be significantly higher than the share price of a firm not disclosing customer satisfaction in the annual reports.	Supported by the experimental findings

H3i	Assessments of the financial position of a firm reporting negative customer satisfaction information will be significantly lower than the financial position of a firm not disclosing customer satisfaction in the annual reports.	Not supported by the experimental findings – the mean of negative customer satisfaction information group is less than the control group but the differences are not statistically significant.
H3j	Assessments of the financial performance of a firm reporting negative customer satisfaction information will be significantly lower than the financial performance of a firm not disclosing customer satisfaction in the annual reports.	Not supported by the experimental findings- – the mean of negative customer satisfaction information group is less than the control group but the differences are not statistically significant.
H3k	Assessments of the investment risk of a firm reporting negative customer satisfaction information will be significantly higher than the investment risk of a firm not disclosing customer satisfaction in the annual reports.	Not supported by the experimental findings – the mean of negative customer satisfaction information group is higher than the control group but the differences are not statistically significant.
H3l	Assessments of the share price of a firm reporting negative customer satisfaction information will be significantly lower than the investment risk of a firm not disclosing customer satisfaction in the annual reports.	Not supported by the experimental findings – the mean of negative customer satisfaction information group is less than the control group but the differences are not statistically significant at 95% significance level but are significant at 90% significance level.

The above results were discussed with the investment analysts. The investment analysts were of the opinion that the results indicating adverse reaction of the users of annual reports to negative disclosure of customer satisfaction in the annual reports is representative of a normal reaction of users of annual reports to negative disclosure of any type in the annual reports. In the opinion of the investment analysts, a negative disclosure of customer satisfaction would negatively impact the assessment of a company's economic performance measured in terms of financial position, financial performance, share price and investment risk. This is because the users of annual reports are averse to negative information in the annual reports. They over react to negative information and under react to positive information.

> "About your research findings I would say it is [the] psychology of the positive versus [the] negative that is the main thing, that affect seems to be somehow so strong that every thing else does not matter." (Interview with Bernard Snow).

It can be inferred from the above quotation that the informational value of negative information is so high that any other information is not considered while making a decision. The above comments essentially confirm the findings of the literature review discussed in Chapter 5. In discussion of the Attribute Framing Effects (Levin and Gaeth, 1988) in Chapter 5 it was stated that negative information results in unfavourable association in memory thus resulting in an unfavourable decision. Affective Reaction Model (Kida, Smith and Moreno, 2002 and Kida and Smith, 1995) was also discussed in Chapter 5 and it was stated that positive information results in positive affect and negative information results in negative affect. The role of negative affect is so strong that decision makers make their decisions based on the negative affect without taking into consideration other information like expected values etc. It can also be inferred from the above quotation that, in the opinion of the investment analysts, the affect of negative information is so strong that it results in unfavourable associations in the memory thus resulting in unfavourable evaluation of the company. The financial statements given to the experimental subjects as discussed in Chapter 8 were of a company have a steady financial growth over a period of five years but the experimental subjects nevertheless seem to be biasing their decision on the negative customer satisfaction information. This is because users of annual reports over react to a negative disclosure in the annual reports by anchoring their decision on negative information and insufficiently adjusting it for any other information in the annual reports.

As discussed in Chapter 9, because of the over reaction effect of the users of annual reports to disclosure of negative information in the annual reports, the finance directors in their role as preparers of annual reports were apprehensive about disclosing customer satisfaction information in the annual reports. They feared that if they once start disclosing customer satisfaction in the annual reports, they cannot stop disclosing customer satisfaction in the annual reports. They will thus have to report negative customer satisfaction information in the annual reports that might negatively affect assessment of company's economic performance.

> "Will a negative disclosure of customer satisfaction
> ever get to the annual report? That is the thing;

> intangibles only when they are positive find their way into the annual report. Companies in Ireland only publish good news because investment analysts do not like bad news. Annual reports are used as an opportunity to advocate how great the company is. There is no honesty in the annual reports in Ireland. This disclosure (experimental instrument) will never be in the annual report." (Interview with Neil Clifford, investment analyst at Goodbody Stockbrokers)

A similar opinion was expressed by another investment analyst.

> "Well, stock markets in Ireland do not like bad news in any case. They do not want it. We are very optimistic by nature. There is certainly no focus in terms of any company disclosing any thing negative in the annual reports or press releases or any thing like that for the most part any way and they do not disclose bad news unless and until they have to. I would be surprised if it would change in the short term to be really honest with you." (Interview with Jack Gorman, investment analyst at Davy Stockbrokers)

Some investment analysts interviewed considered disclosure of negative customer satisfaction information as more relevant and took a very cynical view of disclosure of positive customer satisfaction information in the annual reports.

> "A positive disclosure of customer satisfaction is more of a marketing tactic than any thing else….. Negative disclosure of customer satisfaction however provides relevant information to the users of annual reports. If it has a factual base like the

> disclosure in your research instrument, negative disclosure of customer satisfaction would certainly have an effect on how the company is valued. (Interview with James Furlong, investment analyst at Davy Stockbrokers)

One of the users interviewed in Chapter 9 had stated that one of the reasons for not disclosing customer satisfaction is that it would make annual reports a marketing document.

