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**A PUBLIC ACCOUNTABILITY INDEX
FOR ANNUAL REPORTING
BY NEW ZEALAND UNIVERSITIES**

A thesis
submitted in fulfilment
of the requirements for the Degree
of
Doctor of Philosophy in Accounting
at the
University of Waikato
by
DAVID VICTOR COY

University of Waikato
1995

**Only dead possums should be
found in the middle of the road.**

Sam Hunt, poet, 1994

**By concentrating on the impossible,
radicals help to impede the possible.
In effect they are the strongest allies
of the rich and powerful.**

Richard Mulgan, author, 1994

A PUBLIC ACCOUNTABILITY INDEX FOR ANNUAL REPORTING BY NEW ZEALAND UNIVERSITIES

ABSTRACT

This thesis addresses two questions about accountability and annual reporting in the context of New Zealand universities. The first is to identify what information should be disclosed in universities' annual reports to meet public accountability expectations. The second question asks how the quality of annual reports may be measured from a public accountability perspective.

An historical overview of universities' annual reporting since the establishment of New Zealand's first university at Otago in 1869 sets the scene for the thesis in Chapter Two. For over 120 years annual reports were ritualistic documents with a circulation limited to the oversight agencies in Wellington. Massive economic reform instigated by the 1984 Labour government culminated in legislative changes in 1990 which necessitated more timely and comprehensive reporting by the universities.

The objectives of reporting and the meaning of accountability are explored in depth, first from a functionalist standpoint and then using a political economy approach. It is argued that accountability plays a critical role in organisational power relationships, and acts as an important check against undesirable traits such as provider capture, low efficiency and effectiveness which may develop in public organisations.

The delphi technique is used with 39 university stakeholder and preparer panellists to evaluate a normative framework of reporting and provide a stakeholders' perspective on disclosure priorities. This information is used to develop a Public Accountability Index for measuring the quality of universities' reports. The Index advances knowledge by virtue of its theoretical development, empirical testing by stakeholder groups, parametric statistical qualities, and more comprehensive coverage of disclosure items than the extant indices.

The most important contribution of the thesis is its advocacy of a public accountability reporting which emphasises openness over secrecy, service performance over financial performance, and narrative, statistical and other quantitative disclosures over financial statements. Public accountability reporting gives stakeholders the opportunity to gain valuable insights about organisations' activities, and their objectives and success in meeting these. Public accountability reporting has important implications for the accountancy profession because it is not clear which organisational officials are best equipped to take responsibility for the new reporting. This is both an opportunity and a threat for accountants.

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David
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LIST OF ABBREVIATIONS

AAA	American Accounting Association
AARF	Australian Accounting Research Foundation
ACDP	Australian Council of Directors & Principals
AICPA	American Institute of Certified Public Accountants
ASAC	Accounting Standards Authority of Canada
ASSC	Accounting Standards Steering Committee (UK)
AUT	Association of University Teachers
AVCC	Australian Vice Chancellors' Committee
CEO	Chief Executive Officer
CICA	Canadian Institute of Chartered Accountants
CoNAM	Conditional-Normative Accounting Methodologies
COSHEP	Committee of Scottish Higher Education Principals
CVCP	Committee of Vice Chancellors & Principals (UK)
FASB	Financial Accounting Standards Board (US)
FRS	Financial Reporting Standard
GASB	Governmental Accounting Standards Board (US)
GDP	Gross Domestic Product
IASC	International Accounting Standards Committee
JPIWG	Joint Performance Indicators Working Group (UK)
MAD-Score	Modified Accountability Disclosure Score
MSPI	Management Statistics & Performance Indicators
NCGA	National Council on Governmental Accounting (US)
NPM	New Public Management

NZ	New Zealand
NZSA	New Zealand Society of Accountants
PAI	Public Accountability Index
PI	Performance Indicator
PITF	Performance Indicators Task Force (NZ)
PSAS	Public Sector Accounting Statement
SCGPFR	Statement of Concepts for General Purpose Financial Reporting
SCOP	Standing Committee of Principals Limited (UK)
SOE	State Owned Enterprise
SPSAC	Statement of Public Sector Accounting Concepts
SSAP	Statement of Standard Accounting Practice
TEI	Tertiary Education Institution
UK	United Kingdom
US	United States
UGC	University Grants Committee
UNZ	University of New Zealand

A PUBLIC ACCOUNTABILITY INDEX FOR ANNUAL REPORTING BY NEW ZEALAND UNIVERSITIES

CHAPTER ONE

INTRODUCTION

1.1 The Research Problem

1.1.1 Introduction

This thesis addresses two problems associated with university annual reporting. The first concerns the issue of what information should be disclosed by New Zealand universities in their annual reports from a public accountability perspective. The second problem is to identify a methodology for measuring the quality of those annual reports using an accountability index.

Interest in universities' annual reports arises from the radical changes brought about by the public sector reforms implemented by the Fourth Labour government (1984-90), and specifically by the Education Amendment Act (1990) which required universities greatly to increase annual report disclosures. One motivation for the legislation was the demand by politicians that universities improve their accountability for the approximately \$600 million of public money provided to them each year (House of Representatives, 1990, p. 1167). The Act sets out the statements and disclosures that must be made by universities in their annual reports. There may be differences between the disclosures required by law and the information that should be disclosed and available to the general public, or to serve the interests of public accountability. The first part of the thesis distinguishes between the concepts of statutory and public accountability, and identifies what should be disclosed by universities in their annual reports to meet public accountability expectations.

The new style reporting requires a wide range of comprehensive statements, and reports are now commonly published as professionally designed, colour printed, bound documents of 50 pages or more. Such reports may window-dress and be misleading, by giving an impression of being more informative than they really are. Researchers have attempted to measure the quality of universities' annual reports using disclosure indices to provide a single summary statistic which purports to indicate the overall quality of individual reports (Gray & Haslam, 1990; Dixon, Coy & Tower, 1991; Coy, Tower & Dixon, 1993).

However there are important weaknesses in the extant indices for example the lack of a theoretical framework, the failure to encompass important qualitative reporting aspects of public accountability such as timeliness, distribution and accessibility, and their low level ordinal statistical power. The second part of the thesis addresses these weaknesses and develops a method for constructing an index which assesses the quality of university annual reports from a public accountability perspective.

1.1.2 Purpose

The purpose of the thesis is to contribute to improved accountability by New Zealand universities. Assessing the quality of current reports and providing this feedback to preparers may stimulate future improvements. This is done in the belief that improved annual reporting is in the public interest because it will enhance stakeholder interest in the institutions and provide an incentive to improve management of the universities. Furthermore, it is also believed that by providing high quality external reports, universities may improve their internal management

information, and this may contribute to enhanced efficiency and effectiveness of the institutions; the latter proposition is not investigated in the thesis.

1.1.3 Objectives

The objectives of the thesis are to:

- (i) Distinguish between statutory and public accountability in the context of universities' annual reporting.
- (ii) Identify the disclosures and qualities of university annual reports that meet public accountability expectations.
- (iii) Identify a methodology for developing a public accountability university annual report index.
- (iv) Develop and apply the index.

1.2 Methodology and Methods

1.2.1 Methodological issues

There are multiple approaches to the conduct of social science research. Some researchers claim that only 'scientific' research methods result in valid findings, and that this requires tight data collection methods which are exposed to rigorous analysis, often using statistical approaches. However, often such rigour can be exercised only in contrived, experimental situations leading to results which have high internal validity but limited external validity (Thomas & Tymon, 1982; Tomkins & Groves, 1983a; Patton, 1990). For this reason, many researchers in the social sciences believe that qualitative research methods offer better opportunities for meaningful, relevant research (Willmott, 1983; Chua, 1986; Boland, 1989; Arrington

& Francis, 1989). The use of techniques such as interviews, observation, and participation can lead to deeper insights and understanding of organisational problems than is possible using quantitative techniques.

An important methodological consideration was whether the thesis should be conducted from a positivist or normative standpoint. The index aims to provide an indicator of reporting quality from a public accountability perspective. It was considered that a positivist approach could not capture the essence of public accountability. This is because some contemporary university annual reports appear to meet statutory obligations only, and these fall short of public accountability expectations as examined and explained in Chapter Four (Coy, Dixon & Tower, 1993a). It is assumed in positive accounting theory, based on marginalist economics, that the existing accounting relationships are optimal between the contracting parties. However, such theorising is inapplicable in the New Zealand public sector where a political economy model applies (Tinker, 1980; Cooper & Sherer, 1984). In this context, it is considered that a normative approach from a political economy perspective would be more likely to yield a research outcome that reflected society's expectations of contemporary university annual reports.

The notion of a single best methodological approach to accounting research is not accepted and in this thesis a flexible, pragmatic approach is adopted. This is based on first identifying a relevant, meaningful research question, and then seeking appropriate methods to address it. Methodologically, this research is not locked into either quantitative or qualitative methods and both approaches are used as appropriate. This view is supported by Mattessich (1995) who suggested Conditional-Normative Accounting Methodology (CoNAM) as an alternative to

positive accounting methodologies which dominated accounting research in the 1970s and 1980s. CoNAM recognises that accounting is an applied science rather than a pure science, and that flexibility of approach to accounting research might enable the gap between accounting theory and practice to be reduced.

The methodology adopted in this thesis also concurs with the ideas of Cooper and Sherer (1984) who suggested that a political economy approach to accounting research may be more fruitful than existing methods which tend to emphasize private interests. In this research, emphasis is placed on a public accountability approach to annual reporting and in doing this the three imperatives of a political economy approach as suggested by Cooper and Sherer (1984, p. 219-222) are followed: be normative, be descriptive and be critical. These are developed and explained in Chapter Three.

The strength of this thesis lies in the importance of the research question which attempts to advance knowledge in an area, namely the accountability of universities, that has been the subject of public concern during recent years (Goff, 1989; Coy & Tower, 1990; LaRocque, 1995). A successful outcome could contribute to improved university accountability in future. The thesis is also relevant to the 30 polytechnics and colleges of education which comprise the rest of the tertiary education sector in New Zealand. In addition, the principles identified about university annual reporting to meet public accountability expectations may be transferable to other parts of the public sector, or to universities in other countries (Banks & Nelson, 1994).

Cognisance is taken of the ideas of Burrell and Morgan (1979) who believe that researchers in the social sciences should be aware of their worldview or paradigm. There are many reasons for this. Researchers operating from within a radical

paradigm seek fundamental change in the existing order of society, and need to be aware of the biases that they bring to their research. In particular, such researchers may select methods which are more likely to produce results that confirm their radical predispositions, and avoid methods which do not. This research attempts to take a transparent approach towards a standard social artifact, the annual report. However, it is acknowledged that the research outcomes are radical in the sense of challenging the existing order on university campuses. Disseminating comprehensive information is regarded as a powerful way of changing existing power structures on university campuses, and for this reason the political factors which impinge on annual reporting are explored in Chapter Five.

Generalisability is regarded by many researchers as fundamental to any investigation, but this notion is not regarded as critical to this study. No attempt is made to develop a theory or explanation of university public accountability which might be regarded as the one finite truth on the subject. Instead, this thesis provides one perspective developed using rigorous methods, but which inevitably suffers from being one researcher's viewpoint. The validity of the research will be determined mainly through peer judgements, and the acceptability of the conclusions to the university report preparer and stakeholder communities. The research could provide a useful starting point for similar studies in other Anglo-American countries.

1.2.2 Research Methods

In the early part of the thesis, reliance is placed on reviews of the extant literature on the subjects of university and tertiary education annual reporting, the objectives of annual reporting and public accountability. Analysis of this literature

in Chapters Two and Four leads to the development of a theory about public accountability annual reporting for New Zealand universities. This provides the foundation of a normative framework of specific disclosures and qualities identified in Chapter Six. The literature review enables the thesis to build upon existing knowledge and advance new ideas.

In acknowledging the political factors which impinge and impact on public reporting use is made in Chapter Five of information derived by way of a case study from a university campus. This provides insights of the pressures and tensions between senior managers and academics which resulted from problems related to the paucity of annual report type information available on that campus at that time. The case study is important to the thesis for the recognition given to the political dimensions of annual reporting that may affect both report preparers and stakeholders.

Expert stakeholder opinion using the delphi technique (Dalkey, Rourke, Lewis & Snyder, 1972; Linstone, 1977) was used to provide initial validation of the public accountability framework developed in Chapter Six, and to decide the relative weight to be given to disclosure and quality items. Delphi is regarded as an efficient method of collecting an authoritative opinion on matters for which there is no correct answer. The nature of the research question addressed by this delphi was rather different to that of many other studies, where the panellists were experts in a technical and professional sense. For example, a seminal delphi study asked a group of research scientists to estimate the damage that might be inflicted on US cities from a nuclear attack (Dalkey & Helmer, 1963).

The delphi panellists in this study of university accountability are experts in a different sense. Their expertise arises from their role and responsibilities in the community as elected or appointed members of university councils, as university report preparers, and as professional oversight agents such as auditors and analysts in the Ministry of Education. They are considered experts because such people are likely to be the most knowledgeable in New Zealand who may be able to give an opinion about university annual reports which might be regarded as both authoritative, and reasonably representative of the community's opinion on such matters. Stakeholder groups from which expert panels were formed included student leaders, community representatives on university councils, employee representatives on councils, official oversight agents and parliamentarians. In addition, a panel of university report preparers provided opinions which enabled contrasts to be made with the opinions of the stakeholder panels, and the identification of possible accountability gaps.

The results of the delphi are used to provide the foundation of the public accountability index which measures the quality of the published reports. Disclosure indices are a widely used and accepted tool for evaluating annual reports (Marston & Shrives, 1991). This thesis improves the extant indice techniques by developing an index with ratio statistical power, in contrast to the extant indices which are limited to the lower level ordinal power (Coy, Tower & Dixon, 1993).

The quantitative and qualitative methods used in this thesis are appropriate to the task, and provide a research outcome which makes a meaningful contribution to improving the accountability of New Zealand universities, and advancing the development of annual report indices.

1.3 Importance of the Thesis

The thesis is important for its advocacy of a public accountability approach to annual reporting as superior to the more traditional accounting approach which favours decision usefulness. This suggests the publication of timely annual reports to a wide stakeholder community which provide comprehensive information explaining the organisation's objectives and success in meeting its objectives. To do this, reports must emphasise information about service performance rather than financial performance; reports must provide narrative, numerical, statistical and qualitative information in addition to financial information; accountors must be motivated by openness rather than secrecy. Public accountability annual reporting brings a refreshing relevance to public reporting and has the potential to develop a better informed public interest in the operations and activities of publicly owned institutions. Furthermore, public accountability provides an important check on undesirable traits such as provider capture, low efficiency and effectiveness which may develop in public institutions .

A generally accepted measure of annual reporting quality has potential direct benefits for report preparers and university stakeholders, and indirect benefits for the community at large. Direct benefits may include the following:

- (i) report preparers are provided with feedback on existing reporting which may aid them in identifying opportunities for future improvement,
- (ii) stakeholders, such as students and the community as a whole, are provided with an indicator of report quality. This benefit extends to specialist professionals who may examine reports, such as accountants, auditors, analysts, lenders, teachers and researchers,

- (iii) the measure could be used in the performance evaluation of report preparers and accountability evaluation of universities, both at, and over a period of time,
- (iv) internal management information cannot be divorced from external stakeholder information. Improvements in the quality and timeliness of external information requires improved management information systems and the installation of these systems is likely to result in improved management information.

Indirect benefits may include:

- (i) the availability of a measure may provide an incentive for improved reporting by universities. This may lead to greater efficiency in the use of scarce public resources and re-orientation of institutional objectives which better meet public expectations,
- (ii) a generally accepted measure of the quality of university annual reporting might provide principles for the development of similar measures for other parts of the public sector.
- (iii) The public accountability index may provide the basis for comparisons between university annual reporting in New Zealand and other countries (Banks & Nelson, 1994).

It should be recognised that the act of measurement and assessment itself almost inevitably influences the behaviour of everyone involved; preparers, stakeholders, those who are measured and those who receive the information. This is likely to result in outcomes, which may consist of a mixture of advantages and disadvantages to society at large. Most of the effects will be predictable, but it is

likely that other entirely unforeseeable effects will occur. For these reasons, great care is needed when advocating and using new measures to ensure as far as possible that net benefits to society arise from their use.

Underlying the issue of measuring and reporting information lies the fundamental philosophical dichotomy between secrecy and openness in the management of public institutions. The thesis is motivated by a belief that society's best interests are usually served by openness, and this issue is explored in Chapter Five which examines the political pressures and implications of accountability.

1.3.1 Assumptions

The fundamental assumption driving the thesis is the perceived benefit to society from the adoption of a public accountability approach to reporting by the universities. Linked to this is the further assumption that a generally accepted measure of report quality would benefit both institutional management and stakeholders. This is because the strengths and weaknesses of individual reports would be identified; management would have a signal indicating which parts might be improved in future and stakeholders would be aware of individual report quality in the overall context of reports (Gill, 1994).

In advancing this assumption two related aspects of public disclosures are acknowledged. First, preparation, publication and dissemination of information involves many costs, both direct costs and opportunity costs, and it is assumed that at the current level of reporting, the benefits to society of improved reporting are greater than the sum of these costs. Cognisance of the cost-benefit equation is taken by requiring delphi panellists to consider this dimension when giving opinions.

Second, there is an assumption that improved annual reporting leads to more accountability and that this will be beneficial to the institution, society as a whole, or both. There are many schools of thought on this. One view believes that the universities are so idiosyncratic in the services they deliver to society, that it is futile to try to make them accountable in a formal, systematic way using periodic public reports. This element believes that regulation and control should be left to peer evaluation within the institutions themselves. Another view, which is shared by the author, accepts that universities are individually unique and collectively very different to other publicly funded institutions, but because of their significance in terms of both their contribution to society and resources consumed, they must be as accountable as possible.

1.3.2 Limitations

The major limitation of the thesis is the personal perspective brought to issues of reporting and accountability. The research methods used attempt to overcome these limitations by developing a theoretical framework of reporting which is then evaluated by stakeholder panels using the delphi technique. In developing this framework the dynamic nature of accountability is identified and cognisance is given to the countervailing tensions between report preparers and university stakeholders, the former being likely to support the status quo or less accountability, and the latter seeking more disclosures and accountability. Acceptance of this inherent tension between preparers and stakeholders leads to emphasis being given to the role of political forces in the development of the university annual reporting framework.

The adoption of this public accountability socio-political perspective on annual reporting is a far cry from the traditional decision-usefulness, economic models which dominated annual reporting theories in the western world up until the 1980s. The stance adopted in this thesis becomes its major strength and limitation. It is claimed that recognition of the non-economic considerations brings a refreshing and realistic perspective to the role of university annual reporting in contemporary society. However, the downsides of this approach are the dangers of bias and a narrow, political perspective on the part of the researcher. These limitations are addressed in additional ways.

The author attempts to be quite open about his motives for undertaking the project, and his perspectives on the role of university annual reporting. This alerts readers to the possibility of weaknesses in the research on this count, and also invites close examination of any parts that may consequently be vulnerable. The index provides one perspective of reporting from a public accountability standpoint. It advances one way of seeing university reporting, and does not claim to provide unequivocal answers about reporting quality. The notion of public accountability is not universally accepted and there are some who believe that in their annual reports, universities should meet the minimum statutory requirements and no more (Dixon, Coy & Tower, in press). Thus resistance to the ideas advocated in this thesis will be found in some quarters.

A major problem of disclosure indices arises from the changing values, expectations and requirements of society with respect to reporting. Ideally, the index would be constructed as a permanent system against which the quality of annual reporting might be measured. However, the index items, and the weights attached

to those items, reflect society's values at the time the index is constructed. Rather as inflation requires adjustments to monetary values over a period of time to arrive at an indication of real values, so the accountability index must also allow for society's changing values and expectations. Thus the value of the index lies more in identifying a methodology for developing the disclosure index, rather than in the index itself which is likely to be of an ephemeral nature.

1.4. Overview of the Thesis

Following the justification for the thesis in this Chapter, the background to university annual reporting since the establishment of the first New Zealand university in 1869 is explored in Chapter Two. This leads to an examination of the methodological issues surrounding the research, and an explanation and defence of the research methods used. The nucleus of the thesis is provided in Chapters Four, Five and Six through the development of a theory about public accountability university annual reporting. The theory and use of disclosure indices is reviewed in Chapter Seven, and a method is identified for constructing an index with parametric qualities. A normative reporting framework is developed and this provides the structure for the delphi opinion gathering exercise which is the empirical part of the research described in Chapter Eight. Finally in Chapter Nine, the findings of the empirical evidence are used to construct the public accountability index for university reports. This index is applied to the 1994 university annual reports and comparisons are made with the results of the modified accountability disclosure scores [MAD-score] (Dixon & Coy, 1995).

1.5 Summary

This chapter explains the research problem and identifies the specific questions which are addressed. Annual reporting is an important part of accountability processes. A disclosure index can assist preparers and stakeholders in identifying the strengths and weaknesses of current reporting, and in turn this may contribute to improved reporting and accountability in future. Methodological issues are reviewed and the reliance of the thesis on a political economy approach to accounting is explained. Cautionary comments are made about the assumptions behind the research and its limitations. Chapter Two provides an expansive review of university public reporting since 1869, and analysis of the factors contributing to the radical legislative change that occurred in 1990.

CHAPTER TWO

HISTORICAL PERSPECTIVE OF UNIVERSITIES' ANNUAL REPORTING

2.1 Introduction

This chapter provides a review of universities in New Zealand over the past 135 years with particular focus on issues and events that relate to their reporting, administration and financing. In the review, many aspects of universities' development are touched upon that may appear irrelevant to reporting and accountability today. These include such matters as their foundation, endowments, federal structures and the policy of open entry which, as becomes apparent later, may have implications for reporting in the 1990s. A knowledge of history can be helpful in understanding the events of today. "Those who cannot remember the past are destined to repeat it" (Santayana, 1913).

Emphasis is placed on the past two decades which help to explain the reasons for the radical reform that was legislated in 1990. Issues of reporting and accountability cannot be treated in a vacuum because they are but one part of the processes whereby organisations like universities are established, funded, operated and controlled for the public benefit. Questions of national economic performance, academic freedom, university autonomy, political power, social justice and other apparently unrelated issues affect reporting and accountability today. The background provided here helps one to understand the nature of the information disclosures required to meet the needs of a public accountability reporting for universities suggested in the thesis.

2.1.1 *Legislative change, 1990*

The Education Amendment Act, 1990 was the culmination of some five years' investigation into different facets of post-secondary school education, and implemented significant reform of tertiary education. The legislation affected the organisation, status, management, funding and control of the universities. The form and content of universities' annual reports were also radically changed as shown in Table 2.1.

Table 2.1

Annual Financial Statements required of Crown Entities

Statement of financial position
Operating statement
Statement of cash flows
Statement of objectives, specifying the outputs to be produced and the performance to be achieved during the year as established at the beginning of the year
Statement of service performance, reporting the outputs produced as compared with those established at the beginning of the year and specified in the statement of objectives
Statement of commitments
Statement of contingent liabilities
Statement of accounting policies
Such other statements as are necessary to fairly reflect the financial operations for the year and the financial position at the end of the year
Comparative figures for the previous year for all statements except accounting policies

Source: Public Finance Act (as amended), 1992 s. 41

For the purpose of annual reporting, universities were regarded as Crown agencies and Part V of the Public Finance Act (1989) set out the requirements as in Table 2.1. This information greatly exceeded any annual reporting that had

previously been mandated for universities. Why did government decide on this annual reporting model for universities? Why did this change come about in 1990?

2.2 University Annual Reports since 1869

2.2.1 *The First Ninety Years, 1869-1960*

The history of universities in New Zealand commenced in 1869 when the University of Otago was established by the Superintendent and Provincial Council of Otago. A similar regional pronouncement created the Canterbury University College in 1873, and it was not until 1882 and 1894 that Acts of Parliament established universities in Auckland and Wellington, respectively.

None of these universities had the authority to award degrees. Instead, each was affiliated to the University of New Zealand [UNZ], established in 1870, which had the function of conducting examinations and awarding degrees. The University of New Zealand was granted a Royal Charter by Britain, whereby its degrees were recognised as having the same *rank, precedence and consideration* as if the degrees had been conferred by a British university. It is probable that the control and authority of a supervisory body was necessary for the degrees of NZ universities to be recognised in Britain, although the establishment of the UNZ was resented by Otago (Butterworth & Tarling, 1994, p. 19).

This centralisation through the UNZ continued for some 90 years, and formal reporting was characterised by financial reports of both the individual university colleges and the UNZ being presented annually to Parliament. Thus, an annual payment of £3,000 was to be made by government for the expenses of the University

(New Zealand University Act, 1870, s. 15). The annual reporting in respect of these monies and the activities of the University was as follows:

Council is to report during the month of April in every year the proceedings of the University during the preceding year and such report is to contain a full account of the income and expenditure ... audited in such a manner as the Governor may direct. A copy of the report is to be laid before Parliament (NZ University Act, 1870, s.16).

The financial statements in these early years included a Statement of Expenditure and Balance Sheets for the Scholarship Account and the Prize Account. The financial statements for 1883 presented to Parliament in 1884 accounted for expenditure of £3,984-0-10d of which £1,875 was for Scholarships. The financial statements had been audited by the Provincial District Auditor and signed on 15 February 1884, only six weeks after the balance date which is significantly more timely than the university annual reports published some 100 years later. The Auckland University College Act of 1882 required an annual report to be submitted to Parliament but was silent on specific reports about the use made of its monies.

The Council of the College shall every year, before 31st March, report their proceedings of the previous year ending 31st December to the Minister of Education. A copy of the report shall be laid before both Houses of Parliament within one month (Auckland University College Act, 1882, s. 25).

Although a financial account was not specified in the legislation, one was provided. In 1884, the report to Parliament of Auckland University College showed a statement of Receipts and Expenditure. The University of Otago's report to Parliament for the same year is interesting for the high proportion of endowment income which amounted to £10,500 out of total receipts of £15,000.

During the first half of the 20th century, public funding increased and *The New Zealand Official Yearbook* (1925) notes increasing amounts of government grants as follows:

Auckland University College, £10,600; Victoria University College, £10,600; Canterbury College £3,600; Otago University, £8,200. The colleges are also in receipt of rents from endowments, Canterbury College and Otago University being the most richly endowed, due to the foresight of the early settlers in those provinces (Department of Statistics, 1925, p. 229).

Dissatisfaction with the UNZ, which was criticised in some quarters for giving excessive emphasis to written examinations and insufficient emphasis to education, led to the establishment of a Royal Commission and publication of the Reichel-Tate report in 1925. This criticised the universities for being like department stores which provide a commodity for the smallest outlay of time and money, and argued for a more scholarly approach and the development of a spirit of enlightenment. Interestingly, opponents of the 1990 reforms which sought improved efficiency and accountability also feared that scholarship would suffer. However, in 1925 the Royal Commission did not recommend the break-up of the UNZ because of a fear that the reputation of NZ degrees outside New Zealand would fall to the level of the lowest amongst them (Butterworth & Tarling, 1994, p. 20).

A distinguishing early characteristic of New Zealand universities was the adoption of open entry, a principle which was reinforced by Labour Prime Minister Peter Fraser in 1939.

The Government's objective, broadly expressed, is that every person, whatever his level of academic ability, whether he be rich or poor, whether he live in town or country, has a right, as a free citizen, to free education of the kind for which he is best fitted and to the fullest extent of his powers (quoted in Butterworth & Tarling, 1994, p. 25).

Open entry is an important characteristic of New Zealand universities, and provides a stark contrast to their UK counterparts which restrict entry. From the 1960s onwards the principle of open entry was a potent bargaining weapon in the hands of the University Grants Committee [UGC] when negotiating future university funding with government. For example, in disagreements with Treasury over university funding from 1974 onwards, the UGC Chairman A. J. Danks advised the Minister of Education that adoption of the (reduced) funding proposals of Treasury would make it impossible to accept all students who are qualified and wish to enter (Gould, 1988, p. 33). The outcome was that Cabinet agreed to UGC proposals in full. In view of the historical significance of open entry to universities in New Zealand, it is not surprising that delphi panellists in the empirical part of this research should advocate reporting disclosures which shed light on access to universities.

By the late-1950s, the question of greater university autonomy was re-visited and the Hughes-Parry Committee was appointed by the second Labour government to review university education and make recommendations for future development. The Committee noted the increase in student numbers, which had reached some 13,000 by that time, but was expected to double over the next decade (Parry, 1959, p. 22), and endorsed the proposal to replace the federal system with autonomous universities.

2.2.2 Towards greater autonomy, 1961-1984

A substantive change to the organisation and administration of the universities occurred in 1961, when the federal university with constituent colleges evolved into a system of separate universities. The UNZ was dissolved and the UGC was set up

in its place as a co-ordinating body. The individual universities became autonomous degree granting institutions and each institution gained more autonomy to pursue its own objectives and manage its affairs. Earlier steps in the process of dissolving the federal university structure had been the vesting of control for individual courses by the UNZ to the individual colleges; legislation in 1957 changed the names of individual institutions from university colleges to universities, and established the UGC. The functions of the UGC included the determination of the allocation of public funds to institutions, review of expenditure by the institutions, and the coordination and planning of university education on a national basis (Department of Statistics, 1964, p. 243).

Lincoln University was established in 1961 as a constituent college of the University of Canterbury, and in 1990 became fully autonomous. In 1964, Massey University and the University of Waikato were established. In respect of annual reporting, the legislation was common to all of the universities:

The Council shall during April each year, furnish to the Minister of Education and the University Grants Committee a report of the University during the immediately preceding year [which includes] a statement of assets and liabilities together with an account of income and expenditure, audited by the Audit Office (for example, University of Auckland Act, 1961, s. 52).

Although the annual reporting requirements were explicit, they focused entirely on financial statements and there was no requirement for the institutions to make their annual reports available to the public by way of dissemination in libraries or for copies to be available for public inspection at the institutions. Reporting was regarded as a matter for the formal channels between the institutions and government oversight agencies in Wellington. This probably reflected the conventional wisdom

of the day about the role of annual reporting which emphasised stewardship rather than decision making or accountability. The notions of a general public interest, or even a public right to information about the detailed financial affairs of public institutions was not developed at this time. It appeared to be an accepted responsibility of government to protect the public interest in this context.

In the late 1960s, Finance Minister Robert Muldoon foreshadowed future university funding problems when government would be unable to finance continued expansion of the universities (Butterworth & Tarling, 1994, p. 38). Economist A. D. Brownlie, later Vice-Chancellor of the University of Canterbury, recognised the impossibility of maintaining both open entry and free university education and the inevitability of some 'user pay' (Brownlie, 1972) and over the next two decades this concept gained momentum.

Butterworth and Tarling (1994, p.51) noted the deterioration in university-government relations during the 1970s, and also the questioning worldwide of the role of universities in society which the universities failed to respond to in a convincing manner. During the 1960s and 1970s, the universities provided the statutory reports to the UGC and the Minister of Education (see the Annual Reports of the UGC to Parliament), and by the early 1980s some of the universities began publishing their accounts in booklet form and made them available to the public (see, for example, the Annual Reports of the University of Waikato from 1982 onwards). However, Butterworth and Tarling, (p. 56) criticised the UGC for failing to convince the universities of the political wisdom of providing fuller reporting to Parliament, which may have softened some of the changes which were to occur in the late 1980s.

One important contrast in the growing debate over the future of universities was the belief of scholars that universities' prime obligation was to their branch of learning, whereas politicians wanted to see universities making a stronger contribution to the needs of the state, which required a greater focus on economic priorities. Butterworth and Tarling (1994, p. 72) argue that another factor in explaining the raft of new regulations imposed on the public sector and the universities in the 1980s was the existence of a low trust culture which reappeared under the guise of 'accountability'.

2.2.3 *Growth of the Universities, 1960-1990*

The four university colleges developed steadily throughout the first sixty years of the 20th century as indicated by the statistics in Table 2.2. The student body increased from under 1,000 in 1900 (0.11% of the total population) to some 12,500 by 1960 (0.53% of the total population). Under the umbrella of open entry there was rapid growth in the numbers attending university with increases of 20,000 between 1960 and 1970, and again between 1970 and 1980. Between 1980 and 1990 the increase was almost 30,000, and the 80,000 students attending university in 1990 represented over 2% of the total population compared with half of one per cent in 1960. The increase in the size of universities from 1960 onwards, as indicated by student numbers (12,000 to nearly 80,000 by 1990), participation (0.5% to 2.3% of the population) and cost (\$4m. to nearly \$600m.), is an important factor in explaining the changes in accountability and annual reporting which occurred in 1990.

Table 2.2

Growth of the NZ Universities, 1900-1994

	Population of NZ (millions)	Students	% of Population	Government Expenditure on Universities ² (\$m)
1900	0.771	880	0.11	
1910	1.003	1,832	0.20	
1920	1.208	3,672	0.30	0.278
1930	1.412	4,623	0.32	0.360
1940	1.635	5,350	0.28	0.358
1950	1.927	10,875	0.56	1.983
1960	2.370	12,455	0.53	4.376
1970	2.858	31,542	1.10	25.2
1980	3.164	51,608 ¹	1.63	178.2
1990	3.343	78,919	2.36	576.6
1992	3.443	93,184	2.71	753.4 ³
1994	3.480	97,835	2.81	763.7

NOTE: ¹ Includes full-time, part-time and extramural students from 1980 onwards.

² No figures were published for government expenditure on higher education in the NZ Yearbooks for the years 1900 and 1910. For the years 1920-60 figures shown are for government expenditure on higher education. From 1970-94 figures shown are expenditures on universities.

³ Expenditure statistics for 1992 & 1994 provided by Ministry of Education. These represent the sum of EFTS subsidies to universities plus student allowances.

SOURCE: All statistics taken from the NZ Yearbooks for 1901, 1911 etc. except where indicated otherwise.

It seems likely that this increase in the size of universities was accompanied by changes in their culture and management style. Comparatively small, homogeneous institutions lend themselves to informal management styles whereby such important matters as decision making, resource allocations, planning and control may be competently and amicably resolved by small groups of senior managers. As

institutions grow such approaches become impracticable, and more formal, systematic systems of planning and control have to be adopted. Also, as more citizens become involved in universities as employees, students and other kinds of stakeholders, so more interest is likely to be generated in their activities and a demand for more accountability to develop. The significant increase in student numbers, participation and the cost of universities to the government from the 1960s onwards were important factors which contributed to the changes required in university annual reporting by the 1990 legislation.

2.2.4 Public Sector Reforms, 1985-90

The Education Amendment Act (1990) transformed annual reporting by universities. To understand fully the nature of these changes and identify the driving forces behind them, it is necessary first to examine the radical changes which occurred in the public sector as a whole between 1984 and 1990 under the fourth Labour government.

This period witnessed massive changes to the structure, organisation and management of the public sector (Boston, 1991, p. 1). State trading activities were corporatized and subsequently sold off to the private sector, a new financial management regime was imposed on government departments, departmental heads were replaced by Chief Executive Officers on short term contracts of up to five years, there were cuts in many government programmes, changes to public sector industrial relations and greater concern with accountability and performance assessment.

Boston (1991) identified four reasons for the reforms:

- (i) NZ's economic problems of stagnation and increasing debt,
- (ii) a shift to the right in favour of commercialisation and privatisation by the influential members of the Labour cabinet, especially Roger Douglas (1980), Richard Prebble, David Caygill and Michael Bassett,
- (iii) a quest for greater accountability of the bureaucracy and the political executive - Prime Minister (1988/9) Geoffrey Palmer was a key figure pursuing this cause,
- (iv) Treasury advice to government during this period (The Treasury, 1984; 1987a; 1987b).

A commentary on each of these reasons now follows.

2.2.4.1 Economic problems

New Zealand's post 1939-45 war economic history was one of comparative affluence built on a strong rural economy. From 1950 to 1970, high economic growth, regular balance of payments surpluses and low unemployment were the backdrop which enabled the state sector to provide high quality, universal education, health and other social services funded from the public purse. Possibly, this growing economic maturity provided the confidence to cut the support provided by UK institutions through the UNZ, and to form independent, autonomous universities, as noted earlier.

Table 2.3

Key Economic Statistics, 1980-94

	Govt. Financial Deficit (% GDP) ¹	Total Public Debt (% GDP) ¹	Unempl- oyment (000s) ¹	Social Welfare (% Govt. Expen.) ²	Debt Service (% Govt. Expen.) ²	Education (% Govt. Expen.) ²
1980	2.6	52.6	29.0	28.3	15.3	14.1
1982	4.8	51.8	47.0	29.5	15.4	12.9
1984	7.0	63.6	78.0	23.0	35.6	13.1
1986	3.2	71.7	53.0	30.9	19.5	12.4
1988	2.1	65.4	91.0	39.3	19.8	15.0
1990	0.4	61.7	149.0	40.4	18.5	15.9
1992	3.7	64.6	162.3	36.3	14.1	16.0
1994	(0.1)	57.4	137.5	38.7	12.8	15.8

Sources: ¹ Dalziel & Lattimore (1991), pp. 54-9

² NZ Official Yearbooks, 1982-92

All statistics from 1992 onwards taken from NZ Official Yearbooks, 1993 & 1995

The oil shocks of the 1970s and the loss of automatic access to European markets with the formation of the European Community, heralded a more difficult economic situation (Dalziel & Lattimore, 1991). The 1980s were difficult years for the NZ economy. Real economic growth was low throughout with an average of 1.8% per annum over the 10 years, 1981-90 (Dalziel and Lattimore, 1991, p. 54). The registered unemployed increased from 29,000 (2.2% unemployment rate) in 1981 to 149,000 (10.2%) by 1990. Throughout the 1980s there was a deficit on the government budget which was financed largely through borrowing; public debt reached unprecedented levels and a peak of 78.8% of Gross Domestic Product [GDP]

in 1987 (Dalziel and Lattimore, p. 59). Through sales of public assets, mainly state-owned enterprises, some debt was repaid between 1988 and 1990. The summary statistics in Table 2.3 illustrate the structural changes in the public economic position since 1980.

Social welfare payments increased from under 30% of government expenditure in the early 1980s to over 40% by 1990; this reflected payments to the unemployed whose numbers increased fivefold during the 1980s. Government spent more on debt servicing each year through the 1980s than on education; for the most part debt servicing costs amounted to 15-20% of expenditure whilst education represented 12-15% of expenditure. In the mid-1980s, debt servicing costs increased to some 35% of expenditure and this was subsequently reduced by the asset sales programme.

The picture to emerge from the statistical summary is the deteriorating situation faced by government during the 1980s. Debt servicing costs are not discretionary; they have to be paid regardless. Similarly, payments to the unemployed have a different but equal compulsion: New Zealand's egalitarian tradition possibly contributes towards an attitude that regards such payments as an essential, and not an indulgence. As debt servicing and social welfare payments took an increasing proportion of government expenditure, so in a situation of low or negligible economic growth less funds were available for other parts of the government budget. There was pressure to seek reductions in other spheres of expenditure, and education and health, as significant other parts of government expenditure, became targets for economies (Treasury, 1987b).

From this review of the deteriorating economic position during the 1980s, it seems that the government sector in its traditional form was unsustainable, and

reform was unavoidable.

2.2.4.2 *The political shift to the right*

During the early 1980s there was considerable questioning of the role of the state in economic activity (Douglas, 1980), which advanced arguments that followed a similar path to that adopted by the Thatcher government in UK (Mascarenhas, 1991, p. 27; Chapman, 1989, p. 28). When the newly elected Labour government came to power in 1984, it was presented by Treasury (1984) with a comprehensive assessment of the problem of poor performance by the public sector, which was attributed to the institutional framework and not the quality of managers (Mascarenhas, 1991, p. 30). Policies advocated included the privatisation of public enterprises, the extension of user-pays, and improved efficiency in the operation of government departments through financial management reforms. Application of such policies tended to affect traditional Labour supporters more harshly than others, and despite this apparent conflict of political interest, the reforms were implemented vigorously.

Two key politicians of the Labour government 1984-90 who strongly advocated these policies were Roger Douglas (later Sir Roger), Finance Minister 1984-88, and Geoffrey Palmer (later Sir Geoffrey), Deputy Prime Minister 1984-89, and Prime Minister 1989-90. The Labour government did not restrict its reforming activities to the public sector. In 1984 and 1985 enormous change was made to the private sector environment including the removal of subsidies to farming, deregulation of transport, finance and retail trading, the removal of foreign exchange controls and the reduction of import tariffs (James, 1986, p. 171). The logic behind the changes was

that government interference in the economic process caused economic inefficiencies which were to the overall detriment of New Zealand and its people. The changes would allow the forces of competition to operate naturally and enable consumers to reap the benefits in the form of a better service and lower prices.

A programme of Financial Management Reform of the public sector was launched in the late 1980s with the objective of improving efficiency. Earlier reforms in the 1970s had not worked because of a failure to develop meaningful performance measures and the focus by managers on budget and legal compliance rather than on managing resources efficiently and effectively (Pallot, 1991a, p. 168).

There were many weaknesses in the system, for example: the requirement to spend unspent appropriations which provided incentive to spend monies before the year end regardless of whether it was necessary or not; the cash-based system did not encourage the monitoring of assets; the lack of systematic charging for services between departments meant that those receiving free services had no incentive to use them efficiently; the March balance date for government departments and the July budget meant that departments had a three month wait to know what their allocation would be (Pallot, 1991a, p. 169).

Soon after the Labour Government came to power in 1984 the Committee on Public Expenditure set up in 1982 chaired by Peter Neilson reported. Principles established by this report included: the use of non-financial, as well as financial, measures; the use of accrual accounting; the requirement for departments to define their objectives and targets clearly, and to use performance indicators; the requirement that requests for resources should reflect full costs, including inter-department charges, cost of capital employed and opportunity costs. The essence of

Neilson's recommendations which lay in the adoption of a more *businesslike* approach to the management of the public sector were also adopted by a succession of official reports (see for example, Treasury 1984; Treasury 1987a; Economic Development Commission, 1987), public statements (see for example, Minister of Finance, 1986; Minister of Finance, 1987) and other recommendations (see NZSA, 1987a) in the following five years, and culminated in the Public Finance Act (1989).

Improving the efficiency of the public sector by adopting a more businesslike approach became known as managerialism (Boston, 1991, p. 20). The essence of managerialism lies in the assumption that there is something called 'management' which is a generic purely instrumental activity, embodying a set of principles that can be applied to public business, as well as to private business. Similar developments occurred in Australia at about the same time (Guthrie, 1994). The features of managerialism include:

- (i) emphasis on management skills rather than professional or technical skills;
- (ii) shift from input controls and bureaucratic procedures to output measures and performance targets;
- (iii) devolution of management coupled with new reporting, monitoring and accountability mechanisms;
- (iv) disaggregation of large bureaucratic structures - separation of commercial from non-commercial functions and policy advice from policy implementation;
- (v) preference for contestability in public service provision; short-term labour contracts, corporate plans, new management information systems;
- (vi) performance agreements and mission statements;
- (vii) preference for monetary incentives;
- (viii) stress on cost-cutting and efficiency (Boston, 1991, pp. 9-10).

These ideas amount to the application of private sector management principles to the organisation and operation of the public sector and the term New Public Management [NPM] was coined to describe the change (Boston, 1991, p. 20). NPM

was criticised because it fails to recognise the inherent differences between the private and public sectors. For the most part, the public sector is non-profit making, and many political considerations have to be borne in mind when making decisions about for example, law and order or conservation. There is often an important and desirable need for close co-operation between government departments, and employees often have a motivation which embodies public service as well as material rewards. Opponents of NPM claim that public sector management should not be modelled on the private sector, but should develop its own distinctive governance structures, employment arrangements and monitoring procedures. NPM principles were inherent in all the reforms of the public sector including the State Sector Act (1988), Public Finance Act (1989) and the Education Act (1989).

Part of the search for greater efficiency in the public sector involved improved accountability, which is considered in the next section.

2.2.4.3 The quest for greater accountability

The 1980s saw a decline of public trust in government and political institutions (Chapman, 1989, p. 19). Although associated with the poor health of the NZ economy and increasing hardship, it was Ministers, MPs, and leaders of the bureaucracy and sector groups on whom most of the blame was placed (Henderson, 1992 p. 57). The Prime Minister from 1975-84, Robert Muldoon, was widely regarded as being dictatorial and as having a cavalier attitude toward legal and constitutional niceties (Alley, 1989, p. 104; Mulgan, 1989, p. 447). Both Labour and National governments were guilty of breaching public trust by implementing policies for which they had not been elected in 1984 and 1990 (Mulgan, 1994, p. 302). A

demand for greater accountability from politicians, government and its agencies was one reaction.

In retrospect, one of the most influential advocates of greater accountability for government was Geoffrey Palmer, who as a Professor of Law, published his arguments in 'Unbridled Power' (1979). He criticised New Zealand's constitution and government as leaving too much power in the hands of the executive. He argued that the existing system of checks and balances upon government decision making was insufficient to ensure careful measured decisions. He thought there was far too much secrecy about the way government conducted its business and argued for more open government and increased public access to information. When the Labour government came to power in 1984, Palmer became Deputy Prime Minister; in the following six years many of the reforms he proposed in 1979 were put in place.

The state owned enterprise [SOE] reforms, which occurred concurrently with those of government departments, provide illustrations of many managerial and organisational features now found in universities. The driving force was fiscal and the desire to save money by improving efficiency. Accountability was an important part of the reforms (Pallot, 1991b, p. 198; Whitcombe, 1989, p. 167); SOEs were required to publish a Statement of Intent each year which was to be agreed with the Minister (State-owned Enterprises Act, 1986). The Statement of Intent includes details of specific objectives which are to be reported against every six months. This represented a change in the relationship between the Principal (Minister) and the Agent (CEO) from one of trust to one of contract (Mescarenhas, 1991, p. 36)

Similar sentiments were embodied in the State Sector Act (1988) which was applied to government departments. The key elements involved the establishment of

clear objectives for each department, giving freedom to manage, accountability, effective assessment and adequate information flows. Most significantly there was a change in administrative focus from input controls to output accountability. An important element was the creation of an unbroken chain of accountability stretching up through a department to the Minister.

Davies (1987) refers to the accountability of bureaucrats to Ministers as managerial accountability, in contrast to public accountability which is the accountability of Ministers to Parliament and thence to the community at large. As explained by Sinclair (1995) accountability takes many forms and meanings including statutory, managerial and public accountability and these are explored in more detail in Chapter Four.

2.2.4.4 Treasury advice to government

Treasury provided strong advocacy for economic reform and was criticised in many quarters for wielding excessive power over the fourth Labour government's economic policy, although Boston and Cooper (1989, p. 124) suggest that in part this was possibly a reflection of much greater openness of government. Treasury's briefing papers on many issues had been published following passage of the Official Information Act (1982). Other review agencies, including the NZSA's public sector group, took up the challenge of improving accountability and published the NZSA Public Sector Accounting Statement No.1 [PSAS-1](NZSA, 1987b) and the Statement of Public Sector Accounting Concepts [SPSAC](NZSA, 1987a) which formed the basis of the reporting requirements of the Public Finance Act, 1989.

Treasury (1987a) reiterated the problem of financial management in the public sector to the incoming Labour Government. A set of five interrelated and mutually reinforcing elements of the management process were identified. These were:

- (i) a clear specification of the objectives for which managers were responsible,
- (ii) the freedom for managers to make resource allocation decisions on a basis which enables the most efficient attainment of objectives,
- (iii) accountability ie. incentives and sanctions were put in place to modify behaviour of managers to ensure they meet established objectives rather than pursuing independent goals of their own,
- (iv) effective assessment of performance, with emphasis on separation of results over which managers have control from those stemming from external factors,
- (v) sufficient quantity and quality of information to make performance assessment possible.

These elements specify the nature of the changes required in public sector management which might be regarded as leading to a greater emphasis on efficiency and effectiveness than had been required hitherto. These ideas were subsequently incorporated into the Public Finance Act, 1989 which included a clear distinction between inputs, outputs and outcomes (McCulloch & Ball, 1992). The public sector had traditionally been managed by allocating a given amount of funding to the various government departments. Under the Public Finance Act, 1989 more

importance was attached to outputs and outcomes¹.

McCulloch & Ball (1992) considered that this separation of outputs and outcomes had two important implications. Firstly, outcomes are linked closely to policy advice and, traditionally, government departments had provided both advice and services; this distinction highlighted the desirability of segregating policy advice from operational output production. Secondly, the clear definition of outputs gives rise to the possibility of obtaining services from alternative suppliers where this might be more efficient. This latter point might be particularly significant for universities.

New financial management proposals for the public sector were developed by government and the main principles, embodied in the Public Finance Act, 1989 were:

- (i) distinction between inputs, outputs and outcomes,
- (ii) contractual relationships between Government and the Department. The Government to be viewed as a purchaser of outputs which had a clearly specified nature, quantity, quality, delivery time and place and price,
- (iii) government as the owner of the agency wanted it to run as efficiently as possible.

The Public Finance Act, 1989 brought about fundamental change to public sector financial management practices which included specific requirements for improved accountability. A year later, under the Education Amendment Act (1990) the annual reporting requirements of the Public Finance Act were imposed on the

¹ Outputs are the clearly defined goods and services for which the chief executive would be responsible, whilst outcomes, the impact on the community, are the responsibility of Ministers (McCulloch & Ball, 1992, p. 9).

universities.

2.3 The Theories behind the Reforms

According to Boston et al. (1991) four theories provided the under-pinnings for Treasury advice: public choice theory, agency theory, managerialism, and transaction cost analysis.

Public choice theory focuses on the problems of aggregating individual preferences and studies of formal social choice. The fundamental assumption is that all human behaviour is dominated by self-interest and, in the public sector, this leads to the conclusion that civil servants will try to maximise the size of their departments and budgets, and politicians will try to maximise the size of their vote. This leads to the belief that the public sector will expand far beyond the size necessary to provide for national security, law and order, education, health etc. To counter the tendency for an ever burgeoning state bureaucracy, public choice theorists argue for policies that lead to minimisation of the role of the state, user pays and as much privatization as possible. Also, because bureaucratic capture² may occur, the roles of advice, regulation and delivery of services should be separated. Boston (1991) argues that the main weakness of public choice theory is its assumption of self-interest and dismissal of the notion of either politicians or civil servants acting in what they perceive as the wider community benefit.

Another important influence was the theory of agency problems in firms (Scott and Gorrington 1989, p. 81). Agency theory is based on the idea that organisational

²

This refers to the possibility of public officials favouring policies that support and protect their own departments, rather than the public interest.

life consists of a series of relationships between agent and principal. The client is the principal and the service provider is the agent. Thus the Minister is the principal of the departmental head or CEO; departmental managers are the agent of the CEO and so on through the organisation. Like public choice theory, agency theory assumes that individuals are rational utility maximisers and this leads to a natural conflict within organisations.

Problems arise because agent and principal have access to different information about the organisation and this leads one party to exploit the other in a spirit of self-interest. Much of agency theory is concerned with finding ways of constructing satisfactory contracts between principals and agents so as to minimise violations resulting from opportunism on the part of the agent. This might be done by providing incentives to the agent or closely monitoring the agent's behaviour. As with public choice theory, the major weakness of agency theory as an explanation of behaviour in the public sector is the assumption of self-interest.

Transaction cost analysis was advanced by Williamson (1975; 1985) to explain the perpetuation of hierarchies to provide goods and services in the public sector. The assumption of public choice theory and agency theory, individual self-interest, is also at the heart of transactional cost analysis. Williamson also takes other factors into account such as uncertainty of the future, the highly specialized knowledge which many parties to contracts are able to obtain about an organisation's operations and the limited information available to other individuals. Specialized knowledge makes organisations highly dependent on some individuals and gives them extra bargaining power when contracts are renewed. In a world characterised by these qualities, there will be a tendency for organisations to minimise the cost of

transacting business by forward and backward integration.

Clearly, there was a movement which sought greater efficiency in public sector activities and both agency theory and public choice theory provide a logical explanation for this. In Britain, similar policies were adopted by the Thatcher government. In view of the traditional close ties between the two countries, it is possible that some of the proponents of reform in New Zealand were influenced by changes to the public sector in Britain.

2.4 Tertiary Education Administrative Reform, 1990

Changes to education administration were part of the public sector reforms. Despite the differences between universities and the rest of the public sector, for the purpose of reform the universities were treated as being no different. "By making an educational investment (paying tuition fees), clients (students) could consume educational commodities (undertake university study) to achieve outcomes [sic] (get degrees)" (Patterson, 1991, p. 2). This commonality of treatment included annual reporting which required the universities to conform to the same obligations as all other Crown Agencies.

Following the election of the Labour government in July 1984, there were many reports and reviews of tertiary education and these are summarised in Table 2.4. In addition to specific reports and reviews on education there were two other influential publications prepared by the Treasury, the Treasury Briefs to the Incoming Government in 1984 and 1987. Although the 1984 report focused on the economy as a whole it did signal concern at state-provided tertiary education which was regarded as excessively costly and sluggish in response to market demand.

Table 2.4

Reviews of Tertiary Education, 1985-90

Date	Title	Author(s)	Focus
1985	Review of University Funding	The Treasury, Dept. of Education and UGC	Options for future funding of the universities; need to determine optimal university funding; more flexibility and accountability needed
1986	Beattie Report	Sir David Beattie, (ex-Governor-General)	Ministerial working party on research and development; recommended increased expenditure on university research
1987	Probine/Fargher Report	Mervyn Probine and Ray Fargher	Management and funding of technical institutes; recommended a new Board be established for both policy and operations of tertiary education
1987	Watts Report	Canadian Vice-Chancellor, Sir Ronald Watts	Overseas experts to make recommendations for future development of the universities; 52 recommendations included need to increase participation rates
1987	Advice to Incoming Government	Treasury	Funding, efficiency and effectiveness issues; recommended administrative reform
1988	Picot Report	Bryan Picot	Taskforce to review administration of the non-university sector; recommended more decentralisation
1988	Reforming Tertiary Education in NZ	Business Roundtable	Recommended more competition and focus on client-driven outcomes
1988	Higher Education: Our Vision	NZ University Students Association	Emphasised crucial social role of tertiary education and recommended establishment of new Tertiary Council
1988	Hawke Report	Prof. Gary Hawke	Important Report; the general task was to provide a review of the reviews and provide a framework for policy action by Government
1989	Learning for Life	David Lange and Phil Goff	Adopted the general framework proposed by Hawke and set out Cabinet's decisions on how they would be implemented
1989	Learning for Life: Two	Phil Goff	Final government policy decisions on tertiary education reform which provided the basis for the subsequent Education Amendment Act, 1990

Source: Adapted from Patterson (1991)

The *Treasury Brief to the Incoming Government* (Treasury, 1987a) was published in two volumes with the entire second volume devoted to education. In the light of subsequent legislation, particularly with regard to accountability and universities' annual reporting, it is apparent that this document was very influential. Treasury (1987b) argued that, at the tertiary level, in contrast to education at younger ages, the educational institutions exist to meet the demand of their customers, rather than having straightforward social goals such as providing a general education. At this level, on the demand side, education is entirely voluntary and on the supply side, the institutions are largely free to design and offer the courses of their choice. Treasury (1987b) also noted the heavier emphasis on the economic role of tertiary education where students often prepare specifically for a particular career, and the benefits accrue more directly to the student and the subsequent employer who is relieved of training costs, than to society in general.

Treasury (1987b) argued that the two non-educational functions of universities, the entrepot function (being a repository of knowledge and culture) and the research function (pursuing new knowledge and truth) should be separated from the educational functions as far as administration and finance allowed. Underlying concerns with tertiary education were the inequity of access by gender, class and race, a tendency towards elitist institutions, credentialism³, and producer capture which makes provision insensitive to changing market demand. Government funding of university education tends to exacerbate credentialism with the benefits accruing

³ Credentialism refers to the trait of students taking more and more qualifications merely to differentiate themselves in the job marketplace and enhance their ability to obtain employment.

mainly to providers and the more socially advantaged students, but not to society as a whole.

... more association between who pays and who benefits and between who benefits and who chooses [is needed]. Provision also needs to be made more accountable to users since, on the supply side, rigidities in funding and in wage scales, as well as the limited contestability of provision, are slowing the tertiary sector's responsiveness to the increasingly rapidly changing and complex patterns of demand (Treasury, 1987b, p. 287).

In summary, the Treasury argued for the greatest possible freeing up of both demand and supply in the provision of tertiary education. *Learning for Life: Two* (Goff, 1989, p. 9) was the Minister of Education's policy statement resulting from the various investigations and reports prepared over the previous five years. He concluded that "The present structure needs changing because it was designed for different times and for different circumstances".

The Hawke Report (1988) was intended as a summary review of tertiary education policy issues and concerns were raised about the comparatively short periods allowed for both collecting evidence and receiving comment on the report. It was argued that this haste was justified because Hawke was merely a review of the reviews that had gone before, and did not need to spend undue time on hearing and collecting new evidence. However, Butterworth and Tarling (1994) assert that this was misleading because Hawke introduced entirely new proposals, the most controversial being the disestablishment of the UGC (p. 135). UGC was a buffer between government and the universities and was regarded by many as essential for the preservation of academic freedom, and preventing undue influence of politicians over universities' activities.

The Minister's view was that tertiary education had lost focus and direction, and radical change was necessary to enable the community to obtain greater benefit from the estimated \$1.2 billion annual expenditure (Goff 1989, p. 62) on tertiary education. *Learning for Life: Two* proposed to address the problems with a series of changes, the essence of which was to provide greater institutional autonomy than hitherto but also more accountability and opportunity for community involvement in decision-making. The main proposals were:

- i) institutions to be obliged to operate under a charter, which will spell out limitations on how institutions can use their powers,
- ii) annual corporate plans detailing the objectives, service performance measures to be used as indicators, and resources required by the institution to be submitted to the Ministry,
- iii) a Council, with wide community representation, to 'guard' the charter and ensure adherence to the corporate plan,
- iv) CEOs to be responsible for managing institutions.

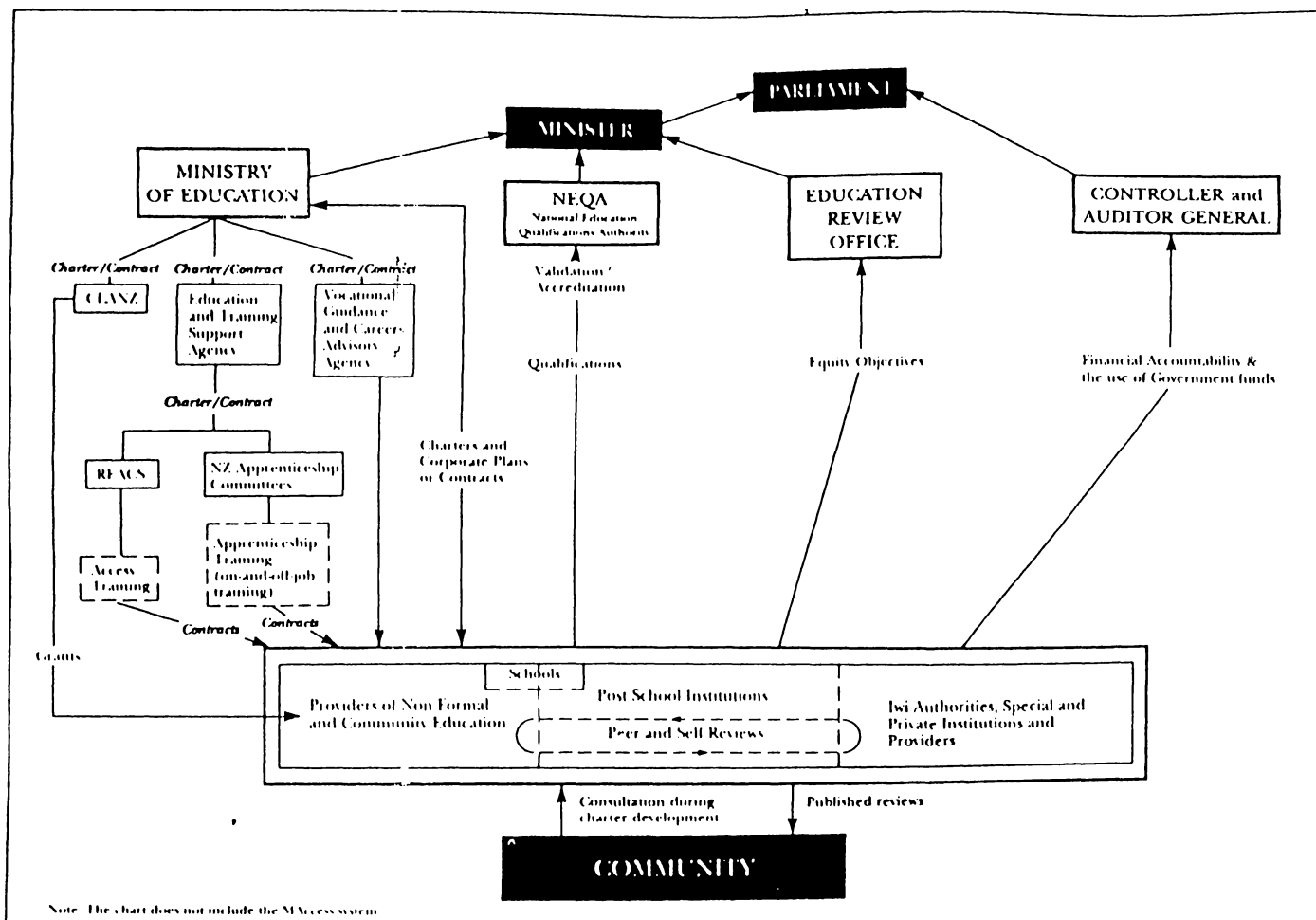
Accountability was to be achieved through formal and informal communication channels between universities and the Ministry of Education, the Minister of Education, Parliament and the Community. The lines of accountability as identified by the Minister are reproduced in Figure 2.1 (Goff, 1989, p. 24).

In summary, the Minister identifies lines of accountability through:

- (i) Ministry of Education (Charters and Corporate Plans),
- (ii) National Education Qualifications Authority (Qualifications),
- (iii) Education Review Office (Equity Objectives),
- (iv) Controller and Auditor General (Annual Report),
- (v) Community (Charter consultation and published reviews).

Figure 2.1

Tertiary Education Institutions' Lines of Accountability according to the Minister of Education (1989)



Source: *Learning for Life: Two* (Goff, 1989, p. 24)

This represents a formal, narrow view of accountability in contrast to a public accountability which advocates the dissemination of comprehensive, timely information through the annual report to all those with a legitimate social, economic or political interest in the organisation. However, the Minister identifies an important place for the annual report in these accountability processes. The Annual Report, which is but one of the formal means of accountability, is audited by the Controller and Auditor General who reports directly to Parliament. In addition to the formal channels of accountability to the Minister, Parliament and the community, informal accountability is achieved through peer and self reviews within the institutions. This interpretation of accountability is contrasted with statutory and managerial accountability and a wider form of public accountability in Chapter Four.

Two universities, Auckland and Canterbury, were so concerned about the government's haste in introducing new legislation that they commenced legal proceedings to force government to conduct more consultation. However, none of the other universities would join them in a legal challenge (Butterworth and Tarling, 1994, p. 157), and eventually the proceedings were dropped.

The Educational Amendment Act, 1990, translated *Learning for Life: Two* into law. When introducing the Bill, the Minister of Education stated:

[the Bill] seeks to safeguard tertiary institutions against abuse of power by State authorities. At the same time, it seeks to balance the freedom of the institutions with the need of those institutions to maintain proper accountability for their expenditure, which in the current financial year amounts to more than \$1.2 billion of public funds. Accountability mechanisms include the requirement that institutions consult the communities they serve. ... Institutions must have charters that set out their broad objectives, and corporate plans that state in general terms how those objectives will be achieved. Approval by the Minister or ministry provides up-front accountability. ... The institution must report annually to the public on its progress in achieving the objectives set out in its charter and corporate plan (House of Representatives, 1990, p. 1167).

The Minister went on, "The balance between accountability and autonomy is not always easy to find. The Bill endeavours to achieve that balance".

2.5 Summary

At the outset of this chapter two questions were asked:

- i) Why did government select this particular model for annual reporting by universities?
- ii) Why did government implement the changes at this time?

From this review, it can be seen that many unrelated conditions led to matters coming to a head when they did. In the second half of the 20th century New Zealand universities changed from being comparatively small institutions to much larger higher education providers. The egalitarian tradition of free, publicly funded, open university education was incompatible with this rapid expansion and the country's declining economic performance. There was a questioning of the role of universities in many western countries, including New Zealand, from the 1960s onwards which surrounded the issue of whether the universities' prime commitment was to learning and scholarship or to training the next generation of the workforce. There was also a widespread belief that universities were inefficient and ineffective.

In reviewing the development of universities over the past 130 years many important aspects apparently unrelated to reporting and accountability issues were touched upon. In the setting up of the early universities, the private provincial nature of some was noted including their generous endowments. The exclusive almost private operation and control under the aegis of first the University of New Zealand and then later the University Grants Committee developed a culture that might resist

the more open accountability demanded in the 1990s. The policy of open entry, free university education adopted in the 1930s led to impossible financial tensions in the 1980s when government wished to expand access and participation. As will be seen later in the thesis, these issues relate to the politics of accountability and reporting which is developed in Chapter Five. Knowledge of the past helps us to understand the present.

National economic problems in the 1980s forced government to reassess economic policies and, despite the conflict with traditional Labour values, the government vigorously implemented libertarian policies. These abolished many economic regulations in favour of free enterprise, and required a more businesslike approach from the universities as part of the public sector. More autonomy and responsibility was given to Chief Executives, and emphasis in reporting was placed on non-financial information as well as the traditional financial statements.

The demand for more accountability was also associated with the development of a lack of trust of both politicians and public sector managers, and this is also explored further in Chapter Five. The need for more openness and accountability was recognised by those in power, particularly the Treasury and the influential members of the Labour government. Both were strong enough to introduce the changes despite opposition in some quarters. The annual reporting model was one part of an accountability process which would enable the Minister, Parliament and the community to make judgements about the universities' success in meeting their objectives.

CHAPTER THREE

RESEARCH METHODOLOGY AND METHODS

3.1 Introduction

In this chapter the research methodology and methods are described and justified. The methodological section explains the rationale for the research, and addresses the important questions of how the research may claim to advance knowledge and adequately possess the characteristics of validity and generalisability. Following this, the main research method used, the delphi opinion gathering exercise, is explained.

3.2 Methodology

Methodology refers to the philosophical underpinnings of research and is concerned with such issues as the beliefs and objectives of the researcher, the motivation for the research, the development of the theory, the research design, the influences of the research method on the outcome of the research, the limitations of the research methods, and the inferences that can safely be drawn from the research (Abdel-khalik & Ajinkya, 1979, p. 3). It is through an appreciation of methodology that "adherents to any discipline learn to accept or reject knowledge" (Aitken & Gaffikin, 1987, p. 5).

3.2.1 *The Researcher*

Awareness of a researcher's background is important because this may provide evidence about the reasons for addressing the question, and clues about bias and other weaknesses in the findings. Interest in universities' accountability was initiated

whilst this researcher was employed at a previous university from 1983 to 1991. The mid-1980s was a period of vigorous expansion in undergraduate commerce student numbers, which was unmatched by compensating increases in teaching and other resources to that faculty. As explained in Chapter Five, exploration of these issues led to an awareness of inadequate information systems within the university, crude resource allocation procedures, and strong, entrenched power blocks which inhibited attempts to address resourcing issues. A specialist interest in management accounting heightened sensitivity about the paucity of financial management information on this campus. Discussions with colleagues at other universities indicated similar problems elsewhere, although probably not to the same extent. This situation was the catalyst for thinking that improved accountability is necessary. Motivation for the thesis is not only the opportunity to advance knowledge for its own sake, but also to improve universities' accountability in the belief that this will lead to better management, fairer resource allocations, and improved efficiency and effectiveness.

This facet of the researcher's background suggests a risk of bias and the need for explicit steps in the research design to counter such threats. Strongly held convictions may cause a researcher to ignore or attach less importance to evidence that does not support the general belief. The caution for this research is to exercise particular care in developing a theory which is empirically tested and subjected to thorough, critical examination by peer review. Declaration of this potential cause of bias is in itself an important protection because it signals the researcher's own awareness of the possible problem, and invites rigorous scrutiny from those who evaluate or use the research.

3.2.2 *The Research Question*

The main contribution of the thesis lies in the utility arising from the relevance and novelty of the research question, and the potential for the research outcomes to contribute to improved university reporting and accountability. As explained in Chapters Two and Five, concerns have been raised in recent years about the efficiency and effectiveness of the public sector in New Zealand and elsewhere, and also about the use and abuse of power by persons in positions of power. Public accountability is regarded as an important counter to such problems. It is argued that this research is timely and relevant, and has the potential to make a useful contribution both in advancing knowledge, and in addressing an important issue of public concern (Thomas & Tymon, 1982).

It is not claimed that the methodology advanced provides the one 'truth' about NZ universities' annual reporting. The index is one perspective designed to reflect society's values at the time it is constructed; with the passage of time, values change and the index must be reviewed, and if necessary, changed in tandem. A decade earlier or later, the 1995 index may be inappropriate, in the context of society's values at those times. However, a set of principles for index construction may provide the foundation for the further development of an accountability index in the future.

Difficulties are experienced with the assertion of Abdel-khalik and Ajinkya (1979, p. 21) that the objectives of accounting research are to describe, to explain and to predict. Such a definition may sit comfortably with the notions of 'scientific' research. In this thesis, no direct attempt is made to describe, to explain or to predict in the sense used by Abdel-khalik et al. (1979) who had in mind the typical scientific

accounting research of that time (for example, Ball & Brown, 1968; Beaver, 1968; Basu, 1978).

There are two essential elements to this research question. The first is to identify the disclosures and qualities that should be made in contemporary NZ universities' annual reports from a public accountability perspective, and the second is to establish a framework for evaluating the extent to which individual reports meet these normative expectations. The thesis provides a measure of the contribution to public accountability made by contemporary reporting, and in a sense it might be regarded as a form of accounting for accounting.

3.2.3 *Quantitative and Qualitative Accounting Research*

There has been an on-going debate within accounting academia for a decade or more concerning the merits of different accounting research methodologies. This has encompassed two broad camps; the scientific, objective, positive group on one side (for example, Abdel-khalik & Ajinkya, 1979; 1983; Watts & Zimmerman, 1986) and the naturalistic, subjective, relativist, critical and deconstructionist groups on the other (for example, Tomkins & Groves, 1983a and 1983b; Willmott, 1983; Chua, 1986; Arrington & Francis, 1989; Boland, 1989).

Quantitative research is claimed to be rigorous, but criticised for lacking relevance, external validity and having a low utility (Mitroff and Pondy, 1978; Thomas and Tymon, 1982). Proponents of qualitative approaches believe that organisations are too complex for the essence of meaningful problems to be captured with simple scientific experiments which usually fail to recognise the human dimension of organisational problems (Christenson, 1983; Willmott, 1983; Aitken and

Gaffikin, 1987). Furthermore, it is argued that researchers need to take cognisance of their own worldview or paradigm (Burrell and Morgan, 1979), recognise the influence of power structures operating within society (Chua, 1986) and accept that often, business problems are too complex for solutions to be found. For these reasons research is more likely to lead to a better understanding of problems, rather than definitive answers or universal truths (Arrington and Francis, 1989; Boland, 1989).

In contrast to the scientific, quantitative school, Patton (1990, p. 481) argues that quantitative methods may not protect against bias in research, but may merely disguise bias. Furthermore, he argues that qualitative methods are not weaker or softer than quantitative approaches, but different approaches. The secret of conducting high quality research is in finding ways of using the strengths and weaknesses of both quantitative and qualitative methods. Patton suggests that the mandate to be objective in research should be replaced by one to be balanced, fair, and conscientious in taking account of multiple perspectives, multiple interests and multiple realities. This philosophy is adopted in this thesis.

One consequence of this rift amongst accounting researchers has been the emergence of specialist accounting academics who do only one kind of research, and accounting journals which seem to prefer quantitative research (for example *The Accounting Review*, *Journal of Accounting Research*) or qualitative research (for example *Accounting, Organizations and Society*, *Critical Perspectives on Accounting*). The danger of dichotomizing accounting research is that research methods may drive and dictate the research problems that are addressed. Some

accounting researchers may seek only those issues which are amenable to their methodology and methods; such a scenario has potential for wasting talent, time and energy. This is because some researchers may avoid society's most important questions in need of research, and instead focus only on less important issues that are readily addressed using the well-rehearsed techniques of their expertise.

There are difficulties in classifying this thesis as solely quantitative or qualitative. The methods used were selected as being most appropriate to the questions being addressed. Both qualitative and quantitative methods are used because they appear to be the most appropriate, economical and practical to meet the research objectives.

Analysis of the contemporary extant literature sources in the western democratic countries is used in the first part of the thesis to develop a normative model for NZ universities' annual reporting. Validation of this model is sought in the second part through the use of an opinion seeking delphi to obtain expert stakeholders' views. The results of the delphi are then used to construct the accountability index.

Qualitative methods, including an informal case study, are used in Chapter Five to support the argument that political negotiation has a major influence on universities' annual reporting. Reliance is placed upon extensive preliminary joint research which included wide dissemination of the results, and comprehensive literature analyses. In the final part of the thesis statistical methods are used to analyse data gathered in the delphi exercise. It is argued that this mixture of qualitative and quantitative methods is appropriate to the research objectives. Ultimately, peer judgements must be made to evaluate the worthiness of the research.

3.2.4 *A Political Economy of Accounting*

The research methodologies adopted in this thesis link well with the ideas of Cooper and Sherer (1984) who advocated a political economy of accounting to overcome the inherent bias in contemporary accounting research which favoured private, rather than public, interests. They identified three features of a political economy approach to accounting: (i) recognition of the role of power and conflict in society, (ii) acknowledgment of the historical and institutional environment in which accounting operates, and (iii) adoption of a more emancipated view of human motivation. The third point suggests that accounting as practised may encourage people to behave in self-interested ways, and new approaches to accounting such as recognition of externalities may contribute to improvements in social welfare.

Cooper and Sherer (1984) suggest that a political economy approach to accounting research encapsulates three imperatives: be normative, be descriptive and be critical. These guidelines are strongly to the fore in this thesis. As explained in Chapter One an open normative stance is taken towards what should be disclosed in universities' annual reports from a public accountability perspective. This approach is taken in the belief that the ready availability of comprehensive information about universities' financial, teaching and research activities will lead to more efficient and effective institutions. The case study used in Chapter Five provides evidence of provider capture and the nature of resource allocations that may occur in an environment where financial and other annual report type information is lacking.

In being descriptive, Cooper and Sherer warn against the adoption of a "commonsense" view of the world which often becomes a rationalisation for the ideology of the status quo. A critical approach involves researchers in "freeing

themselves from the attitudes and orientations which result from their social and educational training and which are reinforced by the beliefs of the accounting profession and the business community" (1984, p. 222). Critical researchers should not accept that the existing ways of organising society and the place of accounting within that society is necessarily the best way. "It involves a recognition of the contested nature of the accounting problematic and indeed the concept of what is or is not in the public interest" (1984, p. 223).

Many of these methodologies are adopted in this thesis. The research question seeks an accounting for universities based on a public accountability perspective, and in Chapter Four the inadequacy of conventional financial statements is established and the need for a broad reporting which reflects the universities' major activities of teaching and research is advocated. This leads to research conclusions which suggest a radically different form of reporting by universities which may be encapsulated by the adoption of the term 'annual report' in preference to 'financial report' as the document which provides this information. However, as discussed in Chapter Four, this simple re-titling has much deeper implications for the accounting profession.

In a similar vein, Mattessich (1995) also supports the use of normative approaches to accounting research as a way to overcome the problems associated with positive accounting research. He advocated Conditional-Normative Accounting Methodology [CoNAM] as a legitimate approach to accounting research which took cognisance of the applied nature of accounting, rather than the scientific nature as assumed by positive theorists. He suggested that the domination of accounting research by positive theory may be one reason why many practitioners have lost interest in the results of modern accounting research. Mattessich emphasises the

importance of value judgements being openly declared to enable those who may use the research to fully understand its context, and assess its usefulness. This approach is adopted in the thesis.

3.2.5 Research Paradigms

Burrell and Morgan (1979, p. 22) argue that social phenomena can be viewed from four different paradigms and that it is important for researchers to be aware of their paradigm because this affects the concepts and analytical tools used to carry out research. Their paradigms were developed from two alternative views about the nature of society and how it might be changed (regulatory or radical), and the nature of society's problems and how they might be addressed (objective or subjective). The four paradigms were Radical humanist, Radical structuralist, Interpretive and Functionalist.

Although the importance of being aware of the perspective or paradigm from which accounting research is conducted has been accepted, the relevance of the Burrell and Morgan framework for accounting research has been challenged. Burrell and Morgan provide a framework for sociological research and Chua (1986) questions whether this is adequate for accounting research. She argues that the commonalities between sociology and accounting could not be assumed, and that the four paradigms as advanced by Burrell and Morgan are not mutually exclusive. It cannot be assumed that human beings are either determined by their social environment or are completely free-willed and independent; one must often impact upon the other. Other concerns about the Burrell and Morgan framework are whether there are four paradigms; Hopper and Powell (1985) combined the two radical paradigms.

There are difficulties in placing this research within the Burrell and Morgan framework. It could be argued that the research might be located within the functionalist (objective / regulatory) paradigm because it is concerned with improving a standard social artifact, the annual report, which in turn will contribute to improved accountability. This approach is in line with recent statutory reforms in New Zealand.

However, the accountability model for annual reporting advanced in this thesis argues for reporting which exceeds legal requirements, and has a focus on public, rather than statutory, accountability. As explained in Chapter Four, the notion of public accountability has not been universally accepted by the accounting profession or university Vice Chancellors and is regarded in many quarters as a radical departure from established reporting practices. In recognition of this the political forces acting upon university reporting processes are analyzed in Chapter Five. This is important because the formal regulatory controls over accountability and reporting may be manipulated where those in positions of power perceive improved accountability as threatening. Issues surrounding university resource allocations are used to demonstrate how improved accountability may be threatening to some power groups within universities.

Despite the focus of the thesis on an established regulatory device, the annual report, it is argued here that the recognition given to, and reliance placed upon, social and political forces outside the standard accountability agencies, places the thesis closer to the radical structuralist paradigm as advanced by Burrell and Morgan (1979).

3.2.6 Research Design

According to Kerlinger (1973) research design provides the plan and structure which enables the researcher "to answer the research questions as validly, objectively, accurately and economically as possible". Two fundamental elements of this research design are the deduction of the normative model from the extant literature followed by its empirical testing using expert stakeholder delphi panels. Cognisance of the political forces which may impact upon reporting processes is taken into account in the design of both elements.

Public accountability annual reports for organisations like universities require the disclosure of considerable non-financial information to the extent that legitimate questions might be raised about how well the accountant is equipped to prepare and report non-financial information to stakeholders. Accountants who have been trained to understand and apply accounting standards might find it difficult to adapt to the unstructured nature of reporting service performance information.

Furthermore, as explained in Chapter Five, critics have complained about the excessive influence of accountants in public reporting (Tower, Perera & Rahman, 1992; Jones, 1992). In acknowledging both the possibility of the accounting profession perceiving recent trends towards public accountability and societal demands for more non-financial information as threatening, special attention is paid in the development of the normative model to using non-accounting profession based sources and references, in addition to the standard accounting references. In Chapter Five, extensive reliance is placed upon the political literature in helping to understand the role of power and influence in matters of annual reporting and public accountability. The absence of meaningful accounting research into universities'

service performance leads to investigation of performance indicators from the education literature in Chapter Six. By using a thorough and careful analysis of the accounting and relevant non-accounting literature, theory development about universities' annual reporting counters threats to validity arising from reliance on sources that may be considered overly conservative.

A second important validity consideration in the research design is in the selection of delphi panellists and the information distributed to them. There is no tradition in New Zealand of universities exposing detailed information about their activities to a critical and interested public. Because of this, it is likely that many stakeholders, if asked about the information they would like to see in annual reports, are likely to have either no opinion, or expectations which reflect the information currently provided.

Thus, this aspect of the research design involves a two stage development. Firstly, a normative model is developed based on contemporary thinking and ideas from diverse academic roots and from many countries. Stakeholders with responsibilities that include reviewing annual reports are invited to critique this model in the delphi exercise. The selection of stakeholders for the delphi is critical. This is done by first identifying individual stakeholders who are representative of the broad groups identified in earlier work (Coy, Buchanan, Dixon & Tower, 1994). These individuals were invited to participate in the delphi in the full knowledge of the research objectives and the time and effort commitment required on their part. Representatives on universities' Councils were invited to be delphi panellists in the expectation that such persons have a high level of awareness and interest in the matters being addressed in the research. Students, who are identified in previous

research as being interested in universities' accountability, are specifically included as panellists (Todd, 1994; Coy et al., 1994). For these reasons, it is believed that the delphi panellists approached their task with more commitment, thoughtfulness and willingness to be critical than might happen with respondents to a conventional data gathering method, such as a standard postal questionnaire distributed to a large random sample.

Because many of the notions introduced in the normative model are novel, and represent a departure from existing disclosure practices, stakeholders were given the opportunity to reflect on their earlier view, and change their opinion in the light of their peers' opinions. It is argued that this approach leads to the development of more reasoned and reliable data about universities' annual reporting than would be obtained using alternative methods.

3.2.7 Validity and Generalisability

Abdel-khalik & Ajinkja (1979, pp. 34-5) identify eight threats to internal validity and five threats to external validity. Most of their concerns apply to experimental accounting research, where possible dependent and independent variables in a sample are selected and analyzed with the intent of identifying causality, and generalising the results to the population as a whole. Whilst such issues are not the concern of this thesis, validity is nevertheless important.

The validity concerns of this thesis relate to the normative model and its evaluation by the delphi panellists. Does the model fairly reflect the objectives of universities' annual reporting from a public accountability perspective? Do the delphi panellists fairly represent universities' stakeholder groups? Were all the

questions asked of the panellists clear and unambiguous so there is certainty that each panellist perceived each question in the same way, and as intended? Did the panellists carry out their tasks conscientiously and properly?

All of these questions are important to validity. The model development and the delphi exercise are carried out in the awareness of these threats, and care is taken to minimise such problems. The delphi questionnaire is pilot tested by two senior academic researchers and modifications are made in the light of their comments. The delphi panellists provide a check on the validity of the normative model, and panellists' suggestions for additional disclosures are tested in the delphi second round. Ultimately, the validity of the research lies in the acceptability of the normative model and the index to the stakeholder and preparer communities. Generalisability becomes subsumed within acceptability.

3.2.8 *Triangulation*

Triangulation refers to the use of multiple methods to provide a check of evidence collected using one method, which can then be compared with another. Denzin (1989), an advocate of naturalistic methods of enquiry, argues that "no single method will ever permit an investigator to develop causal propositions free of rival interpretations ... multiple methods must be employed" (p. 26). Abdel-khalik & Ajinkja (1979) agree with this proposition, because "the higher the quality of triangulation, the stronger the elements of internal and external validity" (p. 47).

There is a triangulation in the overall research design of this thesis. Firstly, the normative model for NZ universities' annual reporting is developed from the extant literature, legislative requirements and analysis of current practice. Secondly, the

model is exposed to criticism and evaluation by the delphi stakeholder and preparer panellists. Finally, the index developed from the empirical research is used to assess the quality of universities' annual reports, and the results of this evaluation were then made available to an expert report preparer and an academic researcher for comment. This multiplicity of methods in the research design provides both a logical scheme for the development of the index, and also a progressive check on validity and acceptability. Flaws in the normative framework should be identified by the delphi panellists. The contributions of the panellists provide the opportunity for modification and fine-tuning. The application of the index to reports, and exposure of the assessments for comment provide a further check on validity.

3.2.9 Limitations

The general limitation of this thesis is that it provides one perspective on universities' annual reporting, developed with both the weaknesses and strengths that follow from the background and biases of the individual researcher and the delphi panellists. An important quality of scientific research is said to be its replicability, in that another researcher applying similar methods to the same problem would come to similar conclusions. In the case of this research, there are many confounding variables and these suggest that other researchers would be unlikely to come to similar conclusions.

Other researchers may not agree with the interpretation of public accountability adopted here. They may not share the same convictions about the role of power and politics in universities. They may not accept that the accounting profession has exerted an undue and narrow influence over public reporting and accounting

standards. Other researchers would bring their own perspectives and values in addressing the same research problem. The overriding objective of the research design is to be thorough, balanced and fair. Users of the research must make their own judgements about the extent to which this has been achieved.

3.3 Research Methods

3.3.1 *The Delphi Technique*

The main research method used is the opinion-seeking delphi exercise. The delphi technique was developed by the Rand Corporation of California, USA in the late 1940s as a means of extracting opinions from a group of experts (Martino, 1983, p. 16). Delphi has evolved over several decades and been described as "... a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem" (Linstone & Turoff, 1975, p. 3). Delphi has been used extensively by researchers in the social sciences. Although it has been associated with technological forecasting, delphi can be used for any purpose for which a committee might be used (Martino, 1983, p. 16).

There are three characteristics of delphi that distinguish it from conventional face-to-face interaction, and these are: anonymity, iteration with controlled feedback, and statistical feedback (Martino, 1983, p. 16). Delphi obtains the views of experts about a problem but avoids direct confrontation of the experts with one another so that contamination of their opinions, which may be caused by contact and discussion, is eliminated. Delphi avoids the negative effects of the committee process but retains the positive benefits arising from interaction. In a practical sense, it also overcomes

the impossibility of assembling expert groups at one location to consider and pronounce on problems which are of less than vital importance.

Delphi works by selecting a panel of experts and then asking them to give opinions in isolation from each other about the matter of interest. The results are analyzed and fed back to the panel along with any additional information they may have asked for, to help in formulating opinion. Such information is provided to all panel members and this feedback is used in making the next decision. Several iterations may be held until stability of response is achieved.

3.3.2 *Advantages of Delphi*

Where agreement is reached through a committee process the consensus can be unduly influenced in many ways. Some members may dominate by status or age and others may, even sub-consciously, be intimidated to modify their views. There may be an unwillingness to take a view until it is known which way the majority is headed. In addition, there may be an unwillingness to abandon a position once publicly taken and fear of losing face from raising uncertain ideas that might turn out not to be sensible. In theory, the delphi method avoids problems of human interaction in the committee process.

The individual experts receive the views of their peers after each round and are able to reflect on these without the social pressures often found in the committee situation. This may cause them to consider factors they had previously neglected or to attach more importance to factors thought at first to be unimportant and modify their view in the subsequent round. This is thought to be conducive to independent thought and the gradual formulation of a considered opinion.

Direct confrontation, on the other hand, all too often induces the hasty formulation of pre-conceived notions, an inclination to close one's mind to novel ideas, a tendency to defend a stand once taken, or alternatively, a predisposition to be swayed by the persuasively stated opinions of others (Dalkey & Helmer, 1963).

3.3.3 *Delphi Applications*

The Conventional Delphi is used for a problem where a consensus is sought and opinions are expected to converge with successive iterations. It is commonly used to obtain opinion forecasting the future. *A Policy Delphi* is used where a policy needs to be developed about a complex issue. It is expected that strongly held differing views will be developed. *A Real-time Delphi* is computer aided and respondents use a computer terminal which processes responses immediately and provides immediate feedback enabling experts to confirm or reassess their position. For this study, the conventional delphi was used. Although opinions may be expected to converge with successive iterations this may not happen in some cases, and is not critical to the success of this delphi exercise.

Dalkey et al. (1972) describe the development of the delphi technique and its use in identifying the important characteristics of the 'quality of life'. Their early experiments involved students giving estimates of the answers to a series of factual almanac questions for which there was a known correct answer. Estimates using the delphi approach yielded more accurate answers. The delphi method has been used to obtain expert opinion on matters for which there is ultimately a finite answer, such as forecasting future manpower requirements (Milkovich, Annoni & Mahoney, 1972) and the future demand for a journal (Best, 1974). This enables the delphi results to be compared with the eventual outcome. Delphi has been used to obtain views about

matters for which there is no finite answer, such as the number of bombs required to inflict a given amount of damage on US industry (Dalkey & Helmer, 1963) and the characteristics sought in entry level accountants (Dinius & Rogow, 1988).

3.3.4 Delphi Method

Many researchers have reported experiments to test different aspects of delphi methods. In using delphis with finite answers to questions, Dalkey et al. (1972) analyzed changes by experts between rounds and found that holdouts (those who did not change their estimate between rounds one and two) were more accurate than swingers (those who did change). Mulgrave and Ducanis (1975, p. 290) reported experiments to test for the responses of people who are dogmatic. They found that those who are more dogmatic were more likely to change response between rounds, but were less likely to change in matters in which they considered themselves expert.

There is no set number of rounds, and the literature suggests two as a minimum and five as a maximum. There is some evidence that there is no significant improvement in estimates after the second round (Dalkey, 1969), suggesting that two rounds will normally be adequate. Turner (1992) carried out a similar study to this one in seeking opinions about external financial reporting by colleges and universities in the US. He completed three rounds. In all the reported conventional delphi experiments which were reviewed, the results show that the opinions of the experts converge with successive iterations and the standard deviation of the responses falls.

There is no rule about the number of experts to be used or the qualification of an expert. An expert is usually selected for known knowledge of the subject of interest and track record as a predictor (Helmer & Rescher, 1959). The literature reports seven experts as the lowest number of experts used (Dalkey & Helmer, 1963; Milkovich et al., 1972). Turner (1992) used 37 experts who were divided into five panels; in the final round the largest panel had 13 participants, and the smallest had six. Best (1974) used 28 experts broken down into four groups of seven. Dinius & Rogow (1988) used 70, 10 from each of seven firms.

Scheele (1975, p. 68) suggested that panel members will normally belong to one of four groups:

- i) Stakeholders - people directly affected by the issue under consideration,
- ii) Experts - people with an applicable speciality or known experience,
- iii) Facilitators - people with skills in clarifying and analysing,
- iv) Individuals with alternative global views on culture and society.

Some of the experiments asked just one question (Dalkey & Helmer, 1963) whilst others asked many. Dinius & Rogow (1988) used a questionnaire which was 17 pages long and requested views on 50 characteristics. There is no set time between iterations, and views seem to be that they should be conducted as quickly as possible taking logistical aspects into account. About one to two weeks is common.

Scheele (1975, p. 70) also considered the problem of stimulating a quality response from the panellists. He thought it was vital that distributed material be stimulating, and that careful attention should be paid to the interpretation and summation of responses. Communication of responses to panellists should be

regarded as an opportunity to create involvement and generate interest.

3.3.5 *Delphi Success Factors*

Goldstein (1975, p. 226) reported delphis on the future of the steel and ferroalloy industries. She identified several factors that contributed to the success of a delphi project. These were: avoid ambivalent wording; when editing respondents' comments, retain the intent of the originator; lay out expected data processing for all rounds before completing the initial questionnaire; design data handling so that it can be processed as it comes in; analyze sub-group responses; ensure that all fields of expertise are represented; two researchers should analyze responses - they should review each other; questionnaire should be pre-tested.

Common reasons for the failure of a delphi were identified by Linstone and Turoff (1975, p. 6). These were: imposing of researcher's view on respondents through excessively tightly structured data collection device; poor summarizing and presentation of group response; ignoring and not exploring disagreements, so that discouraged dissenters drop out and an artificial consensus is generated; and underestimating the demanding nature of delphi and failing to compensate panel members appropriately. Turoff (1975, p. 101) thought that use of the delphi technique was sufficiently well documented that there was little excuse for making many of the mistakes found in earlier exercises. As explained in Chapter Eight, these valuable suggestions are used in operating the university disclosures delphi.

3.4 The Public Accountability Delphi Exercise

3.4.1 *Why delphi is appropriate for this study*

The nature of this research problem is different in two respects to conventional delphis reported in the literature. Firstly, the question of interest ‘What should be disclosed in universities’ annual reports?’ is a different type of question to that addressed in some conventional delphis. These address technological problems with no known answers, but to which professional experts are likely to give more meaningful answers than lay persons. An example could be the use of panels of physicists to predict the damage inflicted by bombs (Dalkey & Helmer, 1963).

This research question is complex in a different sense, and an immediate reaction might be that a standard mail questionnaire would be more appropriate than delphi for gathering stakeholders’ opinions. A mail questionnaire would be deficient because this research question is too specialised and complex to expect lay members of the public to hold meaningful opinions. Because universities’ annual reporting has been almost totally neglected as a communication device with the public until recently, a report audience with mature and considered views about reporting disclosures has not developed.

Furthermore, almost the only readily identifiable group who may be considered ‘expert’ on universities’ annual reports consists of university finance managers and other administrators employed to prepare annual reports. Whilst their views may be interesting, this would be for the purpose of providing a contrast with the views of the public stakeholder groups who are the prime recipients of universities’ annual reports. The identification of political factors surrounding issues of public accountability in Chapter Five indicates that university report preparers’ opinions

would be invalid surrogates for the opinions of public stakeholder groups. Report preparers' opinions are likely to support the *status quo* since they are responsible for preparing the current reports (Perks, 1993). To criticise current reporting would be to criticise their own work; to advocate extensive additional disclosures may invite extra work and problems for them. On the other hand, discerning stakeholders representing public groups may require more and different disclosures from those currently provided.

The absence of mature, established stakeholder groups who are familiar with receiving and perusing university annual reports suggests that any attempt at large-scale questionnaire sampling methods to elicit opinions about reporting would be hazardous, and likely to result in a low response rate and responses with either a low level of meaningfulness, or low validity. Delphi is attractive for this research because:

- i) Panellists are invited to participate. They are selected for their known responsibilities such as being members of university councils, or representatives of academic, student or employee unions. By extending invitations to selected stakeholders the bias inherent in sampling is avoided.¹

¹ Any survey with less than 100% response rate suffers from the possibility of response bias. Those who respond may have different opinions to those who do not respond. This can be important where issues that may be sensitive to some potential respondents are involved. Knowledge (or lack of knowledge) about annual reporting could be a case in point.

- ii) Voluntary participation suggests that panellists are likely to be more conscientious about their contributions than might be the case with a standard written questionnaire. Those who agree to participate as panellists knowing the amount and nature of the contribution required from them are likely to do so because of an interest in the subject, and a willingness to contribute towards the research.
- iii) Iteration enables participants to reflect on earlier responses in the light of new information, and gives the opportunity to confirm or modify these opinions. Thus a more considered response is obtained than might be the case with a written questionnaire, or through interviews.

Despite the differences between the nature of this delphi, and others reviewed in the literature, it is argued, for the reasons explained above, that delphi is a suitable and effective data collection device for this study.

3.4.2 *Public accountability experts*

Numerous application problems are resolved in running this delphi. One of the main issues concerns the definition and use of experts. The reported delphis used experts who are professionally trained and experienced in their fields and who possess complex knowledge and insights about their areas of expertise. They were asked to apply their minds to problems for which there was no known answer, and the results of their deliberations provided an expert opinion about the issue of concern.

In the case of universities' annual reports the delphi panellists are not experts in the same sense. The panellists are chosen because they are representative of

stakeholder groups, and their opinions are sought as being representative of that group. The panellists are selected because their roles in the community suggest that they are likely to be particularly interested in matters of public accountability. This is consistent with the views of Martino (1983, p. 26) who argued that "the panelists [sic] should be experts in the sense that they know more about the topic ... than do most people".

Martino (1983, p. 29) continued that "choosing the panel is the most important decision the panel moderator will make". By inviting participation from individuals selected for known characteristics, it is intended to minimise bias that can occur from self-selection inherent in large sample questionnaire methods. However, panel members are not experts in the usual delphi sense. Reflection on this led to the conclusion that delphi was possibly a better method of obtaining meaningful "public" opinion about universities' annual reports than any practical alternative available.

Delphi often leads to the development of a consensus, and this may or may not happen in this case. However, consensus is not critical to the outcome of the delphi for the value lies in the results, regardless of whether these show consensus, polarisation or variability. The delphi results reveal stakeholder consensus over a broad range of disclosure items, but with a few notable exceptions where polarisation is apparent.

3.4.3 *Panel design*

A second operationalising problem is the determination of the appropriate number and type of delphi panels. Twenty-three kinds of stakeholder type classified into six broad groups are identified in Chapter Four. The creation of delphi panels

for each stakeholder type would be uneconomic and probably impossible to achieve. Would it be more sensible to develop six panels, each representing a broad stakeholder group? One panel might represent 'internal campus based citizens', another 'sister organisations' and so on. Alternatively, one panel could be created with representatives from each of the broad stakeholder groups.

The advantage of separate stakeholder 'broad group' panels is that a high level of agreement might be expected within each group. Previous research (Coy et al., 1994) indicated that amongst the identified stakeholder groups only students held opinions that were significantly different to the opinions of other stakeholders. This suggests a logical compromise in the research design to use panels of student and non-student stakeholders. Coy et al. (1994) also identified a high proportion of university employees among the reporting audience, and this suggests that appropriate groups of stakeholder panellists would be: Internal citizens, External citizens, Students and Oversight Agents. In addition, a panel of report preparers would provide a contrast to and comparison with stakeholder opinions.

3.4.4 *Data collection device*

Martino (1983, p. 31) emphasises the importance of the data collection device in delphi which "should be designed for the convenience of panelists [sic] and not that of the moderator". A possible method of identifying the disclosures and qualities expected of universities' annual reports would be the blank paper approach which asks only one question of panellists; 'What do you think should be disclosed in universities' annual reports?' The response to this approach is likely to be brief, because the detailed disclosures in annual reports are not subjects which most

respondents are likely to be able to recall. More meaningful responses to this question are likely to be obtained by giving stakeholders some prompting as to the different kinds of disclosures and qualities that might be found in contemporary reporting, and asking them to confirm, reject or modify these suggestions. An important part of this process is to design data collection devices in ways that encourage and facilitate criticism. The delphi questionnaire is designed to make it easy for delphi participants to reject suggested items and add new items that may have been omitted (see Appendix D, pp. 339-355).

It is concluded that delphi offers a novel way of obtaining meaningful stakeholder opinions about universities' annual report disclosures, with more thoughtful and higher quality responses, than might be obtained by any known alternative method available. Indeed, even if resources and access to potential respondents were unlimited it is difficult to identify a data collection method which might be more effective.

3.5 Summary

This chapter has explained the methodological issues surrounding this research and the principal data collection method used. Difficulties are experienced in classifying the research as either quantitative or qualitative and it is concluded that both methods should be used as appropriate and that classification of the research in this way is unimportant. A political economy of accounting approach as described and advocated by Cooper and Sherer (1984) is adopted. Multiple methods including the development of a normative framework using a broad range of sources, and empirical testing by carefully selected stakeholder delphi panels are the main means

of achieving validity and acceptability of the research results to the stakeholder and preparer communities.

Consideration is also given to whether the delphi method is an appropriate way to test and collect stakeholder opinions about the suitability and acceptability of the public accountability framework. Although the research question and the type of panellist are different to those used in many reported conventional delphis, it is concluded that this method is superior to any other known alternative method. It is argued that the research question is timely and relevant, and is addressed in ways that are valid and economical leading to a research outcome which is balanced and fair.

CHAPTER FOUR

THE OBJECTIVES AND QUALITIES OF UNIVERSITIES' ANNUAL REPORTS

4.1 Introduction

This chapter identifies annual reporting objectives by starting with a broad consideration of public sector annual reporting and then narrowing the focus to New Zealand universities. Identification of universities' annual report objectives are essential because the accountability index will be moulded around a measure of the extent to which annual reports are successful in meeting their objectives. Before addressing the specific question of public sector annual report objectives, some related issues are reviewed. These surround the definition of accountability and the recent change in emphasis from decision usefulness to accountability as the primary objective of annual reporting, and the use of user / needs models in identifying reporting objectives.

Four questions are specifically addressed:

- (i) What is meant by accountability?
- (ii) Who are the universities' stakeholders?
- (iii) What are stakeholders' information needs?
- (iv) What are the qualitative characteristics of annual reports?