> "Our annual report is fairly standardised. It is made according to accounting standards and it fulfils the requirements of accounting standards. ..We want it to be an annual report, not a marketing document." (Finance Director of Aer Lingus)

It can be concluded from the discussion in this section that may be annual reports are used to market positive customer satisfaction information whereas when the customer satisfaction is negative this information is withheld from the users of annual reports. It was discussed in Chapter 5 that firms are keen to disclose positive proprietary information if it does not result in a loss of competitive advantage (Verrechia, 1983 and Dye, 1985). They are reluctant to release unfavourable information due to its negative effect on the share price. This results in a partial disclosure equilibrium where the firm voluntarily discloses good news provided the perceived benefits (higher market value) exceed the proprietary costs (e.g. encouraging a new entrant to enter the market in view of the lucrative nature of the market thus resulting in decreased profits or cash flow) associated with disclosure but avoids disclosure of negative proprietary news. Verrechia (1983) states that, with regard to favourable news, there is still an incentive to disclose the news even if there are high proprietary costs in the form of loss of competitive advantage but in the case of unfavourable news even very low proprietary costs result in the exclusion of negative voluntary disclosure from the annual reports.

The investment analysts in their role as user of annual reports do consider negative information as providing relevant information to the users of annual reports. They are of the opinion that preparers will not like to disclose negative information in the annual reports as negative disclosure will negatively affect the assessment of the company mainly because the psychological affect of negative information is so strong that decision makers are compelled to take that information into consideration when making a decision. This results in exclusion of negative information from the annual reports. One is compelled to ask that if negative information has an impact on decisions then is it not relevant information. If it is relevant information then are the preparers of annual of annual reports justified in depriving users of annual reports from relevant information. Is this attitude not resulting in declining relevance of annual reports? Exclusion of intangible assets was identified in Chapter 2 as one of the reasons for declining relevance and decision usefulness of annual reports. One might add that it is the exclusion of negative information relating to intangible assets that is resulting in declining relevance of annual reports. As outlined in Table 11.3, positive information does not effect investment decisions as much as negative information does.

A very important issue is that the fear of negative disclosure is resulting in the exclusion of any kind of information relating to intangible assets from annual reports. Policy makers have advocated a balanced approach towards reporting of intangible assets as outlined in Chapter 2 but is this balanced approach being pursued? Is there any inclination on the part of the preparers of annual reports to undertake that balanced approach? This research study has not found any evidence of that inclination. If there is no inclination then intangible assets will not be disclosed at all in a balanced manner or may be not disclosed in the annual reports. As stated in Chapter 10 policy makers need to look beyond recommendations and ensure firstly disclosure of intangible assets like customer satisfaction in the annual reports and secondly a balanced approach towards disclosure of intangible assets in the annual reports if they have to address the situation of declining relevance and decision usefulness of annual reports. This issue will be explored further in suggesting conclusions and recommendations in Chapter 12. The next sub section explores the opinion of the investment analysts in their role as users of annual reports on the results of testing of research hypotheses H4a to H4d discussed in Chapter 10.

11.3.4 Exploration of Research Hypotheses H4a to H4d

The framework suggested in Chapter 2 for answering the research question that how an customer satisfaction should be disclosed in the annual reports had stated that the customer satisfaction may be reported qualitatively or quantitatively in the annual reports. Research hypotheses H4a to H4d were suggested for assessing the differences in reaction of the users of annual reports to qualitative and quantitative disclosure customer satisfaction in the annual reports in Chapter 6. The research hypotheses were tested by means of an experimental instrument (see Chapter 8). The results of the testing of the research hypotheses H4a to H4d discussed in Chapter 10 are outlined in Table 11.5.

Table 11.5
Results of the testing of research hypotheses H4a to H4d

H4a	A quantitative disclosure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of financial position of the reporting entity as compared to a qualitative disclosure.	Not supported by the experimental findings
H4b	A quantitative disclosure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of financial performance of the reporting entity as compared to a qualitative disclosure.	Not supported by the experimental findings
H4c	A quantitative disclosure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of investment risk of the reporting entity as compared to a qualitative disclosure.	Supported by the experimental findings
H4d	A quantitative disclosure of customer satisfaction in the annual report of an entity results in higher confidence in the assessment of share price of the reporting entity as compared to a qualitative disclosure.	Supported by the experimental findings

It can be concluded from the above table that experimental subjects in their roles as users of annual reports prefer quantitative disclosure of customer satisfaction in the annual reports. The investment analysts were also of the opinion that the results of the testing of the research hypotheses were in affirmation with the usual preference of users of annual reports. Users of annual reports prefer quantitative disclosure to qualitative disclosure.