In identifying the nature and content of public sector annual reporting it is appropriate to first recognise that there are four different types of rules of reporting that affect the public sector:

- (i) the law,
- (ii) accounting standards,
- (iii) accounting practice, and

- (iv) specific rules that may be laid down by oversight agencies (Likierman, 1992, pp. 12-15).

In a static world these four sets of rules might provide a common view about annual reporting objectives but, in a dynamic society, ideas are constantly changing and developing and there is a natural time lag between the acceptance of new ideas in the public arena, adoption of these by official bodies such as professional accountancy associations and, where appropriate, incorporation of new ideas into law.

Although public sector annual reporting has received much attention from both the accounting profession and lawmakers in western societies in the past two decades, not all of the findings are relevant to New Zealand universities. Most activity, as indicated by the number of reports and official pronouncements, has been generated in the US through the American Accounting Association (AAA, 1966), the American Institute of Certified Public Accountants (AICPA, 1973), the Financial Accounting Standards Board (FASB, 1978; 1980), the National Council on Governmental Accounting (NCGA, 1981) and the Governmental Accounting Standards Board (GASB, 1987; 1994). The prime motivation for this interest appears to be the financial collapse of some municipalities, and in particular the default by the City of New York on its debt obligations in 1976 (Jones, 1992, p. 252). US municipalities are significant users of financial markets for raising loans and this is likely to lead to the interest in, and objectives of, their annual reports being different to those of New Zealand universities, which are conspicuous for not using debt finance (Rivers, 1993).

In Britain, focus on public sector annual reporting increased as a result of reforms instigated by the Thatcher government commencing in 1979 which were

based on the premise of a malaise in the public sector, and a need to improve economy, efficiency and effectiveness (Pollitt, 1986). This led to various reports, schemes and initiatives to improve performance under the umbrella of the Financial Management Initiative.

In New Zealand in the past decade, there was much activity from each of the rulemakers identified by Likierman (1992). As explained in Chapter Two, the Public Finance Act, 1989 (as amended in 1992 and 1994), and the Education Act 1989 (as amended in 1990) have radically altered the reporting requirements. The Financial Reporting Act (1993) makes further changes although none that specifically alters the objectives of New Zealand universities' annual reports. NZSA pronouncements on public sector reporting (NZSA, 1987a; 1991) culminated in the publication of a unified conceptual framework for the private and public sectors (NZSA, 1993). Radical change to the content and format of universities' annual reports in response to these initiatives has led to many changes in accounting practice within universities, for example the adoption of accrual accounting (Coy, Dixon & Tower, 1993a).

This long chapter starts by reviewing the role of conceptual frameworks in public sector accounting, because these summarise the theoretical basis for annual reporting. Examination of the latest NZSA conceptual framework (NZSA, 1993) reveals the dual objectives of decision usefulness and accountability behind 'financial reporting', and this provides the cue for the next two sections which identify the meaning of accountability and explore the role of user / needs models. Next, the qualities of reporting are examined, and it is argued in this section that from a public accountability perspective, reporting qualities assume more importance than under decision usefulness models. The chapter concludes by arriving at a definition of

public accountability in the context of university reporting, identification of New Zealand university stakeholders and their information needs.

4.2 Issues of Accountability & Reporting

4.2.1 *Conceptual Frameworks*

A conceptual framework¹ for public sector accounting has not been published in the UK and the nearest approach was *The Corporate Report* (ASSC, 1975) which limited its scope to business entities, although it did indicate that its recommendations were equally applicable to public sector organisations. The Corporate Report was a landmark document for its advocacy of public accountability as a prime objective of corporate reporting, and the public at large as a stakeholder group (Gray, Owen & Maunders, 1987, p. 43; Perks, 1993, p. 78). Although many of its recommendations were not adopted to any great extent at that time, some of the suggestions in the areas of environmental and social accounting have recently received more widespread support (Perks, 1993, p. 78).

Solomons (1983) supported the development of a conceptual framework, but noted the much stronger interest for this in the US than in Britain, which he put down to the lack of 'a critical mass' in British accounting academia. Anthony's recommendation (1978) of one common set of accounting concepts for both the private and public sectors was adopted in New Zealand with the Statement of Concepts for General Purpose Financial Reporting [SCGPFR] (NZSA, 1993). The

¹

According to the FASB a conceptual framework is:

... a coherent system of inter-related objectives and fundamentals that can lead to consistent standards and that prescribes the nature, function, and limits of financial accounting and financial statements (1976, p. 2).

Exposure Draft (ED-61)(NZSA, 1991) recommendation for separate accounting concepts for the public sector was abandoned in the final Statement, the SCGPFR, following submissions to the Financial Reporting Standards Board of the NZSA. It was considered that a separate set of concepts was unnecessary because all the essential elements were covered in the general statement (NZSA, 1993, s. 7). Although the attempt to develop a common unified conceptual framework for the public and private sectors is commendable, inconsistencies in the SCGPFR which are discussed later in this section reflect underlying tensions and suggest that further development is needed.

Jones (1992) noted the conspicuous lack of interest in developing a conceptual framework for public sector accounting in the UK compared with the business sector. This caused him to question whether a conceptual framework for the public sector was therefore necessary at all. Mayston (1992), in a perceptive response, disagreed with Jones and thought that in the current era the need for an adequate public sector conceptual framework is increased because of the:

... greater incentives that the now more autonomous bodies have to conceal unfavourable information. A well grounded conceptual framework provides a benchmark against which the information disclosed can be judged and improved (p. 322).

Mayston (1992) logically continued that, in the absence of any corrective action, it would be:

... too easy for financial reporting to fall back into a self-reinforcing low-level equilibrium trap in which the information produced is untimely and has an unclear interpretation, and accountants can justify lack of change by a lack of user interest. The vacuum left by an inadequate conceptual framework then risks being filled by financial reporting practice coming to be used more as an agent of obfuscation or of distortion ... than of information disclosure. A conceptual framework that can link financial reporting standards to the generation of positive informational benefits can then establish the legitimacy

of the standard setting process not just in name ... but also in reality (pp. 322-323).

An associated problem for standard setting bodies in establishing their legitimacy in reality is their inability to enforce compliance with their standards (Jones, 1992, p. 262). However, the standard setting bodies obtain more credibility if their standards become embodied in the law. This has happened in New Zealand where the Statement of Public Sector Accounting Concepts [SPSAC](NZSA, 1987) was adopted almost in its entirety into public sector legislation, including the Public Finance Act, 1989, the Local Government Amendment Act No.2, 1989, the Education Act, 1989 and others (Hay, 1992, p. 1).

A related issue surrounding the legitimacy of accountants as the prime preparers of annual reports is provided by the confusion over nomenclature. The roots of accounting lie in stewardship for the revenues, expenditures, assets and liabilities of entities (Chatfield, 1977, p. 4; Mathews and Perera, 1991, p. 73). The review of university annual reporting in Chapter Two provides evidence that until recently, annual reports have been synonymous with financial reports, and the notion of being accountable in the formal, structured sense was closely aligned with the publication of financial statements. In the past decade, it has become accepted that non-financial information should be published in addition to financial statements (NZSA, 1993, s. 8). It would appear that the term *financial report* may be misleading, and that an alternative such as *corporate report* or *annual report* may avoid this potential confusion.

Although the SCGPFR (NZSA, 1993) specifically requires reporting entities to disclose non-financial information, the financial report title was retained by the

NZSA. On the other hand, the New Zealand legislation is clear that *annual financial statements* are part of the *annual report* to be prepared by Crown entities (Public Finance Amendment Act, 1992, s. 44). The term *annual report* is an accurate reference to the document of interest in this study, which is published annually and is expected to include more information than financial statements alone.

4.2.2 Accountability and Decision Usefulness

A dominant theme of the recent literature and official pronouncements has been the recognition of *information for accountability* as being a more important objective of annual reporting in the public sector than *information for decision-making* (GASB, 1987; NZSA, 1993).

The SCGPFR (NZSA, 1993, s. 3.1) states that:

the objectives of general purpose external financial reporting are to provide information to assist users in;

- (a) assessing the reporting entity's financial and service performance, financial position and cash flows;
- (b) assessing the reporting entity's compliance with legislation, regulations, common law and contractual arrangements, as these relate to the assessment of the reporting entity's financial and service performance, financial position and cash flows; and
- (c) making decisions about providing resources to, or doing business with, the reporting entity.

Thus financial reporting has an accountability role [parts (a) and (b)] and a decision usefulness role [part (c)], and the SCGPFR adds that accountability may be relatively more important to users of public sector annual reports (NZSA, 1993, s. 3.1). No explanation is provided by NZSA for their view that accountability is more important in the public sector than the private sector.

The essential implication of the decision based model is that users need annual reports to help them decide whether to engage in business transactions, such as making loans or supplying inputs on credit to the reporting entity (AAA, 1966; AICPA, 1973; CICA, 1980; Solomons, 1986, p. 69). In the US, the bridge from decision-making to accountability as the objective of public sector accounting appeared to have been crossed with the publication of GASB Concepts Statement No.1 (1987) which stated that government financial reporting should provide information for both decision making and for assessing accountability, but that *(accountability) is the paramount objective from which all other objectives must flow* (GASB, 1987, para 76-77, emphasis added).

In New Zealand and overseas, accountability is thus recognised as the primary objective of public sector annual reporting, but this begs the question of what is meant by accountability.

4.2.3 *What is meant by Accountability?*

It is generally accepted that accountability means the obligation to give an account (Perks, 1993, p. 24). The SCGPFR (NZSA, 1993) defines accountability as: "the requirement for one party to account to another party for its performance over a given period." (s. 3.3). In the SCGPFR examples are provided of directors as being accountable to shareholders, and Ministers as being accountable to Parliament. Accountability as a concept may be traced to the separation of ownership from management in business organisations and is linked to the notion of stewardship whereby managers provide an account to owners (Perks, 1993, p. 26).

The development of joint stock companies and limited liability expanded the need for accountability in the business sector, since account was provided to shareholders who may have been widely dispersed in the community. From these origins dating back some two hundred years in western societies, the development of company law has seen the statutory reporting requirements increase almost continuously (Taylor & Turley, 1986).

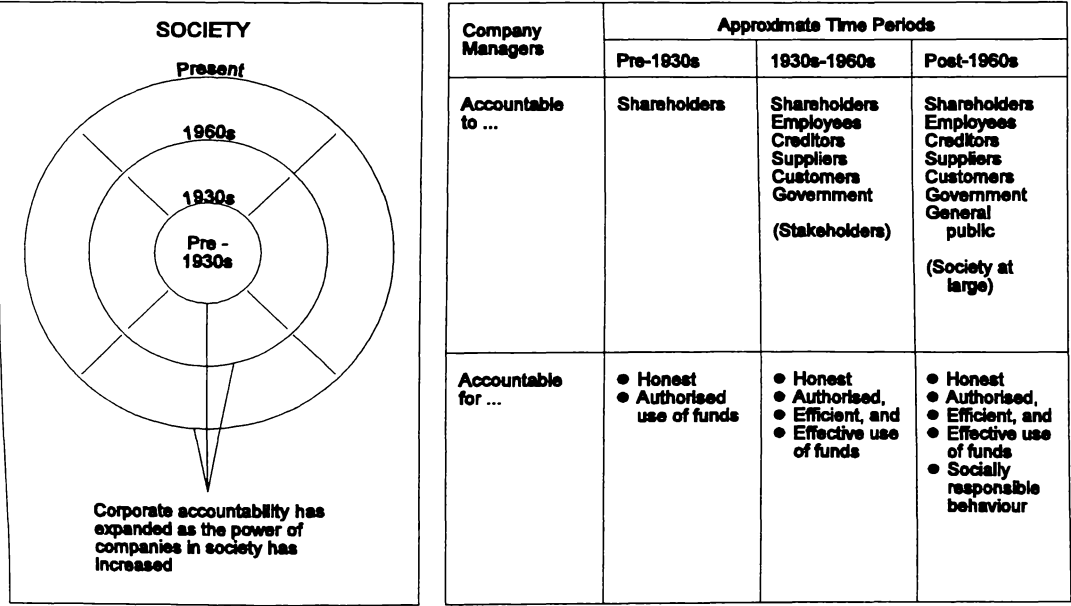
The role and importance of accountability in the public sector is emphasised by Smith (1971) who argues that "In the broadest sense accountability is the central objective of democratic government: how can control be exercised over those to whom power is delegated?" (p. 26). The main problem is to achieve the appropriate balance between accountability and independence, but with the growth and complexity of organisations, "citizens in Britain and the United States, representing important sectors of public opinion, began to doubt that their governing institutions were truly accountable" (Smith, 1971, p. 27).

Porter (1989) reviews the growth of corporate accountability and identifies three phases of accountability during the 20th century, as illustrated in Figure 4.1. Before the 1930s accountability encompassed the narrow stewardship notion. Between the 1930s and 1960s stakeholders increased beyond shareholders to include other groups with formal relationships, such as employees, suppliers, customers and the government. Managers were expected to demonstrate their efficient and effective use of the resources under their control, as well as their honesty and use of resources for the purposes authorised. Since the 1960s, it has become more widely accepted that corporate entities are dependent on the economic and legal environment provided by society and therefore accountability is owed to society as a whole, including the

general public, and this includes the obligation to demonstrate socially responsible behaviour (Gray, Owen & Maunders, 1987; Tower, 1993).

Figure 4.1

Phases of Accountability during the 20th century



Source: Porter (1989)

Perks (1993, p. 39) suggests that over the past two decades accountability itself has received different emphases. For example, during the 1970s accountability concerns were focused on those with an interest in organisations, such as employees, consumers, and local residents, in having more control over those organisations. The Corporate Report (ASSC, 1975) reflects these concerns. However, during the 1980s accountability concerns turned to the public sector and there were calls for central government to have more power over organisations that receive public funds.

In using the word *account* to define accountability, the definition becomes tautologous, and leaves both preparers and stakeholders uncertain about exactly what needs to be done to be accountable. As shown above, corporate accountability has evolved and changed during this century and it is probable that this will continue, and any definition of what needs to be done to be accountable may do so only in terms of today's values and expectations. Furthermore, at any time, there will be differing views of what needs to be done to be properly accountable, because accountees (Principals) may be expected to be in favour of more accountability, and accountors (Agents) of less (Perks, 1993, p. 25).

Accountability may be related to power relationships between accountors and accountees within organisations and in society as a whole. Accountability relationships may be regarded as links between an accountee and an accountor (Perks, 1993, p. 25). More accountability may limit the freedom of agents to act and as a consequence they may seek ways to subvert, bypass and control accountability systems that may be imposed on them. Agents generally control the preparation of accountability information reported to principals, and this provides opportunities for massaging that may exaggerate strengths and understate weaknesses (Normanton, 1971; Ijiri, 1983). These issues are developed further in Chapter Five.

A central concern about accountability systems lies in achieving an appropriate balance between accountability and giving managers adequate and genuine independence of action, which is widely recognised as vital to effective performance (Smith, 1971, p. 4). However, Smith also argues that the values of accountability and independence need not be seen as wholly in opposition, because accountability also protects independence of action in the sense that it would be unacceptable for

any government entity to operate without accountability.

4.2.4 *Private and Public Sector Accountability*

A problem associated with understanding the meaning and implications of accountability is the question of whether there is a difference between accountability in the private and public sectors. As noted earlier, the traditional stewardship accountability model of private sector managers owing accountability only to shareholders has evolved this century into a broader accountability owed to stakeholder groups which may include employees and resource providers, and even to society as a whole (Gray et al., 1987; Porter, 1989).

The Corporate Report (ASSC, 1975) advocates that the private sector owes accountability to the public at large, because such entities can exist only by virtue of the political and economic environment created by society as a whole. The adoption of a unified conceptual framework for the public and private sectors by the NZSA (1993) suggests that the New Zealand profession has accepted the notion of a common accountability for the private and public sectors. However the SCGPFR (NZSA, 1993) has contradictions that may reflect underlying tensions and disagreements over the exact nature of the accountability of the private and public sectors.

The SCGPFR states that the obligation to report arises from the role played by the entity in the community, and users' reliance on general purpose financial reports for their information needs. The SCGPFR suggests that users may be resource providers, representatives of voters or shareholders, and analysts and members of the media (NZSA, 1993, s. 2.3). Omitted from this list are 'citizens' and 'service

recipients', although these groups are specifically identified in the corresponding Exposure Draft (ED-61, s. 2.3, NZSA, 1991).

No explanation is offered for this change, and it is not clear whether NZSA believes that 'citizens' and 'service recipients' are considered as being captured in one of the other groups, such as representatives of voters, or whether they are specifically excluded. Possibly this alludes to differences in the 'role played in the community' by private and public sector entities. Also omitted from the SCGPFR (NZSA, 1993) is the expectation that entities should provide information to 'evaluate effectiveness and efficiency' which is specifically included in the earlier SPSAC statement (NZSA, 1987a, s. 4.1) and in many of the accountability oriented overseas studies such as Sutcliffe (1985), GASB (1987) and Likierman (1992).

These differences between the SPSAC (NZSA, 1987) and the exposure drafts (EDs 59-65) published as the Proposed Framework for Financial Reporting (NZSA, 1991), and between those exposure drafts and the unified concepts statement (NZSA, 1993), provide evidence of the evolution of accountability in New Zealand. It seems from this that by omitting citizens and the public at large as stakeholders and users of corporate reports, the NZSA may not have fully accepted the public accountability model of corporate reporting as advocated by ASSC (1975), Gray et al. (1987) and Tower (1993). Furthermore, it could be interpreted that by excluding citizens and the public at large, the SCGPFR (NZSA, 1993) has a narrower view of public sector stakeholder groups than proposed in its exposure draft. Possibly this narrowing is a casualty of the compromises involved in reaching agreement on unified concepts rather than an advocacy of a more limited audience for public sector annual reports.

A central tenet of this thesis is that, because of their role in the community, public sector entities have a broad accountability both in terms of what is reported and to whom. Public sector entities are owned by the public, funded from the public purse and provide services to the community as a whole. For these reasons, the stakeholders of public sector entities include all members of the community, and their information needs may be extensive. Because of the impact of universities on the lives of many citizens, both as service recipients and employees, and the large amounts of public resources consumed, their accountability obligations are extensive.

It is argued in this thesis that there is a public 'right to know' about the activities of public sector entities and that their accountability extends to the public at large. In New Zealand the parliamentary processes have been expected to look after the public interest in the public sector accountability process, although it is questioned whether parliamentarians have sufficient time and resources to do this adequately (Davies, 1987, p. 5; Pallot, 1991b, p. 217; Mulgan, 1994, p. 119). These issues surrounding the politics of accountability are explored in Chapter Five.

4.2.5 What is the Place of the Annual Report in the Accountability Framework?

Another important question is to identify the place of the annual report in the overall accountability of universities. Being accountable is a process with many elements. Perks (1993, p. 27) states that from a company law perspective these are the production, audit and publication of accounting statements, with the possibility of sanctions against directors. This is a narrow view limited to accounting statements only, and Sherer and Kent (1983) include additional elements: the organisation, a statement about objectives, and information and the monitoring mechanism.

Clearly, the information element of accountability may be provided in a variety of ways: formal and informal, routine and ad hoc, written, spoken, electronic and other media. In Chapter Two, five lines of universities' accountability according to the Minister of Education (Goff, 1989) are noted. These are: Ministry of Education (Charters and Corporate Plans), National Education Qualifications (Qualifications), Education Review Office (Equity objectives), Controller and Auditor General (Annual report) and the Community (Charter consultation and published reviews). The annual report may make reference to each of these elements, because each relates to aspects of providing information about a university's objectives, and its success in meeting those objectives.

Universities have many accountability mechanisms, both within and external to the institutions. At the highest level, under the State Sector Act (1988) the Chief Executive Officer is directly accountable to the responsible Minister (Walsh, 1991). Within universities there is a labyrinth of accountability processes whereby one part of the institution is exposed to examination and criticism by other parts. Thus through committee systems and peer review the policies and performance of individual academics, departments and faculties may be scrutinised. Student assessment of courses provides some accountability for teaching services, whilst the academic publications' review process provides both accountability and perhaps certification of research performance. Similarly, accountability mechanisms with the external world exist through the Audit Office, Councils, Advisory Boards and the general responsiveness of institutions to public and media enquiries. Many other forms of planning and control information are reported on an on-going basis directly to government, and these provide further channels of accountability, albeit of a

managerial rather than a public accountability nature.

Among all these accountability mechanisms is the annual report. What does it contribute to universities' accountability that is not achieved by the other forms? The value of the annual report rests in the provision of a wide range of summarised, relevant information in a single document, which enables all stakeholders to obtain a comprehensive understanding of a university's objectives and performance in financial and non-financial terms. *There is no other single source of such information available to all stakeholders on a routine basis.*

Many users ... have to rely on the [sic] financial reports as their major source of financial and performance information and such financial reports should, therefore, be prepared and presented with their needs in view. (NZSA, 1991, ED. 60, s.1.5)

This view is endorsed by Whitcombe (1989, p. 167) who in discussing the reforms to the New Zealand public service suggested that the annual report will become "the main accountability document and indicator of departmental performance".

4.2.6 *Statutory, Managerial and Public Accountability*

One problem in defining what needs to be done to be accountable arises from the different forms and levels of accountability. Statutory, managerial and public accountability are terms often found in the literature. Statutory accountability refers to legal obligations, managerial accountability refers to internal organisational control processes (Boston, 1991), whilst public accountability refers to information disclosures to the public at large (Gray et al., 1987). Sinclair (1995) recognises five forms of accountability arising from her research of public sector CEOs in Australia. These were political, managerial, public, performance and personal accountability.

Managerial accountability has recently come into common usage in the public sectors in UK, Australia and New Zealand, but has been criticised as being inappropriate and impracticable (Pollitt, 1986; Aucoin, 1990; Guthrie, 1994). It is argued correctly that managerial accountability replicates a private sector control model onto the public sector, but fails to take into account the inherent differences between the private and public sectors (Boston, 1991, p. 21). In government entities the focus is often on providing a service, and issues surrounding service availability, equity and equality are usually more important considerations than in the private sector. Boston (1991) concludes that because of these differences the public sector should develop its own "governance structures, employment arrangements, and monitoring procedures" (p. 22).

Public accountability refers to a public right to know about the condition and performance of the organisation under the accountant's charge. Ijiri (1983) believes that an accountability based conceptual framework must weigh up the interests of both sides; accountant and accountee. The objective of reporting under the accountability framework is to achieve fairness to both, and fairness is not a requirement of a decision based system (Tower, 1993). However, fairness is difficult to define in practice and judgements must be made to decide what is, and is not, fair (Williams, 1987; Pallot, 1991c). Ijiri (1983) thought that the accountant's role in the accountability framework is that of mediating between the accountant and accountee using two basic tools: records and reports. Accountability information may be threatening to the accountant who would normally be concerned that such information should give a good impression.

... the report, being the work of persons concerned to justify themselves, cannot be impartial. ... The authors of annual reports may thus choose their subjects and avoid questions that have caused them difficulties and embarrassments - although it is often precisely these issues that should be the concern of public accountability (Normanton, 1971, pp. 314-315).

Indeed, Normanton (1971) captures the thrust of this thesis in arguing that the difference between accountability and public accountability is the difference between secrecy and openness. Accountability is "a device as old as civilised government itself" but is based on the hierarchical relationship between "a lord and his servant" and usually "operates in secret" (p. 312). Public accountability on the other hand "calls for openly declared facts and open debate of them by laymen and their elected representatives ... [and] is grounded in a widely held feeling that tax-paying citizens have rights as well as duties" (p. 312). Public accountability:

... is actually or potentially, a rich and open source of knowledge about how government services function in actual practice, and hence of ideas about how they ought to function. It casts a spotlight upon institutions which are shy of the public's gaze, but whose qualities and imperfections have a steady cumulative impact upon our daily lives (p. 312).

and

... means reporting to persons other than one's own superiors who have the power to make open criticisms. Like democratic government itself, it is a tricky, if immensely worthwhile operation (p. 313).

Although Normanton refers here to government departments, an assumption of this thesis is that these arguments are equally valid for New Zealand universities.

4.2.7 *Other Public Accountability Issues*

Patton (1992) provides a comprehensive review of accountability in the context of governmental reporting. He accepts that the concept of accountability refers to an obligation to explain one's actions and justify to another party some action,

process, output or outcome, but that beyond this general meaning there is considerable ambiguity, and this has important implications for accounting policy. Patton identifies and discusses five of these issues: i) whether accountability requires an explanation in addition to a report; ii) whether accountability implies that sanctions / rewards will be applied; iii) the nature of the relationship between accountant and accountee; iv) exactly what the accountant should account for, and v) who in the entity is responsible.

If accountability implies providing an explanation or justification rather than just a report of the facts, then Patton (1992) suggests that accountants may respond in ways that have positive and negative outcomes for managerial behaviour. Patton agrees with Ijiri (1983) that if the accountee has the ability to apply sanctions or rewards then the data included in reports needs to be more objective in the sense that it can be verified. The relationship between the accountant and stakeholder may be unclear although in the context of public sector financial reporting, it is usually taken to mean that stakeholders are external parties who are informationally disadvantaged, yet have a legitimate economic, political or social interest in the activity being accounted for (Patton, 1992, p. 162). It is also unclear what the accountant should be accountable for, and this may include inputs, process, outputs, outcomes and policy (Stewart, 1984). Recently, it has been suggested that reports should be more forward looking (NZSA, 1993), and this implies the provision of more subjective data, which conflicts with the need for objective information suggested earlier.

These issues surrounding the concept of public accountability as identified by Patton (1992) are reviewed below in the context of contemporary New Zealand universities' reporting.

i) *Should annual reports provide an explanation as well as report?*

The Public Finance Amendment Act (1992) makes no reference to explanations being provided in annual reports. However, the SCGPFR (NZSA, 1993) states that the entity *might usefully supplement* the report by providing interpretative comment on the financial information supplied.

[This] could point out the relationship between material changes in financial elements and the entity's history, current activities, external environment or objectives. Narrative, for example, can provide information about an entity's physical resources, resulting in improved understanding of the entity's financial position. Narrative comment is particularly relevant in reporting service performance (NZSA, 1993, s. 3.7).

The accountancy profession supports the notion of providing an explanation, particularly in service oriented entities such as universities, although it couches this as a suggestion, rather than anything firmer. It is an important tenet of this thesis that explanations and reasons are important elements of annual reporting as advanced by Normanton:

It is not accountability merely to submit a certified financial account each year. To be accountable means to give reasons for, and explanations of, actions taken; but an account rarely provides explanations and it never gives reasons. ... Any major financial account hides far more than it reveals. It is a protection against fraud, and the law provides that it may not conceal criminal sins; but other kinds of sins may be lost without trace within it (Normanton, 1971, p. 314).

Current reporting practices of the New Zealand universities indicate that explanations are being provided by some institutions principally within the CEO's Report, and in some cases, through a narrative Financial Review (see for example, University of Waikato Annual Report, 1993). The empirical part of this research obtains stakeholders' opinions about the importance of explanations being provided in universities' annual reports.

ii) *Does accountability imply sanctions and rewards?*

The question of sanctions and rewards arising from the accountability process is both complex and subtle. Decision based annual reports may lead to positive or negative effects for the accountor if stakeholders decide or decline to engage in business activities as a result. Accountability based reports suggest that reports will be more comprehensive and will reach a wider audience than decision based reports. Sanctions or rewards of some kind are inevitable in a public accountability environment, although in many instances the sanction or reward may be neither public nor explicit (Harris & Spanier, 1976, p. 255).

Sanctions or rewards may result from formal reporting through the oversight channels, such as the Ministry of Education, or through the circulation of the reports among the general public. Other interested parties such as students and / or academic staff within the institution and in other similar or rival institutions may use the information (or lack of information) in the reports to support an argument for change². Information intermediaries, such as journalists or researchers, may use the reports to reveal positive or negative information about the institution (e.g. "Polytechnics ticked ... ", 1993) which may be regarded as a reward or sanction by institutional managers.

iii) *What is the nature of the relationship between accountor and accountee?*

As discussed earlier, the relationship between the accountor and the stakeholder in the context of New Zealand universities reflects both a statutory accountability and

² For example, a campaign by students in September, 1993 against tuition fee increases criticised the University of Auckland for being insufficiently accountable (see Coy, Dixon & Tower, 1993b).

a more general public accountability. Statutory accountability is defined in the Public Finance Amendment Act (1992) by the requirement to submit annual reports to the Minister of Education, who in turn, is required to table the reports in Parliament. There is a dual accountability relationship here, with the Minister being the accountee of the universities, and in turn, the Members of Parliament being the accountees of the Minister. The disclosures required to meet these accountant / accountee relationships are clearly set out in the legislation.

The NZSA's perception of public accountability is summarised in the SCGPFR (1993) where it is stated that there may be dependent users seeking to use general purpose financial reports for making assessments about the entity. It further states that this obligation to report publicly arises from "the role played in the community by the reporting entity and / or users' reliance on general purpose financial reports for their information needs" (s. 2.2). Universities generate a high level of public interest because of their impact on people's lives and the large amounts of public resources consumed.

Patton's (1992) main point in the context of the accountant / stakeholder relationship is that the nature of this relationship affects the nature of the reports provided. Since universities play a significant role in the community their annual reports should meet broad information needs. Reflecting the criteria of 'role in the community' and 'dependency on annual reports for information', there is potentially a large, legitimate public audience for universities' annual reports. Systematic, aggregated information about the universities' service and financial performance is not available to the public, other than by way of the annual report.

iv) *What should be reported to meet accountability expectations?*

There are two main elements to consider in addressing this question. These are disclosures of information that should be made and the qualitative characteristics of this reporting, such as timeliness and accessibility. Earlier in this chapter, five lines of universities' accountability identified by the Minister of Education (Goff, 1989) were noted, one of which was the annual report. Patton (1992) believes that there is uncertainty about what should be reported to meet accountability expectations, and suggests that this may include inputs, process, outputs, outcomes or policy.

The model developed by Stewart (1984) is apposite. He suggests a ladder of accountability which has five levels: (i) policy accountability, (ii) programme accountability, (iii) performance accountability, (iv) process accountability, and (v) probity accountability³. Stewart's ladder has an emphasis on political accountability at levels (i) and (ii), and managerial accountability at levels (iii), (iv) and (v), although there is not a strict dichotomy.

Programme accountability involves being able to evaluate whether appropriate goals or targets have been established to meet the overall policy aims. Process and performance accountability are meshed in the sense that both are concerned with evaluating efficiency; process focuses on the means, and performance on the input: output ratio. A comparison of the theoretical Stewart (1984) accountability model with the Goff (1989) model (Table 4.1) demonstrates how the various ladders of

³

Tomkins (1987) thought that public sector accountability had traditionally focused on policy and probity accountability. Policy accountability had been achieved through the accountability of Ministers to Parliament, and probity accountability through the annual financial audit process. The new accountability required an expansion of the focus to include programme, performance and process accountability.

accountability are operationalised for New Zealand universities.

Table 4.1

New Zealand universities' ladders of accountability

	POLICY	PROGRAMME	PERFORMANCE	PROCESS	PROBITY
MINISTRY OF EDUCATION (Charters & Corporate Plans)	X	X			
NATIONAL EDUC. QUALIFICATIONS (Qualifications)			X	X	
EDUCATION REVIEW OFFICE (Equity objectives)	X		X	X	
CONTROLLER & AUDITOR- GENERAL (Annual Report)	X		X	X	X
COMMUNITY (Charters, Published reviews)	X	X			

Despite some shortcomings in this interpretation of New Zealand universities' accountability processes, the table does show the pivotal role of the annual report in meeting accountability expectations. Four of the five elements of accountability are addressed by the annual report. Oversights in the Minister's model are that the Ministry of Education is concerned with performance aspects of accountability, in addition to policy and programme accountability. In addition, the Minister's model does not include either MPs or the Education Select Committee as part of the accountability processes, and the nature of their activities suggests that both have important roles in several forms of accountability.

At this point, no attempt will be made to answer the question of what should be published in annual reports to meet accountability expectations because that is the central question of the thesis addressed in the succeeding chapters. The extensive role played by New Zealand universities in the community, the large levels of public resources consumed and the existence of a potentially large, legitimate audience for information about their activities was noted earlier. For these reasons, it is argued here that the New Zealand universities should publish comprehensive, timely annual reports which include financial and non-financial information, and explanations, and which enable stakeholders to obtain an understanding of universities' objectives and success in meeting those objectives.

v) *Who is accountable?*

In the statutory accountability sense, there is no ambiguity for New Zealand universities about who is accountable, because this is clearly identified by the State Sector Act (1988). The Chief Executive Officer (Vice Chancellor) has responsibility for the entity, and is, ultimately, accountable. This is endorsed by the Public Finance Amendment Act, 1992 (s. 42) which requires the annual report to include a management statement whereby the chief executive and the chief financial officer specifically accept full responsibility for the annual financial statements.

Statutory accountability also implies that there is an unbroken chain of accountability within the universities from the CEO, through the Deans and Heads of Departments. This does not mean that everyone is considered to be accountable for everything, because in that situation "no one is accountable for anything" (Smith, 1971, p. 28). But it is argued here that, in a public accountability sense, all the people comprising the universities must be accountable both individually and

collectively according to their station, role and function.

The Ministry of Education (1991) strongly emphasised the importance of accountability in the document *Financial Reporting for Tertiary Institutions* which was published as a guide to preparers in responding to the Education Act, 1990 and the Public Finance Act, 1989. The document started with a quotation from *Learning for Life: Two* (Goff, 1989):

Those who use public funds must be accountable for what is achieved with those funds. The principal mechanism for ensuring accountability in the post-compulsory education and training sector will be audits of the performance of each institution in relation to the stated objectives of their charters and corporate plans (3.3.1).

and,

The objective of external financial reporting by tertiary institutions is to provide information useful for assessing accountability imposed by the utilisation and management of public funds at institutional level, and by the Learning for Life reforms (Ministry of Education, 1991, p. 5).

4.3 The User / Needs Models

Another issue which has been the subject of recent debate is the relevance of user / needs models in determining the objectives of annual reports. The argument is that in order to identify objectives it is necessary to know who the report users are, and then to find out what information they need (Jones & Pendlebury, 1992, p. 112). This approach is criticised on the grounds that it is impossible to identify who the users are in any precise way, and that even if this is done they are likely to be highly diverse groups with very different information needs (Anthony, 1978, p. 47; Sutcliffe, 1985, p. 14). This might suggest the idea of different reports for different users which itself conflicts with the notion of general purpose annual reports.

Jones (1992, p. 260) argues that "accountability must imply some purpose for some external user and that, however casual the decision might be, the purpose must lead to a decision: if the accountee is entirely passive, accountability must surely be an empty notion". Jones stretches the definition of "decision-making". The term decision in the earlier decision-usefulness models was used in the sense of decisions about business transactions with the reporting entity. In the public accountability model, stakeholders with a legitimate economic, political or social interest in the entity may wish to review annual reports merely for the opportunity to improve their knowledge of that entity (Tower, 1993). Stakeholders will often not make any discernable 'decision' as a consequence, although the information may have added to the stakeholder's collective knowledge and this may be used in various ways in the future. Occasionally, stakeholders' curiosity in the entity may be aroused by some information in the report, and this may cause them to take more immediate follow-up action such as using, or not using, the services available.

An assumption of this thesis is that the prime objective of universities' annual reports is to meet public accountability expectations, and not decision usefulness objectives. The review which follows highlights the clear switch in focus from decision making to public accountability models. One issue to resolve is the meaning of a report user.

4.3.1 What is meant by Report Users?

Before exploring public sector user / needs models some clarification is needed of the terms commonly used to describe those for whom annual reports are prepared: users, receivers and stakeholders. *Users* implies those people who use reports with

some purpose in mind, such as business transactions, or to satisfy interest in the organisations' activities. Excluded from users in this sense would be report receivers who do not use the report (Gray et al., 1987). This presents a technical difficulty for researchers using organisations' report distribution lists to identify users because these are likely to include report receivers who are not users. Omitted from such lists may be persons who would be users but who are not, because reports do not reach them. The term *stakeholders* captures all those with a legitimate social, political or economic interest in the organisation regardless of whether they receive reports, and is the appropriate term to use in this thesis with its focus on public accountability.

Notwithstanding these shortcomings of the term 'users', there is a significant literature on stakeholder (user) / needs models of reporting which will now be reviewed. Most contemporary writers on public sector reporting (see Anthony, 1978; Sutcliffe, 1985; and Jones and Pendlebury, 1992) and reports and standards (see ASAC, 1987; AARF, 1990; NZSA, 1993) approach the problem of defining objectives by addressing two prime questions:

1. Who are the stakeholders?
2. What information do they require?

4.3.2 *Public Sector Stakeholders*

The literature review identified 15 public sector stakeholder studies from 1978 onwards, which are summarised in Table 4.2. Six originated in the US, two each in the UK and Australia, one in Canada and the remaining four in New Zealand. The precise focus of the studies varied in that five encompassed the public sector in

general, and only four focused on the tertiary education sector specifically (Engstrom, 1988; CVCP, 1994; GASB, 1994; Coy et al., 1994). The others focused variously on non-business organisations, non-profit organisations, governmental organisations, and state and local government entities. Only two prepared unified statements for both private and public sectors (AARF, 1990; NZSA, 1993). The overseas studies are listed chronologically in Table 4.2 and the change in emphasis towards accountability as the objective of annual reporting is readily apparent. All of the studies up to 1985 explicitly stated decision making as the primary objective of annual reporting. Since then, accountability has been recognised either jointly with decision making (AARF, 1990; NZSA, 1993) or as the sole objective of annual reporting (CVCP, 1987; Likierman, 1992).

The stakeholder matrix presented in Table 4.2 uses the six classifications of tertiary education stakeholders identified by Coy et al. (1994). They are listed in the table according to the numbers receiving reports as indicated by respondents to the three elements of their study. In descending order, these were; (i) Internal campus based citizens, (ii) Sister organisations / competitors, (iii) Elected and appointed representatives, (iv) Resource providers, (v) External citizens, and (vi) The public, analysts and the media.

Table 4.2

Universities' Stakeholders as Deduced from Extant Studies

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTAL
Internal Campus based Citizens																
Senior managers	x	x	x	x		x	x		x	x	x	x	x	x	x	13
Support staff	x	x	x	x		x	x		x	x	x	x	x	x	x	13
Academics	x	x	x	x		x	x		x	x	x	x	x	x	x	13
Service recipients (students)		x	x	x	x	x	x	x	x	x	x	x	x		x	13
Sister Organisations/Competitors																
Employees of other Institutions							x		x	x	x				x	5
Elected & Appointed Representatives																
TE Council members	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	15
Government & regulators	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	15
Parliamentarians	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	15
Advisory committee members		x	x	x	x	x	x		x		x	x	x	x	x	12
Accreditation agencies		x					x	x			x	x	x	x		7
Resource Providers																
Suppliers & lenders	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	15
Donors & sponsors	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	15
Investors & partners	x	x	x	x	x	x	x	x	x		x	x	x	x	x	14
Professional associations		x													x	2
External Citizens																
Voters & taxpayers	x	x	x	x	x	x	x		x		x	x	x	x	x	13
Service recipients (not students)		x	x	x	x	x	x	x	x		x	x	x		x	12
Alumni			x				x			x	x				x	5
Other pressure groups					x	x			x						x	4
Advisors & consultants		x				x				x					x	4
The Public, Analysts & Media																
Journalists		x	x	x	x	x	x		x		x	x	x	x	x	12
Researchers & analysts		x			x	x	x		x		x	x	x	x	x	10
Public at large			x				x		x	x	x	x	x			7
Librarians															x	1

No:	Author	Date	Country	Sector	Objective(s) of Reporting
1	Anthony	1978	US	Non-business	Decision making
2	FASB	1980	US	Non-business	Decision making
3	CICA	1980	Canada	Non-profit	Decision making
4	Drebin, Chan & Ferguson	1981	US	Governmental	Decision making
5	Jones, Scott, Kimbro & Ingram	1985	US	State & Local Govt.	Decision making
6	Sutcliffe	1985	Australia	Public sector	Decision making & accountability
7	Engstrom	1988	US	Colleges & universities	Decision making & accountability
8	AARF	1990	Australia	Public & private sectors	Decision making & accountability
9	Likierman	1992	UK	Public sector	Accountability
10	CVCP, SCOP, COSHEP	1994	UK	Higher education	Accountability
11	GASB	1994	US	Colleges & universities	Decision making & accountability
12	NZSA	1987	NZ	Public sector	Accountability & decision making
13	NZSA	1991	NZ	Public sector	Accountability & decision making
14	NZSA	1993	NZ	Public & private sectors	Accountability & decision making
15	Coy, Buchanan, Dixon & Tower	1994	NZ	Tertiary education	Empirical study

Despite the varying foci of the fifteen studies there is a high level of consensus about stakeholders. One of the important differences though was the low recognition given to the public at large or citizens in general as a stakeholder group, and this can be attributed to the predominance of decision usefulness models up until 1987. Only one of the studies prior to 1987, CICA (1980) recognised the public at large amongst stakeholders. Five of the studies since 1987 specifically include the public at large as stakeholders, although as noted earlier the SCGPFR (NZSA, 1993) did not.

An important difference between the tertiary education studies and most of the public sector studies is the recognition of sister organisations / competitors as stakeholders. Coy et al. (1994) also noted other characteristics of university stakeholders which had not been identified in the theoretical studies. These were:

- i) Almost one half (49%) of their respondents had multiple relationships with the universities, eg. an academic employee, who is a member of an advisory committee; a business person whose employees are trained at the university and who is also a member of the university's Council.
- ii) The overwhelming majority of their questionnaire respondents (84%) had been tertiary education students at some time in their lives.

If the stakeholder / needs approach is based on the notion of different information for different stakeholders, then the extent of multiple relationships should be taken into account. However, an important limitation of the Coy et al. (1994) study is that the researchers identified who the annual report recipients *are* rather than who they *should be* and this question is addressed later in Chapter Six.

Drebin, Chan and Ferguson (1981) were commissioned to study the objectives of accounting and financial reporting for governmental units by the US National

Council on Governmental Accounting (NCGA), and they expanded the earlier lists with the inclusion of taxpayers, voters and oversight agencies as separate groups. Sutcliffe (1985) undertook a study of public sector financial reporting for the Australian Accounting Research Foundation which formed the basis of Statement of Accounting Concepts 2 (AARF, 1990). As part of the study an analysis was made of the stakeholders identified in seven other studies undertaken between 1978 and 1984, in the US, Canada and Australia. From these seven other studies, Sutcliffe identified 28 potential specific stakeholder groups. He suggests that in the Australian context these could be classified into three groups: service recipients (or their representatives), resource providers (or their representatives) and review service providers, such as analysts, journalists and special interest groups. Likierman (1992, pp. 15-18) recognises the difficulty of identifying the audience for public sector annual reports, and suggests that it may include some or all of the twelve groups as indicated in Table 4.2, including the public at large.

Potentially the most useful and relevant studies for this thesis are those of the tertiary education sector by the Committee of Vice-Chancellors and Principals [CVCP] (1994), GASB (1994) and Engstrom (1988). The CVCP study adopts an accountability objective and identifies a broad audience including the public at large. On the other hand, the Engstrom study into the information needs of US college and university annual reports published as a research report by GASB is dominated by a focus on decision makers and decision making. The notion of accountability receives little attention in this study which is surprising in view of GASB (1987) which was noted earlier in this section as recognising the pre-eminence of accountability over decision usefulness in state and local government external

reporting. GASB (1994) is a follow-up to the Engstrom study which focuses specifically on possible different financial statement configurations. No new insights about stakeholders is offered in this document.

4.3.3 New Zealand Universities' Stakeholders

In using overseas studies to help identify New Zealand universities' stakeholders some caution has to be exercised. For example, lenders and donors are less significant as resource providers to New Zealand universities whereas many US public sector bodies, including colleges and universities (Skousen, Smith and Woodfield, 1975; Engstrom, 1988) are significant borrowers of funds and dependent on the finance markets. Therefore, it is to be expected that lenders and donors will be much less important stakeholders in New Zealand tertiary education than in the US. Secondly, because New Zealand universities have always been regarded as government organisations, in the matter of debt and credit-worthiness they have probably been regarded by the business community as gilt-edged. Therefore, one would expect vendors and providers of credit in New Zealand to be much less interested in universities' annual reports than in the US. This may change with the more autonomous environment created under the recent New Zealand public sector reforms.

The twenty-three stakeholder types classified into six broad groups identified in this section are used in the empirical work described in Chapter Eight. Representatives of these groups were sought to comprise the expert stakeholder panels in the delphi opinion seeking exercise. In selecting suitable panellists, allowance is made for the New Zealand environment which includes the low

importance of some stakeholder groups such as accreditation agencies and alumni in New Zealand compared with other countries. Conversely, other stakeholder groups such as sister organisations and academics appear to be more important in New Zealand than elsewhere.

4.3.4 *What information do stakeholders need?*

One of the biggest problems in identifying stakeholders' information needs is their inability to articulate what these are in any convincing way (Anthony, 1978; Sutcliffe, 1985, p. 14). Anthony suggests that:

In the absence of hard evidence, therefore, one must rely on his or her [sic] own judgment as to what information a user *should* need. This is, of course, a highly speculative process, but there seems to be no alternative (p. 48).

Likierman (1992, p. 20) suggests that it would be easier to identify the information needs of specialist stakeholders than the needs of the general audience. He also thinks that there are additional problems of communication and reconciliation to overcome in identifying stakeholders' needs. There are limited opportunities for stakeholders to communicate their needs to preparers, assuming they are able to identify exactly what these are. Furthermore, the information needs of different parties may conflict, and involve additional costs on the entity in providing the information. It is not clear how such conflicts may be reconciled. This leads Likierman to concur with the views of Macve (1981) that resolution of these various interests and conflicts is likely to be a political process (see also Solomons, 1983).

Recognition of the variety of user needs and of conflicts between different interests and different rights leads to the view that reaching agreement on the form and content of financial statements is as much a 'political' process, a search for compromise between different parties, as it is a search for the methods which are 'technically' best (Macve, 1981, p. 52).

Solomons (1983) accepts the inevitability of political activity in the setting of accounting objectives and argues that there is nothing wrong with this so long as "the objectives be defined to serve the public interest and not some sectional interest" (p. 113). He also thinks that political concerns would be stronger in deciding what to disclose, and that resolution of 'the measurement problems' are largely technical and not political.

Jones (1992) is critical of the stakeholder / needs approach to setting reporting objectives because, in the absence of empirical evidence, they can produce radically different results. Mayston (1992) notes the difficulty of determining what the socially optimum amount of information should be and suggests that more progress is likely to be made using a deductive approach to establish the information that is relevant to protecting individual interests.

Likierman (1992, p. 31) identifies vicious circles arising from poor reporting, insofar as poor quality reports themselves may cause a lack of stakeholder interest. This may lead to unjustified criticism of the public sector entity from a poorly informed public, and to defensiveness on the part of the entity as a result. High quality reports, on the other hand, act as a public relations vehicle which can give a sign of professionalism, raise the image of the entity and assist in influencing those in power who may deal with the entity. Improved reporting may educate stakeholders and enable them to develop firmer opinions on their needs.

Notwithstanding these problems of identifying stakeholders' needs, the conclusions of the various stakeholder studies cited earlier in this chapter are summarised in Table 4.3. The overseas studies are shown chronologically across the page. It was noted earlier that the study of US colleges and universities by Engstrom

(1988) was set in a decision making environment, and this limits its usefulness for this study. Similarly, GASB (1994) focuses specifically on the form and content of alternative financial statements and has an emphasis on decision making.

The suggestions of Likierman (1992), on the other hand, are developed primarily from a public accountability focus, and for this reason his framework is used to classify the different forms of suggested information. One difficulty with this analysis is the variation in the ways that information needs are expressed. Some studies refer to the purpose of the information (for example, information to assess managerial performance) whereas others refer to specific information (for example, information to compare results with the previous year). The first two sections in Table 4.3, 'compliance & stewardship' and 'accountability & retrospective reporting' have stronger support across the fourteen studies and the latter two classifications, 'public relations' and 'source of facts and figures', have less support. This reflects the decision making objectives of the earlier studies, and the broader accountability focus of the more recent studies.

Sutcliffe (1985) considers the likely information needs of the three stakeholder groups identified in his study (service recipients, resource providers and review service providers) and concludes that:

[they] are likely to overlap since, to some extent, they are all interested in confirming that resources have been used economically, efficiently and effectively for the purposes prescribed, in assessing the ability of, and resources necessary for, the entity to continue to provide services in the future and the nature and cost of those services (pp. 16-17).

The SCGPFR (NZSA, 1993), which provides a unified framework for public and private sectors, makes some surprising omissions. In particular, information to assess efficiency and effectiveness, which is included in the earlier SPSAC statement

(NZSA, 1987) and in many of the accountability oriented overseas studies such as Sutcliffe (1985) and Likierman (1992), is excluded. Although the CVCP et al. (1994) study adopts accountability as the reporting objective and includes the public at large as stakeholders, the suggested information that should be reported has a narrow accounting stewardship focus.

Five of the six categories of information in Table 4.3 are supported by seven or more of the 15 studies reviewed. The final category, 'source of facts and figures' is identified by only three of the studies (Engstrom, 1988; Likierman, 1991 and Coy et al., 1994). This low overall recognition is explained by the broad information position adopted by these studies.

The change in reporting objectives over the past decade from decision usefulness to public accountability explains the low support for some items in Table 4.3. However, the matrix, which is based on the extant literature, provides a logical starting point for developing the public accountability model in Chapter Six. Before that, in Chapter Five, the political forces which shape accountability expectations and have made annual reporting for New Zealand universities a responsive, dynamic process since 1987 in contrast to their almost dormant and unchanging nature throughout the previous 120 years, are explored in detail.

The final section of this chapter considers an important additional aspect of reporting in a public accountability context: report qualities.

Table 4.3
Universities' Stakeholder Information Needs According to Selected Studies

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTAL
Compliance & stewardship																
Fiscal compliance	x		x	x			x	x	x	x	x	x	x	x	x	12
Assessing management stewardship		x					x	x	x	x	x	x	x	x	x	10
Accountability & retrospective reporting																
Assess managerial performance	x	x	x	x		x	x		x		x	x	x	x	x	12
Service efforts & accomplishments		x					x	x	x		x	x	x	x	x	9
Cost of services provided	x				x	x	x	x	x		x				x	8
Nature & objectives of entity			x					x	x			x	x	x	x	7
Evaluate efficiency & effectiveness				x	x	x	x	x	x						x	7
Compare results with other similar units				x			x	x			x				x	5
Nature of and relation between Inflows & Outflows		x					x			x					x	4
Compare results with previous year				x				x			x				x	4
Planning & authorisation information																
Future plans			x	x			x	x	x		x	x	x	x	x	10
Making resource allocation decisions		x		x				x	x		x				x	6
Advocate certain programs or actions				x											x	2
Viability																
Assess financial viability	x	x	x	x	x		x	x	x	x	x	x	x	x	x	14
Assessing services & ability to provide future services		x			x	x	x	x	x		x	x	x	x	x	11
Public relations																
Managers explanations & interpretations		x						x	x			x	x	x	x	7
Source of facts & figures																
Statistical information							x		x						x	3

No:	Author	Date	Country	Sector	Objective(s) of Reporting
1	Anthony	1978	US	Non-business	Decision making
2	FASB	1980	US	Non-business	Decision making
3	CICA	1980	Canada	Non-profit	Decision making
4	Drebin, Chan & Ferguson	1981	US	Governmental	Decision making
5	Jones, Scott, Kimbro & Ingram	1985	US	State & Local Govt.	Decision making
6	Sutcliffe	1985	Australia	Public sector	Decision making & accountability
7	Engstrom	1988	US	College & University	Decision making & accountability
8	AARF	1990	Australia	Public & private sectors	Decision making & accountability
9	Likierman	1992	UK	Public sector	Accountability
10	CVCP, SCOP, COSHEP	1994	UK	Higher education	Accountability
11	GASB	1994	US	College & University	Decision making & accountability
12	NZSA	1987	NZ	Public sector	Accountability & decision making
13	NZSA	1991	NZ	Public sector	Accountability & decision making
14	NZSA	1993	NZ	Public & private sectors	Accountability & decision making
15	Coy, Buchanan, Dixon & Tower	1994	NZ	Tertiary education	Empirical study

4.4 Annual Report Qualities

So far, the analysis has focused on the information disclosed in annual reports. Further dimensions of the public accountability objectives of annual reporting are the qualitative characteristics of reports, such as timeliness, understandability, reliability which have the potential to affect communication with stakeholders greatly. For example, the shorter the time lapse between the balance date and publication of the report, the greater the interest for stakeholders is likely to be.

4.4.1 *Recognised Extant Qualities*

In incorporating qualitative characteristics into the public accountability index, there are two main questions to address. Firstly, are there generally recognised reporting qualities that would be appropriate to New Zealand universities? Secondly, if such qualities can be identified which ones might be successfully integrated within an accountability index? For example, *timeliness* can be evaluated in a meaningful way, once the time lag between the balance date and the date of publication is known. However, other qualitative characteristics such as *benefit-cost* (the notion that the benefit of disclosures should exceed the cost of providing the information) may be difficult to evaluate meaningfully, because for many individual report disclosures it would be impossible to judge the costs and benefits of the information.

Mathews and Perera (1993) review the qualitative characteristics as identified in eight conceptual framework studies published in the United Kingdom, USA, Canada, Australia, New Zealand and by the International Accounting Standards Committee between 1973 and 1990. Their review encompasses both private and public sectors and it is assumed that the desired qualitative characteristics are similar

for both sectors. Mathews and Perera conclude that although there are many similarities between each of these studies, there are also some distinct differences and these are illustrated in a matrix table which is replicated in Table 4.4 below. The Mathews and Perera table does not include the recommendations of NZSA (1993), and this information is appended in Table 4.4 along with the results of the international study by Agraval et al. (1989). The data are sorted in descending order according to the total support for each characteristic.

The six characteristics with more than 50% support of the ten sources of reference are: relevance (9), comparability (8), timeliness (8), materiality (7), understandability (7) and reliability (7). Mathews and Perera (1993, p. 97) note that these are the most frequently stated characteristics, but they also note that these are stated *a priori*, and without any empirical testing.

Likierman (1992, p. 33) thought that the single most important qualitative characteristic for any report, once the basic legal and professional requirements have been met, is *relevance* to the stakeholder. This calls for additional effort and skill on the part of preparers in presenting information with an appropriate balance of detail, complexity, attractiveness etc. to reach the intended audience.

Buzby (1982) discussed the implied conflicts within these characteristics insofar as accuracy and completeness may militate against timeliness, and that materiality needs to be considered in the context of the nature of items as well as their relative size. For example, a small defalcation by a junior staff member would not be relevant to the annual report, whereas a similar incident involving a Director would be material.

Table 4.4
Qualitative Characteristics of Accounting Information

	1	2	3	4	5	6	7	8	9	10	TOTAL
Relevance	x	x		x	x	x	x	x	x	x	9
Comparability/consistency	x	x		x	x	x	x	x	x		8
Timeliness		x	x	x		x	x	x	x	x	8
Materiality	x			x	x	x	x	x		x	7
Understandability	x	x		x		x		x	x	x	7
Reliability	x	x		x		x	x	x	x		7
Freedom from bias / neutrality	x			x	x	x			x		5
Completeness		x			x	x				x	4
Predictive value				x		x			x		3
Objectivity		x			x	x					3
Representational faithfulness				x		x			x		3
Feedback value				x		x			x		3
Benefit-cost				x	x		x				3
Verifiability				x		x			x		3
Decision usefulness				x		x					2
Accuracy			x							x	2
Recognition of substance over form	x										1

- 1 AICPA (1973) US
- 2 ASSC (1975) UK
- 3 SST (1977) UK
- 4 FASB (1980) US
- 5 CICA (1980) Canada

- 6 ASAC (1987) Canada
- 7 IASC (1988) International
- 8 AARF (1990) Australia
- 9 NZSA (1993) New Zealand
- 10 Agraval et al. (1989) International

References 1-8, adopted from Mathews & Perera (1993), p.97

Two further qualitative characteristics of reporting which are not considered in the Mathews & Perera (1993) framework or identified in the literature search are accessibility and distribution. As explained below, these reporting qualities appear to be important in a public accountability context.

4.4.2 *The Quality of Accessibility*

Accessibility refers to the ease with which stakeholders are able to obtain copies of an entity's reports. This dimension is more relevant to an assessment of reporting from a public accountability standpoint, than from a decision usefulness or stewardship perspective. Those who require reports for decision making purposes will have reason to make a point of obtaining annual reports. Inherent to the notion of public accountability is stakeholders having the opportunity to review an entity's progress without any further objective in mind. As a result stakeholders are less likely to make a deliberate point of obtaining a copy of an annual report.

Accessibility has many dimensions. What effort is made to make stakeholders aware that an annual report is available? Awareness can be engendered by the placing of public notices in the appropriate media, including the local press and internal newsletters and by the issuing of press releases which advertise availability and draw attention to points of interest in the latest report. Stakeholders can be encouraged to obtain their own copies or advised where copies are available for perusal, such as in libraries and information offices. As for universities, the report may be placed on display for an appropriate period of time in public places such as reception areas, information offices and libraries.

Another aspect of accessibility is the responsiveness of the entity to requests for copies. Usually, written requests for copies result in a response within a few days. However, personal experience has also shown that some universities may not respond to several requests for copies and on occasion responses may be received only after the powers of the Information Act, 1982 are invoked.

A further possible future problem relating to accessibility is the question of a charge being levied on stakeholders for providing annual reports. To date, charges have not been made by universities but if the public demand for copies increased it is possible that a charge would be imposed. This would affect accessibility, and in such circumstances the ready availability of reports in libraries and other public information repositories would become a more important aspect of accessibility.

4.4.3 *The Quality of Distribution*

Another quality of reporting not captured in the extant literature is *distribution*. To what extent does a university reach its stakeholders by its voluntary distribution policies? From a public accountability perspective the greater the number and spread of reports distributed amongst the stakeholder groups, the better. The current era has seen marked changes in attitudes to distribution and even during the late 1980s some universities regarded the annual financial statements as secret documents and would not distribute outside of the formal governmental reporting channels (Coy et al., 1993a).

It might be argued that accessibility and distribution are different parts of one quality and not two separate qualities because both are concerned with the process of getting annual reports into stakeholders' hands. However, they are also distinct

in the sense that an entity may rate very differently in respect of each. It seems likely that many universities would rate similarly for both characteristics in the sense that an institution which is fully supportive of being publicly accountable will make its reports highly accessible and widely distributed on a voluntary basis. But it is also possible for a university to be strong on one of the qualities and weak on the other. For this reason they are treated as separate qualities in this study.

4.4.4 *Summary of Qualitative Characteristics*

The inherent contradictions and tensions within many of the qualities (eg. timeliness vs. accuracy; understandability vs. comprehensiveness) are well recognised (Buzby, 1982; NZSA, 1993). Ultimately report preparers must make judgements about the appropriate compromises to achieve a balance in the reporting characteristics. Furthermore, it is difficult to define most of the qualitative characteristics with precision, even if the qualitative characteristics of accounting reports could be generally agreed. In summary, six prime qualitative characteristics were identified from the literature: relevance, comparability, timeliness, materiality, understandability and reliability (see Table 4.4). In addition, accessibility and distribution were also identified as being important qualitative characteristics of reporting in a public accountability framework, but had not been noted in either the literature or the various promulgations.

Qualitative characteristics appear to be important discriminators between statutory accountability and public accountability. An annual report which includes the disclosures required under the law, and which is tabled in parliament on or before the statutory due date, may achieve perfect statutory accountability. Yet such a

report may be poorly presented, difficult to understand and inaccessible to the public at large. Such an institution may achieve a low level of public accountability through its annual reporting, despite meeting all of the statutory requirements. It follows therefore, that an index to evaluate the quality of annual reports from a public accountability perspective must consider both the disclosures and the qualitative characteristics of reports that affect communication with stakeholders.

4.5 Conclusion and Summary

This chapter identifies the objectives of universities' reporting and considers four important questions:

- (i) What is meant by accountability?
- (ii) Who are the universities' stakeholders?
- (iii) What are stakeholders' information needs?
- (iv) What are the qualitative characteristics of annual reports?

Accountability refers to the obligation for accountors to provide an account to stakeholders. The annual report is an important part of the accountability process because it provides the only opportunity for stakeholders to obtain a summary of universities' objectives and achievements in financial and non-financial terms, within a single document. Statutory, managerial and public accountability are distinguished, and the latter, which is the focus of this study, refers to the obligation of accountors to make an account which is available to the public at large. The information needed to fulfil accountability expectations reflects a continuing political negotiation between accountors and accountees (see Chapter Five). The current level of reporting reflects the compromises reached between accountors and accountees at that time.

The public accountability principles adopted in this thesis are that universities' annual reports should provide *relevant* information which is *accessible* to all stakeholders (Likierman, 1992, p. 33). This should include information about *inputs, process, outputs and policy* (Stewart, 1984) which enables stakeholders to *assess* universities' *objectives and success in meeting those objectives* in *financial and non-financial* terms, and whether resources have been used *economically, efficiently, effectively* (Sutcliffe, 1985) and *equitably* (Ministry of Education, 1991). Information should also be provided that enables assessments to be made about universities' *ability to continue to provide services in the future* and the nature and *cost of those services* (Sutcliffe, 1985, pp. 16-17; NZSA, 1993).

Stakeholders are all those with a legitimate social, economic or political interest in the reporting entity. Six university stakeholder groups who are entitled to accountability information are identified. These are: (i) Internal campus based citizens, (ii) Sister organisations / competitors, (iii) Elected and appointed representatives, (iv) Resource providers, (v) External citizens, and (vi) the public, analysts and the media.

Six kinds of information that meet current accountability expectations are identified. These are: (i) compliance and stewardship, (ii) accountability and retrospective reporting, (iii) planning and authorization information, (iv) viability, (v) public relations, and (vi) a source of facts & figures.

In addition to information disclosures, a public accountability index must also take qualitative aspects of reporting into account because matters like timeliness and presentation greatly affect the quality of communication with stakeholders, and the

level of accountability achieved by reporting. Six qualitative characteristics which enjoy strong support in the extant literature are identified. These are: (i) relevance, (ii) comparability, (iii) timeliness, (iv) materiality, (v) understandability, and (vi) reliability. Two other qualitative characteristics not identified in the literature are also considered to be important. These are accessibility and distribution.

The stakeholders, information needs and qualitative characteristics identified in this chapter are the starting point for the development of the normative public accountability model in Chapter Six. Before that, in Chapter Five, the argument of Macve (1981) and Solomon (1983), that the content and presentation of annual reports is a dynamic political process subject to continuous negotiation and compromise between preparers and stakeholders is explored in the context of the New Zealand universities.

CHAPTER FIVE

POLITICAL DIMENSIONS OF UNIVERSITIES' REPORTING AND ACCOUNTABILITY

5.1 Introduction

This chapter considers a critical issue surrounding annual reporting and accountability: the political influences. Acknowledgement of the political influences on accountability and annual reporting is essential to the thesis because it is accepted that the content and presentation of annual reports may have less to do with what are the best technical approaches, and may be more the result of a political compromise between the various interested parties (Macve, 1981; Tonkin, 1981; Solomons, 1983).

For this thesis, political influences are taken to mean power and the way it may be used to advance the interest of one group in society over another. Pratt (1994) developed the ideas of power and politics as determinants of accounting by suggesting that there are many forces at work in a western style economy representing the three main interests: land, labour and capital. According to Pratt these forces continually change, move and overlap. He suggested that these forces would be better represented as kinds of constantly moving amoebas rather than as fixed items as depicted in earlier economic models and adapted by Puxty, Willmott, Cooper and Lowe (1987). These ideas of power and conflict in society as being the ultimate forces which shape and control all social, economic and political activity are derived from Foucault's (1979) seminal work.

Foucault's (1979) analysis of society was based on the notion of the existence of many complex forces of power which are forever in conflict either to protect existing interests or to gain more control over society. Macintosh and Hopper described these complex interactions within society as:

... a multiplicity of forms of social relations operating in society. So it is a hopeless task to try to identify the source or control its directions. Power operates as a seamless network with no beginning and no end. It is like a spider's web without a spider (1991, p. 45).

In a similar vein, Mulgan (1994) thought that although Cabinet was at the final point of the political decision-making process in New Zealand:

... the process does not have a starting point or an end point but is best visualised as an interlocking system of continuous interaction both between the state and the wider society and within the state itself. ... Within the political system no single group or institution is in control and few groups or institutions are without some degree of influence on some issues. This does not mean that some groups or interests are not more powerful than others or that there are no systematic biases within the system. But no group or section has all the influence (Mulgan, 1994, p. 290).

Similarly, Wood (1988) emphasised the influence of many different groups, sections and parties, and that:

Decisions today are largely made through a process of bargaining between the Government and pressure groups rather than as any direct result of the electoral process. If elections decide who shall preside at the top, bargaining decides what their policies will be (Wood, 1988, p. 97).

Many issues concerning the use and abuse of power have been prominent in NZ during the past decade, including the failure of both Labour and National governments to implement policies in the manifestos on which they were elected (Mulgan, 1994, p. 302; Henderson, 1992, p. 56), the excessive power and influence of males compared with females (Waring, 1988; Novitz & Willmott, 1992, p. xi), the higher quality of life and wealth of Pakehas compared with Non-pakehas (Orange, 1987; Rikys, 1992, p. 108; Mulgan, 1994, p. 300) and the excessive influence of big business over government (Mulgan, 1994, p. 299; Wishart, 1995).

There are many ways in which excessive power or the abuse of power may be controlled in a western democratic society. Parliamentary processes, including the

right of MPs to make statements in Parliament under the protection of parliamentary privilege, are important because they provide opportunity for questions to be asked, and answers demanded, about any serious concerns held on matters of public interest (Wood, 1988, p. 43; Wishart, 1995, p. 273). A free press and the existence of academic institutions whose members have the protection of tenure and are expected to act as the critic and conscience of society are other important ways in which the possible abuse of power may be challenged (Wood and Maharey, 1994, p. 199).

Accountability and a public right of access to information is another important way of controlling the abuse of power. The British Royal Commission on Financial Management and Accountability (Tower, 1993) described accountability as "the fundamental prerequisite for preventing the abuse of delegated power and for ensuring ... instead that power is directed toward the achievement of broadly accepted national goals ...". In New Zealand, the importance of improved public access to information held by government and associated agencies was acknowledged with the passing of the Official Information Act, 1982. This is an important means of protecting both individuals and the public at large from the abuse of power by officials who have access to this information.

This chapter examines the power / accountability nexus firstly by considering the external political environment, and then specific aspects of the internal politics of NZ universities' accountability.

5.2 External Political Environment

Three themes are examined in the context of the external political environment. Firstly, the far reaching changes over the past two decades to public attitudes towards accountability in western democracies are acknowledged as the catalyst for changes which have permeated all sectors of society, including universities. Secondly, the suggestion of Jones (1992) that there is no public interest in public sector annual reports is considered, and rejected. Finally, the excessive influence of the accounting profession over accountability and reporting practices, and its power to shape its own (different) reality of social events is acknowledged.

5.2.1 *The Public Right to Know*

Since the early 1970s public attitudes to, and awareness of, issues of public affairs in NZ and other western type societies have changed significantly. The notion of a public right to information is set in the United Nations' Universal Declaration of Human Rights, 1948 (Article 19) which specifies that the right to freedom of expression and opinion includes the freedom "to seek, receive, and impart information and ideas through any media and regardless of frontiers". In the US, this concept was enshrined in the constitution by the Freedom of Information Act of 1967 which was designed to prevent the withholding of information from the public except where national security and individual privacy was involved (Duchacek, 1973, p. 182).

The Watergate affair in the US was acknowledged as being due partly to the President believing that he could circumvent established accountability procedures (Fisher and Gordon, 1991). In Australia during the 1980s, questions were raised

about the accountability of the government of Queensland culminating in infamous legal proceedings involving the former State Premier (Martin 1991, p. 382). Much concern was expressed by the late 1970s about excessive government involvement and secrecy in the conduct of New Zealand public affairs (Baragwanath, 1979; Ovenden, 1979). Sir Robert Muldoon, the Prime Minister from 1975-84, was criticised in many quarters for being autocratic and insufficiently accountable to Parliament (James, 1986, p. 79; Chapman, 1989, p. 24; Henderson, 1992).

Accountability in both political and business affairs has become regarded as more important than formerly. This has included the protection of the rights of individual citizens to know personal information held by government and related agencies about themselves, and also the right to have access to any official information unless there is a good reason for withholding it (Department of Statistics, 1993, p. 33).

During the 1980s *accountability* became a topical and emotive issue in business and political circles in New Zealand, and elsewhere. Overseas there were notable cases linked to unsatisfactory accountability in addition to Watergate, such as the Savings and Loans Associations and many municipality failures in the US. In NZ, the Equiticorp, RJI and the Sports Foundation cases¹ in the early 1990s and the resignation of the Controller and Auditor-General in 1994 all had links with inadequate accountability. The adoption of a proportional representation electoral system in 1993 was also supported in many quarters because of the additional

¹ Directors of Equiticorp were found guilty of various white collar crimes in 1992, Sir Robert Jones was prosecuted by the Securities Commission and investigated by the Serious Fraud Office (1993) and Keith Hancock of the Sports Foundation was found guilty of misappropriation (1992).

accountability of politicians that would result and a feeling that "the existing system had been captured by a small powerful elite who distrusted the average voters and who wished to keep public influence on decisions to a minimum" (Mulgan, 1994, p. 304).

Public disclosure of information is fundamental to the workings of a pluralist democratic system with extensive public and private sectors. Private entrepreneurs use the protection of limited liability to raise monies from the public: prospectuses, interim accounts and audited annual accounts are all parts of extensive and tightly enforced information disclosure systems designed to give equitable access to information for all interested parties. This helps to prevent abuse of the public and collapse of trust in the system which would follow from activities such as insider trading going unchecked.

Many new forms of public information have been demanded during the past decade. The Official Information Act, 1982 allowed citizens access to information about the operation of government departments and related agencies as a means of achieving greater openness and accountability in government (Department of Statistics, 1993, p. 33). The State Sector Act, 1988 and the Public Finance Act 1989 required *inter alia* greater accountability from the public sector. More disclosures were required from corporate entities under the Financial Reporting Act, 1994.

Normanton (1971, pp. 319-320) contrasted closed and open systems of public administration and thought that there was no necessary connection between secrecy and efficiency. "... secrecy frequently blankets and even protects maladministration, overcharging and inertia". On the other hand, public accountability "obliges politicians, officials and managements to engage openly in dialogue which calls into

question what they are doing, and sometimes the assumptions upon which that activity is founded" (p. 319).

There is also an ethical factor. Public accountability can provide a kind of harmony between power and responsibility. This is not merely a matter of exposure to criticism; administration may indeed be good and merit no criticism, but it should also be publicly seen to be good (Normanton, 1971, p. 320).

To meet public accountability expectations new measures may be developed and disclosed in annual reports. The act of measurement, where human beings are the subjects of that measurement, will affect behaviour (Solomons, 1978, p. 71). The collection and public reporting of new information may influence managerial behaviour if there is the possibility of gaining reward or avoiding sanction. However, new measures, statistics or other indicators are often imperfect and loopholes may be exploited (Lipsky, 1978, p. 20).

It should also be acknowledged that the existence of a public indicator of some aspect of social behaviour is, in itself, an important aspect of the political process. For example, in recent decades there have been enormous changes on the issue of racial discrimination which was common in the US, UK, NZ and elsewhere. Civil rights activists fought for years in all of these countries to outlaw discrimination. Today, many NZ universities publish statistics in their annual reports about the enrolment and employment of Maoris and Pacific Islanders in comparison with the total students and employees as a whole. It is unlikely that the collection and publication of such data say 50 years ago in NZ could have occurred, because there was no awareness or acceptance of the problem it addresses as a legitimate issue.

Similar sentiments also apply to the accountability of, and annual reporting by, universities in NZ. Reference was made in Chapter Two to the low key attitude

towards universities' annual reporting up until the mid-1980s. Reporting was regarded primarily as a statutory matter to confirm probity in the use of public monies, and was conducted between the universities, the Audit Office and government in Wellington. Nowadays, following the professional recommendations (NZSA, 1987a) and legislation (Education Amendment Act, 1990), the accountability of government entities including the universities has become a matter of public interest.

There have been marked changes. For example, the University of Auckland annual reports for 1986 and 1987 were published some 30 months after the balance date (Dixon, Coy & Tower, 1991). This is the country's largest university with expenditure in excess of \$100 million of public money annually, and yet, at that time, there was no public comment on or, possibly, even awareness of its tardiness in publishing its annual report. But in 1993, three of the smallest polytechnics made headlines in the national press ("Polytechnics ticked off", 1993) for taking nine months to publish their annual reports, standards which appeared to be quite acceptable six years earlier.

The demand for improved accountability by universities needs to be seen in the light of changed public attitudes for better access to information by citizens. These arise from the many incidents both in NZ and overseas over the past two decades which have their roots in a lack of accountability, and have undermined public confidence in the conduct of national and business affairs (Novitz and Willmott, 1992). More open accountability of government and business has been one way of protecting both individuals and the public at large from abuse of their positions by those in positions of power.

University managers and the public at large are more concerned about accountability and annual reporting than they were a decade ago. Concerns about the roles of bureaucrats and politicians in the making of public policy came down not to which held more influence, but to being sure that those making public policy can be held fully accountable (Kellow, 1989, p. 151). This arises not only from the legislative changes but also the change in the political climate which has made the accountability of political, business and community leaders an important and sensitive issue. The change in the climate towards accountability in the conduct of both private business and public affairs is the backdrop to the recent changes in annual reporting by universities.

5.2.2 *The Public Interest in Annual Reports*

Jones (1992, p. 262) suggested that the assumption of a public interest in public institutions' annual reports may be false: "The publication of financial statements is not in the public interest because the public has no interest; it could be in the private interest but who, in a democracy is going to admit to that?"

The notion here is that anyone who takes an interest in public sector financial statements does so to advance personal interests, and is not interested in the public interest *per se*. Such sentiments reflect a cynical view of the public in general and whilst there are probably many examples to support such assertions, the general picture is possibly better represented as a continuum encompassing altruistic and selfish behaviours. The meaning of private interest can be stretched and interpreted in many ways.

A student (or parent, or other sponsor) may be interested in universities' financial statements to enable judgements to be made about the fairness of tuition fees charged in relation to operating costs. An academic may be interested to see how resources are allocated between faculties on a particular campus, or between similar faculties at different campuses. A business person may be interested to know the range of courses available so that employees may be considered for training. Although an individual's interest may be motivated by circumstances that lead to personal benefits, further public benefits may result from their interest. Students may be able to use the information to argue for lower fees; academics may be able to secure more resources for their own faculties; employers may gain greater competitiveness (and profits) from a more highly trained workforce. In the examples given, the personal benefits are also available to others, and there may also be a wider community benefit. In some instances, benefits for some groups are likely to be secured at a cost to others; lower student fees for one group of students may lead to higher fees for other students, more resources for one faculty often results in less for other faculties.

An important consideration in the argument about the extent of the public interest in annual reports is the expertise and effort needed to understand the reports. Mayston (1992, p. 320) recognised the disincentives upon individuals acting alone to determine what their information needs are. This requires considerable effort, assuming that the individual has the necessary expertise, available time and motivation to devote to the task. Likierman takes up this chicken and egg situation with regard to public sector annual reports.

The documents themselves must ... be sufficiently user-friendly to allow the interested reader to acquire the information. The dilemma here is to know how far to go in meeting the needs of a wider audience without having the evidence that such an audience exists. There are those who say that it is unrealistic to assume that public sector reports will be read outside a very narrow circle. Others assert that, with encouragement, a wider audience will develop (1992, p. 23).

Public sector annual reports may have a low level of apparent public interest because of factors like complexity, timeliness, distribution and accessibility. New style reports which address these aspects from a public accountability perspective may unearth, and even generate, a considerable public interest.

However, notwithstanding these questions raised by Jones (1992) about the existence of a public interest in public sector annual reports, the NZ political system is built upon a representative democracy. It is accepted that many citizens are not able to understand fully or appreciate the workings of public organisations and it is part of the MP's responsibility to take an interest in such matters on their behalf. Presumably, it was in recognition of this public responsibility, that the NZ universities were required from 1991 to send 125 copies of their annual report to the Minister of Education so that each institution's report might be made available to each of the 99 MPs.

Evidence of interest in universities' annual reports was reported in October, 1993 when the Association of University Staff engaged management consultants to analyze annual reports and advise on the universities' ability to fund a pay rise (Brown, 1993, p. 1). Provincial newspapers reported about the quality of the 1992 tertiary education annual reports ("Good marks for polytechnic report", 1993; "Polytechnic under fire", 1993; "Accountability of colleges studied", 1993).

In summary, Jones raises a legitimate question about whether a public interest in public sector annual reports exists. As far as the ordinary citizen is concerned, the current level of public interest may reflect the quality and accessibility of reports rather than lack of interest in the matters being reported. Also, the dynamics of the situation should be acknowledged. As the general level of education across society and the quality of the reports improve, so more stakeholders may take an interest in the accountability processes of public institutions.

5.2.3 *The Role of Accountants in Organisational Accountability*

Four issues concerning the role of accountants in organisational accountability processes arise at this point. First, there is the question of the extent to which accountants may be regarded as neutral in the accountability process, and whether they place the public interest ahead of, or behind, other private interests where these conflict (Sikka, Willmott & Lowe, 1989; Briloff, 1990; Solomons, 1991a; Tinker, 1991; Solomons, 1991b). Second, the effectiveness of self-regulation of the accountancy profession as a means of serving the public interest has been questioned (Willmott, 1985; Baker, 1993; Willmott, Cooper & Puxty, 1993). Third, some academics have noted the dominant role played by the accountancy profession in the setting of accounting standards, and the possibility that the public interest may not be properly served as a consequence (Willmott, 1985; Jones, 1992; Tower, Perera & Rahman, 1992). Finally, there has been a recognition that in reporting the performance and financial condition of any entity, accounting statements provide one interpretation. However, because of the public esteem for the accounting and audit processes, such information may shape its own (different) version of reality

(Willmott, 1985; Hines, 1988).

The independence and "neutrality" of accountants and the accounting profession has been challenged by academics and politicians. Many of these concerns have arisen from corporate failures following the issuance of clean audit reports, with the failures resulting in considerable losses befalling shareholders, creditors, lenders and other members of the public (Tinker, 1985). Briloff (1990) wrote of the accountants' covenant with society as having been broken, because they had failed to put the public interest before corporate or personal interests in such matters as the Savings & Loans Banking failures in the US. Sikka et al. (1989) criticised the accounting profession in the UK for a lack of accountability following the profession's unwillingness to assist with their research into the 'going concern convention'² and the way standards about such matters were developed within the profession's committees.

Public dissatisfaction with the performance of the accountancy profession in the UK and the US has led to many calls for greater government regulation of the accountancy profession / industry. Such a change is anathema to the accountancy profession (and many other professions such as medical and legal) which has always set great store by its own powers of self-regulation (Baker, 1993). Willmott et al. (1993, p. 70) questioned the ability of the UK profession to serve both the private interests of members and the public interest, and rejected the conclusion of the Worsley Report "that almost always the public interest and the members' interest

² The going concern concept became an issue because of adverse government reports following investigations of various corporate collapses during the 1970s and 1980s.

coincide".

An associated problem with the public accountability model of annual reporting is the dominant role played by accountants in the whole process, as standard setters, preparers and oversight agents. Jones (1992) notes that all the recent attempts at developing conceptual frameworks for the public sector have been by, or on behalf of, bodies of preparers and auditors of financial statements. Stakeholders have not been heavily involved.

Tower et al. (1992) criticise the dominant role played by accountants in the standard setting process in the Anglo-American countries, including New Zealand. They describe it as being for the most part: "... a "closed-shop" operation with the agenda set by accountants, the rules created by accountants, the rules approved by accountants, applied by accountants, and audited by accountants" (p. 137).

If the public accountability model suggests that entities have an obligation to report and explain their management to the public, then it could be questioned whether the public interest can be properly served in an environment dominated by one group of professionals. Tower (1993) suggests that the public interest would be better served if accountancy bodies made a more concerted effort to involve representatives of the wider community when developing standards and promulgations.

Finally, in the past decade a critical perspective of accounting has developed the sociopolitical paradigm, which rejects the notion of accounting as a neutral, objective system which simply reports an independent social reality ("what is"). Advocates of this view believe that the accounting process itself contributes to society's beliefs about social reality ("what is") and through this influence accounting

contributes to creating the reality it reports (Willmott, 1985; Hines, 1988; Hines, 1989a; Hines, 1989b).

Awareness of this role of accounting in creating reality is important to the present project because to many citizens universities may be regarded as institutions which are separate from the general community and operate under their own rules and cultures. Rather like other institutions such as the church or the masonic lodges, there may be a mystique in the public mind about some of the processes of control and regulation to which only insiders of the universities are privy. The annual report therefore has an important role in communicating and shaping the reality about universities in the mind of the public.

This review has shown how political forces in NZ universities' external environment may influence the nature and content of their annual reports. There are many reasons why awareness of the political environment is important to a thesis which seeks improved accountability. Groups perceiving improved accountability as threatening may subvert or divert initiatives that aim to disseminate improved information to the public (Sikka et al, 1989). Equally, other groups which may perceive benefit or gain from greater accountability will seek ways to enhance it.

The political influences at the internal level within universities are considered in the next section.

5.3 Internal Political Environment

5.3.1 *University Organisational Behaviour*

Some of these events which will now be described illustrate the nature of the negotiation and interaction that may occur on a university campus in resolving resource allocation problems. Although the events described in the case study which follows are not directly concerned with annual report disclosures, to a large extent the problems were exaggerated by the failure of the university to disclose quality information in its annual report. A further factor, as it later transpired, was the absence of information systems which were able to produce such information for internal management purposes.

These events support the assertion of Karmel (1989) that the culture in this New Zealand university was similar to that observed in some Australian universities and described: " ... as a kind of private club whose members decide who is to join and what should be done in it" (p. 1). Karmel noted the need for change by the universities including improvements in their effectiveness and efficiency so that they better met the employment needs of society. Despite fears for the traditional values of universities, Karmel believed that there needed to be improvement in the internal management, a greater emphasis on performance and a more competitive allocation of resources.

Many of the problems at this NZ university match the findings of Hackman (1985) who investigated power and centrality in the allocation of resources at US colleges and universities. She reviewed different theories of the organisation of universities which characterised them variously as organised anarchies, collegial communities, academic bureaucracies, open systems, centralised institutions and as

political organisations. Her study supported the view that colleges and universities are " ... political organisations that operate as open systems in interaction with the environment" (Hackman, 1985, p. 74).

Institutional power and environmental power were found to be the main determinants of a unit's ability to attract or resist cuts to resources in a time of overall resource decline. Institutional power was defined in terms of the strength of a unit's influence within the organisation, demonstrated by such measures as support from the chief executive officer [CEO], number of students served, visibility, and overall internal power ratings. Environmental power was defined as the relative ability of a unit to bring in outside resources that are critically needed by the institution.

In the description that follows, it is apparent that a unit which had comparatively large numbers of students, and brought in considerable funds to the university was unable to translate this into power in accumulating resources. In fact, the opposite seemed to apply; the established faculties were able to use the institutionally powerless commerce faculty as a kind of cash cow to cross-subsidise their operations in a period of declining overall resource availability. In reviewing the activities of the New Zealand University Grants Committee (1961-1986), Gould noted how resource allocation presented difficulties for the universities when a steady state was reached, because "growth in areas where growth is desired can *only* be achieved by contraction in other areas; rational allocation may now mean taking away selectively, rather than adding selectively" (Gould, 1988, p. 239).

Hackman's (1985) comments about power in the context of American universities were echoed at about the same time by the report on the efficiency of

UK universities undertaken by the Committee of Vice-Chancellors and Principals [CVCP](1985) which became known as the Jarrett Report. This report expressed concern about the way resources were allocated, and about the allocation itself.

In several instances the Reports (on individual institutions) argue that co-ordination of resource allocation relies far too much on the Vice-Chancellor and senior administrative officers and on the informal and uncertain device of cross membership of committees.

and

There is a tendency to restrict alterations in allocation by, for example, insisting on refilling vacant posts when there are other options available, whereas some institutions have a more flexible system of regarding all resources as cash (CVCP, 1985, p. 19).

In New Zealand, Coy and Tower (1990) criticised the universities for their failure to publish segmentalised financial information which would enable concerns about resource allocations to be verified or disproved.

5.3.2 A Case Study

At the institution now used as a case study, the commerce faculty was comparatively new having been established in 1970 compared with most of the other faculties which dated back much longer, and in the case of agriculture, the founding faculty of this institution, to the 1920s. Fuelled by the deregulation policies of the mid-1980s and the stock market boom, there was considerable growth in the demand for commerce courses. At the same time, following the withdrawal of agricultural subsidies, it was widely known that there had been a significant drop in the number of students taking agricultural courses. The extent of the decline in enrolments for agricultural courses was never disclosed in any public document.

Student-staff ratios in excess of 20:1 in commerce programmes translated to very large class sizes, with two hundred or more students in first and second year courses and even 100 students or more in some final year courses. At the same time, other students on the campus benefited from the close academic attention possible in small classes where the student-staff ratio was around 6-8:1. Commerce academic staff raised their concerns through the normal channels about the disparity in resource allocations.

Generally, the university administration expressed sympathy for the situation, but described the problem as one caused by insufficient overall funding. Government had not provided additional funding to the university to match the increase in commerce students. There appeared to be no recognition within the central administration that resource allocations to those faculties which had lost students might be reduced. The absence of available information in the annual report (or any other public document) about either student numbers or resource allocations made it difficult for academic staff or students to make judgements about the reasonableness of the explanation. However, the government based its funding on the number of students and the type of courses followed. In so far as these funds did not reach the students for whom they had been provided, the university was making unilateral decisions to re-direct public money without either consulting or advising the parties affected.

Over the period 1985-89, Coy (1991, p. 37) calculated³ that 84 new staff had been appointed to the science related faculties in a period when science related enrolments declined from 32% to 22% (2,658 to 2,325) of the total university EFTS (Coy, 1991, p. 12). Appointment of new staff to what appeared to be already over-resourced faculties exacerbated difficulties of securing more equitable resource allocations across campus.

Concerns about resource allocations within the Business and Social Science Faculties during 1988 led to these matters being raised at the respective Faculty Boards. The Vice Chancellor responded to these criticisms with a statement in December 1988 that the cross-subsidies between faculties were much less than had been suggested by the two Faculty Boards. The estimates circulating on campus were of a cross-subsidy in 1988 of \$4.8 million to the four science based faculties. Figures which the Vice Chancellor described as the *correct figures*⁴ showed a subsidy of only \$1.0 million to the four science based faculties. Subsequently, in October 1989, a request was made to the Registrar under the Official Information Act, 1982 for *inter alia* a statement of the University's income and expenditure broken down by faculty for the years 1983 to 1988. Among the information in the response was a memo from the Finance Registrar which stated:

³ In the absence of any better published data, the calculations were made from a simple count of the number of academic staff at the various ranks, as published in the University Calendars.

⁴ Memo of 6 December, 1988 from the Vice-Chancellor to the Dean of Social Science, copied to senior staff.

3. Expenditure 1983/88

This information has not been collected in the form requested. All academic salaries are charged to one account number across the University and non academic salaries have been collected by occupational groups rather than departments/faculties. ... This collection and reporting mode has met the requirements of U.G.C. and other Governmental Agencies up to now and as staffing and (hence salaries) [sic] have been controlled from the central administration there has been no requirement to keep individual salary costs for Faculties or Departments. (Memo to the author from the Registrar, 14 November, 1989)

This information appears to be in direct conflict with the information given by the Vice Chancellor some nine months earlier who provided *correct figures* for the surplus / deficit of each faculty. How was it possible to calculate correct figures for the 1988 faculty surplus / deficits if the university's accounting system in 1988 charged all academic salaries to one account, as stated in the Registrar's memo?

Other resource allocation issues that were raised during this period concerned academic office space and location, teaching rooms and the allocation of library resources which reflected similar disparities to those already described.

The membership of the academics' union, the Association of University Teachers [AUT], was made aware of the resource disparities between faculties. It was reasoned that labour unions have a history of seeking redress for unfairness, traditionally in the matters of pay and working conditions. An appeal to the membership's sense of equity and fairness might lead to support from the membership as a whole in representations to the university administration. However, although the general membership was surprised at the extent of resource imbalance, there was little interest in a united approach to address the problem. Indeed many science based academics disputed that they were over-funded, because they received significantly less resourcing than their counterparts in Australia, North America and

Europe.

Eventually the dissatisfaction and acrimony on the campus over resources was reported in the local press (Meyer, 1989). Also, during the late 1980s, the Minister of Education was making clear his view of the need for greater accountability by universities (Goff, 1989; House of Representatives, 1990) as quoted in Chapter Two. The university administration rejected these assertions even to the extent of mocking such suggestions in its annual report to the UGC which was subsequently tabled in parliament: "The university remains concerned that myths about its lack of accountability and inability to move with the times still persist" (UGC Report to Parliament, 1988, pp. 27-28).

Had the disclosures which the university has made in its annual report since 1991 been made in earlier reports, then the concerns of staff about resource allocations could have been taken up on the basis of common information available to all interested parties. The absence of reliable, meaningful information in public documents such as annual reports contributed to acrimony and suspicion on this campus, and inhibited the development of an informed debate on the issues.

5.3.3 Review of the Case Study

From these experiences, what can be learned about power, politics and accountability on this university campus? In a political sense, there were many parties involved including the Vice Chancellor, the Deans, senior administrators, the academic Union membership and the pressure group within the commerce faculty which persisted with claims of resource misallocation. This strikes an accord with the assertion by Macintosh and Hopper (1991, p. 45) who described these complex

power relationships as: ".... operat[ing] as a seamless network with no beginning and no end. It is like a spider's web without a spider".

Despite the general availability of computer technology capable of providing comprehensive financial information, top management appeared not to monitor the allocation of financial resources to the different faculties. Planning and managerial decision making in this \$65 million per year operation appeared to be based on the use of simplistic, and potentially highly misleading, indicators like student-staff ratios (Coy, 1991, p. 6). The top administrators seemed to be faced with the conflicts arising from demands for modern management and management information systems using tools that owed more to traditional, manual civil service practices.

Those responsible for the University's interface with the external world appeared to be most concerned about advancing the general case with government for more resources, and preserving an image of equanimity with that world. The publishing of cross-subsidy figures by the Vice-Chancellor which were claimed to be *correct* figures lends support to the ideas advanced by Hines (1988) of accounting information being used to shape a different version of reality. The statement in the report to Parliament dismissing suggestions of a lack of accountability could be legitimately substantiated by the university because the university was making all the reports to the UGC as required. The university could further claim that although this information consisted of highly aggregated financial statements which did not assist stakeholders in understanding matters like resource allocations, this was not its responsibility.

In retrospect, the abolition of the UGC in 1990 and the university's vastly improved public financial accountability two years further on perhaps provides its

own fitting epitaph on this episode.

In the university system, one indicator of a Dean's performance (or even that of a Department Head) is their success in securing resources for their School or Faculty⁵. In an environment of general affluence and expansion of the university system as occurred up until the mid-1980s, all Deans could be successful to a greater or lesser extent in this regard. In a period of financial constraint and major change in enrolment patterns as occurred from 1984 onwards, some releasing of resources by the faculties losing students was essential if major resource distortions were to be avoided. The reactions on this campus matched the findings of Hills and Mahoney who found that on American campuses in times of scarcity, "it is the powerful subunits that emerge to claim their resources at the expense of other subunits" (1978, p. 465).

Other related issues need to be acknowledged. The low level of research productivity, particularly amongst business academics, may have contributed to a reluctance to allocate more resources to that discipline. Administrators may have perceived that changes in student enrolments were cyclical, and that changes in resource allocations may have proved undesirable for this reason in the longer term. Furthermore, there were well-known shortages of appointable staff at senior levels in some disciplines such as accountancy and marketing. At the same time, staff with excessive teaching responsibilities may have found it difficult to devote adequate quality time to research activities, and a chicken and egg situation resulted. Also,

⁵ In an environment where students pay tuition fees and these accrue to faculties on a known basis, internal negotiating for resources would become much less of an issue.

most academics would agree that some cross-subsidies on university campuses are both inevitable and desirable, but the problem in this case study seemed to be the perceived extent of the cross-subsidies rather than their existence.

The case study provides evidence to support the claims of Treasury (1987b) that tertiary education was characterised by provider capture, low efficiency and low effectiveness. Provider capture arises when the nature and quantity of services provided is determined more by what the suppliers decide to provide than by what the consumers want or need. In this case, the substantial changes in student course preferences from the mid-1980s onwards did not appear to lead to compensating changes in resource allocations by the university; indeed, the evidence suggests that new staff were recruited to replace those who had left in the faculties with declining student enrolments. A paradox of efficiency and effectiveness probably occurred as a result. In those faculties which had lost substantial student numbers, effectiveness probably improved whilst efficiency declined. On the other hand, in the commerce and social science faculties the adverse staff: student ratios led to higher levels of efficiency which were most likely achieved at the cost of low quality and effectiveness.

These observations illustrate the power of information and the contrasting influence of annual reports. The limited annual reporting that occurred until the late 1980s appeared to be an audit ritual which served to maintain the university's legitimacy with Wellington. On the other hand, the recent annual reports which are built around a model providing meaningful, comprehensive information about objectives and achievements in financial and non-financial terms inevitably becomes a critical part of management as well as accountability. To provide the

comprehensive information required by the new reporting, much improved financial and non-financial information systems must be put in place. These new systems enable meaningful management accounting, budgeting and other information to be provided on a routine basis. Dixon et al. (in press) noted that in many tertiary institutions, CEOs believed that the recent financial management reforms, which included systems to provide the new style annual reports, had led to radical change within tertiary education institutions [TEIs]:

... in almost every participating TEI, internal management within the corporate hierarchy, and in many cases among the academics as well, has been radically affected ... Organisation, motivation, planning and cost consciousness have all been affected by these changes; the culture of the universities has shifted (Dixon et al., in press).

There are interesting suggestions here of how changes in external financial accounting may have an impact on internal management accounting within an organisation. This subject is worthy of further research. In an environment where improved annual reporting is but one of a raft of changes, it is impossible to pinpoint particular effects to one part of the changes. However, the disclosure of more comprehensive information in annual reports enables many of the issues described earlier to be addressed in a more open and informed manner. Indeed, the regular availability of such information as part of the internal reporting procedures would enable many concerns about universities' policies, procedures and priorities to be addressed long before the information was published in the annual report.

5.4 Other Political Influences on Reporting

5.4.1 *The Effect of Professional Recommendations*

SPSAC (NZSA, 1987a) provides guidelines for improving NZ universities' annual report disclosures. This document which was the result of some two years' ingestion was a *recommendation* to all NZSA members responsible for public sector financial reporting. If these recommendations had been adopted, all universities would have published comprehensive reports from 1988 onwards. In the event, only one university publicly stated its intention to implement the recommendations, and over the subsequent three years made successive improvements in line with the SPSAC (Dixon, Coy & Tower, 1991). A few others made some improvement, but the majority appeared to ignore SPSAC altogether.

According to evidence gathered by Dixon et al. (in press) the attitude of chief executive officers towards public accountability had a major bearing on universities' response to SPSAC. Some Vice Chancellors philosophically supported the notion of public accountability, whilst others believed that their institutions had worked well under the old reporting regimes. The latter group perceived that it was in their institution's best interests to provide only the information that was statutorily required and to make the information available only to the oversight agencies in Wellington.

One matter which may have made some Vice Chancellors nervous about public accountability is the considerable wealth accumulated by some universities. In particular, the Universities of Canterbury and Otago, which received substantial donations from public benefactors in their early years, revealed investments of \$101.2 million and \$58.0 million in their 1992 annual reports. Of these amounts, \$37.1 million and \$32.9 million respectively were noted as held in trust, indicating that this

represented private donations, and accumulated interest and gains thereon (Coy et al., 1993c, p. 8). The non-trust investments presumably represented savings, and accumulated interest and gains thereon, out of the public monies provided to the institutions.

In a climate of government parsimony over education funding, there could be a fear that disclosure of such investments might make representations to government about funding less convincing. On the other hand, the two TEIs which led the way in improved reporting, the University of Waikato and Carrington Polytechnic, reported negligible investments in their 1992 annual reports (\$1.3 million and \$2.4 million respectively). Unlike their more wealthy counterparts their managements had no reason to fear that comprehensive disclosures in annual reports might prove counterproductive in funding negotiations with central government.

Dixon et al. (in press) also discovered evidence that several institutions were influenced by the change leaders. Two points emerged here. First, the change leaders provided illustrations of how the SPSAC recommendations might be implemented, and many preparers used the change leaders' reports as models for making changes to their own reports in subsequent years. Second, although none of the preparers interviewed in the research stated this directly, it is possible that the change leaders made it difficult for some preparers who may have preferred to ignore change, to do so.

5.4.2 *The Effect of Legislation*

As noted in Chapter Four (section 4.2.1), government adopted the SPSAC requirements more or less *en bloc* into the Public Finance Act, 1989, and these became *mandatory* for universities with the passing of the Education Amendment Act, 1990. Coy et al. (1994b) analyzed universities' annual reports for 1992 and 1993 and found improvement in the quality of reports with all universities meeting the statutory accountability disclosure requirements in both years. It appeared that legislation was highly effective in improving the quality of universities' annual reporting. As to timeliness, all universities met the statutory timeliness requirements for their 1994 reports (Dixon & Coy, 1995). However, the timeliness of reports available to the public improved from an average of 24 weeks for the 1992 reports, to 21 weeks for the 1993 reports and 19 weeks for the 1994 reports. Compared with public companies which often report within 12 weeks of balance date, this level of timeliness appeared to be unsatisfactory.

5.4.3 *The Effect of Public Comment*

A further aspect of the political process and negotiation about annual report disclosures arises from the pressure that may be exerted on universities through public comment. Public comment about public sector reporting can be traced to the Report of the Controller and Auditor-General (1978) to parliament, who described financial management as mediocre and accountability as inadequate. Amongst the various responses to this report was the formation of a Public Sector Study Group within the NZSA, which later became the Society's Public Sector Accounting Committee (Hay, 1992, p. 3)

Public comment about universities' reporting prior to 1990 has not been identified. Indeed, as noted earlier the annual reports for 1986 and 1987 of the University of Auckland, the largest TEI, were published 30 months after the balance date (Dixon, Coy & Tower, 1992, p. 29), and yet there does not appear to have been any public comment or awareness of this tardiness. It is possible that before 1987 few stakeholders outside the formal reporting chain had either seen a university annual report or were aware of their existence.

In 1991 the Ministry of Education commenced a three year research project into universities' annual reporting⁶. During the project regular articles were published in the national press (for example, Tower & Coy, 1990; Coy & Tower, 1990, "Polytechnics ticked off", 1993) and accounting journals (for example Coy, Dixon & Tower, 1991; Dixon, Coy & Tower, 1991; Coy, Dixon & Tower, 1992) explaining why improved accountability and annual reporting was necessary, and the nature of improvements needed in annual reports. It was apparent that critical comments made of one year's reports were often addressed and remedied in subsequent years. This was possibly the influence of what Mulgan (1994, p. 291) calls the power of 'anticipated reactions', which suggests that public sector decision makers often behave in ways that avoid adverse reactions from others.

Criticism of five TEIs about their 1992 annual reports in the national press led to diverse reactions which provide further insights on the political dynamics of

⁶ Political motives were possibly involved in the funding of this project by the Ministry of Education, which had earlier been rejected for funding by the university research committee. It is possible that the university viewed the project as either threatening or trivial, whereas the Ministry may have favoured the research because it was likely to support its own objectives to improve universities' accountability.

accountability. Selected parts of a submitted article were published in the *Sunday Times* ("Polytechnics ticked off", 1993)⁷. In their 1993 reports one of the universities, Auckland, addressed some of the concerns raised in the earlier criticism whilst the other university, Canterbury, made no change in respect of the earlier comments to its 1993 report. As to the criticism of timeliness levelled at three polytechnics, each made substantial improvements to the timeliness of their 1993 reports⁸. One polytechnic published a separate press release with an explanation and apology for lateness when its 1992 report was subsequently published at the end of October 1993. Another TEI published a rebuttal in the newspaper two weeks later ("Whitereia on time", 1993) although it was apparent from this statement that statutory accountability had been confused with public accountability.