> "The results are not surprising at all. The more you can pin down on the nice quantitative stuff the better…... All the time what analysts are trying to

> do is to analyse the company in numerical form, to bring the company out in the numerical form. I would always be more confident with numbers because you can benchmark them across the years or across the industries also. Over here you have this trend over the last five years so you can see how this company is doing and you can also benchmark it against the competitors." (Interview with Bernard Snow, investment analyst at Goodbody Stockbrokers)

It can thus be concluded that investment analysts consider the experimental results as manifestation of the real word behaviour of users of annual reports. Users of annual reports prefer quantitative information to qualitative information. In Chapter 9, during the interviews with the preparers of annual reports it was concluded that quantitative disclosure is preferred to qualitative disclosure. The results of the testing of the research instrument also provide evidence that quantitative disclosure is preferred to qualitative disclosure. This is consistent with the findings of the literature review as discussed in Chapter 6 (Wallsten, Budescu and Zwick, 1993; Stone and William, 1994; Stone and Dilla, 1994; Boritz, 1985; Messier, 1992; Dirsmith and Haskins, 1991; Wallace, 1991). It was stated in Chapter 6 that as users and preparers of annual reports may consider quantitative information as the hard data that is the substance of financial disclosure (Bagby, Kintzele and Kintzele, 1988; Courtis, 1986; Steele, 1983; Birnberg 1964; Tenyson, Ingram and Dugan, 1990; Boritz, Gaber and Lemon, 1987; Chesley 1979, 1985; Smith, 1999 and Moonitz, 1961). It can be concluded that users and preparers both prefer quantitative disclosure as compared to qualitative disclosure. It is thus recommended that the policy makers should concentrate on development of quantitative measures for reporting customer satisfaction in the annual reports.

11.4 Conclusion

The main aim of this chapter was to discuss the findings of the interviews conducted with the investment analysts in their role as users of annual reports. The interviews with investment analysts aimed to obtain the opinion of the investment analysts in their role as users of annual reports on the results of the testing of research hypotheses discussed in Chapter 10.

One of the main aims of this research study is to answer the research question that why customer satisfaction should be disclosed in the annual reports. It was stated in Chapter 2 that if customer satisfaction disclosure in the annual reports provide relevant information to the users of annual reports then it should be disclosed in the annual reports. For assessing the relevance of customer satisfaction disclosure to the users of annual reports research hypotheses H1a to H1d were proposed in Section 10.2. The research hypotheses were tested by means of an experimental instrument (see Chapter 8). The results of the testing of the research hypotheses discussed in Chapter 10 provided preliminary evidence of relevance of customer satisfaction disclosure to users of annual reports. The investment analysts while expressing their opinion on the results of testing of research hypotheses H1a to H1d in Section 11.3.1 are also of the opinion that customer satisfaction disclosure provides relevant information to the users of annual reports. They have reservations about qualitative and subjective nature of customer satisfaction disclosure but consider the information to be relevant to the users of annual reports.

Research hypotheses H2a to H2d were proposed in Chapter 4 for assessing differences in reaction of user of annual reports to disclosure of 'externally generated' and 'internally generated' measures of customer satisfaction in the annual reports. The results of the testing of research hypotheses H2a to H2d discussed in Chapter 10 do not result in any statistically significant findings but indicate that users of annual reports may have more confidence in 'externally generated' measure of customer satisfaction as opposed to 'internally generated' measure of customer satisfaction while making investment decisions. This was considered as a surprising research finding by the investment analysts who considered 'internally generated' measures more reliable than 'externally generated' measures.

Research hypotheses H3a to H3l were proposed in Chapter 5 for assessing the differences in reaction to the positive and negative information about customer satisfaction in the annual reports. The results of the testing of the research hypotheses H3a to H3l discussed in Chapter 10 indicate that experimental subjects in their role as users of annual reports react adversely to negative customer satisfaction information in the annual reports thus resulting in unfavourable assessment of the company's economic performance measured in terms of financial position, financial performance and share price. The investment analysts were of the opinion that the results of the testing of research hypotheses are representation of the real world behaviour of users of annual reports involved in decision-making. Disclosure of negative information results in unfavourable associations resulting in unfavourable investment decisions.

As discussed in Chapter 9, the preparers of annual reports had expressed reservations about the inclusion of negative customer satisfaction information in the annual reports mainly because of the possible negative impact of negative customer satisfaction information on decisions made by investors. The investment analysts in this Chapter have also expressed doubts about the inclusion of negative customer satisfaction information in the annual reports due to the negative impact of negative customer satisfaction information on the assessment of the company. As the results of the testing of the research instrument indicate that negative customer satisfaction information does have an impact on decision-making, this research concludes that negative customer satisfaction is thus relevant information and should be included in the annual reports. If the preparers are reluctant to include negative customer satisfaction information in the annual reports, then the policy makers need to look beyond only recommending a balanced approach towards disclosure of intangible assets like customer satisfaction in the annual reports. This is necessary as exclusion of balanced information relating to intangible assets may be resulting in declining relevance of annual reports.