CEOs of two polytechnics criticised for lateness wrote to the first author's Vice Chancellor complaining that the researchers had been unprofessional in making these public comments on their annual reports, and one threatened legal action. The facts at issue were re-checked and found to be accurate. It appeared that two of the three institutions which had been singled out for lateness, and objected to the public criticism despite its accuracy, sought to retaliate by damaging the researchers'

⁷ The publication of this article illustrates another aspect of the political dynamics of accountability. Rather than use the submitted text which emphasised the overall good quality of reporting with minor criticisms of two universities' 1992 reports, and the lateness of three small polytechnics' reports, the newspaper editors 'cut and paste', and published an article which retained overall accuracy but highlighted the shortcomings of a few, rather than the generally good annual reporting of the majority.

⁸ The improvement in timeliness of the 1993 reports over the 1992 reports as indicated by the date reports were received by the researchers was as follows: Bay of Plenty Polytechnic (earlier by 52 weeks), Wairarapa Polytechnic (21 weeks) and Whitereia Polytechnic (12 weeks).

reputations and undermining their ability to undertake further research on this subject in future.

Criticism was also received from a report preparer at a third polytechnic which had a reputation for high quality reporting. She pointed out that because universities provide services which are essentially qualitative in nature, service performance reports are poor indicators, and that the index evaluation system tended to pressure universities into uniform reporting rather than allow them to develop meaningful indicators which reflect their own individuality. The validity of these points is acknowledged, although it must be remembered that service performance reporting is only one part of universities' annual reports.

However, these comments do draw attention to an important paradox in the accountability model; a university which reports poorly may deliver outstanding educational and research services and *vice versa*. This is a subject worthy of further research.

5.5 Summary

At the outset of this chapter it was postulated that:

- i) annual reporting is more a political process than a technical one (Solomons, 1978; Macve, 1981),
- ii) accountability is an important means of controlling the abuse of power (Normanton, 1971; Tower, 1993), and
- iii) the forces of political power in society operate as a complex, enveloping 'spider's web' (Macintosh & Hopper, 1991; Mulgan, 1994).

In acknowledging the power and influence of politics over NZ universities' annual reporting, the internal and external political forces influencing that reporting were identified and examined.

First, the marked change in society's attitude towards those in positions of political and economic power in western democratic societies was noted. A major cause of this change in attitude was the many scandals in the business and political life of many nations, including New Zealand. The public demand for greater accountability arose as a deterrent to the abuse of power. This, with the requirement for improved efficiency in the public sector, was the fundamental backdrop to the public sector reforms during the 1980s. Criticism of the accounting profession for its excessive influence over the reporting process was noted, and it was concluded that it would be in the public interest to encourage much greater public involvement in reporting processes, including the setting of reporting standards. The power of accountants and accounting information to shape society's perception of reality was also acknowledged.

Within NZ universities many political forces were apparent. How did the political influences work? What could be learned to help understand the nature of political influences over universities' annual reporting and accountability? Like the 'spider's web' of influences from many sources, so the nature of the (known) influences and reactions were varied and complex.

Evidence was cited as a case study from a university campus in the late 1980s. This study concerned resource allocations and the absence of accountability information as a critical factor preventing such concerns from being addressed on an informed basis. Provider capture and a paradox of efficiency and effectiveness

probably occurred on this campus as a result. The absence of reliable, public information led to dissatisfaction and acrimony among the staff.

Important caveats must be added to this analysis. Firstly, this is an interpretation by one member of the academic community and despite efforts to ensure reasonableness and accuracy, it suffers from the possible natural bias and weaknesses inherent in personal interpretations of events. Politically, the researcher has biases in favour of openness and accountability for public monies, because of a belief that this leads to better management and service performance. The influences recounted in this chapter are probably only a few of the political forces at work over the issue of universities' accountability and annual reporting. Inevitably there are many other political influences and pressures exerted behind the scenes through parliamentary processes, government departments, the audit office and the myriad of formal committees and informal alliances on a university campus. Despite the inevitable incompleteness of this evidence, it does provide illustrations of the 'spider's web' enmeshing universities' accountability and annual reporting, and support for Macve's (1981) assertion that ultimately annual report disclosures have more to do with political compromises rather than what is technically the best.

In the next chapter a framework of normative disclosures and qualities for universities' annual reporting is developed. This provides the structure for the empirical part of the research described in Chapter Eight.

CHAPTER SIX

THE NORMATIVE FRAMEWORK FOR NEW ZEALAND UNIVERSITIES' ANNUAL REPORTS

6.1 Introduction

In this chapter, a normative framework of the disclosures and qualities of contemporary NZ universities' annual reports is developed. The definition of public accountability and the objectives of annual reporting as identified in Chapter Four are used as the starting point. Empirical evidence is added from an analysis of the 1993 university annual reports and recent literature on service performance measurement in universities.

As explained in Chapter Four, the public accountability principles adopted in this thesis are that universities' annual reports should provide *relevant* information which is *accessible* to all stakeholders (Likierman, 1992, p. 33). This should include information about *inputs, process, outputs and policy* (Stewart, 1984) that enables stakeholders to *assess TEIs' objectives and success in meeting those objectives* in *financial and non-financial* terms, and whether resources have been used *economically, efficiently, effectively* (Sutcliffe, 1985, p. 17) and *equitably* (Ministry of Education, 1991). Information should also be provided that enables assessments to be made about universities' *ability to continue to provide services in the future* and the nature and *cost of those services* (Sutcliffe, 1985, pp. 16-17; NZSA, 1993). Political influences, as identified and discussed in Chapter Five, have an important influence on the annual reporting requirements mandated and on the quality of extant reporting. These help to explain differences in reporting over time and between institutions.

Six objectives and eight qualities of public sector annual reporting were identified in Chapter Four. The objectives are related to the provision of information about:

- A. compliance & stewardship,
- B. accountability & retrospective reporting,
- C. planning & authorization information,
- D. viability,
- E. public relations, and
- F. being a source of facts & figures.

The eight report qualities are:

- G. relevance,
- H. comparability,
- I. reliability,
- J. timeliness,
- K. understandability,
- L. materiality,
- M. accessibility, and
- N. distribution.

The next step in the development of the framework is to identify specific disclosure items that meet both the objectives of universities' annual reports, and the principles of public accountability as identified above. A matrix is developed from the disclosure items suggested by official pronouncements and the academic literature.

Electronic data searches were made of the ABI Inform data base since 1985, and the Social Sciences Citation Index since 1985 using the keywords; disclosures, annual reports, universities, higher education, tertiary education and performance indicators [PIs]. In addition, the references of all the known articles on these subjects from previous research were reviewed. The searches confirmed that the subject of *annual reports* and universities has not been widely researched, and no refereed journal articles other than those already known were identified. On the

other hand, the subject of *performance indicators* in universities is one that has received much attention in the past decade, partly in response to public sector reforms in the UK, Australia and New Zealand.

Performance indicators are one way of meeting the need for universities to report about service performance in their annual reports, as required under the Public Finance Act, 1989. The recent literature on the use of PIs in universities is now reviewed before returning later to the development of the normative annual reporting framework.

6.2 Performance Indicators

6.2.1 *Development of Performance Indicators for Universities*

The recent emphasis in universities on the development and use of PIs can be traced to 1981 in the UK when the Thatcher government required the University Grants Committee [UGC] to make recommendations on how financial cuts in government funding to the universities should be implemented. The UGC identified criteria (related to student intake, employment, teaching and research) which were to be the basis of decisions, although they did not explain how the measures were used. UGC (1982) stated that "for the best distribution of resources to the universities there is no substitute for judgement based on experience and repeated review of relevant information". Johnes and Taylor (1990) were critical of this approach for they believed that "It is this kind of bland statement which undermined confidence in the allocation process, especially since there was no evidence that a set of *relevant information* had been produced" (p. 36, authors' emphasis).

By 1985, in response to continuing government pressure, the CVCP established the Jarrett Committee which recommended that "A range of performance indicators should be developed, covering both inputs and outputs and designed for use both within individual institutions and for making comparisons between institutions" (CVCP, 1985, p. 36). Subsequently, 39 indicators were identified by CVCP under three broad headings; internal PIs, external PIs and operating performance. However, according to Hattie (1990) these emphasised cheat-proofness and standardisation, rather than relevance and coherence.

Annually since 1987, the CVCP has published *University Management Statistics and Performance Indicators* to "assist universities in the running of their affairs" and "enhance greater public accountability and a better informed public involvement in university affairs" (CVCP, 1988, p. 5). In response to a government White Paper (May, 1991) which proposed a single higher education sector in the UK, the higher education institutions were asked to develop PIs which might be interpreted consistently and equitably across the new unified sector. In late 1992, a Joint Performance Indicators Working Group (JPIWG) was established under the Chairmanship of a Vice-Chancellor with representatives from institutions, funding councils and other interested parties. In its Consultative Report (JPIWG, 1994) indicators of teaching, research, financial health and estate management were identified. In addition, nine groups of macro indicators, for the higher education sector as a whole, were recommended: student numbers and participation rates, output of teaching and learning, student achievement, indices of resources applied to teaching, indices of costs in relation to teaching, research, sources of funds, estates and services, and financial health.

One observation on the extensive work on PIs carried out in the UK in the past decade is that this has not been done with a view to publishing this information in annual reports. However, the publication of an annual set of management statistics and PIs for the (45) UK universities shows that this information is intended for the public arena. However the JPIWG (1994, p. 5) reaffirmed the earlier motives of the CVCP that PIs are regarded as being primarily for the benefit of institutional management "to help them to assess performance for internal management purposes and to make comparisons in relation to other institutions". The needs of other stakeholders (funding councils, students and employers) are considered to be of secondary importance.

According to Cave, Hanney & Kogan (1991, p. 19), it was not clear whether the introduction of PIs was intended to bring more or less control from government at the centre. In the UK there was a move towards the stronger management of higher education, although the use of PIs and other objective measures of performance were being construed in some other countries as ways in which institutions could become more free from, rather than more strictly controlled by, the centre. The use of PIs represents a break with the tradition in higher education of relying heavily upon the judgement of the most experienced and respected academics in making managerial decisions (Cave et al., 1991, p. 20). Similar recent breaks with reliance on professional judgement in decision making in other parts of the UK public sector were noted by Humphrey, Miller and Scapens (1993) and Fowles (1993, p. 106).

6.2.2 *Adoption of Performance Indicators in New Zealand*

In New Zealand, the development of PIs can be traced to the Learning for Life reforms of the Labour government during the late 1980s. It was noted in Chapter Two that the reforms of the NZ economy and the NZ public sector implemented by the Labour government from 1984 onwards followed a similar pattern to those introduced a few years earlier by the Thatcher government in the UK. Corresponding parallels can be identified in the adoption of PIs by NZ universities.

Learning for Life: Two (Goff, 1989) specified that effectiveness indicators would be necessary to monitor how successful institutions have been in achieving their objectives, and efficiency indicators to monitor how well institutions have used their resources to achieve their objectives. A Performance Indicators Taskforce [PITF] was established in 1989, chaired by educational consultants and with representatives from the institutions, unions and the Ministry of Education. Its terms of reference were to develop a set of PIs which would assist the Ministry of Education and other agencies to monitor the performance of tertiary institutions to ensure that:

- (i) the resources allocated to each institution are efficiently and effectively managed,
- (ii) each institution's obligations, as set out in its Charter, are met, and
- (iii) the goals and objectives as set out in each institution's approved corporate plan are met (PITF, 1989).

Additional indicators which reflected aspects of institutional activities and performance which are specific to the NZ environment, and not encompassed in any of the identified overseas recommendations, were to be developed. These were indicators of the extent to which institutions are successful in:

- (i) avoiding the creation of unnecessary barriers to the progress of students,
- (ii) implementing appropriate equal employment opportunities,
- (iii) developing programmes to attract students from under-represented and disadvantaged groups (PITF, 1989, p. 5).

Following the report of the PITF (December, 1989), the Ministry of Education (1991) published *Financial Reporting for Tertiary Institutions* which provided a comprehensive guide to the financial statements and indicators to be published in annual reports. Institutions were expected to develop clear links between their charters, objectives and operational activities and, wherever possible, performance measures were to be included in the Statement of Service Performance for each objective identified (Ministry of Education, 1991, p. 8).

6.2.3 *Benefits and Criticisms of Performance Indicators*

As explained below, the need for the disclosure of performance indicators (and management statistics) in annual reports arises from the inadequacy of conventional accounting information for providing satisfactory indications of educational performance and progress. The standard financial statements such as the income statement, which were the substantive parts of universities' annual reports until the late 1980s, reveal little, if anything, about educational and research performance.

There is support for the use of PIs from within and without universities as valuable aids in the process of evaluation and managerial decision making (Cave et al., 1991, p. 49; CVCP et al., 1994, p. 2; Australian Vice-Chancellors & Directors & Principals [AVCC / ACDP], 1988; PITF, 1989, p. 7). Hattie (1990) argued that the use of PIs "promotes discussion about evaluation, quality, and performance of both staff and students. One hallmark of a profession is that it has standards that can

be publicly scrutinised" (p. 250). This view is supported in the thesis, and management statistics and performance indicators are regarded as important sources of information for stakeholders that should be disclosed in universities' annual reports.

Concerns about PIs arise from the use that may be made of them and the potential for damage to universities that may result from improper use. "(Performance indicators) ... should be interpreted with care. Used wisely, they can be of great value. Too many indicators will result in overload and obfuscation" (PITF, 1989, p. 7). Johnes and Taylor (1990, p. 173) argue that for PIs to be useful as indicators of performance, allowance must be made for differences in the inputs used by each institution. For example, in their analysis of UK universities' PIs, they found that differences in non-completion rates were explained by the attainment of students on entry to the university, the proportion taking business studies courses (men) or languages (women), and the proportions residing in Halls of Residence, and not by factors that related to the quality of teaching *per se*. Johnes and Taylor (1991) identified non-teaching related explanations for differences in other PIs, such as the number and proportion of students gaining First and Two (i) degrees (p. 102), the first destination of new graduates (p. 121) and differences in research PIs (p. 146).

Problems of accuracy in the reporting of PIs suggest a need for some form of audit. For example, in the reporting of research output, the (UK) University Funding Council 1989 report stated "it has become apparent that the assumption of honesty and veracity was not always justified and in one or two subject areas, at least, it would seem that deliberate 'misreporting' occurred" (Cave et al., 1991, p. 127). The

misreporting included:

- altering the date of publication to bring a book or article within the review period;
- claiming authorship of edited books;
- claiming sole authorship of co-authored publications;
- inclusion of publications representing research undertaken in another institution (Cave et al., 1991, p. 127).

Lipsky (1978, p. 24) noted many examples of fraud and deception that can occur when performance measuring systems are imposed on 'street-level bureaucrats' such as social workers, policeman and teachers. He identified additional weaknesses of PIs. Firstly, street-level bureaucrats have the discretion to make choices in how they spend their time and they are likely to spend more time on the activities that will improve their performance scores and neglect other duties. Secondly, whilst the quantity and cost elements of performance are usually easy to measure, the quality element is difficult or impossible to measure. The use of performance measuring systems may lead to improved performance scores at the expense of quality. For example, if teachers are assessed on students' examination results they may over-emphasise this in their teaching, and neglect less able students or the inculcation of cultural and moral values in their students.

Klein and Carter (1988) provided succinct metaphors by suggesting that PIs may be used as dials or tin openers. As dials they may be used to regulate the flow of resources, and as tin openers, their function is to identify issues requiring further examination. The process may be more formative than summative, and be intended to provide feedback on performance to members of an institution without necessarily affecting resource availability.

When applied to all departments, PIs can become generalisable and lose convincing power. They can miss the nuances of success and failure of each university department. Underlying the use of most indicators is a statement of *relative* quality and a norm, rather than an assessment of some standard (Hattie, 1990, p. 251). PIs reduce a complexity of judgements to a single objective measure.

6.2.4 *Which performance indicators should be disclosed in annual reports?*

Care must be exercised in the use of the term performance indicators, because some information which tends to be regarded as a PI is merely a simple statistic or the result of an opinion survey, and not an indicator of performance. For example, the number of students in a university indicates nothing about whether performance is high or low. Similarly, the results of opinion surveys on courses are merely opinions and not indicators of performance. A teacher who has performed well, as judged by expert educationalists, may be rated poorly in student opinion surveys (and vice versa). The UK CVCP uses the term *Management Statistics and Performance Indicators* [MSPI] to encompass the broad group of information which includes PIs and other simple and general indicators, and this term is adopted in the thesis.

Cave et al. (1991), Johnes and Taylor (1990) and Hattie (1990) provide valid criticisms of the use of PIs for universities. However, the interest of this thesis lies in identifying information for public accountability and not information to measure performance, although it is acknowledged that accountability information is likely to be used for making comparisons by some stakeholders, both longitudinally of individual institutions and between institutions.

This is little different to comparisons that are frequently made about commercial firms on the basis of annual report and stock market information. As statistical and ratio comparisons between commercial firms are rarely adequate enough on their own and judgement needs to be applied to draw reasonable conclusions from the numbers, so judgement must also be exercised in making comparisons between universities on the basis of MSPIs. One conclusion from this discussion is that it would behove university report preparers to provide a narrative commentary that explains their limitations and context, when publishing MSPIs.

In summary, it is concluded that appropriate MSPIs are important sources of information for reporting university service performance and should be disclosed in annual reports. It is acknowledged that this information should be used with care because inappropriate conclusions and decisions may be drawn if allowance is not made for context and circumstances. In particular, the level of achievement as indicated by many PIs is often related to the quality and quantity of inputs rather than performance *per se*.

6.3. Development of the Normative Public Accountability Framework

6.3.1 Overview

Initial iterations of the framework revealed a problem in using the adopted principles of public accountability or the objectives of annual reporting for disclosure classification purposes, because many individual disclosures meet more than one principle or objective. For example, an operating statement and balance sheet meet compliance, retrospective reporting and viability objectives. Further iterations led to the identification of three distinct disclosure classifications which avoid problems of

overlap and duplication: Overview items, Financial items and Service items.

The overview section has two sub-sections, one for overview information about the annual report, and the other for overview information about the university. It was considered as necessary to separate these into two sub-sections because both encompass forms of different information which are critical to the quality of an annual report. The financial section consists of items with a common focus, and sub-division of this category is unnecessary. The service items have four sub-sections; a general sub-section, and three others which relate to universities' prime activities: teaching, research and community service.

These disclosure classifications are logically developed from the fundamental objectives of universities which are to teach, research and provide services to the community (Education Amendment Act, 1990, s. 162 (4a)). Being a repository of knowledge and developing new knowledge are regarded here as part of the research objective; being the critic and conscience of society is regarded as being part of the community service objective. The Service section captures the fundamental activities of a university, and the additional sections, 'Overview' and 'Financial' complement the 'Service' section.

Overview disclosures enable stakeholders readily to identify the location of the various sections of the report (eg. directory information), verify its overall integrity (eg. auditors' report) and gain a broad understanding of the university's activities, achievements, policies and problems (eg. Financial review, Descriptive report). Financial disclosures are a core part of the report, and enable stakeholders to verify compliance with legal requirements and understand universities' financial condition and performance. In summary, the disclosure categories adopted for the normative

public accountability index are:

- (i) Overview
 - a. Report
 - b. University
- (ii) Financial and
- (iii) Service
 - a. General
 - b. Teaching
 - c. Research
 - d. Community service.

Figure 6.1 summarises the essential components of the public accountability principles, the annual reporting objectives, and the annual reporting disclosures and qualities. Three qualitative elements namely, relevance, timeliness and accessibility, override all three parts of the framework. Relevance and timeliness have been traditionally recognised as an important quality of reporting. As explained in Chapter Four accessibility has not previously been identified as an important quality of reporting, and appears to be a distinguishing characteristic of a public accountability annual reporting perspective.

It is not possible to establish clear, unambiguous links between the public accountability principles, annual reporting objectives and report disclosures and qualities. For example, a fundamental principle of public accountability is that organisations should disclose information about their objectives and success in meeting their objectives. Universities' objectives are broad and encompass many dimensions including *inter alia* their financial, physical, educational and social activities. Information about universities' objectives and success in meeting their objectives is provided by many of the reporting objectives including those which relate to compliance and stewardship, accountability, viability and public relations. Similarly, when identifying specific report disclosures, aspects of 'objectives and

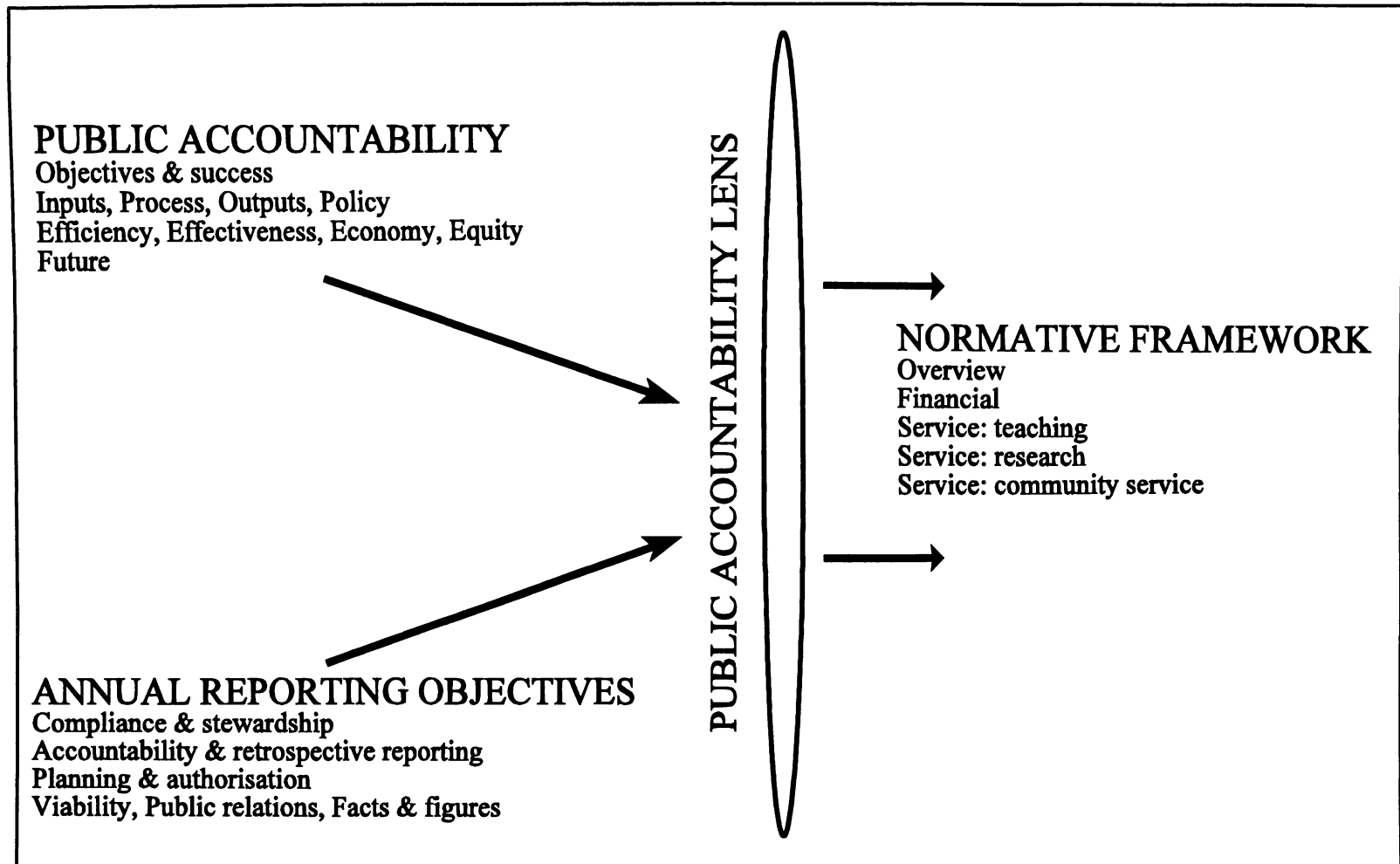
success in meeting objectives' are likely to be disclosed within each of the identified classifications; Overview, Financial and Service. It was considered impossible to indicate unambiguous clear links between the components of the public accountability framework. In Figure 6.1 the elements of accountability and reporting objectives are filtered through a public accountability lens to provide the normative framework categories.

6.3.2 University Annual Report disclosures

The next step in the development of the framework is to identify specific university annual report disclosure items which address the public accountability principles. Literature reference sources were identified for this purpose and comprised fifteen items related to university annual reports, management statistics and performance indicators; eight focused on annual reporting, and seven on management statistics and performance indicators. Five were based on NZ tertiary institutions, five on UK universities, two each on Australian and US colleges and universities, and one on Canadian institutions. Eight of the sources were academic research, six were the reports of groups established by oversight agencies, and the other item was the relevant NZ legislation, the Public Finance Amendment Act, 1992.

Figure 6.1

Components of the Normative Public Accountability Framework for NZ Universities' Annual Reporting



These fifteen reference sources represent the latest ideas and official pronouncements from four western democratic countries in addition to NZ. These countries have a similar culture and political system to New Zealand's and it is to be expected that the attitudes and norms towards public accountability and university annual reporting are closer to New Zealand's than those of other countries. It was noted earlier in Chapters Two and Five how the public sector policy shifts in New Zealand have followed the course set by the Thatcher government in UK. The work done on accountability and disclosures in these other countries is appropriate to research seeking to develop a public accountability model for New Zealand which is at the leading edge of contemporary thinking. All the references used are the latest works on this subject in the respective countries, with the oldest dating back only seven years (Engstrom, 1988), and the most recent published in June, 1994 (CVCP et al., 1994).

The framework developed in Table 6.1 (pp. 177-179) is the crux of the thesis because it draws together the results of the theorising in the previous chapters, and provides the structure for the collection of stakeholder opinions described in Chapter Eight. It is therefore crucial to demonstrate that the model is fully and fairly representative of a public accountability perspective on contemporary annual reporting for NZ universities. The 99 identified disclosure items are classified into the three sections as follows: Overview: report (4 items), university (5); Financial: (14 items); Service: general (7), teaching (55), research (11), and community (3). Appendix A (pp. 327-331) provides details of the reference source(s) for each item.

Each item is listed within each classification in descending order according to the number of identified references. At this stage, the number of references to an

item in the literature was taken as a surrogate for importance. The most frequently identified items in the fifteen reference sources were the 'Value of operating grants from government and other sources', which were noted by twelve of the sources.

Disclosures from the latest universities' annual reports are also included in the data collection. There were two reasons for including this data. First, it was thought that this might enable items to be identified which are included in the contemporary annual reports but not in the literature; no such items were identified. Second, the data from the contemporary reports provides a comparison with the framework and enables the existence, size and nature of any gap to be identified. Sixty-three of the 99 items were identified in at least one of the 1993 university annual reports; the most omissions occurred in the Service: teaching section. Two items, health and safety information and environmental information, were not identified in the literature but were suggested in the pilot test of the framework with colleagues.

The most numerous items in the framework were provided by CVCP (16 + 23 = 39), Cutt Trotter and Lee (39) and Coy, Tower and Dixon (37). The model developed by Engstrom (1988) for US colleges and universities identified 75 items in all, but many of these items are set in a US context. As explained below, many are not relevant to NZ and were excluded from the model. For example, Engstrom identified many items that referred specifically to fund accounting systems and compared revenues from state and federal sources. These are not relevant to the NZ situation, but 27 items from the Engstrom model which did fit with the NZ context were included. Using the model suggested by Cutt et al. (1993), the teaching and research sections are further separated into: input, process, output (intermediate and final) and outcome.

In Chapter Four the issue of whether accountability implied the need to provide explanations within reports was discussed and it was concluded that this is important. Also, earlier in this chapter, in reviewing the value and drawbacks of performance indicators in tertiary education, the potential for PIs and other statistical information to be misleading was noted. It was concluded that report preparers should provide comment on published PIs and other statistics to assist stakeholders in drawing reasonable conclusions from the information. Two disclosure items in the model capture these requirements: 'Descriptive report / General review' within the Overview section, and 'Interpretive comment' within the Service section. Although the model leans heavily on overseas sources and research for many of its items, it was noted earlier in this chapter that three types of information particular to NZ should be disclosed (PITF, 1989, p. 5). These were avoidance of unnecessary barriers to student progress, equal employment opportunities, and programmes to attract students from under-represented and disadvantaged groups.

Disclosures relating to each of these issues are included in the model. Two sections of the Teaching: service part of the model deal with specific aspects of access, and 11 disclosures relating to access are identified. Equity issues in relation to both employment and enrolments have been captured in the framework. Equity employer information is specifically identified in the Service section. In the Teaching: service part, specific equity information about students is identified in respect of Input (2 items), Process (3 items), Output-Intermediate (2 items) and Output-Final (1 item). In Chapter Nine, the delphi panellists provide opinions on whether these issues have been appropriately or adequately addressed.

Some of the measures and indicators in the model are already established and widely reported (eg. student: staff ratios, cost per EFTS) whilst others are not reported and appear difficult to calculate and report (eg. value added, ranking of graduates on a standardised scale, number of qualified, admitted students unable to enrol in preferred field of study). Also, the reporting of community service is undeveloped. Contemporary reports make brief narrative comments as appropriate, and no indicators or other statistical measures of community service are identified. An important task of the delphi panellists will be to provide opinion about the importance of these different kinds of information.

A review of the disclosure model categories and the current reporting shows that all the 'Overview' items except for one, and all the 'Finance' category items were disclosed in the 1993 annual reports. From the 'Overview' category the only item not currently reported is 'Prospective information'. Some difficulty for universities in providing prospective information might be expected partly because of the uncertain environment faced by NZ universities during the early 1990s, and also because in the new entrepreneurial climate encouraged by the public sector reforms, universities may be reluctant to disclose planned new initiatives to competitors. One way of addressing the need for prospective information might be to disclose the following year's budgets and targets in annual reports.

Table 6.1

The Normative Public Accountability NZ Universities' Annual Report Disclosures Framework

ANNUAL REPORT DISCLOSURES	1993 Annual Report	Total Lit. Refs
OVERVIEW		
- of the Annual Report		
Statement of accounting policies	x	7
Auditors' report	x	6
Statement of managerial responsibility	x	4
Directory information	x	2
- of the University		
Statement of objectives	x	6
Financial review	x	4
Descriptive report / General review	x	3
Prospective information		3
Key facts & figures	x	2
FINANCIAL		
Balance sheet	x	8
Operating statement	x	8
Statement of cash flows	x	7
Depreciation	x	7
Statement of commitments	x	6
Financial ratios	x	6
Comparative figures for previous year	x	6
Investments	x	6
Statement of contingent liabilities	x	5
Budget information	x	5
Statement of cost of services	x	4
Statement of movements in equity	x	2
Overhead allocation	x	2
Total value of estates	x	2
SERVICE		
General		
Equity employer information	x	5
Statement of service performance	x	4
Achievements against objectives & targets	x	3
Interpretive comment	x	3
Staff training & development	x	2
Environmental information		a
Health & safety information		a
Teaching		
Input-Access		
Student numbers (Enrolments & EFTS; Total & field of study)	x	10
Qualification of student intake		7
Demand for new places compared with previous year		3
New students by programme area		3
Total EFTS as ratio of 18-24 age cohort		2
Actual enrollment relative to demand for new places		2
No. of qualified students not admitted		1
No. of qualified admitted students unable to enrol in pref. study		1
Total school graduates at university as % of total school graduates		1

Table 6.1 (cont)

The Normative Public Accountability NZ Universities' Annual Report Disclosures Framework

ANNUAL REPORT DISCLOSURES	1993 Annual Report	Total Lit. Refs
Input-Efficiency		
\$ value of operating grants from government	x	12
\$ value of operating grants from other sources	x	12
Input-Equity		
No. & proportion of designated equity groups by programme	x	6
Tuition fees as % of total revenue (Total & field of study)	x	3
Input-Quantity		
No. of new places created compared with previous year	x	2
Input-Relevance		
No of places available in career programmes as % of all programmes		1
Process-Access		
Classroom space as % of total space	x	5
Classroom space per EFTS	x	5
Process-Efficiency		
Student : staff ratio (Total & field of study)	x	10
Cost per EFTS (Total & field of study)	x	9
Library expenditure as % of operating expenditure & \$ per EFTS	x	6
Student services expenditure per EFTS	x	3
Library stock		2
Proportion of staff with PhD		2
Process-Equity		
Academic Staff (Equity/Seniority/Tenured/Qualification)	x	9
All Staff (Total/Equity)	x	7
Financial aid to students awarded		1
Process-Quality		
No of beds per 100 EFTS	x	3
% of students in higher degrees	x	3
Processes in place to ensure quality of teaching programmes	x	2
Process-Quantity		
No. of UG fields of study / courses	x	4
No of PG fields of study / courses	x	3
% of students in full-time/part-time/external courses	x	2
Output-Intermediate-Satisfaction		
Measure of student satisfaction at intermediate stages	x	2
Output-Intermediate-Efficiency		
Expenditure per completed programme year by student		2
Expenditure per EFTS per year (Total & field of study)		2
Output-Intermediate-Equity		
No of equity students at intermediate stages as % of original		2
% of equity students in each academic year		2
Output-Intermediate-Quantity		
% EFTS completing each year prior to graduation		3
Output-Final-Satisfaction		
Measure of student satisfaction with programme at time of completion	x	3
Output-Final-Efficiency		
Expenditure per EFTS (Total & field of study)	x	7
Average time to complete programme		2
No of UG courses completed / 100 EFTS		2
No of UG courses completed / academic staff		1
Value added		1

Table 6.1 (cont)

The Normative Public Accountability NZ Universities' Annual Report Disclosures Framework

ANNUAL REPORT DISCLOSURES	1993 Annual Report	Total Lit. Refs
Rate of return		1
Output-Final-Equity		
Equity students graduating as % of total graduates (Total & field of study)		4
Output-Final-Quality		
Honours degrees awarded as % of total degrees		6
Output-Final-Quantity		
No. & % of EFTS completing their programme of study (Total & FoS)	x	9
Crude drop-out rate		6
Student unit pass rate	x	5
Output-Final-Relevance		
No. & % of graduates employed (Total & field of study, & equity)	x	9
No & % of students continuing to further study; & equity		2
Outcome-Satisfaction		
Employer satisfaction with former students		1
Former student satisfaction at intervals after graduating (2ys. 5yrs etc)		1
Outcome-Quality		
Ranking of graduates on standardised scoring system (eg GMAT)		1
Research		
Input		
Research income (grants & contracts)(Total \$ / \$ per academic & field of study)	x	9
No of research grants & fellowships	x	4
Industry contribution to research \$	x	2
No. of research & sponsored students (Total & field of study)		1
Process		
No. of Masters & PhD students (Total & field of study)	x	3
Output		
Publications/patents/copyrights (Total & field of study)	x	6
No. of Masters & PhD graduates (Total & field of study)	x	4
Conference presentations (Total & field of study)	x	3
Overall research rating		2
Citations		1
Destination of research graduates		1
Community Service		
Description of local community service	x	1
Description of national community service	x	1
Description of international community service	x	1
	63	99

NOTE:

x = item disclosed in contemporary annual reports

a = item adopted at model testing phase

Total Lit Refs = The number of references to the item in 15 literature items

Full details of framework provided at Appendix B (pp. 332-335)

It is in the 'Service' category section of the model that the most significant gaps between the model and current reporting are apparent, with the omissions in the 'Teaching' disclosures being more numerous than those in the 'Research' or 'Community service' sections. In particular, the notion of reporting information about 'Intermediate' progress was suggested by Cutt et al. (1993) because of the long duration of most university courses ie. 3 to 5 years. To gain a meaningful understanding of success in meeting objectives, it is argued by Cutt et al. that information is required about students' intermediate progress in moving from one year of their programmes to the next. Such information has not been disclosed by NZ universities previously, and stakeholders' opinions about this in the delphi exercise will be interesting.

Although many of the items identified and included in the framework may not enjoy wide support, that is not seen as critical at this stage because the delphi panellists will be asked to adjudicate on these. As a protection against the possible failure to identify relevant disclosures in the model, delphi panellists will be invited to identify other disclosures that may have been omitted, as well as giving their opinion about the importance of the items that have been included.

6.3.3 *To what extent does the framework meet public accountability principles?*

At this point, it is important to be able to demonstrate that the disclosure framework adequately meets a public accountability perspective of university annual reporting, and has not been blurred by other perspectives, such as decision making or stewardship. Two points need to be clarified. First, some overlap between public accountability annual report disclosures and decision-making disclosures is inevitable

and unavoidable. For example, a balance sheet would be a required disclosure for decision making purposes because of the information it provides about such matters as assets, liabilities and equity. From a public accountability perspective, stakeholders may wish to peruse the organisation's balance sheet for many other reasons, such as curiosity about the composition, size and changes in the individual items. Second, there is also overlap between disclosures which might be made to meet the various components of public accountability. For example, some disclosures about objectives and success in meeting objectives inevitably address questions of inputs and outputs, as well as efficiency and effectiveness.

Analysis of the public accountability principles and annual reporting objectives led to the identification of six fundamental elements that appear to encompass and subsume all the other principles and objectives. These are: compliance, efficiency, effectiveness, economy, equity and future. The meanings of these terms adopted here are:

<u>Compliance</u>	information to meet annual reporting disclosures required by NZ law, or NZSA or Ministry of Education recommendations.
<u>Efficiency</u>	information about the ratio of inputs to outputs.
<u>Effectiveness</u>	information about outputs, outcomes or success in meeting objectives.
<u>Economy</u>	information about the quantity of inputs used.
<u>Equity</u>	information about disadvantaged, minority or under-represented groups (eg. ethnic, gender, disabled, etc), including information disaggregated by field of study (School or Faculty), and information relating to inter-generational equity.

Future information about future plans; information to enable stakeholders to make assessments about future viability.

Information to meet all six of characteristics may be of a financial and / or a non-financial nature. The 99 disclosure items in the framework were assessed by the author for their perceived contribution to knowledge about each of the six public accountability elements (see Appendix B, pp. 332-335 for the detailed analysis). This analysis was then reviewed by a colleague who is knowledgeable about questions of accountability and reporting. Broad agreement was reached. A summary of this analysis is provided in Table 6.2.

This assessment revealed:

- (i) All the disclosure items, except for one, were judged to contribute to at least one of the public accountability elements. The exception was item 1.1.4 'Directory information'. As explained earlier (see page 169), directory information assists stakeholders in using annual reports and, for this reason, the item was retained in the framework.
- (ii) Forty-nine of the items were perceived as contributing to two or more of the public accountability elements. This suggests that most annual report disclosure items are multi, and not single, threaded, and in a metaphorical sense, may be regarded as being woven into a tapestry of information about organisations.

Table 6.2

A Cross-tabulation of the Disclosure Classifications and the Elements of Public Accountability

DISCLOSURES		Compliance	Efficiency	Effectiveness	Economy	Equity	Future	TOTAL
1	Overview: report	3	0	0	0	0	0	3
	Overview: university	1	5	5	3	3	4	21
2	Financial	11	8	2	3	4	12	40
3	Service: general	3	4	5	2	6	4	24
	Service: teaching	1	17	44	4	13	3	82
	Service: research	0	3	11	1	0	0	15
	Service: community	0	0	3	0	0	0	3
TOTAL		19	37	70	13	26	23	188

NB: This table provides a cross-reference of the match achieved between the normative framework categories and the elements of public accountability. Full details of this analysis are provided in Appendix B (pp. 332-335)

- (iii) The contribution of the disclosure items to the elements of public accountability were assessed as follows. Effectiveness information was rated the highest with 70 of the items judged as contributing to this element of public accountability. The other contributions in order were: efficiency (37), equity (26), future (23), compliance (19) and economy (13). The importance of this breakdown lies not so much in the number of absolute links between the disclosure items and the elements of public accountability, but in demonstrating that all the elements are addressed by the disclosure framework.

6.4 Report Qualities

In addition to making specific disclosures, annual reports must also meet qualitative expectations as indicated earlier (see Chapter Four, Section 4.4). Eight important report qualities were identified in Chapter Four: relevance, comparability, reliability, timeliness, understandability, materiality, accessibility, and distribution. To what extent are these characteristics important to a public accountability perspective of universities' annual reporting rather than one based on some other perspective such as decision making or stewardship?

Most of these qualities are important to the annual reporting process regardless of the purpose of that reporting. An important observation of these reporting qualities is that many were identified in the context of annual reports consisting of financial statements only. Thus qualities such as comparability, reliability and materiality were identified specifically for their relevance to financial statements (see for example, FASB, 1980). A platform of this thesis is the recognition that

contemporary university annual reporting extends beyond the presentation of financial reports to focus on information about the prime activities of teaching, research and community service. Although all of the report qualities are important to contemporary annual reporting, the overriding report quality in the context of a public accountability perspective would appear to be the need for relevance to stakeholders. Relevance is assumed to include understandability in the sense that reports which may lack for understandability would lose relevance to stakeholders.

It was argued in Chapter Four that three other qualities of reporting, timeliness, accessibility and distribution are important to a public accountability perspective.

Although timeliness can be related to relevance in the sense that stale information loses relevance, it is a distinct and important quality of information which is both easily defined, and measured. Also timeliness is separate from disclosures in the sense that the quality of individual disclosures is unaffected by their timeliness. For these reasons, timeliness will be treated as a separate reporting quality in the delphi exercise.

Accessibility and distribution have logical links in the sense that the more widely reports are voluntarily distributed, the more easily accessible they are to stakeholders, and it seems reasonable to subsume distribution as part of accessibility.

When contemplating how the qualities of public accountability annual reports might be evaluated for the purpose of an accountability index, it is clear that some lend themselves more readily to meaningful evaluation than others. For example, an independent assessor can accurately record timeliness by noting the date on which reports are available to the public. However, independent assessment of the accessibility of individual reports to the public is much more difficult to measure

because this would require knowledge of the extent that availability of reports was advertised to the public, their availability in public libraries etc. Logistically, the independent collection of such information about all universities' annual reports would be difficult, notwithstanding the questionable cost-benefit considerations.

This problem is addressed later when constructing the accountability index. In summary, relevance, timeliness and accessibility appear to be the distinguishing qualities of universities' annual reporting in the context of a public accountability perspective and the delphi panellists will be invited to give their opinion about their importance.

6.5 Summary

This chapter has developed a public accountability annual reporting framework which provides a starting point for the empirical delphi exercise reported in Chapter Eight. The disclosure framework was logically developed from the principles of public accountability and the objectives of annual reporting identified in Chapter Four. The issue of performance indicators in universities was reviewed, and although noted as controversial, it is concluded that management statistics and performance indicators can provide information about universities' service performance which is not available from other known sources, and potentially should be disclosed in annual reports. This is a focus of the empirical research.

Six characteristics are identified which captured all the principles of public accountability and objectives of annual reporting. These are compliance, efficiency, effectiveness, economy, equity and future. Fifteen contemporary literature sources which address university annual reporting, management statistics and performance

indicators are reviewed to identify possible disclosure items which might meet public accountability expectations. Ninety-nine items are identified and classified into three broad groups: overview, financial and service.

The eight important annual report qualities identified in Chapter Four are reviewed for their relevance to public accountability university annual reports. It is concluded that in this context, three of the qualities are more important than any of the others. These are relevance, timeliness and accessibility.

The delphi exercise commences by inviting the stakeholder panels to give their opinions about the proposed index items in the context of contemporary university annual reporting, and this is described in Chapter 8. Before that in Chapter 7, the principles of constructing disclosure indices are reviewed.

CHAPTER SEVEN

THE CONSTRUCTION AND USE OF DISCLOSURE INDICES

7.1 Introduction

A disclosure index amounts to a qualitative based instrument designed to measure a series of items which, when the scores for the items are aggregated, gives a surrogate score indicative of the level of disclosure in the specific context for which the index was devised. Thus, in order to ascertain a valid index number, the items comprising the index must be selected by reference to this context and their scores combined in a meaningful way. Methodologies that can provide valid empirical results are largely absent although Marston and Shrives (1991) note the interest aroused by the issue of information disclosure in annual reports in recent years, and review the use of disclosure indices. Cooke and Wallace (1989) recognise the problem that financial disclosure is an abstract concept which cannot be measured directly. Marston and Shrives point out that the use of disclosure indices has persisted for more than thirty years, though they are difficult to construct and involve subjective judgement on the part of the researchers.

7.2 Disclosure Indices

7.2.1 *Tertiary Education Disclosure Indices*

In an attempt to provide evidence on the impact of SPSAC-1 (NZSA, 1987a) and other changes to their reporting environment upon university reporting practices, Dixon, Coy and Tower (1991) analyzed the contents and disclosures of the annual reports of all seven New Zealand universities from 1985 to 1989. They sought to determine whether certain items appeared each year. Selection of index items was

based on the requirements of various NZSA accounting promulgations (1987a, 1987b, 1987c) and from the items included in the study of British universities by Gray and Haslam (1990). The study categorised these items according to the eight statements identified in SPSAC-1 (NZSA, 1987a, paras 3.3-3.9) as being necessary for reporting about public sector service oriented entities.

The Gray and Haslam study (1990) was based on a survey of UK universities' annual reports and financial statements over the period 1982 to 1987 which was a time of some turbulence for the UK universities. The survey was exploratory in nature and was undertaken primarily to enhance theorising of the universities' reporting practices. In analysing reports, Gray and Haslam noted an increase in disclosures over the period but in measuring this change, did so merely on the basis of whether certain items were disclosed in reports or not. They did not attempt to discriminate between the quality of individual disclosures or their relative importance to reporting as a whole.

The Dixon et al. (1991) study used a simple, unweighted, dichotomous index to measure disclosure in the reports and concluded that improved disclosure had arisen from changes in university reporting practices over the period 1985-1989. The authors subsequently improved this dichotomous approach by constructing a revised index which made allowance for variations in the quality of individual report disclosures, and the perceived importance of individual items (Coy, Tower & Dixon, 1993). The index comprised forty-three items classified into the eight Statements of the SPSAC (NZSA, 1987a) as in their earlier dichotomous index (Dixon et al., 1991). The index was called the accountability disclosure score, and in comparing this with their earlier dichotomous scoring system of university reports, a statistically

significant difference was found in 1990, but not in 1989.

Coy, Tower and Dixon (1994a) made further improvements to the index to address other weaknesses that had become apparent, and called their revised index the Modified Accountability Disclosure Score [MAD-score]. The weaknesses arose from having only one item in three of the index categories (Objectives, Commitments and Cash flow) in contrast to up to nineteen items for the other categories (Service Performance was the largest with 19 items). This imbalance was considered to give undue influence to the single item categories and was overcome by redefining the categories from eight to four; Overview, Service Performance, Financial (Operations) and Physical and Financial Condition. Each of these categories contained five or six items. The number of index items was reduced from 43 to 26, although this was done largely by consolidating sixteen of the items that were previously defined on a total and faculty basis. For example, student numbers (in total) and student numbers (by faculty) were combined into one item in the new index. Also, discrimination between aggregated and segmentalised information was captured by using a five-point quality scale instead of a three-point scale as previously.

In evaluating the 1992 annual reports a team of five scorers was used, namely the three authors plus two accountancy graduates. Each report was scored independently by three of the scorers who read each report and then awarded a score from 0 to 5 for the reporting of each of the 26 items by applying the item criteria already established. A system of arbitration was applied to arrive at a final score for each item.

The modified accountability score system was used to evaluate the annual reports of all 37 New Zealand tertiary education institutions, including the seven

universities, for the years 1990 to 1994. The analysis was sent to preparers for comment before summaries were published in professional accounting journals and the business press (see for example, Coy, Dixon & Tower, 1992; Coy, Dixon & Tower, 1994; Dixon & Coy, 1995). Table 7.1 shows the universities' modified accountability disclosure score summaries for the 5 years 1990-1994, when average scores increased from 37 to 85 (out of 100).

Gould (1994) reviewed the MAD-score as part of a study on executive information needs for the Association of NZ Polytechnics. He noted that what was considered important by the index constructors may not concur with institutions' goals and objectives. He suggested that institutions needed to reflect on the implications of this. He also thought that one item included in the MAD-score index, namely Targets, should not be included, but instead treated as a component of specific disclosures.

Note that the MAD-score is an ordinal scoring system meaning that the increase in the scores over this period indicates that improvement has occurred, but the size of the change in the score does not necessarily correspond with the extent of the improvement in the reports.