The opinion of the investment analysts on the results of the testing of research hypotheses H4a to H4d that assess the differences in reaction of the users of annual reports to qualitative and quantitative disclosure of customer satisfaction in the annual reports was discussed in Section 11.3.4. The results of the testing of the research hypotheses reveal that experimental subjects in their role as users of annual reports have more confidence in quantitative disclosure as opposed to qualitative disclosure. The investment analysts were of the opinion that this result was consistent with the behaviour of the investment analysts who, in their role as users also prefer quantitative disclosure of intangible assets like customer satisfaction as opposed to qualitative disclosure. It was thus suggested in

Section 11.3.4 that policy makers should concentrate on the development of quantitative measures for reporting intangible assets like customer satisfaction in the annual reports. Chapter 12 outlines the main conclusions and recommendations of this research study.

Chapter Twelve

Conclusion and Recommendations

12.1 Introduction

The maim aim of this thesis as stated in Chapter 1 is to explore the possibility of reporting customer satisfaction in the annual reports. In this context, the research thesis aims to answer two main research questions as to why and how customer satisfaction should be reported in the annual reports. In Chapters 2 to 11, the main research aim is explored and an attempt is made to answer the two main research questions. It is stated in Chapter 3 that customer satisfaction may be disclosed in the *Operating and Financial Review* of the annual reports if it provides relevant information to the users of annual reports. The disclosure may be in the form of opinion based 'externally generated' measures of customer satisfaction or event based 'internally generated' measures of customer satisfaction. The disclosure may be qualitative or quantitative. Furthermore the disclosed information may be positive or negative. The research assesses the reaction of the users of annual reports to these six types of customer satisfaction disclosure by development of research hypotheses in Chapters 4 to 6. An experimental instrument (see Chapter 8) is developed to test the research hypotheses and the results of the testing of the experimental instrument are discussed in Chapter 10. Semi-structured interviews are also conducted with the preparers of annual reports to obtain their opinion on the research instrument (see Chapter 9) and with the users of the annual reports to obtain their opinion on the results of the testing of the research instrument (see Chapter 11).

The objective of this chapter is to discuss the primary conclusions of this research study and to outline the main research recommendations as well as future areas of research. The limitations of the current research are also discussed in this Chapter. The discussion of the primary conclusion of this research will help in answering the main research questions whereas the research recommendations will enable policy makers in designing policies for reporting of intangible assets like customer satisfaction in the annual reports. The identification of future areas of research will outline the future course of action for research relating to reporting intangible assets like customer satisfaction in the annual reports.

The Chapter is divided into four sections. The current section is an introductory section. Section 12.2 outlines the primary findings of the research and also summarises as to how these findings contribute to extension of the existing literature on disclosing intangible assets like customer satisfaction in the annual reports. Section 12.3 reviews the main limitations of the research whereas Section 12.4 identifies future areas of research. The Chapter concludes in Section 12.5 where the main recommendations of the current research are outlined.

12.2 Primary findings of the Research

As outlined in Chapter 1, the main aim of this thesis is to investigate the potential implications of reporting customer satisfaction in the annual report. The current section aims to discuss the primary findings of the research.

One of the primary findings of the research study is that the research outlines evidence of relevance of customer satisfaction disclosure to the users of annual reports (see Section 10.2). As a result of the testing of research hypotheses H1a to H1h, it was concluded in Section 10.2 that the disclosure of customer satisfaction has an effect on the decision makers' investment decisions in the context of financial position; share price and the level of confidence in the assessment of the share price of the company (see Table 10.6). It was thus stated that customer satisfaction disclosure has feedback value in terms of the financial position and the share price of the company. Further, it has predictive value in terms of the share price of the company. This is an important finding.

As discussed in Chapter 3 the importance of communication of customer satisfaction measures in annual reports is well documented (Wirtz, 2000; Ittner, Larcker, and Rajan, 1998; Leadbetter, 2000; Amir and Lev, 1998; Lambert, 1998 and Dholakia and Morwitz, 2002). This research thus provides additional evidence of communication of customer satisfaction disclosure in annual reports but in doing that it adopts a user orientation behavioural research approach. It involves the users of annual reports and uses experiment as the main research method to assess the relevance of customer satisfaction disclosure to the users of annual reports. There is no prior evidence of such a research approach used to investigate the relevance of customer satisfaction disclosure to the users of annual reports. Further the research uses multi-research methods to investigate the relevance of customer satisfaction disclosure to the users of annual reports. It interviews finance directors in their role as the preparers of the annual reports to obtain their opinion on the relevance of customer satisfaction disclosure being suggested by the research instrument. Further interviews are conducted with the investment analysts in their role as users of annual reports to obtain their opinion on the preliminary evidence of relevance of customer satisfaction disclosure suggested by the results of the testing of the research instrument in Chapter 10. It is concluded from the interviews with the users (see Chapter 9) and preparers (see Chapter 11) that customer satisfaction disclosure is relevant to the users of annual reports. The preparers of annual reports also are appreciative of the relevance of customer satisfaction disclosure to users of annual reports. This research thus adopts a rigorous research approach to investigate the relevance of customer satisfaction disclosure and thus provides additional evidence of relevance of customer satisfaction disclosure to the users of annual reports. Its contribution to the existing literature on disclosure of intangible assets like customer satisfaction in the annual reports is in terms of the rigorous research approach used to investigate the relevance of customer satisfaction disclosure to users of annual reports. The involvement of preparers of annual reports adds to the robustness of the research findings.

The main contribution of this research is that after providing evidence of relevance of customer satisfaction disclosure to the users of annual reports, the research investigates the reaction of the users of annual reports to different types of customer satisfaction disclosures. Even though a number of research studies as outlined in Chapter 3 argue for inclusion of intangible assets like customer satisfaction in the annual reports and suggest different types of intangible assets disclosures but there is no prior evidence of any research investigating the reaction of the users of annual reports to different types of intangible assets disclosures suggested by the research studies reviewed in Chapter 3. The assessment of the reaction of the users of annual reports to different types of disclosures of customer satisfaction is the innovativeness of this research. This is the original contribution of the research to the existing literature on reporting customer satisfaction in the annual reports.

In this context, one of the primary findings of this research is that investors react adversely to negative disclosure of customer satisfaction in the annual reports. As a result of the testing of research hypotheses H1a to H1d, statistically significant differences in the means of positive and negative customer satisfaction information disclosure groups were observed in terms of assessments of financial position, investment risk and share price (see Table 10.11). It was thus concluded in Section 10.3 that the assessments of financial position and share price of positive customer satisfaction information group ware higher than the negative customer satisfaction information group whereas the assessments of the investment risk of the positive customer satisfaction information group was lower than the negative customer satisfaction information group.

Based on these results it was concluded that as stated by the Attribute Framing Effects (Levin and Gaeth, 1988 and Levin *et. al,* 2002) discussed in Chapter 5, positive customer satisfaction information results in a favourable association whereas negative customer satisfaction information results in an unfavourable association. A favourable association results in higher assessment of financial position, share price and lower assessment of investment risk whereas with disclosure of negative customer satisfaction information the results are opposite. Both the positive and negative groups as discussed in Chapters 8 and 10 received the same financial statements but the only difference was that one group received disclosure of positive customer satisfaction information and the other group received disclosure of negative customer satisfaction information. As stated by the Affective Reaction Model (Kida and Smith, 1998; Kida, Smith and Moreno, 2002), the positive information resulted in a positive affect and a higher assessment of financial position, share price and a lower assessment of investment risk. The negative information resulted in a negative affect and a lower assessment of financial position, share price and higher assessment of investment risk. The current research thus uses Affective Reaction Model and Attribute Framing Effects to explain the behaviour of the users of annual reports to disclosure of positive and negative customer satisfaction information in the annual reports. The use of Attribute Framing effects and the Affective Reaction Model to explain the reaction of users of annual reports to different types of customer satisfaction disclosures is also the uniqueness of this research as there is no prior evidence of Affective Reaction Model and Attribute Framing effects being used to discuss the reaction of the users of annual reports to different types of intangible assets disclosures.

The research findings relating to the reaction of the users of annual reports to disclosure of positive and negative customer satisfaction information has serious implications for policy makers. It was stated in Chapter 3 that a balanced approach needs to be adopted with regards to the disclosure of customer satisfaction in the annual reports thus positive and negative information relating to customer satisfaction needs to be included in the annual reports.

In Chapter 5, the concealment strategy adopted by the preparers of annual reports with regards to voluntary disclosures was discussed (Verrecchia, 1983; Dye, 1985; Scott, 1994; Thaler and DeBondt, 1985; Patell, 1976; Penman, 1980; Waymire, 1984 and Lev and Penman, 1990 Abrahmson and Park, 1994; Skinner, 1994 and Kasznik and Lev, 1995). It was stated that due to the perceived negative reaction of the users of annual reports to negative information in the annual reports, preparers of annual reports may be reluctant to include negative information relating to customer satisfaction in the annual reports. The research findings do provide evidence that users of annual reports react negatively to negative customer satisfaction information.

The experimental instrument was discussed with the preparers of annual reports (see Chapter 9) so as to obtain their opinion about the various types of customer satisfaction disclosures suggested by the research instrument. The users and preparers of annual reports do have certain reservations about reliable measurement of customer satisfaction in the annual reports but as discussed in Chapters 9 to 11 these reservations may be conceptualised as the 'politics of intangible assets.' As outlined in Chapters 9 to 11 if the preparers of annual reports consider customer satisfaction disclosure to be relevant then they need to concentrate on developing reliable measures of customer satisfaction that may be disclosed in the annual reports rather than using the absence of reliable measures of customer satisfaction as the reason for exclusion of information about customer satisfaction.

The preparers despite being appreciative of the relevance of customer satisfaction disclosure to the users of annual reports rejected the possibility of inclusion of negative customer satisfaction information in the annual reports mainly because of the negative impact of disclosure of negative customer satisfaction information on the assessment of the company by the investors. The results of the testing of the research instrument were discussed with the investment analysts in their role as users of annual reports (see Chapter 11) and they also expressed their reservations about the possibility of inclusion of negative customer satisfaction information in the annual reports mainly because of the adverse reaction of the users of annual reports to disclosure of negative customer satisfaction information in the annual reports.