Table 7.1

University Modified Accountability Disclosure Scores, 1990-1994

DISCLOSURE ITEMS			UNIVERSITY AVERAGE				
		Wgt	90	91	92	93	94
OVERVIEW							
#	Statement of Objectives	3	1.6	2.9	3.3	3.9	4.0
*	*Descriptive Report / General Review	3	2.7	3.7	4.4	5.0	4.9
*	*Summary Facts & Figures	1	0.9	1.7	2.3	3.7	4.4
*	*Financial Review	1	0.9	1.0	2.7	3.3	4.0
#	Accounting Policies	2	4.1	4.7	5.0	4.9	5.0
	Directory Information	1	1.3	1.6	3.1	3.6	4.3
	Section weighted raw score	11	24.1	33.4	41.3	46.9	49.3
	(Section score [max 100])		44	61	75	85	90
SERVICE PERFORMANCE							
*	*Student numbers	3	2.1	3.3	4.1	4.3	4.6
*	*Graduates	2	1.6	2.7	3.9	4.1	4.4
*	*Employ/ educ Destination of Graduates	1	1.1	2.0	2.6	3.6	4.1
*	*Publications	3	0.7	2.4	2.3	3.0	3.4
	Student-staff Ratio	3	1.1	2.1	2.6	3.1	3.6
#	Targets	2	1.0	0.9	3.0	3.9	5.0
	Section weighted raw score	14	18.3	32.7	43.3	50.9	57.7
	(Section score [max 100])		26	47	62	73	82
FINANCIAL PERFORMANCE							
# *	* Operating Statement	3	2.1	3.0	3.3	3.7	4.4
#	Depreciation	1	1.7	3.3	3.7	4.1	4.7
#	Budget Information	2	0.4	1.7	2.7	3.0	3.6
*	*Unit Cost per Student	2	1.3	2.3	2.9	2.9	3.7
# *	*Statement of Cash Flows	2	3.0	3.1	3.7	4.6	5.0
*	*Research Grants	2	1.6	2.0	2.7	2.9	3.4
	Overhead Allocation	2	1.0	2.1	2.7	3.6	3.9
	Section weighted raw score	14	22.7	34.9	43.0	49.0	57.1
	(Section score [max 100])		32	50	61	70	82
PHYSICAL & FINANCIAL CONDITION							
# *	*Balance Sheet	3	3.1	3.3	3.9	4.3	4.9
*	*Staff	3	1.9	2.7	3.4	4.1	3.7
*	*Library	2	1.3	1.4	2.9	3.7	3.9
*	*Investments	1	2.0	2.9	3.6	4.0	4.7
#	Commitments & Contingencies	2	3.7	4.0	4.0	4.3	4.9
**	Equal E&EO information	2	1.6	1.9	3.3	3.6	3.9
	Buildings	1	1.4	2.3	2.9	3.1	3.9
	Section weighted raw score	14	31.6	37.7	48.6	55.6	59.4
	(Section score [max 100])		45	54	69	79	85
MODIFIED AD-SCORE			37	53	67	77	85

* Source from Gray & Haslam (1990) study

Source from NZSA (1985, 1987b, 1987c)

** Source from Financial Reporting for Tertiary Education Institutions (Min of Ed , 1991)

7.2.2 *Interpretation of Indices*

In order to ascertain an index number, the scores for the items comprising the index must be combined in a meaningful way. As Marston and Shrives (1991) point out it is generally recognised that there are four distinct levels or scales of measurement: nominal, ordinal, interval, and ratio. A disclosure index can achieve the level of ordinal measurement if properly constructed, but there is some doubt about whether it can achieve the level of interval measurement. One problem which arises is that quite often the latter achievement is assumed implicitly either by the authors or their readers, and misinterpretation might follow.

A price index, such as the index of retail prices, has ratio power because the index changes in direct ratio to price movements. There are two fundamental differences between price indices and the annual report disclosure indices described above. Firstly, the price index is open ended, whereas the tertiary education disclosure indices have a maximum score of 100, no matter how high the quality of any report. Also, a 10% increase in the disclosure index score, say from 60 to 66 cannot correspond to a 10% improvement in report quality, because it is impossible to identify what change is represented by a 10% improvement in report quality.

The second difference between the price and disclosure indices concerns the means of evaluating change. Although a price index measures a wide variety of items, they are all measured in terms of the same value, price. Criteria are established for different qualities of reporting individual items, but the differences can be expressed only in terms of one information set being better or worse than another and not being better or worse by a given amount.

As discussed above, the extant tertiary education disclosure indices have ordinal power, which is comparatively weak in the numerical hierarchy. Siegal (1993) argues that social science researchers often use ordinal data when this might easily be collected as interval or ratio data with a variation in research technique. In eliciting opinions researchers often ask respondents to use a 5 or 7 point Likert scale to indicate the strength of their agreement or disagreement with a particular statement or condition. Typically, on a scale of one to seven, an answer of one would represent strong disagreement with the statement of interest and an answer of seven would represent strong agreement; four would represent a neutral position. If instead, a 0-to-100 scale or a 0-to-infinity scale (where 0 indicates not at all, and say 50 indicates "average" or "satisfactory") is used, then, Siegal argues, the resulting scores have interval or ratio statistical power. This would enable meaningful comparisons to be made between annual reports over a period of time, and provide an indication of the extent to which one report may be better or worse than another. The question of developing a public accountability index with ratio attributes is considered further in section 7.2.4 below.

7.2.3 *Strengths and Weaknesses of the MAD-score Index*

As illustrated in Table 7.1, the MAD-score index has been used since 1990 and appears to have achieved some acceptance by the preparer and stakeholder communities (Gill, 1994). Over this period there has been an on-going and substantial improvement in the quality of university (and tertiary education) annual reporting. Preparers have often sought advice from the MAD-score compilers on how their reports might be improved. It is likely that the annual tertiary education

annual report evaluation using this Index has made a contribution to the reporting improvements that have occurred. However, it is impossible to either prove this assertion or to measure the extent of the contribution in any precise or conclusive way. This is because it is not possible to know what changes to reporting would have occurred without the incentive of the annual evaluation and the publication of the results in the media. As argued in Chapter Five when the political influences of reporting and accountability were reviewed, preparers' reactions and anecdotal evidence suggest that the annual review has been influential in bringing about change.

In the new businesslike environment following the public sector reforms, the university annual reports have been improved and used as a marketing device to influence the perception of universities within the community. Similarly, reports in the media about the high quality (or lack of quality) of individual universities' reports is another way in which favourable perceptions about the university may be created (or unfavourable ones avoided).

A strength of the extant MAD-score system is its apparent credibility, acceptance and authority amongst the preparer and stakeholder communities. It is obviously desirable that an improved index should maintain the credibility of the Index amongst its users. A danger to be aware of is that the public accountability index may achieve greater academic refinement or elegance, but excessive elaboration could confuse users too. If the Index system were to become overly complex, users of the results might question the validity of the whole exercise, and reject and ignore its findings.

A weakness of the MAD-score system is its inability to discriminate between annual reports at the top end. Four of the 1994 university reports achieve MAD-scores of over 90 (out of 100). This could be misinterpreted by some to believe that these reports are close to perfect when they have merely rated well according to the criteria used. A public accountability index using an open ended scoring system would overcome these problems. Such an Index would enable report improvements that go beyond the existing criteria to be recognised and more appropriate scores to be awarded, and this would be reflected in the overall index score for a report.

Another weakness of the extant MAD-score index is its lack of a theoretical framework. As described above, this index has evolved from an unweighted dichotomous scheme into its present format of using weighted disclosure items which are evaluated according to criteria identified by its designers. A strength of this kind of development is that improvements were made in the light of experience and observation. Each year, any modifications to the index were subject to review by report preparers as the annual evaluation was sent to them for comment. Preparers might reasonably be expected to be both thorough and discerning in their comments because it was their own reports which were evaluated using the index schemes.

The extant MAD-score system also suffers from being overly reliant on the subjective ideas and opinions of its constructors. Index items were identified, weights allocated, and categories developed based on the researchers' own values and beliefs about tertiary education annual reporting. As explained and described in chapters three, four, five and six, the major advance of the public accountability index lies in the development of a theoretical framework which has been subject to stakeholder and preparer evaluation to provide empirical support for the selection of

index items and their relative importance.

In developing the public accountability index new dimensions of reporting have been captured, in particular the qualities of annual reports as distinct from the information disclosures. As argued in chapter four, the extent to which annual reports meet such qualities as relevance, understandability, accessibility and timeliness has a large bearing on the quality of communication achieved with stakeholders. However, in a practical sense, it is also acknowledged that inclusion of many report qualities in a public accountability index is difficult to achieve because they may be impossible to evaluate accurately. This problem is addressed in constructing the public accountability index in chapter nine.

7.2.4 *Could the Public Accountability Index have Ratio power?*

A shortcoming of the extant tertiary education indices is that they have ordinal power only, and can only rank reports, and not show that one report is better or worse than another by a certain amount or ratio. This limits the statistical tests, such as the Chi-Square test, that may be applied to non-parametric types and invalidates the calculation of simple measures like the arithmetic mean. To overcome this problem, Ingram and Robbins (1992) applied a magnitude scaling technique to the items identified in the Jones, Scott, Kimbro and Ingram (1985) study of users' information needs of US governmental reports, and conclude that a valid ratio measure could be achieved. The MAD-score index is founded on two sets of ordinal numbers which allocate weights (1, 2 or 3) to the index items, and quality scores to the individual disclosures (1, 2, 3, 4 or 5) (Coy et al, 1994). Criteria were established which match the five levels of quality evaluation for each item. Five is

better than 4 but it cannot be said that a score of 5 is 5 times better than a score of 1. If, instead, the report evaluators are asked to score each disclosure item on a scale of 0-to-infinity with, say, 10 equal to criteria deemed to equate with "satisfactory", then ratio scores would result. Similarly, the ordinal weighting scheme could be modified by setting weights in comparison to one anchor item that might be given a value of 10, from which all other items are compared in the manner adopted by Robbins and Austin (1986).

By using ratio scales for item weights and by scoring individual annual report disclosures in relation to anchor criteria, the public accountability index could have ratio power. Using this approach, weights and criteria could be established that would equate with an annual report deemed to be satisfactory from a public accountability perspective. The scoring scales could be adjusted such that a satisfactory report might achieve an index score of, say, 100, with all other reports scoring more or less than this according to their overall quality as determined by the index items.

7.3 Summary

This chapter has reviewed the extant annual report disclosure indices, particularly in the context of the tertiary education indices developed and used since 1990. Disclosure indices have been used by researchers for 30 years or more as a means of analysing and comparing organisations' annual reports. Over this period, improvements to indices included the use of weights to discriminate between the importance of disclosures items, and the abandonment of dichotomous recognition of disclosures in favour of schemes which allow for differences in the quality of

individual disclosures.

It is acknowledged that the extant MAD-score system has achieved a high level of acceptance amongst report preparers and use by the stakeholder community, and that the systematic yearly evaluation of tertiary education annual reports has been influential in bringing about reporting improvements. Numerous weaknesses in the extant index system were noted including the lack of a theoretical framework, having only ordinal and not a higher level of statistical power and recognising only information disclosures and not report qualities in discriminating between universities' annual reports.

It is argued that the public accountability index could successfully address these weaknesses. In chapter eight, the delphi exercise which captures stakeholders' and preparers' opinions about the public accountability annual reporting framework items and qualities is reported. In chapter nine this evidence is used to construct the public accountability index which is then applied to contemporary annual reports, and comparisons made with the extant index system.

CHAPTER EIGHT

THE EMPIRICAL APPLICATION

8.1 Introduction

The objective of the delphi empirical study is to submit the normative framework to examination and evaluation by stakeholders who have an interest in university annual reporting. Two questions are of particular interest: what should be disclosed in the reports, and how important to public accountability are the individual disclosures considered to be? As explained in Chapter Three, delphi panels are established for this purpose because they provide a practical way of gaining meaningful feedback on the model, with acceptable levels of validity.

8.2 Formation of the Delphi

A major concern is the large number of items included in the model and whether it would be either reasonable or possible to find sufficient representatives of the stakeholder groups to participate conscientiously in the delphi exercise. Members of university councils were identified as important candidates because they are elected or nominated as representatives of various stakeholder groups, such as academic staff, general staff, students and the Minister of Education. Each year the Annual Report is formally presented to university councils, considered and adopted as appropriate, and therefore council members should be suitable panellists.

Previous research (Coy, Buchanan, Dixon & Tower, 1994) indicates that tertiary education stakeholder groups have similar opinions about annual report disclosures, except for students who are less satisfied with current reporting than any of the other groups. To obtain a wide range of views for this study, it was decided

to establish panels to represent internal citizens (academic and general staff representatives on university councils), external citizens (representatives of the Minister of Education on councils), and students' representatives on councils. Three other important groups of oversight agents are identified, namely external auditors, Treasury and Ministry of Education officials, and the Members of Parliament. To provide contrast with the stakeholder panels, one additional panel of 'report preparers' consisting of university Finance Registrars and Information Managers is established.

8.2.1 Selection of Panellists

The extant literature indicates that panel sizes of seven are the minimum for acceptable validity (Dalkey & Helmer, 1963; Milkovich et al., 1972). It was decided to invite two members from each of the seven universities, in the hope that delphi panel sizes of at least seven might be formed. Lists of current Council members for all universities were obtained. Where there are two representatives of any group on each Council then invitations were issued to both persons; where there are more than two representatives on each Council, then invitations were issued to the two longest serving members in the expectation that they might be most familiar with annual reports. A letter explaining the purpose of the research and inviting participation was sent to 74 named individuals in May 1995 (see Appendix C, pp. 336-338). Panellists were given an assurance of anonymity. A summary of the panel formation data is provided in Table 8.1 (p. 204). Details about each panel are now provided.

Panel A - Internal Citizens

One representative of academic staff and one representative of general staff on Council from each of the seven universities was approached. Eight, comprising four academics and four general staff, agreed to participate; seven, comprising four males and three females, participated in both rounds of the delphi. Five of the universities are represented in this group with two each from two of the universities, and one each from three others. Although Lincoln and Auckland universities are not represented on this panel, there is a fairly representative mix; large and small universities, urban and rural based, old and new.

Panel B - External Citizens

External citizens are non-university employee representatives on Council appointed by the Minister of Education; each university Council has four such representatives and two were invited to participate from each university. The invitations were issued to the longest serving Council members. Nine accepted and participated and this included two each from three universities and one each from three others, and comprised five males and four females. Although the University of Otago is not represented, there remains a fairly balanced representation of the universities in this panel.

Panel C - Students

Most university Councils have two student representatives and invitations were made to fourteen student representatives; eight accepted and six participated; all are males. Two represented one university and there is one each from four others; the

universities of Waikato and Canterbury are not represented on this panel.

Panel D - MPs

The six members of the Education and Science Select Committee of Parliament and the Alliance party spokesperson on Education were invited to participate, and two agreed. This panel was subsequently amalgamated with the external auditors group and the Ministry of Education and Treasury group, all of which had fewer than seven participants, to form an Oversight Agents' panel (see Panel G below).

Panel E - External Auditors

The external auditors who had signed the auditors' report for the 1994 Annual Financial Statements for each of the universities and for three of the large polytechnics were invited to participate. The polytechnic auditors were invited in addition to the seven university auditors to give a prospect of achieving seven participants to form a viable delphi panel. In the event seven agreed, five participated and all were male. This panel was amalgamated with others to form the Oversight Agents' panel (see Panel G below).

Panel F - Preparers

The Finance Manager and the Information Manager at each university were invited to participate and form a preparers' panel. Ten accepted and eight participated; four finance persons and four information persons, with one female in their ranks. Two universities have two representatives, four have one representative each and only the University of Otago is not represented on this panel.

Table 8.1

The Number and Size of Delphi Panels

Panel representing:	Invited	Accepted	Participated	
			1st Round	2nd Round
A Internal Citizens	14	8	7	7
B External Citizens	14	9	9	9
C Students	14	8	6	6
D MPs	7	2	2	
E External Auditors	9	7	5	
F Preparers	14	10	8	8
G Oversight Agents (1)	2+	2	2	
H Oversight Agents			[9]	9
Total	74	47	39	39

Note: Panels D, E & G were amalgamated to form Panel H

Panel G - Oversight Agents

Previous research indicated that it might be difficult to obtain participation from government officials in the Ministry of Education and Treasury (Coy et al., 1994). The problem was addressed by contacting two senior officials in the Treasury and the Ministry of Education with known responsibilities for monitoring the universities' administrative, rather than the educational, activities. These two officials were invited to participate and also asked to extend the invitation to colleagues whom they knew as having an interest in universities' annual reports. Two participants were forthcoming from this approach and this group was amalgamated with MPs and

external auditors to form a new oversight agents' group of 9 consisting of 2 MPs, 5 external auditors and 2 members of Treasury and the Ministry of Education. All participated in both rounds, and there are two females on the panel.

Traditionally, annual reports have not been a subject to capture much public interest. Expertise in what might be disclosed in annual reports arises from a person's knowledge of the possible disclosure items, awareness of the contribution each item may make to fulfilling accountability obligations, and the responsibility of each panellist in the community. From this standpoint, the number, size and calibre of the panels which were formed for this delphi was highly satisfactory. Each panel member is either a representative of an important university stakeholder group on a university Council or has significant involvement in either the preparation or monitoring of university annual reports.

The panellists consist of 29 males and 10 females. The gender balance is noted for interest only with no necessary implication for bias or validity. Among the four panels with university allegiances (all except for the oversight agents) there are representatives from all 7 universities (Massey 6, Lincoln 5, Otago 3, and 4 each from the other three). The fairly even representation of all universities among the panels suggests results may be reasonably representative of New Zealand universities. A deficiency of one panel, the students, is the membership of six which is one short of the target of seven. The other panels consisted of 7, 8 and 9 members which left little margin for attrition, and this made it important to achieve a 100% participation in the delphi second round.

8.3 Development of the Questionnaire

A concern in the development of the delphi questionnaire was the large number of items; about 100 disclosure items and 10 report qualities were identified in the theoretical development. Although longer questionnaires for delphi exercises were identified in the literature (Dinius & Rogow, 1988), the large number of items gave concern about how opinions might be obtained, and valid responses received, with the prospect that panellists' concentration and interest in the subject being maintained.

Consideration was given earlier to the notion of using item weights on an open ended ratio scale that would facilitate the development of an accountability index with parametric numerical properties. However, because of the large number of items in the normative framework it was considered unrealistic to ask panellists to give opinions on whether each item should or should not be disclosed, and also its relative importance to all other items on an open ended ratio scale. At this stage, it was decided to keep the questionnaire as simple as possible by asking panellists to state whether items should or should not be disclosed, and for those items that should be disclosed to give an opinion about their importance on a simple three point ordinal scale. This should have resulted in a better response rate and less respondent fatigue.

The draft questionnaire was pilot tested by two colleagues, both experienced management academic researchers. They were asked to complete the questionnaire as if they were panellists and to note the time taken. Both completed the questionnaire in about one hour; the first felt it was too long and too detailed, partly because there was a fine distinction between many of the questions. The other felt comfortable with the questionnaire and stated that it was not unreasonable. The

accompanying explanation sheet, which provided definitions for many of the suggested index items, was modified as a result of the reviewers' comments. The delphi first round was held in May / June, 1995 and the second round in July, 1995.

For the second round of the delphi, the order of questions was changed to reduce the likelihood of halo effects (Sekaran, 1984, p. 149). In the second round, panellists were given their first round response along with the average response for their panel to each question and invited to either confirm or change their first round response in the light of the new information. However, they were also told not to feel any obligation either to change or to conform with the group average score for their panel. For ease of identification the questionnaires and accompanying papers were printed on coloured paper. In the second round, 31 new items suggested by panellists in the first round were offered for consideration and these were printed on a different coloured paper. The delphi questionnaires are reproduced at Appendix D (pp. 339-355). Panellists were sent a summary of the results in August 1995.

8.4 Results of the Delphi

In the main part of the questionnaire, panellists are asked for their opinion about 99 university annual report disclosure items, comprising 9 overview, 14 financial and 76 service items. The 76 service items are broken down into 7 general service, 55 teaching service, 11 research service and 3 community service items. Responses to each of these questions were sought on a 4-point scale (0 = should not be disclosed, 1, 2 or 3 = should be disclosed, with 1 representing minor importance and 3 representing extremely important). In addition questions were asked about three report qualities (relevance, timeliness and accessibility) and general questions

about public accountability.

In the first round, panellists were asked to suggest additional disclosure items and 31 were identified and offered in the second round of the delphi. These were 4 overview items, 10 financial items, 14 service items and 3 composite items. These latter three encompassed three disclosure themes; the quality of teaching, disclosures to facilitate comparisons between universities and Charter objectives and success in meeting these. In the second round, panellists were asked to state their opinion about the 31 new items, in addition to the items tested in the first round.

8.4.1 Response to the Normative Framework

A summary of the first and second round responses by panel broken down by disclosure category for the 99 items offered in the first round framework is shown in Tables 8.2 and 8.3. For each group of items, the average response for each item in the group is shown and also the sum of the responses, and the standard deviation of the responses between the members of each panel on each item. Table 8.4 provides an analysis of response changes by panellists between round one and round two.

Important observations about the summary data are:

- (i) The average score on each item indicates the panellists' overall support for the items comprising each disclosure group. Financial items have the strongest support; 2.561 (out of 3), followed closely by overview items, 2.514. Service items record lower support with 1.732, but this lower average can be attributed in part to the large number of items in this group and to some being rather theoretical, impractical or obscure (eg. value added, rate of return). Within

panels, the strongest support is by the external citizens for the overview items (2.679) and the lowest support is by preparers for service items (1.501). For all categories of disclosure items the average score is higher than the mid-point on the 3-point scale used, showing strong overall support for all categories across all panels.

- (ii) The sum of responses to the 99 suggested items is 192 in the first round and 193 in the second round, showing little change overall between rounds with slightly more support for disclosures in the second round. The range of changes to the sum of responses was from -0.6 for preparers to +5.0 for external citizens. For every panel, the number of changes (overall average 9.3) is greater than the overall average change in the sum of responses, thus indicating that panellists' changes are a mixture of increased support for some disclosures and reduced support for others.
- (iii) The standard deviation for every group of items for every panel, and the average standard deviation for all items for all panels is lower in round two than in round 1, indicating greater uniformity of opinion. The preparers' panel had the lowest average standard deviation (0.632) for all 99 items in round two and the oversight agents' panel has the highest standard deviation (0.703). The lowest standard deviation on a group of disclosures in round 2, therefore indicating the greatest uniformity of opinion, was achieved by the students' panel for overview items (0.462); the highest standard deviation was 0.772 by the oversight agents' panel for service items.

- (iv) The total of the responses for each of the 99 items provides a surrogate for an individual's demand for information. Thus if a panellist responds with a 3 (extremely important) for each of the 99 disclosure items, that person places more importance on disclosures than a person who supports fewer disclosures, or values them at lower levels of importance. Overall, panellists record average scores of 193 (out of 297) for the 99 items; external citizens record the highest score (222) and preparers (171) the lowest. The next highest average score is by students (201) followed by oversight agents (187) and internal citizens (183). One way analysis of variance indicates a significant difference between preparers and the four stakeholder groups combined, $p = 0.003$ at the 95% confidence interval level. This indicates the possible existence of an accountability gap between preparers and stakeholders and the implications are discussed further in Section 8.3.2 below.

Table 8.2
Delphi - Disclosure Items - 1st Round Summary Analysis

	#9	#7	#9	#6	#8	#39
Item Categories	ExtCit	IntCit	OverSt	Studs	Preps	Average
OVERVIEW Ave	2.654	2.558	2.519	2.426	2.319	2.495
OVERVIEW Sum	23.889	23.024	22.667	21.833	20.875	22.458
OVERVIEW Ave std	0.520	0.502	0.524	0.498	0.491	0.507
FINANCIAL Ave	2.635	2.592	2.595	2.190	2.589	2.520
FINANCIAL Sum	36.889	36.286	36.333	30.667	36.250	35.285
FINANCIAL Ave std	0.499	0.634	0.497	0.654	0.562	0.569
SERVICE Ave	2.053	1.634	1.646	1.961	1.512	1.761
SERVICE Sum	156.014	124.167	125.069	149.000	114.875	133.825
SERVICE Ave std	0.800	0.815	0.821	0.719	0.743	0.780
TOTAL Ave	2.190	1.853	1.859	2.035	1.737	1.935
TOTAL Sum	216.792	183.476	184.069	201.500	172.000	191.567
TOTAL Ave std	0.732	0.761	0.748	0.690	0.695	0.725

LEGEND FOR TABLES 8.2 & 8.3

Overview: 9 items Financial: 14 items Service: 76 items
Ave = average, where 0 = should not be disclosed, 1= minor importance & 3 = extremely important
Sum = Total of the panel average score for that category of items
Ave std = Average standard deviation amongst the panellists on that category

Panels:

ExtCit = External Citizens - Minister of Education representatives on University Councils
IntCit = Internal Citizens - academic & general staff representatives on University Councils
OverSt = MPs, external auditors and staff of the Ministry of Education & Treasury
Studs = Student representatives on University Councils
Preps = University Finance and Information Managers involved in annual report preparation

Table 8.3
Delphi - Disclosure Items - 2nd Round Summary Analysis

	#9	#7	#9	#6	#8	#39
Item Categories	ExtCit	IntCit	OverSt	Studs	Preps	Average
OVERVIEW Ave	2.679	2.548	2.580	2.444	2.318	2.514
OVERVIEW Sum	24.111	22.929	23.222	22.000	20.863	22.600
OVERVIEW Ave std	0.485	0.484	0.478	0.462	0.491	0.480
FINANCIAL Ave	2.667	2.612	2.667	2.250	2.607	2.561
FINANCIAL Sum	37.333	36.571	37.333	31.500	36.500	35.800
FINANCIAL Ave std	0.470	0.601	0.469	0.642	0.520	0.540
SERVICE Ave	2.110	1.555	1.659	1.943	1.501	1.732
SERVICE Sum	160.333	123.564	126.097	147.767	114.050	130.200
SERVICE Ave std	0.720	0.707	0.772	0.674	0.669	0.708
TOTAL Ave	2.240	1.849	1.885	2.032	1.731	1.948
TOTAL Sum	221.778	183.064	186.653	201.167	171.413	192.800
TOTAL Ave std	0.664	0.672	0.703	0.650	0.632	0.664

Table 8.4

Number of items changed by panellists between Round 1 & Round 2

	#9	#7	#9	#6	#8	#39
Response changes	ExtCit	IntCit	OverSt	Studs	Preps	Average
Number of Changes	8.4	9.1	13.0	7.7	8.4	9.3
Towards Group Mean	7.7	9.1	8.7	5.5	8.3	7.9
Away from Group Mean	0.7	0.0	4.3	2.2	0.1	1.5

LEGEND

Panels:

ExtCit = External Citizens - Minister of Education representatives on University Councils

IntCit = Internal Citizens - academic & general staff representatives on University Councils

OverSt = MPs, external auditors and staff of the Ministry of Education & Treasury

Studs = Student representatives on University Councils

Preps = University Finance and Information Managers involved in annual report preparation

- (v) Table 8.4 provides a summary of the number of changes to item responses between the first and second round of the delphi. Overall, an average of 9 changes (9% of all items) to item scores were made by panellists in round two; eight of these changes were towards the panel mean score for that item and one change moved away from the mean score. The largest number of changes by a single panellist is to 45 items (45%) by a member of the oversight agents' panel. On the other hand, 10 panellists made no change to their first round scores in the second round (2 internal citizens, 2 external citizens, 1 student, 2 preparers and 2 oversight agents). On average most changes are made by the oversight agents (13), and the fewest changes are made by students (8).

8.4.2 Response to New Items Suggested by Panellists

Thirty one new disclosure items suggested by panellists in the first round were tested for acceptance in the second round of the delphi. Three items were presented to the panellists as sets of related disclosures; these were disclosures about the quality of teaching, disclosures to facilitate comparisons between universities and disclosures about the university Charter and success in meeting its objectives. The remaining 28 suggested new items were grouped as before into overview, financial and service categories when presented to panellists for opinion. The summary opinions concerning these additional items are shown in Table 8.5.

Table 8.5

Summary Analysis of Opinions about New Items tested in Round Two only

	#9	#7	#9	#6	#8	#39
Item Categories	ExtCit	IntCit	OverSt	Studs	Preps	Average
QUALITY of TEACHING Ave	1.750	0.643	1.875	2.167	1.429	1.573
QUALITY of TEACHING Std	1.090	0.693	1.053	1.213	1.050	1.020
FACILITATE COMPARISONS Ave	1.556	1.071	1.875	2.167	1.000	1.534
FACILITATE COMPARISONS Std	1.066	1.147	0.927	0.687	0.926	0.951
CHARTER Ave	2.444	2.000	2.125	2.583	2.143	2.259
CHARTER Std	0.685	0.926	0.781	0.449	0.639	0.696
OVERVIEW Ave	1.757	1.548	1.754	1.833	1.313	1.641
OVERVIEW Sum	7.000	6.200	7.000	7.300	5.300	6.560
OVERVIEW Std	0.816	0.599	0.979	0.614	0.811	0.764
FINANCIAL Ave	1.886	1.212	2.013	2.033	1.600	1.749
FINANCIAL Sum	18.900	12.100	20.100	20.300	16.000	17.480
FINANCIAL Std	0.780	0.802	0.751	0.591	0.830	0.751
SERVICE Ave	1.552	1.219	1.305	1.976	1.071	1.425
SERVICE Sum	21.700	17.100	18.300	27.700	15.000	19.960
SERVICE Std	0.911	0.770	0.906	0.624	0.704	0.783
TOTAL NEW ITEMS Ave	1.722	1.261	1.654	2.008	1.317	1.592
TOTAL NEW ITEMS Sum	51.556	35.857	50.750	62.250	40.250	48.133
TOTAL NEW ITEMS Std	0.860	0.773	0.867	0.628	0.774	0.780

LEGEND**Panels:**

ExtCit = External Citizens - Minister of Education representatives on University Councils

IntCit = Internal Citizens - academic & general staff representatives on University Councils

OverSt = MPs, external auditors and staff of the Ministry of Education & Treasury

Studs = Student representatives on University Councils

Preps = University Finance and Information Managers involved in annual report preparation

Item Categories:

QUALITY OF TEACHING: Disclosures to indicate the quality of teaching, such as the results of student evaluations where 0 = should not be disclosed, 1 = minor importance, 3 = extremely important

FACILITATE COMPARISONS: Disclosures to facilitate comparisons between universities - same scale as above

CHARTER: Charter objectives, and success in meeting these - same scale as above

OVERVIEW: 4 items

FINANCIAL: 10 items

SERVICE: 14 items

Ave = average, where 0 = should not be disclosed, 1= minor importance & 3 = extremely important

Sum = Total of the panel average score for that category of items

Ave std = Average standard deviation amongst the panellists on that category

As opinion on these items was obtained on a single occasion only with no opportunity to re-consider in a subsequent round, the standard deviation is of particular interest. This is because it enables a comparison to be made with the uniformity of opinions achieved in the delphi rounds for the framework items. For the overview, financial and service items, the average standard deviations on each category were slightly higher than the comparable standard deviations in both first and second round delphis, indicating less uniformity of opinion. The standard deviations for first round, second round and new items respectively are: overview items 0.507, 0.480 and 0.764; financial items 0.569, 0.540 and 0.751; service items 0.780, 0.708 and 0.783.

For the composite items: quality of teaching, disclosures to facilitate comparisons and charter related disclosures the standard deviations are 1.020, 0.951 and 0.696. The relatively high standard deviations for the first two indicate a polarisation of opinions, with some panels being quite strongly in favour and other panels either being against disclosure or showing weak support. A review of the data sets confirms the polarised nature of the responses. For items displaying characteristics of polarisation the average score cannot be said to represent stakeholder opinion.

In the case of disclosures about the quality of teaching and facilitating comparisons the evidence here suggests that both within panels and between panels there are strongly contrasting views. On these two items only two panels achieved a uniformity of opinion that was comparable to any of the other items tested. Internal citizens were quite united in their weak support for disclosures about the quality of teaching (standard deviation 0.693), and students were similarly united in

their quite strong support for disclosures to facilitate comparisons between universities (standard deviation 0.687). For all other panels, on both of these items, the range of standard deviations was from 0.927 to 1.213, suggesting diversity of opinion within each panel; average scores cannot be taken as representative of opinion on these issues.

The Charter related items have strong overall support with an average of 2.259 and a low standard deviation of 0.696. For all the other category items, there are lower average scores than for the corresponding categories in the delphi second round. The average scores are 1.749 compared with 2.561 for the financial group (see Table 8.3); 1.641 compared with 2.514 for the overview group; and 1.425 compared with 1.732 for the service group. The logical explanation for this is that the original model captured the recognised, established mainstream disclosure items, whilst these additional items represent less important supplementary information.

If the sum of the responses to the new items is taken as a surrogate for each panel's demand for information, then students show the strongest support for the new items (62) and internal citizens the weakest support (36). This is a different ranking to that obtained on the original framework where external citizens had the strongest support (222) and preparers had the weakest support (171). However, if the two data sets are combined, then the original ranking remains unchanged with the order being external citizens (273 out of 390), students (264), oversight agents (238), internal citizens (219) and preparers (212). These data are summarised in Table 8.6.

Table 8.6

Sum of Responses to all Disclosure Items

	#9	#7	#9	#6	#8	#39
Disclosure Items	ExtCit	IntCit	OverSt	Studs	Preps	Average
ORIGINAL MODEL Sum	221.8	183.1	186.7	201.2	171.4	192.8
NEW ITEMS Sum	51.6	35.9	50.8	62.3	40.3	48.1
OVERALL Sum	273.4	219.0	237.5	263.5	211.7	241.0

LEGEND**Panels:**

ExtCit = External Citizens - Minister of Education representatives on University Councils

IntCit = Internal Citizens - academic & general staff representatives on University Councils

OverSt = MPs, external auditors and staff of the Ministry of Education & Treasury

Studs = Student representatives on University Councils

Preps = University Finance and Information Managers involved in annual report preparation

Disclosure Items:

ORIGINAL MODEL: Response totals for each panel for the 99 items in round 2

NEW ITEMS: Response totals for each panel for the 31 additional items suggested in round 1, and tested in round 2

This evidence illustrates the assertion of Perks (1993) of annual reporting being a dynamic process of negotiation between stakeholders and preparers, with the former tending to seek more information. The 61 point difference (25%) between external citizens (273) and preparers (212) provides an indication of the both the size and nature of what might be termed an "accountability gap" in the opinions of these two groups. It was noted in Chapter Five that some researchers have argued that the accounting profession exercises too much influence over accounting processes (Tower, 1993). The differences between the preparer and stakeholder groups identified here suggest that where annual report disclosures are left to preparer discretion, stakeholders may have less information made available than they seek.

8.4.3 The costs and benefits of disclosures

Where panellists believed that items should not be disclosed, they were asked to indicate if they thought that this was because the cost of the information was greater than the benefits. Overall, few panellists think that cost / benefit

considerations are relevant and only 15 of the 39 panellists give cognisance to such factors on any of the 99 items. There is not a majority support for cost outweighing the benefit on any single item on any panel. The items where two or more panellists believe that cost outweighs benefit are shown in Table 8.7.

At least two preparers agree that cost outweighs benefit in respect of 14 items, and at least two from the four stakeholder panels agree with this view in respect of five of these items. However, there are four disclosure items where at least two members of stakeholder panels perceive cost as outweighing benefit, but preparers are not so minded. Overall, there is not strong concern by any panel about cost outweighing benefit for any of the 99 items in the disclosure framework.

Preparers and internal citizens are most cognisant of this issue in relation to annual report disclosures, and external citizens are the least concerned on this count. This analysis probably reflects the involvement of preparers and internal citizens in annual report preparation, and greater awareness of the overall costs of compiling the information. In the same context, external citizens and oversight agents who are removed from day-to-day operations of the universities may have a greater awareness of the informational benefits than the campus based panels. When comparing the cost / benefit responses across the disclosure item categories, the problem disclosures are almost entirely in the service category. This possibly reflects the current status of systems for capturing and reporting annual report information; overview and financial information systems are well established, service performance information systems are being developed.

Table 8.7

Items where two or more panellists consider that the cost of information exceeds the benefit

Ref	Disclosure Items	Stakeholder Panels				#31 Overall	#8 Preps
		#9 ExtCit	#7 IntCit	#9 OverSt	#6 Studs		
3.2.2	Qualification of student intake		2			2	
3.2.8	No. of qualified admitted students unable to enrol in preferred study						2
3.2.27	No of beds per 100 EFTS				2	2	
3.2.34	Expenditure per completed programme year by student		2			2	2
3.2.35	Expenditure per EFTS per year (Total & field of study)						2
3.2.36	No of equity students at intermediate stages as % of original						2
3.2.37	% of equity students in each academic year				2	2	2
3.2.38	% EFTS completing each year prior to graduation						2
3.2.41	Average time to complete programme						2
3.2.42	No of UG courses completed / 100 EFTS						2
3.2.43	No of UG courses completed / academic staff						2
3.2.44	Value added (input & quality adjusted output measure)		3	2		5	3
3.2.45	Rate of return (quality adjusted productivity measure)		2	2		4	3
3.2.53	Employer satisfaction with former students						2
3.2.54	Former student satisfaction at intervals after graduating		2		2	4	2
3.2.55	Ranking of graduates on standardised scoring system				2	2	
3.3.9	Overall research rating			2		2	
3.3.11	Destination of research graduates						2
	NUMBER OF ITEMS	0	5	3	4	9	14

LEGEND

Panels:

ExtCit = External Citizens - Minister of Education representatives on University Councils

IntCit = Internal Citizens - academic & general staff representatives on University Councils

OverSt = MPs, external auditors and staff of the Ministry of Education & Treasury

Studs = Student representatives on University Councils

Preps = University Finance and Information Managers involved in annual report preparation

Abbreviations: EFTS: Equivalent Full-time Students; UG: Undergraduate

8.4.4 Report Qualities

Summary responses in the first and second rounds to the questions about public accountability and the various qualities of reporting are shown in Tables 8.8 and 8.9. Standard deviations decline between rounds on all items except one, indicating greater uniformity of opinion in the second round. The exception is the opinion of internal citizens about the importance of the annual report in university accountability where the standard deviation is quite high (1.030) in both rounds suggesting polarisation and firm opinions within this group. A perusal of this data confirms the polarisation within the group. Otherwise the standard deviations of the responses to these questions are of a similar order to those achieved for the disclosure items in the first and second rounds.

All panels regard the annual report as being a very important part of university accountability (4.290 out of 5), with external citizens (4.722) showing the strongest support for this principle, and preparers and students (both exactly 4 out of 5) showing less, but still high, support.

Table 8.8
Summary Analysis of Opinions about Report Qualities, 1st Round

	#9	#7	#9	#6	#8	#39
Quality Items	ExtCit	IntCit	OverSt	Studs	Preps	Average
AR IMPORTANCE Ave	4.667	4.286	4.833	3.833	3.750	4.274
AR IMPORTANCE Std	0.471	1.030	0.816	1.067	0.968	0.870
CURRENT REPORTING Ave *	2.286	2.429	2.333	1.833	3.375	2.451
CURRENT REPORTING Std	0.700	0.495	0.667	0.687	0.696	0.649
RELEVANCE Ave	4.429	3.714	4.625	4.250	4.125	4.229
RELEVANCE Std	0.495	1.385	0.484	0.829	0.781	0.795
ACCESSIBILITY Ave	3.500	2.714	3.375	3.750	2.875	3.243
ACCESSIBILITY Std	0.500	0.452	1.111	0.829	0.927	0.764
TIMELINESS Ave	4.125	2.857	4.375	5.000	3.875	4.046
TIMELINESS Std	0.927	0.990	0.696	0.000	0.781	0.679
TIME - weeks - Ave	16.750	21.000	15.500	9.000	19.500	16.350
TIME - weeks - Std	4.235	5.000	4.213	3.317	4.555	4.264

* 1=Inadequate accountability; 3=Right level; 5=Excessive accountability

LEGEND FOR TABLES 8.8 & 8.9

Panel:

ExtCit = External Citizens - Minister of Education representatives on University Councils

IntCit = Internal Citizens - academic & general staff representatives on University Councils

OverSt = MPs, external auditors and staff of the Ministry of Education & Treasury

Studs = Student representatives on University Councils

Preps = University Finance and Information Managers involved in annual report preparation

Scores:

Ave = average, where 1 = minor importance & 5 = extremely important

Std = Average standard deviation amongst the panellists on that quality

Items:

AR IMPORTANCE: "How important is the annual report to university accountability?", where 1 = minor importance and 5 = extremely important

CURRENT REPORTING: "To what extent do you think that the right level of accountability has been achieved for the NZ universities in 1995?"

where 1 = Inadequate accountability, 3 = Right level of accountability, 5 = Excessive accountability

RELEVANCE: "How important do you consider this quality of university annual reporting to be?", where 1 = minor importance, 5 = extremely important

ACCESSIBILITY: "What is the appropriate level of accessibility to reports?". Five levels offered from limited (1) to very wide (5)

TIMELINESS: "How important do you consider this quality in university annual reports to be?", where 1 = minor importance, 5 = extremely important

TIME: "How soon after balance date should university annual reports be available to the public?" (Answer in no. of weeks)

Table 8.9
Summary Analysis of Opinions about Report Qualities, 2nd Round

	#9	#7	#9	#6	#8	#39
Quality Items	ExtCit	IntCit	OverSt	Studs	Preps	Average
AR IMPORTANCE Ave	4.722	4.286	4.444	4.000	4.000	4.290
AR IMPORTANCE Std	0.416	1.030	0.685	0.816	0.707	0.731
CURRENT REPORTING Ave *	2.375	2.357	2.333	1.833	3.375	2.455
CURRENT REPORTING Std	0.696	0.440	0.667	0.687	0.696	0.637
RELEVANCE Ave	4.500	4.000	4.625	4.333	4.375	4.367
RELEVANCE Std	0.463	0.926	0.484	0.745	0.696	0.663
ACCESSIBILITY Ave	3.778	2.714	3.875	3.667	2.875	3.382
ACCESSIBILITY Std	0.629	0.452	0.781	0.745	0.599	0.641
TIMELINESS Ave	4.250	2.714	4.500	4.833	3.875	4.034
TIMELINESS Std	0.829	0.881	0.500	0.373	0.781	0.673
TIME - weeks - Ave	16.000	21.000	15.500	7.667	19.500	15.933
TIME - weeks - Std	2.828	5.000	4.213	2.625	4.555	3.844

* 1=Inadequate accountability; 3=Right level; 5=Excessive accountability

The question "To what extent do you think that the right level of accountability has been achieved for the New Zealand universities in 1995" generates an overall response of 2.455. Note that on this question, 3 is used to indicate the "right" level of accountability, 1 to indicate inadequate accountability and 5 to indicate excessive accountability. This shows that overall, panels felt that slightly less than optimal accountability is being achieved. However, further examination of this data reveals more evidence to support the notion of an accountability gap between stakeholders and preparers. The four stakeholder panels feel there is less than optimal accountability (students 1.8, oversight agents 2.3 and internal and external citizens both 2.4), whilst the preparers are of the opinion that there is more than optimal accountability (score 3.4). A T-test shows a significant difference between the opinions of stakeholders and preparers at the 95% confidence interval level ($p\text{-value} = 0.0031$).

Strong support is shown by all panels for the importance of relevance in university annual reporting with an average score of 4.367 out of 5 and a range from 4.000 (internal citizens) to 4.625 (oversight agents). Support for the importance of the qualities of accessibility and timeliness is quite strong by all panels, although it is interesting that external citizens, students and oversight agents rate both qualities as being more important than do both internal citizens and preparers. This possibly endorses the point made earlier in the context of cost benefit considerations (see Section 8.3.3). Non-employee stakeholders perhaps place more importance on access and timeliness because they do not obtain other related information such as weekly campus newsletters during the year.

Similarly, more demanding expectations about timeliness were held by students (8 weeks from balance date), external citizens and oversight agents (both 16 weeks), than preparers (20 weeks) and internal citizens (21 weeks). In comparing stakeholder and preparer results using a T-test, the p-value was 0.054 indicating a significant difference at the 90% confidence interval level. Dixon and Coy (1995) report that the 1994 university annual reports were available on average 19 weeks after balance date, and this suggests that improved timeliness by about three weeks would satisfy external citizens and oversight agents, but not students.

Support for the quality of accessibility also reveals a significant difference between stakeholders and preparers. On the 5-point scale with 5 as extremely important, stakeholders think that accessibility is more important than do preparers. The average score for stakeholders is 3.5 compared with 2.8 for preparers, and the T-test p-value of 0.031 indicates that this difference is significant at the 95% confidence interval level.

8.5 Panellists' Opinions about all Item Disclosures

In compiling a statement of disclosure items that reflect panellists' opinions, two data sources were available: the original framework which was presented to panellists twice, and the new items suggested in round one which were tested once for opinion in round two. The analysis presented above shows that opinions changed only slightly between delphi rounds, and that uniformity of opinion increased. Since the objective of the research is to arrive at a basket of disclosure items with an indication of importance attached to each, it is judged to be more useful at this point to combine the two sets of disclosure items; the 99 in the original framework and the

31 new items suggested by panellists. Panellists were given an assurance at the outset of the study that the data collection would be completed by the end of July 1995.¹

This data is presented in Tables 8.10 to 8.15. The items are listed in all tables in descending order according to the level of support among stakeholder panellists for each. The opinions of the preparer panel are shown alongside the average for the stakeholder panels and the difference between them is recorded in the final columns as a possible accountability gap. The associated p-value generated by a two sample T-test for those items with a p-value of less than 0.10 is also shown. The accountability gaps are important for drawing attention to those disclosures which are regarded as more important by either preparers or stakeholders. Since preparers have a large measure of influence over the content of reports, it is useful to know those disclosures which are valued more highly by stakeholders.

8.5.1 Overview items

Overview items are separated into those which provide information about the annual report and those which relate to the university. Notable features of this data set are that 11 of the 14 items are rated as extremely important (ie. an overall score of 2 or more) by stakeholders, whereas only 8 of the 14 are similarly rated by preparers. None of the items is rated as of minor importance by stakeholders, and only one (Brief report summary as a separate document) is considered of minor importance by preparers.

¹ It seems not unreasonable to expect that uniformity of opinion would have increased if the new items had been presented for review a second time.

If a T-test p-value of less than 0.1 is used as a benchmark to indicate a significant difference in opinion between stakeholders and preparers, then two overview items qualify. These are (in ascending order of p-value), Brief summary report (within annual report) and Prospective information. Overall, overview items are regarded as more important by stakeholders than by preparers because 12 of the 14 items had a positive gap, and two had a negative gap indicating that preparers regard these two as being more important. The items with a negative gap are the statement of accounting policies and the auditors' report, but the difference in opinion between preparers and stakeholders on these items is not statistically significant.

8.5.2 *Financial items*

As shown in Table 8.11, preparers regard 14 of the financial items as being more important than do stakeholders. Possibly this reflects traditional attitudes held by preparers about the high importance of financial information. Stakeholders rate 17 of the items as extremely important, and none as of minor importance. Preparers rate 15 of the financial items as extremely important, and none as being of minor importance. The 24 financial items receive a high level of support among both preparers and stakeholders. Only one item (Movements in physical assets) has a p-value of less than 0.1 indicating a statistically significant difference at the 90% confidence interval level. Overall, this data set indicates a large measure of agreement between stakeholders and preparers about financial items being important or extremely important disclosures in university annual reports.

Table 8.10
Opinions about Overview Items

Ref	Disclosure Items	Stakeholder Panels				#31 Overall	#8 Preps	#31 - #8 Gap	T-test p-value
		#9 ExtCit	#7 IntCit	#9 OverSt	#6 Studs				
1.1	OVERVIEW : Annual Report								
1.1.2	Auditors' report	2.8	3.0	2.9	2.0	2.667	3.000	-0.333	0.053
1.1.1	Statement of accounting policies	2.7	2.9	2.9	2.2	2.645	3.000	-0.355	
1.1.3	Statement of managerial responsibility	2.8	2.7	2.3	2.5	2.581	2.313	0.269	
1.1.4	Directory information	2.6	1.9	2.1	2.0	2.149	1.750	0.399	
1.1.5	Brief summary (within annual report)	2.2	1.7	2.1	2.5	2.140	1.500	0.640	
1.1.6	Brief summary (as a separate document)	1.3	1.6	1.9	0.8	1.378	1.000	0.378	
1.2	OVERVIEW : University								
1.2.1	Statement of objectives	2.9	3.0	3.0	3.0	2.972	2.588	0.385	0.059
1.2.2	Financial review (narrative)	2.9	2.9	2.8	2.7	2.798	2.125	0.673	
1.2.5	Key facts & figures (statistical highlights)	2.7	2.7	2.4	2.5	2.581	2.250	0.331	
1.2.3	Descriptive report / General review (narrative)	2.9	2.7	2.3	2.3	2.567	2.400	0.167	
	Charter objectives & achievements	2.4	2.0	2.1	2.6	2.288	2.143	0.145	
1.2.4	Prospective information	2.0	1.1	2.4	2.8	2.105	1.438	0.668	
1.2.7	Students' review & report	1.6	1.6	1.3	2.8	1.812	1.250	0.562	
1.2.6	Chancellor's report (ie. in addition to Vice-Chancellor's report)	2.0	1.3	1.8	1.2	1.563	1.500	0.063	

LEGEND:

Panels:

ExtCit = External Citizens - Minister of Education representatives on University Councils

IntCit = Internal Citizens - academic & general staff representatives on University Councils

OverSt = MPs, external auditors and staff of the Ministry of Education & Treasury

Studs = Student representatives on University Councils

Overall = Average score for the stakeholder panels

Preps = University Finance and Information Managers involved in annual report preparation

Gap = Difference between average for stakeholder panels & average for Preparers

T-test, p-values: All p-values less than 0.1 are shown. This indicates significant difference between stakeholders & preparers at 90% confidence interval

Table 8.11
Opinions about Financial Items

Ref	Disclosure Items	Stakeholder Panels				#31 Overall	#8 Preps	#31 - #8 Gap	T-test p-value
		#9 ExtCit	#7 IntCit	#9 OverSt	#6 Studs				
2.1	FINANCIAL								
2.1.2	Operating statement	2.9	2.7	3.0	2.5	2.776	3.000	-0.224	
2.1.7	Comparative figures for previous year	2.8	2.6	3.0	2.5	2.712	2.750	-0.038	
2.1.3	Statement of cash flows	2.8	2.6	2.8	2.7	2.698	2.875	-0.177	
2.1.1	Balance sheet	2.9	2.7	3.0	2.2	2.692	3.000	-0.308	
2.1.5	Statement of commitments	2.8	2.7	2.9	2.2	2.637	2.750	-0.113	
2.1.14	Total value of estates (land, buildings, improvements)	2.8	2.6	2.9	2.2	2.601	2.750	-0.149	
2.1.9	Statement of contingent liabilities	2.8	2.4	2.8	2.3	2.579	2.750	-0.171	
2.1.8	Investments	2.8	2.4	2.4	2.3	2.496	2.250	0.246	
2.1.11	Statement of cost of services	2.7	2.9	2.1	2.3	2.492	2.625	-0.133	
2.1.6	Financial ratios (ie. the common accounting ratios)	2.7	2.9	2.3	2.0	2.464	2.625	-0.161	
2.1.4	Depreciation	2.4	2.6	2.7	2.2	2.462	2.500	-0.038	
2.1.12	Statement of movements in equity (ie. owners' equity)	2.4	2.6	2.7	2.0	2.421	2.250	0.171	
2.1.10	Budget information	2.3	2.4	2.6	2.2	2.371	2.375	-0.004	
2.1.22	Narrative information about major budget variances	2.1	2.1	2.1	3.0	2.345	1.875	0.470	
2.1.13	Overhead allocation	2.3	2.6	2.2	2.0	2.282	2.000	0.282	
2.1.17	Cost of teaching	2.0	1.6	2.3	2.3	2.046	1.625	0.421	
2.1.23	Total employee remuneration costs	2.7	1.3	2.0	2.0	2.000	1.625	0.375	
2.1.16	Cost of research	1.9	1.3	2.1	2.3	1.920	2.000	-0.080	
2.1.21	Movements in physical assets	1.7	1.0	2.3	2.0	1.729	1.250	0.479	0.094
2.1.15	Cost of compliance with govt. requirements	1.4	1.6	1.3	2.5	1.691	1.750	-0.059	
2.1.19	Details of loans & lines of credit	1.8	0.6	2.3	1.8	1.608	1.875	-0.267	
2.1.18	Detailed financial & performance information at Faculty level	2.3	0.6	2.0	1.3	1.539	1.375	0.164	
2.1.20	Loss / gain on sale of assets	1.5	1.0	2.0	1.5	1.500	1.375	0.125	
2.1.22	Rental & leasing costs	1.6	1.0	1.9	1.5	1.483	1.250	0.233	

LEGEND:

Panels:

ExtCit = External Citizens - Minister of Education representatives on University Councils

IntCit = Internal Citizens - academic & general staff representatives on University Councils

OverSt = MPs, external auditors and staff of the Ministry of Education & Treasury

Studs = Student representatives on University Councils

Overall = Average score for the stakeholder panels

Preps = University Finance and Information Managers involved in annual report preparation

Gap = Difference between average for stakeholder panels & average for preparers

T-test, p-values: All p-values less than 0.1 are shown. This indicates significant difference between stakeholders & preparers at 90% confidence interval

Two financial items, 'Detailed financial and performance information at faculty level' and 'Details of loans and lines of credit', showed some polarisation of opinion between the stakeholder panels. Both are rated as of minor importance (0.6) by internal citizens and as important or extremely important by the other stakeholder panels. Financial and performance information at faculty level is rated as extremely important by both external citizens and oversight agents. This distinction possibly pinpoints a fundamental difference of opinion between university insiders and outsiders about accountability and reporting disclosures, and is discussed further in Chapter Nine.