In this context, the research questions that despite the suggestions for balanced approach advocated by different research studies in Chapter 3 (FASB, 2001; SEC, 2001; GRI, 2002), will a balanced approach be adopted by the preparers of annual reports in reporting intangible assets in the annual reports. The current research as discussed in Chapter 9 to 11 based on the research findings has expressed reservations about the adoption of balanced approach by the preparers of annual reports. The existing literature on reporting intangible assets suggests a balanced approach, the current research investigate the practicality of this suggestion and provides evidence that this suggestion may not be practical. The preparers are not willing to include negative customer satisfaction information in the annual reports mainly because of the negative reaction of the users of annual reports. The testing of the experimental instrument provides evidence of the perceived negative reaction and the investment analysts commenting on the results of the testing of the experimental instrument are of the opinion that the adverse reaction to negative disclosure of customer satisfaction information in the annual reports exhibited by the experimental subjects in their role as users of annual reports is representation of the real world behaviour. In these circumstances will negative information appear in the annual reports? This is a question that the policy makers will have to answer as they come up with suggestions for reporting intangible assets in the annual reports.

A number of research reports in Chapter 3 argue for qualitative and quantitative disclosure of intangible assets in the annual reports (GRI, 2002; SEC, 2001; FASB, 2001; Lev, 2001; AICPA, 1994). The current research investigates these suggestions by assessing the differences in confidence of users of annual reports in qualitative and quantitative disclosure of intangible assets in the annual reports. This is considered necessary. Intangible assets need to be reported in the annual reports but how are they to be reported? In this context the review of preferences of users of annual reports is considered necessary. There is no prior evidence of any research investigating the differences in reaction of the users of annual reports to qualitative (textual) and quantitative (numerical) disclosure of customer satisfaction in the annual report. The research thus extends the existing literature on qualitative and quantitative disclosure of intangible assets like customer satisfaction in the annual reports by investigating the reaction of the users of annual reports to qualitative and quantitative disclosure of customer satisfaction in the annual reports.

The primary finding in this context is that users of annual reports have more confidence in quantitative disclosure of customer satisfaction as opposed to qualitative disclosure of customer satisfaction in the annual reports. As a result of the testing of research hypotheses H4a to H4d it was concluded that experimental subjects in their role as users of annual reports had more confidence in their assessment of share price and investment risk when customer satisfaction was disclosed quantitatively as opposed to when it was disclosed qualitatively (see Table 10.17). This is an interesting finding. Even though the research reports reviewed in Chapter 3 suggest that intangible assets may be reported qualitatively or quantitatively, the results of the testing of the research instrument outline a preference for quantitative disclosure as opposed to qualitative disclosure.

This as discussed in Chapter 6 and 10 may be due to perceived reliability and accuracy of quantitative disclosure as compared to qualitative disclosure (Bagby, Kintzele and Kintzele, 1988; Courtis, 1986; Steele, 1983 and Tenyson, Ingram and Dugan, 1990; Birnberg 1964; Boritz, Gaber and Lemon, 1987; Chesley 1979, 1985; Smith, 1999; Wallsten, Budescu and Zwick, 1993; Stone and William, 1994 and Moonitz, 1961). When the results of the testing of the research instrument were discussed with investment analysts in their role as users of annual reports (see Chapter 11) they were of the opinion that the results are indicative of the attitude of investors who in their role as users of annual reports prefer quantitative disclosure to qualitative disclosure. The experimental instrument was also discussed with the preparers of annual reports and their opinion sought on the qualitative and quantitative disclosure of customer satisfaction suggested by the research instrument. The preparers were of the opinion that in their opinion, users of annual reports consider quantitative disclosures to be more reliable as compared to qualitative disclosures. This research thus suggests that even though as suggested in Chapter 3 customer satisfaction may be reported qualitatively or quantitatively as the users of annual reports prefer quantitative disclosures policy makers need to concentrate on development of quantitative measurements of customer satisfaction that may be complimented with qualitative disclosures wherever needed but the emphasis should be on development of quantitative measurements.

The evaluation of the reaction of the users of annual reports to qualitative and quantitative disclosure of customer satisfaction contributes to the existing knowledge and literature discussed in Chapter 6 about the reaction to qualitative and quantitative information. The contribution is original as there has been no prior evidence of research investigating the reaction of the users of annual reports to qualitative and quantitative disclosures within narrative reports like the *Operating and Financial Review.* Due to the increasing importance of intangible assets, narrative reporting has become important and there is an urgent need as discussed in Chapter 3 to explore the kind of disclosures that may take place in the narrative reports. The research aims to fill the vacuum by studying the reaction to qualitative and quantitative disclosure within the narrative reports and coming up with policy recommendations about the type of preferred disclosure in the *Operating and Financial Review*.

It can be concluded from the discussion of the primary findings of the research that the research is original in this context that it investigates the reaction of the users of annual reports to different types of customer satisfaction disclosures. It contributes significantly to the existing literature and knowledge of intangible assets by outlining the differences in reaction to different types of customer satisfaction disclosure. It investigates the practicality of suggestions relating to balanced reporting of intangible assets like customer satisfaction in the annual reports and qualitative and quantitative disclosure of intangible assets like customer satisfaction in the annual reports. It concludes that policy makers need to concentrate on the development of quantitative measures of intangible assets like customer satisfaction as the users of annual reports prefer quantitative disclosures. Moreover the propositions of balanced approach to reporting of intangible assets like customer satisfaction in the annual reports confound the practice of the real world where negative voluntary disclosure is concealed from the users of annual reports. Thus the policy makers need to look beyond mere recommendations of balanced approach to reporting intangible assets and come up with policies that ensure reporting balanced reporting of intangible assets in the annual reports.

This is urgent as one of the reasons for exclusion of information relating to customer satisfaction in the annual reports outlined by the preparers of annual reports in Chapter 9 is the reservation about inclusion of negative customer satisfaction in the annual reports. The preparers are of the opinion that if they start disclosing customer satisfaction in the annual reports they will have to include disclosure of negative customer satisfaction information also and that might have an adverse effect on company's assessment by the users of annual reports. This as concluded in Chapter 9, 10 and 11 might be resulting in exclusion of relevant information from annual reports thus impacting the decision usefulness and relevance of annual reports to users of annual reports. The research suggests that in order to address the problem of declining relevance and decision usefulness (see Chapter 2) of annual reports to the users of annual reports the policy makers need to come up with concrete recommendations for ensuring balanced reporting of intangible assets like customer satisfaction in the annual reports. This issue is further explored in Section 12.4 where key recommendations arising out of the current research are outlined.

It is important to mention that the research contributes significantly to the existing literature in terms of not only the original research questions that it addresses for example the reaction of the users of annual reports to different frames of customer satisfaction disclosures but an important characteristic of this research is the robustness of research findings and rigour of the research approach. Even though experiment is used as the main research method but other research methods like interviews and review of annual reports are also used so as to ensure that the research findings are robust and relevant. The multi-disciplinary approach used in the selection of theories and literature to explain research findings add to the relevance of the research findings.

The next Section outlines the major limitations of this research.

12.3 Limitations of the research

The current research uses customer satisfaction as the signal of intangible assets through which the possibility of disclosure of internally generated intangible assets like customer satisfaction in the annual reports is explored. This approach is adopted due to the increasing importance of customer satisfaction as an important intangible asset in the customer centric world of today (see Chapter 2). Customer satisfaction is also used as a signal of intangible assets as customer satisfaction has a positive relationship with financial performance of the company (see Chapter 2). The use of customer satisfaction as the signal of intangible assets is thus based on the assumption that as customer satisfaction is an important intangible asset that has a positive relationship with financial performance of the company, a case exists for its inclusion in the annual reports.

This assumption might not hold true in economies where there is not much strong economic growth as customer satisfaction in these economies may not be of that importance as customer satisfaction might be in a strong economy like that of Ireland. Similarly in times of low economic growth, the importance of customer satisfaction as an important intangible asset may not be the same as it would be in times of strong economic growth. The research accepts this limitation but argues that in economies having slow economic growth and in times of slow economic growth, customer satisfaction may not be as important an intangible asset as it might be in times of strong economic growth or economies having strong economic growth but in all times the satisfaction of customers is important. Customer satisfaction moreover may be more important in sectors like banks, retail, airlines and supermarkets but may not be of significant relevance to

The other major limitation of the current research as that the findings of this study are within the limitations of an experiment – the main research method used. Some of the limitations of the experimental instrument used to test the research hypotheses outlined in Chapter 8 and 10 like limited information relate to the limitations of the use of experiment as the main research method. The suitability of the use of experiment as the main research method to study an *ex ante* disclosure like customer satisfaction was discussed in Chapter 7. It was also stated in Chapter 7 that the use of triangulation in development of research approach for examining the possibility of disclosure of customer satisfaction in the annual reports do increase the generalisibility of the findings of the current research and counter any possible criticism about the use of experiment as the main research method. The next section outlines areas of future research.

12.4 Areas of future research

One of the main research questions is that why customer satisfaction should be disclosed in the annual reports. In answering the research question the research suggests that as stated by Leadbetter (1999 and 2000) and Beattie (2004) if an intangible asset like customer satisfaction has a positive relationship with the financial performance of the company and the inclusion of the information about the intangible asset provides relevant information to the users of annual reports then it may be disclosed in the annual reports. As empirical evidence of positive relationship between customer satisfaction and financial performance of the company was discussed in Chapter 2, the research aimed at assessing the relevance of customer satisfaction disclosure to the users of annual reports. In doing so the research adopted a rigorous research approach and involved users and preparers of annual reports. The research provides preliminary evidence of relevance of customer satisfaction disclosure to the users of annual reports. There are many other intangible assets like intellectual property and human resources that may be relevant to the users of annual reports but may not be currently included in the annual reports. Future research may concentrate on providing empirical evidence of relevance of such information to users of annual reports as well as evidence of positive relationship between financial performance and information to be included in the annual reports before a case can be made for the inclusion of such information in the annual reports.