8.5.3 Service : general items

As shown in Table 8.12, six of the 11 service: general items are regarded as extremely important by stakeholders and only one as of minor importance. Preparers are less supportive and regard only three of these items as extremely important. There is also less uniformity of opinion between stakeholders and preparers. Every item is regarded as more important by stakeholders than by preparers, and on three of the items the T-test p-value is less than 0.05 indicating significant difference at the 95% confidence interval level. These are (in ascending order of p-value): health and safety information, environmental information and staff training and development.

Table 8.12
Opinions about Service: General Items

Ref	Disclosure Items	Stakeholder Panels				#31 Overall	#8 Preps	#31 - #8 Gap	T-test p-value
		#9 ExtCit	#7 IntCit	#9 OverSt	#6 Studs				
3.1	SERVICE : General								
3.1.3	Achievements against objectives & targets	2.9	3.0	2.8	2.7	2.833	2.625	0.208	
3.1.2	Statement of service performance	2.6	2.7	2.8	2.5	2.637	2.475	0.162	
3.1.4	Interpretive comment	2.7	2.4	2.2	2.5	2.454	2.000	0.454	
3.1.8	Analysis of student services	2.0	2.0	1.5	3.0	2.125	1.625	0.500	
3.1.5	Staff training & development	2.7	2.0	1.8	2.0	2.111	1.500	0.611	0.018
3.1.1	Equal employment opportunity information	1.9	2.6	1.3	2.3	2.032	1.875	0.157	
3.1.6	Health and safety information	2.1	1.9	0.9	2.2	1.756	0.938	0.818	0.0014
3.1.7	Environmental related information	1.9	1.7	1.1	2.2	1.720	0.938	0.783	0.0014
3.1.9	No of childcare spaces per 100 EFTS	1.4	1.4	1.0	1.7	1.385	0.875	0.510	
3.1.10	Qualification of general staff	1.3	1.0	1.3	1.3	1.229	0.875	0.354	
3.1.11	Quality of applicants for positions	1.1	0.9	1.1	0.8	0.982	0.625	0.357	

LEGEND:

Panels:

ExtCit = External Citizens - Minister of Education representatives on University Councils

IntCit = Internal Citizens - academic & general staff representatives on University Councils

OverSt = MPs, external auditors and staff of the Ministry of Education & Treasury

Studs = Student representatives on University Councils

Overall = Average score for the stakeholder panels

Preps = University Finance and Information Managers involved in annual report preparation

Gap = Difference between average for stakeholder panels & average for preparers

T-test, p-values: All p-values less than 0.1 are shown. This indicates significant difference between stakeholders & preparers at 90% confidence interval

Abbreviation: EFTS: Equivalent Full-time students

8.5.4 Service : teaching items

Teaching service disclosures are possibly the most important in the entire annual report because universities spend most of their efforts on teaching activities. They are funded according to the number of students enrolled, and academic staff are expected on average to spend about two-thirds to three-quarters of their time on teaching related duties. However, there is no clear way in which teaching service may be measured and reported in a meaningful, unambiguous and non-controversial way.

Furthermore, many of the possible disclosures suggested in the literature and by panellists require performance measures and data collection which may involve an unacceptable level of intrusion on teaching and academic activities. For example, data about student evaluations of teaching appears to be controversial in relation to questions of academic privacy. At Massey University, student evaluations of teaching are compulsory and are automatically sent to the Head of Department as well as to the teacher concerned (Stewart, 1995). At most of the other NZ universities, teaching evaluations are encouraged but not mandatory (see the 1994 Annual Reports). Furthermore, at the University of Waikato, teachers are allowed discretion in deciding whether to pass teaching evaluations on to their Head of Department. In finding the appropriate disclosures to report teaching service it appears that a balance has to be struck between acceptability, meaningfulness and practicality.

Fifty-five disclosure items were offered to panellists in the first round, and a further two suggested by panellists were included in the second round. In addition the composite item "Quality of teaching" was also offered in the second round and

this yielded strongly contrasting opinions.

The results are shown in Table 8.13. Twenty of the 57 items are regarded as extremely important by stakeholders, and 13 are similarly regarded by preparers. Only one of the 57 items is regarded as of minor importance by stakeholders, whilst 24 of the items are similarly regarded by preparers. Among the 57 items in this category, stakeholders rate 48 items as more important than do preparers, and the gap when tested for difference using a T-test has a p-value of less than 0.1 for 14 of these items. The most notable ones are those which are regarded as "extremely important" (average score 2.0 to 3.0) or "important" (average score 1.0 to 1.9) by stakeholders. Items rated as extremely important by stakeholders with p-value of less than 0.10 (in ascending order of p-value) are:

- Equity students graduating as a % of total graduates (p-value = 0.010),
- Demand for new places compared with previous year (0.022),
- % of students in full-time, part-time and external courses (0.095).

Items regarded by stakeholders as important with a p-value less than 0.10 are:

- Number of qualified admitted students unable to enrol in preferred area of study (p-value = 0.000),
- Number of qualified students not admitted (0.0001),
- Honours degrees awarded as % of total degrees (0.0007),
- Impact criteria and measures (0.0086),
- Student unit pass rate (0.009),
- % EFTS completing each year (0.011),
- Expenditure per EFTS per year of study (0.016),
- Actual enrolment relative to demand for new places (0.019),
- New students by programme area (0.019),
- Number of undergraduate courses completed per 100 EFTS (0.035), and
- Employer satisfaction with former students (0.040), and

This wide range of items and opinions about teaching: service provides a rich data source for constructing the public accountability index in Chapter Nine.

Table 8.13
Opinions about Service: Teaching Items

		Stakeholder Panels				#31	#8	#31 - #8	T-test p-value
Disclosure Items		#9 ExtClt	#7 IntClt	#9 OverSt	#6 Studs				
3.2	SERVICE : Teaching								
3.2.1	Student numbers (Enrolments & EFTS; Total & field of study)	2.9	3.0	2.9	2.8	2.903	2.938	-0.035	
3.2.18	Student : staff ratio (Total & field of study)	2.9	2.6	2.8	2.7	2.726	2.875	-0.149	
3.2.13	Tuition fees as % of total revenue (Total & field of study)	2.9	2.6	2.6	2.5	2.629	2.250	0.379	
3.2.40	Expenditure per EFTS (Total & field of study)	2.8	2.4	2.6	2.5	2.565	2.375	0.190	
3.2.10	\$ value of operating grants from government	2.8	2.7	2.6	2.2	2.554	2.500	0.054	
3.2.29	Processes in place to ensure quality of teaching programmes	2.9	2.3	2.1	2.8	2.530	2.125	0.405	
3.2.19	Cost per EFTS (Total & field of study)	2.9	2.7	2.7	1.8	2.526	2.625	-0.099	
3.2.11	\$ value of operating grants from other sources	2.7	2.7	2.4	2.2	2.498	2.500	-0.002	
3.2.48	No. & % of EFTS completing their program of study (Total & FoS)	2.6	2.7	2.0	2.2	2.347	2.500	-0.153	
3.2.32	% of students in full-time/part-time/external courses	2.7	2.4	1.8	2.5	2.343	1.688	0.656	0.095
3.2.20	Library expenditure as % of operating expenditure & \$ per EFTS	2.6	2.6	1.9	2.2	2.296	2.188	0.108	
3.2.28	% of students in higher degrees	2.6	2.6	1.8	2.2	2.268	2.063	0.205	
3.2.31	No of PG fields of study / courses	2.6	2.3	1.9	2.2	2.224	1.813	0.412	
3.2.3	Demand for new places compared with previous year	2.3	1.4	2.3	2.7	2.190	1.263	0.928	0.022
3.2.30	No. of UG fields of study / courses	2.4	2.1	1.9	2.2	2.161	1.938	0.223	
3.2.21	Student services expenditure per EFTS	2.3	2.4	1.7	2.2	2.149	1.875	0.274	
3.2.14	No. of new places created compared with previous year	2.4	1.3	2.3	2.3	2.099	1.875	0.224	
3.2.52	No & % of students continuing to further study; & equity	2.2	2.1	1.7	2.2	2.050	1.938	0.112	
3.2.22	Library stock	2.2	2.6	1.7	1.7	2.032	1.813	0.219	
3.2.46	Equity students graduating as % of total graduates (Total & FoS)	1.9	1.9	2.1	2.2	2.024	1.000	1.024	0.010
3.2.47	Honours degrees awarded as % of total degrees	2.0	2.1	2.0	1.8	1.976	1.000	0.976	0.0007
3.2.51	No. & % of graduates employed (Total & field of study, & equity)	2.2	2.0	1.7	2.0	1.972	2.063	-0.090	
3.2.25	All Staff (Total/Equity groups)	2.0	2.3	1.8	1.5	1.891	2.088	-0.197	
3.2.38	% EFTS completing each year prior to graduation	1.8	1.5	1.8	2.3	1.847	0.750	1.097	0.011
3.2.39	Measure of student satisfaction at time of completion	1.7	1.0	1.9	2.8	1.847	1.625	0.222	
3.2.4	New students by programme area	2.2	1.3	1.7	2.2	1.835	1.000	0.835	0.019
3.2.8	No. of qualified admitted students unable to enrol in preferred study	2.3	0.8	1.8	2.3	1.808	0.500	1.308	0.000
3.2.7	No. of qualified students not admitted	2.0	0.9	1.8	2.5	1.802	0.500	1.302	0.0001
3.2.6	Actual enrolment relative to demand for new places	1.7	0.8	1.9	2.8	1.794	0.938	0.856	0.019
3.2.12	No. & proportion of designated equity groups by programme	1.9	1.2	1.2	2.7	1.755	1.225	0.530	
3.2.2	Qualification of student intake	2.4	0.7	1.7	2.0	1.706	1.250	0.456	
3.2.17	Teaching space (inc. teaching labs) per EFTS	2.0	1.6	1.6	1.7	1.698	1.750	-0.052	
3.2.50	Student unit pass rate	2.0	1.6	1.6	1.7	1.698	0.875	0.823	0.009
3.2.35	Expenditure per EFTS per year (Total & field of study)	2.2	1.2	1.6	1.7	1.665	0.813	0.852	0.016
3.2.24	Academic Staff (Seniority/Tenured/Qualification/Equity groups)	2.0	1.9	1.4	1.3	1.659	1.375	0.284	

Table 8.13 (cont)
Opinions about Service: Teaching Items

		Stakeholder Panels				#31 Overall	#8 Preps	#31 - #8 Gap	T-test p-value
	Disclosure Items	#9 ExtCit	#7 IntCit	#9 OverSt	#6 Studs				
3.2	SERVICE : Teaching								
3.2.16	Teaching space (inc. teaching labs) as % of total space	2.1	1.1	1.6	1.8	1.643	1.500	0.143	0.0086
3.2.56	Reports of external reviews of departments	1.8	0.7	1.5	2.3	1.581	1.250	0.331	
3.2.26	Financial aid to students awarded	1.6	1.6	1.0	2.0	1.532	1.188	0.344	
3.2.57	Some "Impact" criteria & measures should be developed	1.6	1.3	1.3	2.0	1.518	0.750	0.768	
3.2.49	Crude drop-out rate	1.4	1.1	1.4	1.7	1.425	1.000	0.425	
3.2.33	Measure of student satisfaction at intermediate stages	1.6	0.5	1.4	2.2	1.417	1.225	0.192	0.035 0.040
3.2.23	Proportion of staff with PhD	1.8	1.1	1.9	0.7	1.369	1.125	0.244	
3.2.9	Total school graduates at university as % of total school graduates	1.4	0.6	1.1	2.2	1.323	0.975	0.348	
3.2.37	% of equity students in each academic year	1.3	1.4	0.7	1.8	1.315	0.750	0.565	
3.2.42	No of UG courses completed / 100 EFTS	1.7	1.1	1.3	1.2	1.313	0.625	0.688	
3.2.53	Employer satisfaction with former students	1.9	0.7	1.4	1.2	1.304	0.563	0.741	
3.2.41	Average time to complete programme	1.6	0.9	1.4	1.2	1.274	1.125	0.149	
3.2.36	No of equity students at intermediate stages as % of original	1.2	1.3	0.8	1.7	1.238	0.750	0.488	
3.2.54	Former student satisfaction at intervals after graduating	1.6	0.7	0.9	1.7	1.206	0.688	0.519	
3.2.5	Total EFTS as ratio of 18-24 age cohort	1.6	0.4	1.1	1.5	1.149	0.850	0.299	
3.2.34	Expenditure per completed programme year by student	1.3	0.4	1.4	1.3	1.135	0.875	0.260	
3.2.27	No of beds per 100 EFTS	1.2	1.1	0.8	1.2	1.077	0.750	0.327	
3.2.15	No of places available in career programs as % of all programs	1.1	0.2	1.4	1.5	1.075	1.125	-0.050	
3.2.44	Value added (input & quality adjusted output measure)	1.3	0.6	1.2	1.2	1.073	0.500	0.573	
3.2.45	Rate of return (quality adjusted productivity measure)	1.6	0.0	1.1	1.5	1.042	0.500	0.542	
3.2.43	No of UG courses completed / academic staff	1.2	0.5	1.3	1.2	1.035	0.625	0.410	
3.2.55	Ranking of graduates on standardised scoring system (eg GMAT)	1.4	0.3	0.6	0.5	0.714	0.500	0.214	

LEGEND:

Panels:

ExtCit = External Citizens - Minister of Education representatives on University Councils

IntCit = Internal Citizens - academic & general staff representatives on University Councils

OverSt = MPs, external auditors and staff of the Ministry of Education & Treasury

Studs = Student representatives on University Councils

Overall = Average score for the stakeholder panels

Preps = University Finance and Information Managers involved in annual report preparation

Gap = Difference between average for stakeholder panels & average for preparers

T-test, p-values: All p-values less than 0.1 are shown. This indicates significant difference between stakeholders & preparers at 90% confidence interval

Abbreviations: FoS=Field of Study; PG=Postgraduate; UG=Undergraduate; EFTS=Equivalent Full-time Student

8.5.5 Service: Research

Service: research data are shown in Table 8.14. Sixteen research disclosure items were reviewed by panellists, and all are rated by stakeholders as important (11) or extremely important (5). In only two cases is there a gap between stakeholders' and panellists' opinions with a p-value for the T-test of less than 0.1. For one item, 'quality of research produced by students', stakeholders have significantly stronger support at the 90% confidence interval level; for the other item, 'publications/ patents/ copyrights' preparers have significantly stronger support. This is the only item in the whole data set of 130 where preparers show significantly stronger support than stakeholders.

8.5.6 Service: Community Service

Community service data is reported in Table 8.15. Six items were offered to panellists and all record an average score by stakeholders of between 1.0 and 2.0. This indicates that they regard these items as important but not either extremely important or of minor importance. In one case the gap between stakeholders' and preparers' opinions has a p-value for the T-test of less than 0.10. This is 'further education services provided in the community' (p-value = 0.05).

Overall, this evidence suggests that the reporting of community service is undeveloped. None of these items appears to address directly the reporting of such important university functions as being the critic and conscience of society, and being the holder of the community's store of knowledge with a responsibility for passing this on from one generation to the next.

Table 8.14
Opinions about Service: Research Items

		Stakeholder Panels							
		#9	#7	#9	#6	#31	#8	#31 - #8	T-test
	Disclosure Items	ExtCit	IntCit	OverSt	Studs	Overall	Preps	Gap	p-value
3.3	SERVICE : Research								
3.3.5	No. of Masters & PhD students (Total & field of study)	2.4	2.6	2.2	2.3	2.393	2.250	0.143	
3.3.1	Research income (grants & contracts)(Total \$ / \$ per acad. & FoS)	2.8	2.0	2.4	2.0	2.306	2.250	0.056	
3.3.2	No of research grants & fellowships	2.7	2.1	2.3	2.0	2.286	2.250	0.036	
3.3.7	No. of Masters & PhD graduates (Total & field of study)	2.7	2.6	2.0	1.8	2.268	2.500	-0.232	
3.3.3	Industry contribution to research \$	2.8	1.7	2.2	1.8	2.137	2.500	-0.363	
3.3.6	Publications/patents/copyrights (Total & field of study)	2.7	2.1	1.4	1.7	1.980	2.500	-0.520	0.065
3.3.4	No. of research & sponsored students (Total & field of study)	2.3	1.9	1.8	1.7	1.909	1.500	0.409	
3.3.16	Reports of external reviews of departments	1.9	1.0	1.6	2.2	1.670	1.125	0.545	
3.3.14	Quality of research produced by staff	1.6	1.3	1.4	2.3	1.655	1.250	0.405	
3.3.15	Quality of research produced by students	1.4	1.7	1.3	2.2	1.626	0.875	0.751	0.083
3.3.8	Conference presentations (Total & field of study)	2.1	2.0	0.9	1.3	1.583	1.500	0.083	
3.3.9	Overall research rating	2.3	0.9	0.8	2.3	1.575	1.250	0.325	
3.3.13	Graduates' views on the relevance of their degrees	1.3	1.7	1.3	2.0	1.574	1.250	0.324	
3.3.12	Distinction between public good and basic research, and emphasis on each by the University	1.6	0.8	1.1	2.2	1.416	1.375	0.041	
3.3.11	Destination of research graduates	2.0	1.0	0.9	1.3	1.306	0.975	0.331	
3.3.10	Citations	1.9	0.9	0.8	1.0	1.131	0.975	0.156	

LEGEND:

Panels:

ExtCit = External Citizens - Minister of Education representatives on University Councils

IntCit = Internal Citizens - academic & general staff representatives on University Councils

OverSt = MPs, external auditors and staff of the Ministry of Education & Treasury

Studs = Student representatives on University Councils

Overall = Average score for the stakeholder panels

Preps = University Finance and Information Managers involved in annual report preparation

Gap = Difference between average for stakeholder panels & average for preparers

T-test, p-values: All p-values less than 0.1 are shown. This indicates significant difference between stakeholders & preparers at 90% confidence interval

Abbreviation: FoS=Field of Study

Table 8.15
Opinions about Service: Community Items

Ref	Disclosure Items	Stakeholder Panels				#31	#8	#31 - #8	T-test
		#9	#7	#9	#6	Overall	Preps	Gap	p-value
3.4	SERVICE : Community								
3.4.4	Further education services provided in the community	1.9	1.5	1.4	2.3	1.774	1.250	0.524	0.050
3.4.2	Description of national community service	1.8	1.2	0.9	2.0	1.474	1.375	0.099	
3.4.1	Description of local community service	1.7	1.1	0.9	2.0	1.410	1.375	0.035	
3.4.3	Description of international community service	1.8	1.2	0.9	1.7	1.390	1.375	0.015	
3.4.5	Information on "Town & Gown" relationships	1.7	1.0	1.3	1.3	1.324	1.125	0.199	
3.4.6	Whether community services were requested for the community or volunteered by university	1.1	0.8	1.4	2.0	1.322	0.750	0.572	

LEGEND:

Panels:

ExtCit = External Citizens - Minister of Education representatives on University Councils

IntCit = Internal Citizens - academic & general staff representatives on University Councils

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Studs = Student representatives on University Councils

Overall = Average score for the stakeholder panels

Preps = University Finance and Information Managers involved in annual report preparation

Gap = Difference between average for stakeholder panels & average for preparers

T-test, p-values: All p-values less than 0.1 are shown. This indicates significant difference between stakeholders & preparers at 90% confidence interval

8.6 Discussion

The objective of the delphi is to identify disclosures that should be made in university annual reports from a public accountability perspective, and to obtain an indication of their importance to stakeholders. This yields a comprehensive list of categorised items with an indication of both stakeholders' and preparers' opinions about each item. This is the basis for selection of items to include in the public accountability index in Chapter Nine.

The delphi approach for this study is very satisfactory. A high calibre of panel membership is achieved with many experienced and senior managers and eminent citizens in their ranks. Responses to the questionnaires give the impression of seriousness and thoughtfulness on the part of panellists; evidence of this is provided by the many asides and additional comments made in the margins either to clarify or emphasise particular points. The nil attrition rate also supports the impression of well-motivated and interested participants. On the other hand, 12 of the 39 participants make no change at all to any of their first round scores in the second round and this gives cause for some unease, and concern about whether these respondents came to this conclusion after due consideration of each item.

All panellists are familiar with both the organisation and culture of universities by virtue of their roles as employees or members of Council. This suggests a high level of awareness of the meaning and implications of the disclosure items they reviewed. As to generalising the results to the population at large, bearing in mind the specialist nature of the annual report document and the limited interest in universities by the community as a whole, the small size of the delphi panels might suggest a lack of external validity. The delphi results could have been one-off,

biased and unrepresentative of the interested community as a whole. Previous research with delphi panels of this size suggests otherwise, and the only panel which did not reach the target minimum of 7 gives only slight concern on this count. It is argued that the results have an acceptable level of both internal and external validity, and almost certainly rather better than might have been achieved using alternative research methods such as large scale samples and postal questionnaires. Ultimately, users of the research must make their own judgements about its validity based on the evidence provided.

All panels confirm the important role of the annual report in the accountability processes of the universities as argued in the development of the theoretical model in Chapters Four and Five. In addition, all of the stakeholder panels agree that present levels of accountability are less than optimal. This could be interpreted to mean that annual reports should be improved further, but alternatively it may mean that other means of demonstrating accountability should be either developed or improved. Also, all off-campus stakeholder panels regard timeliness as important which supports the argument for including timeliness as an index item.

The results of this delphi provide an interesting comparison with the work of Turner (1992) who carried out a delphi exercise on US college and university disclosures. The Turner study was carried out from a decision making perspective on external financial reporting with four panels representing CPA firms/ preparers, Financial institutions, Accreditation agencies/ foundations, and State agencies. The heavy emphasis of the Turner study on financial statements is revealed by the 14 disclosure categories which were identified; 12 of these were financial categories and only two, non-financial. The non-financial categories were 'Students' and

'Management and general'. The reason for the sharp contrast in the findings of the Turner study and this study are explained principally by the difference in focus, between decision making in the Turner study and public accountability in this study.

One objective of this research is to develop an index with parametric statistical properties in contrast to the extant indices which have ordinal properties only. An index with parametric characteristics would have systems of weights and disclosure evaluation which also had ratio characteristics. Because of the large number of potential disclosure items which the panellists were asked to review, it was considered to be impracticable to ask them also to judge the importance of individual items on a ratio scale. This problem is better addressed once the index items have been identified, and is re-considered in Chapter Nine.

In selecting index items, judgement must be exercised because of the widely differing characteristics of the items and the usefulness of the items for distinguishing between the quality of annual reports. For example, an item like "value added" in theory provides highly relevant and powerful information about universities' activities. That is, a measure of value added would indicate the value of the teaching, research and other services provided by the university in a given period. Unfortunately, such a measure(s) has not been developed and the inclusion of this item in the index would not enable good and poor reports to be separated since no reports disclose this information. Possibly, panellists rate this item as of low importance because such a measure has not been developed, and not because of its lack of utility if available.

The delphi identifies two groups of disclosure items where opinions are polarised. These items are disclosures about the quality of teaching and disclosures to facilitate comparisons between universities. Students (average 2.167 out of 3), oversight agents (1.875) and external citizens (1.750) regarded disclosures about the quality of teaching as important or extremely important, whereas internal citizens showed low support (0.643). However, amongst those supporting these disclosures there was a high standard deviation (greater than 1.000 for each panel) indicating diversity of opinion amongst panel members. On the other hand, there is high uniformity of opinion amongst internal citizens for their low support of this disclosure (standard deviation 0.693). Similarly, for disclosures to facilitate comparisons between universities there is moderate overall support (panel average score range from 1.000 to 2.167), but in every panel there is a comparatively high standard deviation indicating low uniformity of opinion.

There are several conclusions to draw from this evidence. Both disclosure groups address sensitive issues in universities, and disclosures about these could be misused or abused. Academics might be particularly aware of the potential for abuse both in the preparation of such data and in its use if published. As a consequence, they might err on the side of caution and recommend that such information not be disclosed. The inclusion of such items in the index would need to be made only after careful consideration of their costs, benefits and overall utility.

The empirical work has provided a smorgasbord of information on stakeholder and preparer opinions about university annual report disclosures and qualities. These views give guidance for developing the public accountability index. However, panellists may attach great importance to some disclosures that are unrealistic. For

example, some suggested items may have important cost / benefit implications which are impossible to evaluate accurately, and some items are identified where there are sharp differences of opinion between stakeholders and preparers. For all these reasons, judgement must be exercised in using the empirical evidence to construct the index.

In applying judgement, the overriding criteria are to reflect the public accountability objectives of the research, and also to give greater cognisance to the views of stakeholders than those of preparers. In the discussion about accountability in Chapter Five, importance is placed on openness in the management of public institutions and the need for accountors to provide explanations about their activities in addition to 'statements of account'. Where judgement has to be used in developing the public accountability index in Chapter Nine, the researcher attempts to interpret and apply the principles of public accountability faithfully.

8.7 Summary

Strong delphi panels were formed with representatives of all major stakeholder groups who are either members of university councils, officials with senior oversight responsibilities or parliamentarians. There is balanced representation from each of the seven universities which suggests that the results should be reasonably representative of the universities as a whole. There is unbalanced gender representation with three-quarters of the panellists being male. Two panels (internal and external citizens) have balanced gender representation whilst the other three had only a total of three females in their cohort. It is unclear how, or if, the unbalanced gender composition may have affected the results.

Consensus is often reached in delphi studies, although in this research, it was considered more important to obtain valid stakeholder opinions even if these showed disagreement. In the event, uniformity of opinion increased during the delphi in all panels almost across the board for all disclosure items and qualities. The exceptions are disclosures about the quality of teaching, disclosures to facilitate comparisons between universities, and detailed financial and performance information at faculty level where there is polarisation of opinion.

Overall, the results show that all stakeholders attach importance to financial, overview and service information in that order. There is a high level of agreement between preparers and stakeholders about overview, financial and community service disclosures. Problem areas are the disclosures about teaching, research and general service. It is unclear what should be reported in these areas, but the information gathered in the delphi provides a useful data source to address this problem when constructing the public accountability index in Chapter Nine.

CHAPTER NINE

THE PUBLIC ACCOUNTABILITY INDEX

9.1 Introduction

In this chapter, the results of the delphi exercise are combined with the principles of constructing disclosure indices to prepare a public accountability index for New Zealand university annual reporting. Some 130 disclosure items and report qualities were identified and tested for relevance and importance during the delphi exercise. These are incorporated into the index according to stakeholder opinions. An important feature is the use of weights and disclosure evaluation techniques which allowed an index with parametric statistical qualities to be developed. This contrasts with the extant tertiary education disclosure indices which have ordinal properties only.

9.2 Principles of Index Construction

It was emphasised in the research methods chapter (Three) that disclosure indices are ephemeral in nature and can measure the quality of annual reports only in terms of the standards and expectations of society at the time of their construction. As society's expectations and the issues of concern change, so an index will need to be modified as well. For this reason, the public accountability index will be applicable only to New Zealand universities, and at the current time. Within a few years it is likely that the index will need to be modified to reflect changes that may have occurred. For example, New Zealand society today reflects a gender imbalance which shows that females earn lower average pay than males, and are also under-represented in senior occupational positions. Reducing or eliminating this imbalance

is regarded as an important issue by many public leaders now. Within a few decades it is possible that such disparities will be eliminated and no longer a concern in New Zealand society, and interest in information about this subject could wane.

This prompts the question whether generic principles of disclosure index construction can be specified. In developing this index, six steps were followed:

- (i) Reviewing contemporary reporting in the sector of interest,
- (ii) Determining the objectives of the index,
- (iii) Identifying the objectives of reporting for the sector of interest,
- (iv) Identifying appropriate disclosure items and report qualities,
- (v) Obtaining appropriate stakeholder validation of index items,
- (vi) Developing and testing the index.

This process could be tested as a possible system for constructing disclosure indices for other sectors in New Zealand and in other countries. Some explanation of each step now follows.

(i) Reviewing contemporary reporting in the sector of interest

The first step is to review contemporary reporting by the sector of interest and to identify the factors which contribute to its current reporting, such as history, legislation and any other developments that impinge on reporting. This enables the researcher to gain a broad understanding of the nature and issues of reporting in that sector, and provides background for the subsequent steps in the index development. Through this knowledge important issues about reporting may be identified and pitfalls avoided.

(ii) Determining the objectives of the index

In this study the objective of the index is to measure the quality of university annual reporting from a public accountability perspective. Public accountability suggests the development of an index which has a broad focus on reporting rather than one that may be concerned with narrow objectives such as assessing financial viability or educational performance. However, the concept of public accountability may mean different things to different people. The researcher must adopt a definition of public accountability that explains what needs to be done to be publicly accountable in the context of the sector of interest.

(iii) Identifying the objectives of reporting for the sector of interest

Identifying the objectives of reporting is also not as clear cut as might be presumed, particularly in the light of recent changes in public perceptions of annual reporting. The change in focus from decision usefulness to accountability as the prime objective of reporting, particularly in the public sector, has had a major impact on the nature of annual reporting. As discussed in Chapter Four, financial statements alone are inadequate to meet the needs of public accountability, and much broader documents which report on the main activities of the sector are now required.

(iv) Identifying appropriate disclosure items and report qualities

The next step is to identify appropriate disclosure items and report qualities that meet the objectives of reporting, and obtain appropriate independent opinion about the relative importance of these items and qualities. The method used to identify items and qualities depends on the state of annual reporting by the sector of interest. Where reporting is well established and a mature, well defined and knowledgeable report audience exists, then report items and qualities may be identified by seeking

suggestions and opinions from members of that audience. This approach has the advantage that report user opinion may be captured without the risk of influencing those opinions by provision of a prompt list. Alternatively, where a knowledgeable report audience does not exist, the researcher may develop a framework of potential index items from literature sources.

(v) Obtaining appropriate stakeholder validation of index items

As far as possible, the index should capture the essence of public opinion about what should be disclosed and the relative importance of the items. A method must be identified to capture that opinion and use could be made of standard questionnaires, focus groups and interviews. The delphi technique is recommended as a suitable and practicable approach.

(vi) Developing and testing the index

The final step is to develop a draft index from the opinions received using standard index construction techniques. There are five elements to address at this stage:

- a. Determine the categories to be used in the index,
- b. Allocate weights to these categories,
- c. Determine the items to be included within each category,
- d. Allocate weights to each item,
- e. Devise criteria which represent 'standard' disclosure for each item.

At this stage the index can be developed in draft form, tested on some sample annual reports, modified as appropriate and then exposed to appropriate external comment. Further modifications may then be made in the light of these comments, and the final index established. This process, as applied in developing the university

public accountability index, is explained in detail in the next section.

9.3 The Public Accountability Index

In Chapter Two, it was observed that until recently NZ university annual reports had not been a means of communicating with stakeholders to any great extent. An annual report audience began to emerge only in the late 1980s, and for this reason two important decisions were made about the research methods used in this study.

Firstly, it was decided that it would be more productive to develop a framework of reporting items and qualities which suitable stakeholders could be invited to criticise, change or confirm. Because annual reports are not documents that most stakeholders would consult frequently, it was thought that to ask them what should be reported from a 'cold start' could lead to significant omissions. By providing a framework of items and disclosures which appear to meet reporting objectives, stakeholders could be invited to express an opinion about each item with the option to exclude some and include others of their own suggestion. It was reasoned that the suggested framework would act as a prompt and that this approach would lead to more meaningful progress in identifying what should be reported than would 'open ended approaches'.

Secondly, because of the complex nature of annual reporting and the lack of a knowledgeable, wide report audience, it was decided to collect user opinions using a delphi exercise. Small groups of stakeholders who are involved in various capacities with university annual reporting were identified and invited to participate. The opportunity for iteration by reconsidering original responses in the light of first

round group opinions leads to more considered and reliable responses than might be the case with "one time only" data collection methods.

Another important consideration in constructing the index concerns the use of researcher's judgement. One objective of the thesis is to construct an index which is less dependent on the researcher's subjective opinions than are the extant indices, and to this end stakeholder and preparer opinions were captured in the delphi exercise. However, as explained in Chapter Eight, it is not possible to avoid altogether the exercise of judgement in constructing public accountability disclosure indices. Where judgement is used it is important to declare and understand the basis on which it has been exercised.

In the methodology and methods chapter (Three) the predisposition of the researcher towards openness in the management of public institutions is explained. In Chapter Eight, an 'accountability gap' between stakeholders and preparers is identified. This shows that stakeholders attach more importance to individual report disclosures than preparers. Where judgement is used in developing the categories, items and weights the researcher takes more cognisance of stakeholders' opinions than those of preparers. This is explained in detail in the following sections.

9.3.1 *Determining the categories to be used*

For this index, the categories identified in the theory development are Overview, Financial and Service disclosures (pp. 168-170). The Overview category is sub-divided into overview items about the report and overview items about the university. The Service category is sub-divided into general, teaching, research and community service. Three reporting qualities are tested in the delphi exercise,

namely timeliness, accessibility and relevance.

However, in constructing the index it was decided that from a practical standpoint only timeliness could be included. Accessibility is excluded because it would be impossible for independent assessors to measure the accessibility of individual reports without undue effort and cost. To gauge the extent to which accessibility has been achieved requires, for each university, knowledge of the advertising about report availability and its availability in libraries, etc. It is considered impracticable for independent assessors to capture such data reliably and economically.

Relevance is not included as an index item because it is perceived by the researcher that this quality is captured by the individual index items, and its inclusion as an additional, separate item would create overlap. Timeliness though, is included in the index because this is a distinct and separate quality which could be measured in a practical sense by recording the time at which reports are issued to the public. Although accessibility is not included in the Index, it is re-affirmed here, as argued in Chapter Four, that this quality is important to a public accountability perspective of university annual reporting.

Table 9.1
Average Stakeholder Panel Scores by Index Categories

No. of Items	Index categories	#9 ExtCit	#7 IntCit	#9 OverSt	#6 Studs	#31 Overall Average
1 item	TIMELINESS	2.550	1.629	2.700	2.900	2.445
6 items	OVERVIEW : Annual Report	2.375	2.298	2.345	2.000	2.254
7 items	OVERVIEW : University	2.413	2.190	2.288	2.476	2.261
23 items	FINANCIAL	2.341	2.029	2.403	2.160	2.224
10 items	FINANCIAL	2.744	2.657	2.744	2.300	2.642
11 items	SERVICE : General	2.051	1.961	1.636	2.106	1.848
10 items	SERVICE : General	2.144	2.071	1.700	2.233	1.944
57 items	SERVICE : Teaching	2.020	1.509	1.677	1.942	1.707
10 items	SERVICE : Teaching	2.778	2.624	2.444	2.383	2.543
16 items	SERVICE : Research	2.153	1.639	1.501	1.885	1.765
10 items	SERVICE : Research	2.396	1.929	1.822	1.917	2.005
6 items	SERVICE : Community	1.656	1.140	1.093	1.889	1.397

NB: Timeliness score converted to a score out of 3

Scores show the average delphi panellist score for each item in each category, by stakeholder panel

ExtCit=Extrenal citizens; IntCit=Internal citizens; OverSt=Oversight Agents; Studs=Students

Table 9.2
Alternative Index Category Weights

No. of Items	Index categories	Ave Delphi Scores	Prop- ortional Weights A	Subtract 1.20 Weights B	^4 Weights C	Author's PAI Weights D
1 item	TIMELINESS	2.445	14	16	17	10
6 items	OVERVIEW : Annual Report	2.254	13	13	12	14
7 items	OVERVIEW : University	2.261	13	13	12	14
10 items	FINANCIAL	2.642	15	18	23	25
10 items	SERVICE : General	1.944	11	9	7	5
10 items	SERVICE : Teaching	2.543	15	17	20	20
10 items	SERVICE : Research	2.005	11	10	8	10
6 items	SERVICE : Community	1.397	8	2	2	2
Total			100	100	100	100

9.3.2 *Allocating weights to categories*

Weights are allocated to the eight categories and sub-divisions by adopting 100 as the total weights available and spreading these among the categories. As a result of this process the category weights are decided with the highest weight attributed to Financial (25) and the lowest weight to Community service (2). This allocation is arrived at by using both the empirical evidence provided by the delphi panellists and an iterative process which is explained below.

Interpretation of the delphi results to arrive at category weights that reflect stakeholders' opinions is complicated by several factors. The average score for all the items in a particular category is the starting point for deciding category weights. These are shown in Table 9.1 for each of the stakeholder panels, and for the 31 panellists who represent different stakeholder groups. Taking the overall average scores, 'Overview: university' records the highest average (2.261) and 'Community service', the lowest (1.397). However, review of these results suggests that this is not a fair reflection of stakeholders' priorities because of the large range of items in some categories compared with others. For example, the timeliness score is based on just one question whereas 57 items are reviewed to arrive at the teaching service category average.

The greater the number of items in a category the more likely it is that some items will have a low priority amongst some stakeholders. As a result, the category average score may be lower, even though many items in that category may be regarded as extremely important by stakeholders. For example, the overall average for the 23 items tested in the financial category is 2.224, but the ten items with the strongest support in that category show an overall average of 2.642. As a result of

this observation, where a category has more than 10 items, it was decided to calculate the average score for the 10 items that show the strongest support and to use this as being indicative of stakeholders' preferences.

Thus in Table 9.1, for the categories with more than 10 items, the scores are reported for all the items and for the 10 with the strongest overall support. These 'top ten' items are then reported as the average delphi scores in Table 9.2. On this basis, the strongest support is shown for the Financial category (2.642), followed by Teaching service (2.543), Timeliness (2.445) through to Community service with 1.397.

The next problem to resolve is the development of index category weights. The column 'Proportional weights, A' in Table 9.2 shows the weights that would result from adopting category weights in direct proportion to the average delphi panellists' scores. The range of weights is from 15 for Financial to 8 for Community service, which is a narrow differentiation between the most and least important categories. It is felt that this is not a fair reflection of the relative importance of these categories to a public accountability perspective of annual reporting.

An iterative process is now followed. Next, it was decided to subtract an amount from the lowest rated item that would reduce the weight for that item to a number close to a reasonable index minimum category weight, and 1.20 is subtracted from each of the category average scores. The resulting weights are shown in the column headed B in Table 9.2. The spread is now from 18 for the Financial category to 2 for Community service. Although the differentiation between the maximum and minimum categories seems to be reasonable, there now appears to be a lack of differentiation between Financial (18), Teaching service (17), Timeliness

(16) and Overview information (13 each).

The average category scores are now scaled by being raised by various factors to observe the impact on the resulting weights. It is found that raising the scores by a factor of 4 gave a spread of category weights from 23 to 2. This generates greater differentiation between the leading categories and appears to give a more reasonable overall spread.

At this point, there appears to be one major anomaly to the author and this is the weight accorded to Timeliness which is 17 under this scheme. Although timeliness is regarded by the panellists as very important to a public accountability perspective of university annual reporting, it seems that its importance is inflated in these scores because the data has been collected in the delphi via the use of a single question. It seems more appropriate to compare the panellists' opinion about timeliness, not with other categories, but with other single items. This review shows that there are single items in the Overview: annual report, Overview: university, Service: general and Service: teaching categories which have higher scores than the 2.445 recorded for Timeliness. As a result, the author decided that it is more appropriate to give the two Overview categories higher weights than Timeliness which is given a weight of 10, and other weights are adjusted accordingly to arrive at the 'Author's PAI [Public Accountability Index] Weights' in the column headed D in Table 9.2.

Thus the process of arriving at category weights relies mainly on the delphi results, but for the reasons explained above, interpretation and judgement has to be used to arrive at the weights adopted. As a result of this process, there was concern about the sensitivity of the public accountability index to the category weights.

Sensitivity tests were carried out and show that there is little impact on report rankings as a result of the different weight configurations (see Section 9.4).

9.3.3 *Determining items to be included*

In determining the items and qualities to be included within each category, several pragmatic issues have to be resolved. Firstly, overlap and repetition between items are reduced or avoided. For example, in the delphi study it is established that the 'Balance sheet' and 'Changes in financial equity' are rated as 'extremely important' and 'important' disclosures respectively. As 'Changes in financial equity' are part of the disclosures within the Balance sheet, it is deemed more appropriate to capture the 'Changes in financial equity' as part of the 'Balance sheet' item rather than treat these as separate index items.

On the other hand, decisions had to be made about keeping other items separate in the index that could be collapsed into one. For example, the statement 'Cost of services' could be regarded as a part of the 'Operating statement'. However, because of the distinct and separate focus, it was decided to keep these as two separate items within the 'Financial' category of the index. A further problem arises from overlap in items between categories of the index. For example, panellists support disclosure about departmental reviews of both teaching and research, and it was decided to include this as one item within the index under the 'Teaching: service' category and not to repeat this item under 'Service: research'. Through this process of rationalisation the index items are reduced from 130 identified and tested in the delphi to 58 in the index.

This process is now described in detail for each of the eight categories adopted in the Index.

9.3.3.1 Timeliness

As explained above, of the three report qualities tested in the delphi, it was decided that for practical reasons only timeliness could be included in the Index. The three non-employee stakeholder groups (external citizens, students and oversight agents) all rate timeliness in publication of annual reports as extremely important. This response is used as a guide in setting an overall weight of 10 (out of total weights of 100) for timeliness in the Index, and 10 to 13 weeks as indicative of 'standard' timeliness in the Index criteria.

The average opinion about timeliness for all panels is that reports should be published within 16 weeks of balance date, and there is the following breakdown between panels: Internal citizens 21 weeks, External citizens 16 weeks, Students 8 weeks, Preparers 20 weeks and Oversight agents 16 weeks. It was decided to take only the opinions of the non-employee stakeholders into account in setting the normative standard for reporting time lapse because these stakeholders do not have access to any sources of annual report type information on an on-going basis. It is reasoned that Internal citizens may have lower timeliness expectations because they are privy to many forms of information on a day-to-day basis as part of their normal duties. Thus the standard for timeliness is set at the average expectations of external citizens, oversight agents and students, i.e. 13 weeks.

In setting the criteria steps, it was decided to work in steps of four weeks between the minimum and maximum likely time lapses of 10 and 30 weeks. Thus

a report published between 10 and 13 weeks after balance date would score '5' and one published between 26 and 29 weeks after balance date would score '1'. Reports published sooner than 10 weeks would score higher than 5 or later than 29 weeks would score 0 for timeliness. The 1994 reports were available to the public between 17 and 21 weeks after balance date, and timeliness scores of 3 or 4 would be awarded for these reports.

9.3.3.2 Overview Items

Table 9.3

Overview items: Delphi results & Index items and weights compared

<i>Ref</i>	<i>Delphi results</i>	<i>Index items & weights</i>
	#31	
1.1	Overview : report	Overview : report [14]
1.1.2	Auditors' report 2.667	Auditors' report 25
1.1.1	Statement of accounting policies 2.645	Statement of accounting policies 25
1.1.3	Statement of managerial responsibility 2.581	Directory information 20
1.1.4	Directory information 2.149	Statement of managerial responsibility 20
1.1.5	Brief summary (within annual report) 2.140	Brief summary 10
1.1.6	Brief summary (as a separate document) 1.378	100
1.2	Overview : university	Overview : university [14]
1.2.1	Statement of objectives 2.972	Statement of objectives 35
1.2.2	Financial review (narrative) 2.798	Descriptive report / General review 20
1.2.5	Key facts & figures (statistical highlights) 2.581	Financial review 20
1.2.3	Descriptive report / General review 2.567	Key facts & figures 15
	Charter objectives & achievements 2.288	Prospective information 10
1.2.4	Prospective information 2.105	100
1.2.7	Students' review & report 1.812	
1.2.6	Chancellor's report 1.563	

NB: The delphi result scores indicate the average score for stakeholder panellists

Figures in [] indicate Index category weights

Fourteen overview items identified in the delphi are compressed into 10 items in the index. The details are shown in Table 9.3 where the delphi results for the four stakeholder panels are compared with the Index items adopted. All the Overview: report items tested in the delphi are adopted in the Index except that the two alternatives of a brief summary report are combined into one Index item, and the option of a summary either within the report or as a separate document is captured in the Index criteria (see Appendix E, pp. 356-361).

The item weights reflect the panels' priorities, except that the 'Statement of managerial responsibility' is given a weight of 20 in the Index when the panel responses indicate that a slightly higher weight should be allocated. The slight downgrading in the Index is adopted because this Statement has a mandatory format as prescribed by the Public Finance Act and the information disclosed is common to all annual reports. As a result, this statement does not enable differences in accountability between reports to be distinguished, unless of course a university failed to publish the statement in its report.

As to the Overview information about the university, the eight items tested in the delphi are compressed into five in the Index. The 'Charter objectives' item is incorporated into the 'Statement of objectives', and the 'Students' report' and 'Chancellor's report' items are incorporated into the Descriptive report / general review in the Index (see the Index criteria in Appendix E, pp. 356-361). Charter objectives should be similar or identical to the general objectives of the University.

9.3.3.3 Financial items

Twenty-three financial items are identified and tested in the delphi, and 11 are included in the Index. These are shown in Table 9.4.

One item, 'Cost of compliance with government requirements', is omitted altogether and 12 others are combined. 'Cost of compliance' is rated among the lowest of the financial items in the delphi, although it is accepted that this could reflect an important contemporary issue. However, for practical purposes such costs are largely opportunity costs of managerial time and this is difficult to measure. Inclusion of such costs in annual reports in any meaningful way seems to be unlikely and therefore it was decided not to include this item in the Index.

Other items are combined as follows: 'Comparative figures' are included with the respective financial statements; 'Statement of commitments' and 'Contingent liabilities' are combined; 'Budget information' and 'Narrative explanations about budget variances' are combined; 'Movements in equity', 'Movements in physical assets', and 'Loans and lines of credit' are included in the 'Balance sheet' index item; 'Total employee remuneration costs', 'Loss / gain on sale of assets' and 'Rental & leasing costs' are included within the 'Operating statement' item in the Index; and 'Cost of teaching & research', and 'Detailed financial and performance information at Faculty level' are included with 'Cost of services' in the Index.

Financial items: delphi results & index items and weights compared

<i>Ref</i>	<i>Delphi results</i>	<i>Index items & weights</i>	
		#31	
	Disclosure Items	Overall	
2.1	Financial		Financial [25]
2.1.2	Operating statement	2.776	Operating statement 15
2.1.7	Comparative figures for previous year	2.712	Statement of cash flows 15
2.1.3	Statement of cash flows	2.698	Statement of cost of services 15
2.1.1	Balance sheet	2.692	Balance sheet 12
2.1.5	Statement of commitments	2.637	Budget information 10
2.1.14	Total value of estates	2.601	Overhead allocation 10
2.1.9	Statement of contingent liabilities	2.579	Depreciation 5
2.1.8	Investments	2.496	Financial ratios 5
2.1.11	Statement of cost of services	2.492	Investments 5
2.1.6	Financial ratios	2.464	Total value of estates 5
2.1.4	Depreciation	2.462	Commitments & contingencies 3
2.1.12	Statement of movements in equity	2.421	
2.1.10	Budget information	2.371	100
2.1.22	Narrative info. about major budget variances	2.345	
2.1.13	Overhead allocation	2.282	
2.1.17	Cost of teaching	2.046	
2.1.23	Total employee remuneration costs	2.000	
2.1.16	Cost of research	1.920	
2.1.21	Movements in physical assets	1.729	
2.1.15	Cost of compliance with govt. requirements	1.691	
2.1.19	Details of loans & lines of credit	1.608	
2.1.18	Detailed financial & performance information at Faculty level	1.539	
2.1.20	Loss / gain on sale of assets	1.500	
2.1.22	Rental & leasing costs	1.483	

NB: The delphi result scores indicate the average score for stakeholder panellists
Figure in [] indicates Index category weight

9.3.3.4 Service: general items

Table 9.5

Service-general items: Delphi results & index items and weights compared

<i>Ref</i>	<i>Delphi results</i>		<i>Index items & weights</i>	
	Disclosure Items	Overall #31		
3.1	Service : general		Service : general	[5]
3.1.3	Achievements against objectives & targets	2.833	Achievements vs objectives & targets	30
3.1.2	Statement of service performance	2.637	Interpretive comment	20
3.1.4	Interpretive comment	2.454	Analysis of community & student serv.	15
3.1.8	Analysis of student services	2.125	Staff training & development	15
3.1.5	Staff training & development	2.111	Equal employment opportunity info.	10
3.1.1	Equal employment opportunity information	2.032	Environmental related information	5
3.1.6	Health and safety information	1.756	Health and safety information	5
3.1.7	Environmental related information	1.720		
3.1.9	No of childcare spaces per 100 EFTS	1.385		100
3.1.10	Qualification of general staff	1.229		
3.1.11	Quality of applicants for positions	0.982		

NB: The delphi result scores indicate the average score for stakeholder panellists

Figure in [] indicates Index category weight

Index total weights of 100 for this category are allocated between these items to reflect delphi panellists' opinions. Where items are combined, judgement is applied to arrive at a final allocation. Thus 57 (out of 100) weights are allocated to the four financial statements; (Operating statement, Cash flows, Cost of services and Balance sheet) and the remaining weights are allocated to the other seven items to reflect panellists' relative opinions.