The innovativeness of this research has been the investigation into the practicality of proposition of balanced reporting of customer satisfaction in the annual reports as well as qualitative and quantitative disclosure of customer satisfaction in the annual reports. Customer satisfaction is used as the signal of intangible asset through which the reaction of the users of annual reports to different types of disclosure is examined. Future research can use other intangible assets for example quality and innovation to investigate the reaction of the users of annual reports to practicality of propositions relating to balanced reporting and qualitative and quantitative disclosure of intangible assets in the annual reports.

The research was conducted in Ireland and the experimental subjects used were Irish post graduate students. The interviews were conducted with preparers and users of annual reports who worked in Ireland. One of the limitations outlined in Section 12.3 was that customer satisfaction may not be considered as important an intangible asset in countries with less economic growth as it might be in a country like Ireland where there is strong economic growth. It might be interesting to replicate this kind of a study in a developing country with moderate of slow economic growth like Pakistan or Bangladesh to assess whether the limitation outlined in Section 12.3 holds true or whether the same kind of research findings are obtained as they were in the current research. If the same findings are obtained then the limitation outlined in Section 12.3 might not hold true.

The results of the research have important implications for policy makers in terms of explanation of behaviour of users of annual reports to different types of customer satisfaction disclosures and relevance of customer satisfaction disclosures but further intensive experimentations and research is needed in the area of assessment of reaction of users of annual reports to different types of disclosures of intangible assets in the annual reports as well as assessment of relevance of intangible assets disclosures in annual reports.

This research has concentrated on exploring possibility of reporting customer satisfaction as an asset in the annual reports. A possible area of future research may be to explore the possibility of reporting customer satisfaction as a liability in the annual reports.

12.5 Recommendations

On the basis of the discussion in this Chapter and discussions in preceding chapters, following are the recommendations of the research study:

1. As stated in Chapter 2, one of the main aims of this research is to argue for inclusion of customer satisfaction disclosure in the annual reports by answering the research question of why customer satisfaction should be disclosed in the annual report. The research based on discussions in Chapters 2, 3 and 9 to 11 suggests that as customer satisfaction disclosure provides relevant information to

users of annual reports, a case exists for its inclusion in the annual reports. The research in Chapters 2 and 3 discusses the literature relating to the importance of the need to communicate customer satisfaction in the annual reports and in Chapter 9 to 11 provides evidence of relevance of customer satisfaction disclosure to users of annual reports. The interviews with preparers and users of annual reports conclude that customer satisfaction disclosure is relevant to the users of annual reports. The results of the testing of the experimental instrument discussed in Chapter 10 also provide preliminary evidence of relevance of customer satisfaction disclosure to the users of annual reports.

2. The other main research question is that how customer satisfaction should be disclosed in the annual reports. Based on the discussions in Chapter 3, because of the judgemental and narrative nature of the *Operating and Financial Review*, the research recommends that customer satisfaction should be disclosed in the Operating and Financial Review of the annual reports.
3. Based on discussions in Chapters 3, 5,9,10 and 11, the research recommends that customer satisfaction disclosure in the *Operating and Financial Review* should be balanced encompassing both positive and negative aspects of customer satisfaction performance. The research however as discussed in Chapters 9 to 12 does provide evidence that due to the negative reaction of the users of annual reports to disclosures of negative information, the preparers of annual reports may not adopt a balanced approach towards reporting customer satisfaction in the annual reports. The research concludes that this may result in the exclusion of relevant information from the annual reports. The research thus suggests that policy makers need to ensure balanced reporting of customer satisfaction in the annual reports. Even though the research does not favour mandated disclosure of intangible assets like customer satisfaction in the annual reports but states that may be to ensure balanced reporting of intangible assets in the annual reports, policy makers may have to consider mandated disclosure of intangible assets in the narrative section of annual reports in the medium to long-term.
4. Based on discussions in Chapters 6, 9, 10 and 11, the research suggests that disclosure of customer satisfaction in the *Operating and Financial Review* should

preferably be quantitative. Even though the research reviews suggestions relating to qualitative and quantitative disclosure of intangible assets in the annual reports in Chapter 3 but based upon evidence discussed in Chapters 9 to 12, the research suggests that users of annual reports will have more confidence in quantitative disclosure of intangible assets like customer satisfaction in the annual reports as opposed to qualitative disclosure of intangible assets like customer satisfaction. The policy makers thus need to concentrate on the development of quantitative measures of intangible assets like customer satisfaction. As the research suggests that disclosure relating to customer satisfaction is to be included in the *Operating and Financial Review* of the annual reports, the research recommends that if needed quantitative disclosures may be complimented by qualitative disclosures but the emphasis should be on development of quantitative measures.

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