The eleven Service: general items tested in the delphi become seven items included in the Index as shown in Table 9.5. 'Statement of Service Performance' which is rated second in this category is omitted because this is the generic term for all the reporting under general, teaching, research and community service. Of the three items rated as of least importance in this section, 'Childcare spaces' is

incorporated into 'Analysis of community and student services' in the Index; 'Qualification of general staff' is included within 'Staff training & development', but 'Quality of applicants for positions' is omitted from the Index because it appears impossible to report meaningfully.

9.3.3.5 *Service: teaching items*

The teaching service section of the Index is the most problematic to develop. Fifty-seven items are tested in the delphi; 23 are included in the Index, 20 are captured in the Index by being combined with other items, 2 are included under the 'Service: general' category and 12 are not included in the Index. The itemised summary of the Service: teaching items tested in the delphi and used in the Index is shown in Table 9.6.

At this point, it is important to justify why 12 items which stakeholders indicate should be disclosed in annual reports are not included in the Index. In Table 9.6 a note is shown in parenthesis in the right side column alongside each of these items. Ten of the items are either not available in New Zealand or are not applicable to the way in which New Zealand universities operate. For example, the items 'Rate of return', 'Value added' and 'Impact criteria' reflect theoretical suggestions for which there are no known or accepted ways of calculation or measurement at present.

Service: teaching items: delphi results & index item usage

<i>Ref</i>	<i>Delphi results</i>	<i>#31</i>	<i>Index usage</i>
	<i>Disclosure Items</i>	<i>Overall</i>	
3.2	Service : teaching		
3.2.1	Student numbers	2.903	Index
3.2.18	Student : staff ratio (Total & field of study)	2.726	Index
3.2.13	Tuition fees as % of total revenue	2.629	Included in 'Revenues'
3.2.40	Expenditure per EFTS (Total & field of study)	2.565	Included in 'Cost per EFTS'
3.2.10	\$ value of operating grants from government	2.554	Included in 'Revenues'
3.2.29	Processes in place to ensure quality of teaching programmes	2.530	Index
3.2.19	Cost per EFTS (Total & field of study)	2.526	Index
3.2.11	\$ value of operating grants from other sources	2.498	Included in 'Revenues'
3.2.48	No. & % of EFTS completing their program	2.347	Index
3.2.32	Students in full-time / part-time / external courses	2.343	Included in 'Student numbers'
3.2.20	Library expenditure analysis	2.296	Index
3.2.28	% of students in higher degrees	2.268	Included in 'Student numbers'
3.2.31	No of PG fields of study / courses	2.224	Index
3.2.3	Demand for new places cf previous year	2.190	Included in 'Student numbers'
3.2.30	No. of UG fields of study / courses	2.161	Index
3.2.21	Student services expenditure per EFTS	2.149	Included under Service: general
3.2.14	No. of new places created cf. previous year	2.099	Included in 'Student numbers'
3.2.52	Students continuing to further study	2.050	Included in 'Destination of students'
3.2.22	Library stock	2.032	Index
3.2.46	Equity students graduating	2.024	Included in 'Graduates'
3.2.47	Honours degrees awarded	1.976	Included in 'Graduates'
3.2.51	No. & % of graduates employed	1.972	Index
3.2.25	All Staff (Total/Equity groups)	1.891	Index
3.2.38	% EFTS completing each year prior to grad.	1.847	Not included in Index (N/A in NZ)
3.2.39	Measure of student satisfaction at time of completion	1.847	Index

Service: teaching items: delphi results & index item usage

<i>Ref</i>	<i>Delphi results</i>	<i>#31 Overall</i>	<i>Index usage</i>
	Disclosure Items		
3.2.4	New students by programme area	1.835	Included in 'Student numbers'
3.2.8	No. of qualified admitted students unable to enrol in preferred study	1.808	Included in 'Student numbers'
3.2.7	No. of qualified students not admitted	1.802	Included in 'Student numbers'
3.2.6	Actual enrolment relative to demand for new places	1.794	Not included in Index (N/A in NZ)
3.2.12	No. & proportion of designated equity groups by programme	1.755	Index
3.2.2	Qualification of student intake	1.706	Index
3.2.17	Teaching space (inc. teaching labs) per EFTS	1.698	Index
3.2.50	Student unit pass rate	1.698	Index
3.2.35	Expenditure per EFTS per year (Total & FOS)	1.665	Index
3.2.24	Academic Staff (Seniority/ Tenured/ Qualification/ Equity groups)	1.659	Index
3.2.16	Teaching space as % of total space	1.643	Index
3.2.56	Reports of external reviews of departments	1.581	Index
3.2.26	Financial aid to students awarded	1.532	Index
3.2.57	Some "impact" criteria & measures	1.518	Not included in Index (N/A in NZ)
3.2.49	Crude drop-out rate	1.425	Included in 'Pass rates' disclosure
3.2.33	Measure of student satisfaction at intermediate stages	1.417	Included in 'Student satisfaction'
3.2.23	Proportion of staff with PhD	1.369	Included in 'Staff'
3.2.9	Total school graduates at university as % of total school graduates	1.323	Not included in Index (National information)
3.2.37	% of equity students in each academic year	1.315	Included in 'Equity group information'
3.2.42	No of UG courses completed / 100 EFTS	1.313	Included in 'Pass rates' disclosure
3.2.53	Employer satisfaction with former students	1.304	Index
3.2.41	Average time to complete programme	1.274	Index
3.2.36	No of equity students at intermediate stages as % of original	1.238	Included in 'Equity group information'
3.2.54	Former student satisfaction at intervals after graduating	1.206	Not included in Index (N/A in NZ)
3.2.5	Total EFTS as ratio of 18-24 age cohort	1.149	Not included in Index (National information)
3.2.34	Expenditure per completed programme year by student	1.135	Not included in Index (N/A in NZ)

Table 9.6
Service: teaching items: delphi results & index item usage

<i>Ref</i>	<i>Delphi results</i>		<i>Index usage</i>
	Disclosure Items	#31 Overall	
3.2.27	No of beds per 100 EFTS	1.077	Included under Service: general
3.2.15	No of places available in career programs as % of all programs	1.075	Not included in Index (Low support)
3.2.44	Value added	1.073	Not included in Index (N/A in NZ)
3.2.45	Rate of return (quality adjusted productivity measure)	1.042	Not included in Index (N/A in NZ)
3.2.43	No of UG courses completed / academic staff	1.035	Not included in Index (Low support)
3.2.55	Ranking of graduates on standardised scoring system (eg GMAT)	0.714	Not included in Index (N/A in NZ)

NB: The delphi result scores indicate the average score for stakeholder panellists
 EFTS = Equivalent Full-time Student; PG=Postgraduate; UG=Undergraduate; FOS=Field of Study
 N/A in NZ= Not available or applicable in New Zealand; GMAT=Graduate Management Admission Test

To include items in the Index which report preparers could not meet because of this gap between theory and practice would cause frustration to those preparers who wish to provide the disclosures suggested by the Index. There is also the risk of undermining the credibility of the Index with preparers if disclosures are suggested which are impossible to provide. At this stage, it would appear more sensible to note the desirability of reporting such information in annual reports, but not to include these items in the Index until methods of calculation have been demonstrated and accepted.

Two items not included in the Index are excluded because they seem to be more in the nature of national data rather than individual university data. These are 'School graduates at university as a % of total school graduates' and 'Total EFTS as ratio of 18-24 cohort'. A breakdown of the student numbers by age group would include information that relates to these items.

'No of places in career programs' is omitted because this item is rated as being of low importance by panellists and also there is no accepted definition of 'career programme' type courses. A surrogate is already available in the form of data about student enrolments in faculties offering professional related courses such as technology or business studies. 'Former student satisfaction at intervals after graduating' is omitted because of the impracticalities of collecting data of this nature and which, if collected, this data would reveal insights about the university several years earlier rather than performance in the year under review in the annual report.

Table 9.7

Service: teaching items: delphi results & index items and weights compared

Ref	Delphi results	Index items & weights
	Disclosure Items	
	#31 Overall	
3.2	Service : teaching	Service : teaching [20]
3.2.1	Student numbers	Input (of Students & Resources)
3.2.18	Student : staff ratio (Total & field of study)	Student numbers 12
3.2.13	Tuition fees as % of total revenue	Cost per EFTS 7
3.2.40	Expenditure per EFTS (Total & field of study)	Revenues 7
3.2.10	\$ value of operating grants from government	Staff 6
3.2.29	Processes in place to ensure quality of teaching programmes	Equity group information 3
3.2.19	Cost per EFTS (Total & field of study)	Qualification of student intake 3
3.2.11	\$ value of operating grants from other sources	Space 3
3.2.48	No. & % of EFTS completing their program	Financial aid 2
3.2.32	Students in full-time/part-time/external courses	Process
3.2.20	Library expenditure analysis	Student : staff ratios 12
3.2.28	% of students in higher degrees	Processes to ensure quality of teaching 8
3.2.31	No of PG fields of study / courses	Library service information 6
3.2.3	Demand for new places of previous year	Computer service information 4
3.2.30	No. of UG fields of study / courses	Fields of study 4
3.2.21	Student services expenditure per EFTS	Output / Outcomes
3.2.14	No. of new places created of previous year	Graduates 5
3.2.52	Students continuing to further study	Destination of students 4
3.2.22	Library stock	Departmental reviews 3
3.2.46	Equity students graduating	Pass rates 3
3.2.47	Honours degrees awarded	Student satisfaction 3
3.2.51	No. & % of graduates employed	Employer satisfaction 2
3.2.25	All Staff (Total/Equity groups)	UG courses completed / 100 EFTS 2
3.2.38	% EFTS completing each year prior to grad.	Average time to complete programme 1
3.2.39	Measure of student satisfaction at time of completion	
3.2.4	New students by programme area	100
3.2.8	No. of qualified admitted students unable to enrol in preferred study	
3.2.7	No. of qualified students not admitted	
3.2.6	Actual enrolment relative to demand for new places	
3.2.12	No. & proportion of designated equity groups by programme	
3.2.2	Qualification of student intake	
3.2.17	Teaching space (inc. teaching labs) per EFTS	
3.2.50	Student unit pass rate	
3.2.35	Expenditure per EFTS per year (Total & FOS)	
3.2.24	Academic Staff (Seniority/ Tenured/ Qualification/ Equity groups)	
3.2.16	Teaching space as % of total space	
3.2.56	Reports of external reviews of departments	
3.2.26	Financial aid to students awarded	
3.2.57	Some "impact" criteria & measures	
3.2.49	Crude drop-out rate	
3.2.33	Measure of student satisfaction at intermediate stages	
3.2.23	Proportion of staff with PhD	
3.2.9	Total school graduates at university as % of total school graduates	
3.2.37	% of equity students in each academic year	
3.2.42	No of UG courses completed / 100 EFTS	
3.2.53	Employer satisfaction with former students	
3.2.41	Average time to complete programme	
3.2.36	No of equity students at intermediate stages as % of original	
3.2.54	Former student satisfaction at intervals after graduating	
3.2.5	Total EFTS as ratio of 18-24 age cohort	
3.2.34	Expenditure per completed programme year by student	
3.2.27	No of beds per 100 EFTS	
3.2.15	No of places available in career programs as % of all programs	
3.2.44	Value added	
3.2.45	Rate of return (quality adjusted productivity measure)	
3.2.43	No of UG courses completed / academic staff	
3.2.55	Ranking of graduates on standardised scoring system (eg GMAT)	

NB: The delphi result scores indicate the average score for stakeholder panellists

Figure in [] indicates Index category weight

EFTS = Equivalent Full-time Student; PG=Postgraduate; UG=Undergraduate; FOS=Field of Study

N/A in NZ= Not available or applicable in New Zealand; GMAT=Graduate Management Admission Test

In contrast to the items identified by panellists which are not included in the Index, one further item is added which had not been tested on panellists and this is 'Computer service information'. This is included as companion information to 'Library service information' which is included in the index. The adoption of computer technology on university campuses is now so extensive, vital and widespread that the researcher made a unilateral decision to include this information which appeared to have slipped through the net despite the thoroughness of the procedures adopted. Computer service information is given a weight of 4 in the index compared with 6 for library service information.

Two further items are omitted because, although it is accepted that they address important issues, it is considered impractical to collect and disclose this information. These items are: 'Expenditure per completed program year by student' and '% EFTS completing each year prior to graduation'. Funding in New Zealand universities is generally distributed via faculties which provide a wide spectrum of courses, with many staff contributing to programmes at several levels. This makes it impractical to record expenditure and student progress on a year by year basis. The flexible nature of NZ university courses, which require students to accumulate so many papers towards a Degree as set out in the regulations, rather than proceed by successfully completing the whole of one year's programme before continuing to the next, also makes it difficult to capture student progression information accurately.

Table 9.7 shows the delphi items and the Index items for Service: teaching which are adopted, along with the ratings by panellists and the weights advocated for the Index.

9.3.3.6 Service: research items

Sixteen items were tested in the delphi and five are used in the Index. These are shown in Table 9.8.

Several of the delphi items are combined and captured within one item in the Index. For example, three items in the delphi which relate to aspects of research income are included within the one Index item. 'External reviews of departments' is included with the same item under teaching, since in the context of universities such reviews are usually carried out on the whole of a department's activities. The items relating to 'Quality of research' by staff and students are not included specifically in the Index although such information is to an extent captured in information about publications and external reviews.

Table 9.8

Service - research items: Delphi results & index items and weights compared

Ref	Delphi results	Index items & weights	
	Disclosure Items	#31 Overall	
3.3	SERVICE : Research		Service : research [10]
3.3.5	No. of Masters & PhD students	2.393	Graduates 25
3.3.1	Research income	2.306	Postgraduate students 25
3.3.2	No of research grants & fellowships	2.286	Research income 25
3.3.7	No. of Masters & PhD graduates	2.268	Publications 20
3.3.3	Industry contribution to research \$	2.137	Destination of research graduates 5
3.3.6	Publications/patents/copyrights	1.980	
3.3.4	No. of research & sponsored students	1.909	100
3.3.16	Reports of external reviews of departments	1.670	
3.3.14	Quality of research produced by staff	1.655	
3.3.15	Quality of research produced by students	1.626	
3.3.8	Conference presentations	1.583	
3.3.9	Overall research rating	1.575	
3.3.13	Graduates' views on the relevance of their degrees	1.574	
3.3.12	Distinction between public good and basic research, and emphasis on each by the University	1.416	
3.3.11	Destination of research graduates	1.306	
3.3.10	Citations	1.131	

NB: The delphi result scores indicate the average score for stakeholder panellists
Figure in [] indicates Index category weight

Several items, which are rated of lower importance by panellists, are omitted altogether from the Index. These include 'Overall research rating' which is not included because such evaluations are not carried out in New Zealand and this information cannot be provided. 'Graduates' views on the relevance of their degrees' is not included because of the difficulty of capturing meaningful information on this. Also, the 'Distinction between public good and basic research' is not included as a specific item although this is captured partially by implication in information about 'Research income' and 'Publications'. 'Citations', which show the weakest support among panellists, is excluded partly because of its low rating and also because of the difficulty of capturing this information accurately.

Overall, the 5 items adopted in the Index address 11 of the disclosure items suggested by panellists. The Index weights assigned to these items reflect the priorities indicated by panellists.

9.3.3.7 Service: Community items

The reporting of community service in university annual reports is undeveloped and tends to be limited to descriptive information which indicates notable events and accomplishments. Six items were tested in the delphi, and it is considered that these could be captured in the Index under three sections which address Local, National and International aspects of community service, respectively. The items tested in the delphi and adopted in the Index are shown in Table 9.9.

Table 9.9

Service: Community items: Delphi results & Index items and weights compared

Ref	Delphi results		Index items & weights	
	Disclosure Items	#31 Overall		
3.4	Community Service		Community Service	[2]
3.4.4	Further education services provided in the community	1.774	Local community service	40
3.4.2	Description of national community service	1.474	National community service	30
3.4.1	Description of local community service	1.410	International community service	30
3.4.3	Description of international community service	1.390		
3.4.5	Information on "Town & Gown" relationships	1.324		100
3.4.6	Whether community services were requested for the community or volunteered by university	1.322		

NB: The delphi result scores indicate the average score for stakeholder panellists
Figure in [] indicates Index category weight

In recent debates over university funding, emphasis has been placed by many on the role of universities as critic and conscience of society, and as keepers of the community's store of knowledge with responsibility for passing this on from one generation to the next. It is noted here that methods for measuring and reporting on these important aspects of universities' activities have not been developed. As a result inadequate recognition may have been given to these items in the Index. Further research and development work is needed to address these problems.

9.3.3.8 Composite items

Two items suggested by delphi panellists are composite items which, although difficult to include as single index items, are important to note as reflecting the preferences of many stakeholders. It was also noted in Chapter Eight that opinions about these items are polarised in that some stakeholders regard them as extremely

important to disclose and others believe that this information should not be disclosed in annual reports. The two items are disclosures to indicate the 'Quality of teaching' and to 'Facilitate comparisons between universities'.

To some extent both are partially accommodated in the Index. Disclosures about student satisfaction with teaching and external reviews of departments may indicate aspects of teaching quality. However, many educationalists would argue that results of student evaluations of teaching may not reflect the quality of teaching. Many would say that it is impossible to find a ready indicator of the quality of teaching, and that each class has to be judged on its individual merits, and this kind of review would not generate information that might be disclosed in annual reports.

Similarly, some disclosures that afford comparison between universities are made in annual reports and this would apply to most of the financial type information. However, most external stakeholders would be more interested in some means of comparison between universities of their prime activities, teaching and research. Which are the better universities for teaching and research, and how are they changing over time? Again, many academics would be reluctant to make such comparisons because, as demonstrated by Johnes and Taylor (1990), the quality of a university's graduates is, to a large extent, determined by the quality of the students it is able to attract. However, the publication of information about research outputs generated in the form of academic publications and research income from external funding does provide some meaningful comparative information about this side of universities' activities.

At this point, it is important to note the demand for these kinds of information, their controversial nature, and the extent to which they have been accommodated

within the PA Index.

9.3.4 *Allocating weights to items*

Weights totalling 100 are allocated to the items within each category in the manner used to distribute weights between categories as described above. The allocated weights are shown in the Tables 9.3 to 9.9 above (excluding Table 9.6). Stakeholder opinions obtained in the delphi are the main determinants of the relative weights. Where two or more items are combined into one index item, judgement, on the basis explained earlier, is used in deciding the weight to attribute to the composite item.

9.3.5 *Devising evaluation criteria*

Extant indices such as the modified accountability disclosure score [MAD-score](Coy, Tower & Dixon, 1994a) used an ordinal system for discriminating between the quality of disclosures between reports. Criteria were developed which correspond with scores awarded of 0 (no disclosure) to 5 (excellent disclosure). This approach limits the resulting index scores to having ordinal power and no more. As explained in Chapter Seven, it was decided to adopt a different approach for the public accountability index whereby disclosure items could be scored on an interval basis. Initially, a score of 10 was tested to indicate that a disclosure matched criteria regarded as 'standard' for that item. Each disclosure would be judged according to whether it is perceived as better or worse than the 'standard' criteria. For example, a disclosure that is judged as meeting between 90% and 99% of the 'standard' criteria would be awarded a score of 9, and one that was up to 10% better than

'satisfactory' would be awarded a score of 11. However, this system of using 10 as 'standard' presents difficulties with scoring over the full range of numbers available from 0 to 10. If no disclosure of an item is made at all, then 0 would be awarded, but it is difficult to judge item disclosures over the full range of numbers available between 1 and 10 and to maintain consistency between disclosures in different reports. For this reason, it was decided to use the number 5 to equate with 'standard' disclosure, and to make all scoring in relation to this.

For example, if a disclosure is judged to be up to 20% better than standard then a score of 6 would be awarded, and for a disclosure which is judged as being better by between 20% and 40% a score of 7 would be awarded, and so on. Although it is impossible to state precisely what represents better by 20% or up to 40%, it is felt that given these broad guidelines it would not be unreasonable for evaluators to arrive at some consistency of scoring. By adopting this scoring approach the final index would have interval statistical properties.

The 'standard' index criteria were developed by reference to the criteria used by Coy et al. (1993), the stakeholder opinions identified in the delphi exercise and observations from the 1994 university annual reports. The criteria for the 58 index items are shown at Appendix E (pp. 356-361). For the 25 items used in this index which correspond with items used in the MAD-score system, the criteria for a score of 5 in that system are adopted here with minor modifications. The only MAD-score item not used in this index is 'targets' which is incorporated into the item 'Achievements vs. objectives and targets' in the PA Index.

9.4 Application and Comparison of the Index

An application of the draft PA Index calculation is shown in Table 9.10 using the University of Auckland 1994 Annual Report as an illustration. This report achieves an index score of 67; a report which meets the 'standard' criteria for each of the 58 items would score 100. In this sample evaluation, 9 of the 58 items score 0 because no disclosure is made and the highest item score awarded is 6 for 'Achievements vs. objectives and targets' indicating that this disclosure is deemed to be better than the standard criteria by up to 20%.

The draft public accountability index system was sent to two colleagues for comment, one an experienced university report preparer and the other an experienced academic researcher of public sector reporting. The preparer thought that the index was comprehensive and he could not detect any obvious weaknesses or omissions. He wondered whether university reporting was now providing too much information, rather than too little and also thought that the timeliness standards were too demanding, bearing in mind the difficulty of getting timely co-operation from both auditors and academics in publishing reports. He thought that overall the weights adopted seemed to be reasonable although others may argue for some further refinement.

Table 9.10

The Draft Public Accountability Index for University Annual Reports

UNIVERSITY: Auckland, 1994

CATEGORIES	Wgt	Score	Wgt/Sc
Timeliness	10	60	6
Overview : report	14	86	12
Overview : university	14	67	9
Financial	25	75	19
Service : general	5	68	3
Service : teaching	20	43	9
Service : research	10	67	7
Service : community service	2	100	2
	100		67

Items	Wgt	Score	Wgt/Sc
Timeliness	100	3.0	60

Overview : report			
Auditors' report	25	5	125
Statement of accounting policies	25	5	125
Directory information	20	4	80
Statement of managerial responsi	20	5	100
Brief summary	10	0	0
	100		86

Overview : university			
Statement of objectives	35	3	105
Descriptive report / General review	20	5	100
Financial review	20	3	60
Key facts & figures	15	4	60
Prospective information	10	1	10
	100		67

Financial			
Operating statement	15	3	45
Statement of cash flows	15	5	75
Statement of cost of services	15	3	45
Balance sheet	12	5	60
Budget information	10	3	30
Overhead allocation	10	3	30
Depreciation	5	3	15
Financial ratios	5	3	15
Investments	5	5	25
Total value of estates	5	3	15
Commitments & contingencies	3	6	18
	100		75

ASSESSOR: DVC

Items	Wgt	Score	Wgt/Sc
Service : general			
Achievements vs objectives & targets	30	6	180
Interpretive comment	20	5	100
Analysis of community & student serv.	15	1	15
Staff training & development	15	1	15
Equal employment opportunity info.	10	3	30
Environmental related information	5	0	0
Health and safety information	5	0	0
	100		68

Service : teaching			
Input (of Students & Resources)			
Student numbers	12	3	36
Cost per EFTS	7	3	21
Revenues	7	1	7
Staff	6	2	12
Equity group information	3	2	6
Qualification of student intake	3	0	0
Space	3	1	3
Financial aid	2	1	2
Process			
Student : staff ratios	12	3	36
Processes to ensure quality of teaching	8	2	16
Library service information	6	3	18
Computer service information	4	2	8
Fields of study	4	2	8
Output / Outcomes			
Graduates	5	3	15
Destination of students	4	3	12
Departmental reviews	3	4	12
Pass rates	3	1	3
Student satisfaction	3	0	0
Employer satisfaction	2	0	0
UG courses completed / 100 EFTS	2	0	0
Average time to complete programme	1	0	0
	100		43

Service : research			
Graduates	25	3	75
Postgraduate students	25	4	100
Research income	25	4	100
Publications	20	3	60
Destination of research graduates	5	0	0
	100		67

Community Service			
Local community service	40	5	200
National community service	30	5	150
International community service	30	5	150
	100		100

The academic offered substantive comments about many points of detail which led to modification of some index items and the criteria adopted. In particular, the criteria steps for the 'Timeliness' item were modified, and the word 'standard' was used to describe the disclosure criteria rather than 'satisfactory' as in the initial version of the index. The academic also criticised the detail of many of the items, not realising that these had been developed in response to stakeholders' opinions. For example, he suggested that a more extensive section on capital assets and long term financing should be included in the index and that the item 'Total value of estates' should be subsumed within this.

He suggested that more extensive recognition should be given to prospective information, including prospective revenues and costs for up to 5 years ahead, and that the item "Overhead allocation" should be subsumed within "Cost of services". He thought more detail should be provided about Tuition fees, and as a result of this suggestion the criteria for the Operating statement were modified. The academic also questioned whether it was appropriate to categorise students under the heading 'Inputs', and whether the inclusion of items 'Employer satisfaction' and 'Pass rates' implied a narrow view of what university education is all about, and could lead to inappropriate behavioural reactions within the universities. He also felt that the role of universities as critic and conscience of society was not adequately catered for in the index. As a result of this final suggestion the criteria for 'National community service' was modified to make specific reference to this aspect of university services.

The academic also suggested that the presented order of categories listed in the Index should be changed such that the Financial category appeared last, reflecting the de-emphasis given to this kind of information in a public accountability perspective

of annual reports. The point was acknowledged but the order of items presented in the Index is not intended to imply priority or importance.

Overall, both sets of comments support the general framework of the index insofar as the interval scoring system and the adopted categories are concerned, and these are the main innovations of the public accountability index. It was felt by the author that many of the detailed comments were valid and demonstrated the subjective nature of the exercise, despite the efforts made to capture stakeholders' opinions and reflect these in the Index.

The public accountability index was applied to all the university 1994 annual reports which were recently evaluated using the MAD-score system (Dixon & Coy, 1995). The results of and comparisons with the MAD-scores are shown in Table 9.11.

Overall, the PA Index scores are similar to the MAD-scores and on average are 3 points lower. The ranking of reports is almost identical under both systems; the only difference being that the reports ranked second and third by only 1-point under the MAD-score switched positions under the PAI score. All other reports are ranked identically under both systems. The top report increases its score by 7 points under the PAI system, and all other reports have lower scores.

Table 9.11

MAD-scores and the Public Accountability Index compared, 1994 Annual Reports

<i>University</i>	<i>MAD-scores</i>		<i>PAI-scores</i>		<i>PAI - MAD scores</i>
	<i>Score</i>	<i>Rank</i>	<i>Score</i>	<i>Rank</i>	
Auckland	72	6	67	6	(5)
Canterbury	68	7	64	7	(4)
Lincoln	93	3	88	2	(5)
Massey	90	4	86	4	(4)
Otago	80	5	78	5	(2)
Victoria	95	1	102	1	+7
Waikato	94	2	87	3	(7)
Average	85		82		(3)

NB: MAD-Score = Modified Accountability Disclosure Score
PAI-score = Public Accountability Score

Reasons for the difference in scoring relate to two factors. Firstly, the inclusion of new items in the index such as timeliness and student satisfaction will change scores according to how timely reports were in publication and whether the new items are already disclosed in reports. Secondly, the PA Index enables disclosures which exceed the standard criteria to be awarded scores greater than the maximum score used under the MAD-score system. The best report, Victoria University of Wellington, was judged as disclosing 23 items as better than the

‘standard’ criteria.

The results were tested for correlation and gave a coefficient of 0.94 using the Pearson Rank test, indicating a high level of correlation. Overall, despite fundamental differences between the MAD-score index and the PA index there is considerable similarity and compatibility between the two, and this may enable the PA Index to find ready acceptance amongst index users. It could also be argued that since the PA Index appears to give similar results to the MAD-score, development of the PA Index was unnecessary. This argument is not accepted and is discussed in more detail later in this chapter (see section 9.4.1).

9.4.1 Sensitivity Analysis

Sensitivity analysis using different category weights was also applied to the Index. The Index was tested using each of the category weights identified in the iterative process to arrive at the PA Index weights as described in Table 9.2 (p. 249). In addition, a substantially different set of weights which might be described as reflecting a ‘Decision-usefulness’ approach to annual reporting was also used. A radical departure of this thesis from traditional accounting approaches is the emphasis placed on the importance of non-financial information to a public accountability perspective. This is in contrast to traditional decision usefulness approaches which emphasise the standard financial accounting statements. In acknowledging this difference, the PA Index was tested for sensitivity using weights which give more emphasis to the Financial category of the Index. This was done by doubling the weight for the Financial category from 25 to 50, and reducing the weights for the other 7 categories pro rata as shown in column E of Table 9.12.

The category weights used in the sensitivity tests are shown in Table 9.12, the resulting Index scores are shown in Table 9.13, and the report rankings under each scenario are shown in Table 9.14. The report rankings remain substantially unchanged, and the reports ranked 1st, 5th, 6th and 7th retain identical rankings under each of the five alternative weighting schemes. There are switches in the rankings of the other three reports occupying the 2nd, 3rd and 4th positions, but these reports are rated very similarly under both the MAD-score system (scores were 93, 90 and 94) and the PAI system (scores 88, 86 and 87 respectively). Since these reports are apparently of a similar overall quality, it is hardly surprising that the variations in weights might cause small changes in their ranking.

Overall, the sensitivity tests indicate that the PA Index is relatively robust in giving similar outcomes even where weights are changed radically. The consistency of score for the 'Decision usefulness' based weightings also reflects the common high quality of 'Financial' disclosures in the 1994 annual reports. Had there been wide differences in the quality of 'Financial' disclosures between reports, the sensitivity test would have reflected those differences.

Both category weights and item weights could be easily adjusted to meet other priorities and perspectives on annual reporting.

Table 9.12
Alternative weights tested in Sensitivity Analysis

<i>Categories</i>	Prop. Wgts A	Sub 1.20 Wgts B	$\wedge 4$ Wgts C	PAI Wgts D	DecUse Wgts E
Timeliness	14	16	17	10	7
Overview: report	13	13	12	14	9
Overview: university	13	13	12	14	9
Financial	15	18	23	25	50
Service: general	11	9	7	5	3
Service: teaching	15	17	20	20	14
Service: research	11	10	8	10	7
Community service	8	2	2	2	1
	100	100	100	100	100

NB: Weights rounded in columns B & C

ABBREVIATIONS IN ALL TABLES: Prop. Wgts=Proportional Weights; Sub 1.20 Wgts=Weights after subtracting 1.20 from each delphi scores; $\wedge 4$ Wgts= Weights after raising delphi scores to power of 4; PAI Wgts= Weights adopted in the Public Accountability Index; DecUse Wgts = Weights which reflect a decision usefulness perspective.

Table 9.13
Index scores using alternative weights

<i>Universities</i>	Prop. Wgts A	Sub 1.20 Wgts B	$\wedge 4$ Wgts C	PAI Wgts D	DecUse Wgts E
Auckland	69	65	66	67	69
Canterbury	68	64	64	64	64
Lincoln	86	84	87	88	91
Massey	84	81	84	86	92
Otago	75	74	77	78	83
Victoria	101	99	102	102	103
Waikato	83	83	86	87	92
Average	81	79	81	82	85

Table 9.14
Report rankings resulting from alternative weights

<i>Universities</i>	Prop. Wgts A	Sub 1.20 Wgts B	$\wedge 4$ Wgts C	PAI Wgts D	DecUse Wgts E
Auckland	6	6	6	6	6
Canterbury	7	7	7	7	7
Lincoln	2	2	2	2	4
Massey	3	4	4	4	2=
Otago	5	5	5	5	5
Victoria	1	1	1	1	1
Waikato	4	3	3	3	2=

9.4.2 *Evaluation of the Index*

As described in the previous sections, the draft PA Index was exposed to review by an expert report preparer and an academic researcher. Modifications were made to the index and to some of the disclosure criteria in the light of their comments. The revised draft was then compared with the results of the MAD-score index, and also tested for sensitivity to alternative weights as described in section 9.4.1. These reviews did not identify the need to make any further changes and the Public Accountability Index which is the final outcome of this study is shown in Table 9.15.

One important objective of this research is to provide a theoretical foundation for the Index and to use items which reflect the interests and priorities of stakeholders rather than being based on the subjective ideas of its creators. To a large extent objectivity has been increased by exploring and then identifying:

- (i) what is meant by public accountability,
- (ii) the objectives of annual reporting,
- (iii) the role of annual reports in university accountability processes, and
- (iv) the disclosures and qualities that should be encompassed in reports to meet these criteria.

Table 9.15
Public Accountability Index for University Annual Reports

UNIVERSITY:

	Wgt	Score	Wgt/Sc
Timeliness	10	0	0
Overview : report	14	0	0
Overview : university	14	0	0
Financial	25	0	0
Service : general	5	0	0
Service : teaching	20	0	0
Service : research	10	0	0
Service : community service	2	0	0
	100		0

	Wgt	Score	Wgt/Sc
Timeliness	100		0

Overview : report			
Auditors' report	25		0
Statement of accounting policies	25		0
Directory information	20		0
Statement of managerial responsibility	20		0
Brief summary	10		0
	100		0

Overview : university			
Statement of objectives	35		0
Descriptive report / General review	20		0
Financial review	20		0
Key facts & figures	15		0
Prospective information	10		0
	100		0

Financial			
Operating statement	15		0
Statement of cash flows	15		0
Statement of cost of services	15		0
Balance sheet	12		0
Budget information	10		0
Overhead allocation	10		0
Depreciation	5		0
Financial ratios	5		0
Investments	5		0
Total value of estates	5		0
Commitments & contingencies	3		0
	100		0

ASSESSOR:

	Wgt	Score	Wgt/Sc
Service : general			
Achievements vs objectives & targets	30		0
Interpretive comment	20		0
Analysis of community & student serv.	15		0
Staff training & development	15		0
Equal employment opportunity info.	10		0
Environmental related information	5		0
Health and safety information	5		0
	100		0

Service : teaching			
Input (of Students & Resources)			
Student numbers	12		0
Cost per EFTS	7		0
Revenues	7		0
Staff	6		0
Equity group information	3		0
Qualification of student intake	3		0
Space	3		0
Financial aid	2		0
Process			
Student : staff ratios	12		0
Processes to ensure quality of teaching	8		0
Library service information	6		0
Computer service information	4		0
Fields of study	4		0
Output / Outcomes			
Graduates	5		0
Destination of students	4		0
Departmental reviews	3		0
Pass rates	3		0
Student satisfaction	3		0
Employer satisfaction	2		0
UG courses completed / 100 EFTS	2		0
Average time to complete programme	1		0
	100		0

Service : research			
Graduates	25		0
Postgraduate students	25		0
Research income	25		0
Publications	20		0
Destination of research graduates	5		0
	100		0

Community Service			
Local community service	40		0
National community service	30		0
International community service	30		0
	100		0

Additional objectivity is obtained by inviting delphi panels to review the normative framework and to add and delete items as they saw fit. To this extent, the public accountability index can claim to be more reflective of stakeholders' opinions than its predecessors. However, it is acknowledged that researcher discretion and judgement has been used in constructing the index. Also, despite the use of criteria benchmarks representing 'standard' disclosure in evaluating reports, evaluator discretion is used in deciding whether particular disclosures do or do not equate with these, and what score to award where differences are identified.

It is important to reveal the basis on which judgement may have been exercised. As clarified in Chapter Three, this research seeks a public accountability perspective on university reporting, and in Chapters Four and Five the complex issues surrounding this notion were reviewed, before arriving at a definition of public accountability to adopt for this thesis. Where it has been necessary to exercise judgement, this has been applied faithfully to reflect that definition. The final arbiter on the value of the public accountability index lies in its acceptability to other interested parties.

The similarity of the PA Index results to the MAD-scores when applied to the 1994 university annual reports could indicate that the additional refinement was unnecessary. Such a viewpoint probably underestimates the quality and value of the MAD-score rather than the necessity for the PA Index. The MAD-score was built largely upon the subjective opinions of its creators, although its usage and acceptance by the university report-using community gave it some credibility. The PA Index has been developed from a theoretically derived normative model which was subject to scrutiny and modification by stakeholders and preparers in the delphi exercise.

The PA Index is more comprehensive and includes 58 items compared with 26 in the MAD-score. At the extreme, if two reports were published and one included only the 26 items in the MAD-score whilst the other included all 58 items in the PA Index then, under the MAD-score system both would score identically, assuming common quality of individual disclosures. This would be misleading. Using the PAI the latter report would be rated more highly.

The PAI includes timeliness whereas the MAD-score does not. Two identical reports, one published after 10 weeks and the other after 20 weeks would score identically under the MAD-score whereas the PAI would score the more timely report more highly. From a statistical point of view, the PA Index has the ability to measure the quality of reports which exceed the 100 maximum score achievable with the MAD-score. The ratio power of the PA Index enables parametric statistical tests to be applied to the Index scores, whereas the MAD-score has ordinal properties only.

The PAI is a more powerful instrument than its predecessor and gives recognition to important differences in the quality of university reporting that the MAD-score is unable to acknowledge.

Another issue is whether the New Zealand index could be used for assessing university annual reports in other countries. On the whole, the disclosures and qualities that are important to New Zealand universities' reports are probably common to universities elsewhere, especially those in other western type societies. However, there are some issues that are special to New Zealand universities such as student access and the progress of under-represented groups included in the PA Index which may not be relevant to overseas universities. The New Zealand university

index is therefore specific to New Zealand conditions, and some modification would be needed to apply it to university reports in other countries.

Another question relates to whether the index may be used to evaluate reports issued by other parts of the public sector in New Zealand such as local government, state owned enterprises and the health sector. An index for other parts of the public sector would need to be constructed using disclosure items that relate specifically to these other sectors. However, the public accountability index construction principles identified in the thesis and elucidated at the start of this chapter provide a framework for application to other sectors. It would be valuable to test these principles by constructing public accountability indices for other parts of the public sector to gauge the generic value of this research.

9.5 Summary

This chapter has drawn the theorising and empirical work of the thesis together by constructing a public accountability index for New Zealand universities' annual reports. This process is reported in three parts.

First, the principles of index construction are identified as follows: (i) Review contemporary reporting in the sector of interest, (ii) Determine the objectives of the index, (iii) Identify the objectives of reporting for the sector of interest, (iv) Identify appropriate disclosure items and report qualities, (v) Obtain appropriate stakeholder validation of index items, and (vi) Develop and test the index.

Second, these principles are then applied to constructing the Index, and the process transposing the results of the delphi into the Index items and weights was explained. The PAI is more comprehensive than its predecessors and the additional

items contribute to the stability found in the Index when tested for sensitivity to variation in category weights. An important aspect of the Index is the use of evaluation procedures which give the Index parametric statistical properties, in contrast to the extant tertiary education disclosure indices which have ordinal properties only.

Finally, the Index is tested by being applied to the 1994 university annual reports and compared with the results of the ordinal MAD-score. This reveals a high level of correlation between the two indices. Also, the PA Index appears to be relatively robust for when tested for sensitivity using alternative weights including ones which reflect a more traditional accounting based, decision usefulness approach to annual reporting, the rankings remain more or less unchanged.

CHAPTER TEN

CONCLUSIONS

10.1 Introduction

This chapter reviews the thesis, by providing a summary of the research objectives, the methods used to carry it out, the activities undertaken in the study and the findings that resulted from it. Following this formal review some comments are made about the possible contributions that may be made by the research, as well as some cautions about its limitations. Finally, opportunities for further research are identified.

10.2 Review

The setting for the thesis is the New Zealand universities in the 1980s and 1990s which was a period of marked change affecting the economy, the public sector, the universities and society at large. The 1984 general election occurred when the NZ economy was in severe difficulties as a consequence of excessive regulation and over-consumption of the previous decade. The free enterprise, non-interventionist, libertarian policies adopted and implemented by the Labour government were accompanied by a reform of the public sector, tighter control of public spending, and legislation directed specifically at university operations and management right at the close of Labour's six year term of office.

The number of university students increased dramatically during the 1980s from 50,000 in 1980 to almost 80,000 by 1990. This reflected a social transformation of universities from being somewhat elitist providers to under 10% of school leavers to more open organisations enabling access to, and participation by, over 20% of school

leavers by 1990. The growth of the universities and the parlous national economic condition of the mid-1980s meant that the tradition of fully funded, open entry established by the Fraser government some 50 years earlier was no longer sustainable. User pays, cost cutting, a search for greater efficiency and effectiveness provided a climate where improved accountability became an acceptable and necessary platform of public policy.

This thesis adopts a radical approach to the design and content of a standard accounting document 'The annual report', and suggests that the traditional approach of providing summary financial statements as the prime information to meet universities' formal accountability obligations is inadequate. The main reason for this inadequacy is that the financial statements reveal little if anything about the universities' prime activities of teaching and research. A principle of this thesis is that the annual report should disclose information about an organisation's prime activities, and not focus specifically upon the financial statements, which although important, are subsidiary to information about service performance.

The driving force of the thesis is the notion of public accountability which extends traditional and accepted beliefs about reporting between accountors and stakeholders in important ways. Public accountability involves reporting to all those who may have a legitimate social, economic or political interest in the organisation and this extends to the public at large. Public accountability involves openness rather than secrecy in reporting between accountors and stakeholders, and the provision of a wide range of non-financial information which captures the essence of an organisation's objectives and success in meeting those objectives.

Public accountability is important primarily because it provides the opportunity for all citizens to understand and review the activities of organisations which affect people's lives through their use of and impact on community owned assets. In the case of publicly owned and funded institutions such as universities, which have enormous impact on citizens' lives, the need for accountability is accordingly high. Accountability is also important as a counter to damaging traits, such as producer capture, low efficiency and effectiveness to which public institutions are susceptible.

Although many may regard the thesis as radical in objectives, methods and recommendations, this arises from the standpoint taken and the suggestions offered, and not from any fundamental attack on the way that society or universities are organised. Radical social science researchers are often associated with a total rejection of the way that society is organised, and advance their theories in the belief that existing structures and relationships must be overturned before progress can be made. This notion is rejected in the thesis. On the contrary, the proposals for improved public accountability are made specifically to improve the working of New Zealand's pluralist democracy in general, and the universities in particular. The availability of timely, comprehensive, accessible information in the public arena leads to more informed public debate when issues arise¹.

Instead, the thesis is built around extending the use and value of a standard, accepted social document and re-directing its focus to one that reports on an

¹ In October 1995, comment was passed in the national daily newspapers about possible inter-generational inequity arising from the current university tuition fees (see for example, "Lecturers question fairness ..." , 1995; "Economists moot student ..." , 1995). Such contributions from individuals outside the university fee setting processes relied on the availability of timely, comprehensive annual reports.

institution's prime activities rather than its financial performance. In its methodologies and methods, the thesis relies most heavily on the ideas advanced by Cooper and Sherer (1984) as a political economy of accounting. They suggest that traditional approaches to accounting research should be rejected because these tend to favour private rather than public interests, and urge researchers to be descriptive, normative and critical.

In developing a theory of public accountability for universities and a normative framework for annual reporting, reliance is placed on the political and education literature in addition to accounting theories. The normative framework is empirically tested by exposure to critical review and assessment by delphi panels. These are representative of stakeholder groups in contrast to much accounting regulation which tends to be dominated in its design, operationalisation and enforcement by the accountancy profession itself (Tower, 1993). The methodologies suggested by Cooper and Sherer dominate this thesis, and it is believed that the outcome can contribute to an evolution of accounting which gives annual reporting a refreshing relevance and enables it to contribute more meaningfully to society than hitherto.

10.3 Meeting the Objectives

In Chapter One, the aim of the thesis to develop a public accountability index for annual reporting by New Zealand universities was established, and to accomplish this, four objectives were identified:

- (i) Distinguish between statutory and public accountability in the context of universities' annual reporting,

- (ii) Identify the disclosures and qualities of university annual reports that meet public accountability expectations,
- (iii) Identify a methodology for developing a public accountability university annual report index,
- (iv) Develop and apply the index.

The findings of the research in the context of these four objectives are now reviewed.

10.3.1 Public accountability

The rise of accountability as an important facet of public sector management is explored in Chapter Four where the nuances of statutory, managerial and public accountability are contrasted. In particular it is noted that although the concept of accountability has been around for centuries, formerly, accountability obligations were often discharged in secrecy between master and servant, or, in the case of business organisations, between owner and manager. Public accountability requires a more open form of reporting which is available to anyone with a legitimate social, economic or political interest in the organisation. This reporting provides access to a wide range of comprehensive information about the organisation's objectives and success in meeting those objectives. This enables the public to gain assurance not only that management of these institutions is good, but that it is seen to be good.

In the case of public institutions it is argued that accountability is owed to the community as a whole, and that the annual report is one of the main ways in which this obligation is discharged. This is because the annual report provides the only means for non-employee stakeholders to gain a broad understanding of a university's annual activities in a single document on a routine basis.

Furthermore, it is argued in Chapter Five that the non-availability of this kind of information can contribute to undesirable traits in public institutions, such as provider capture, low efficiency and effectiveness, developing and continuing unchecked. Comprehensive, timely information on inputs, processes, outputs and, if possible, outcomes enables those with a legitimate interest in the organisation to understand the progress made in such matters as efficiency, effectiveness, economy and equity. Where there may be concerns about some aspect of a university's operations, public accountability information may provide a starting point for raising concerns with management on an informed basis.

It was observed that the evaluation of tertiary education institutions' annual reports and the reporting of the results in the media, as occurred from 1991 onwards were influential in improving the quality of annual reporting. Several reasons are advanced for this. First, in a formative sense, the analysis provides preparers with independent opinion about the quality of their reporting and indicates those areas which are most in need of improvement and how this might be done. Second, in an era of tight central government control over public expenditure, accountability is a sensitive subject. Many managers would wish to avoid appearing as poorly accountable and as a consequence, may take steps to avoid the negative publicity that may arise from being identified as publishing low quality reports.

The overwhelming influence of legislation in bringing about improved university annual reporting is also noted. Recommendations for more comprehensive reporting with an accountability focus by the NZSA in 1987 met with little response from the universities as a whole. It was not until the passing of the Education Amendment Act in 1990 which incorporated most of the NZSA's reporting

recommendations, that substantial change in universities' annual reporting occurred.

The analysis in Chapter Four reveals the considerable differences between the statutory accountability obligations of annual reports and a public accountability perspective. The former requires universities simply to publish the statements mandated under the Public Finance Act, 1989. The latter requires both more comprehensive information, and cognisance to be taken of important reporting qualities such as timeliness, accessibility and distribution.

It is concluded that a public accountability perspective on university annual reporting is one that shifts focus away from a domination by the annual financial statements, to one that includes other quantitative and qualitative information in addition to the financial statements. In this way, stakeholders have the opportunity to gain a more complete understanding of a university's objectives and success in meeting its objectives.

10.3.2 Disclosures and qualities

Having adopted a definition of public accountability, the next step is to identify annual report disclosures and qualities which are representative of this perspective. An important objective of the thesis is to develop an index which reflect stakeholders' opinions, rather than one which researchers may have perceived stakeholders' opinions to be, as is the case with the extant MAD-score index.

Addressing this question requires several problems to be overcome. The public audience of universities' annual reports is immature in the sense that it is only recently that annual reports have been published in a comprehensive format and distributed widely in the community. To what extent do reports reach the people

within the community whom they should reach? Who are the stakeholders anyway? To what extent do stakeholders have opinions about what should be disclosed in annual reports? The decision about what should be disclosed is one that requires a balance to be struck between giving adequate autonomy and freedom of action to managers, and sufficient knowledge and understanding for stakeholders.

A literature analysis and a parallel empirical study of the distribution of the 1992 annual reports revealed interesting gaps between theory and practice. In particular, it was noted that theory, with its origins in a decision usefulness perspective of annual reporting, has an overwhelming focus on external users. In contrast, the empirical results showed that university employees in various capacities, are a numerically significant group of report users. Also, managers of sister and competitive institutions are an important stakeholder / report user group who have been largely overlooked in the extant theorising.

The delphi technique was identified as an efficient and effective means of collecting stakeholders' opinions. Because of the immature level of university annual reporting, it was decided that in trying to capture stakeholders' opinions about disclosures, it would be more profitable to start with a normative model of reporting which appropriate stakeholders could be invited to criticise and amend. The alternative of inviting stakeholders to develop their own model without any initial structure or prompting ran the risk of significant omissions or possibly a bias towards the opinions of a few stakeholders who may have held strong opinions about some issues.

Four stakeholder panels and one report preparer panel were formed for the delphi exercise. These comprised 39 university council members, student

representatives, oversight agents, members of parliament, university finance managers and information officers. The panels were invited to review approximately 100 disclosure items in the normative model and asked to indicate whether these items should be disclosed in reports, and to indicate their relative importance. They were also asked to suggest additional items that should be disclosed; 30 further items were offered and these were tested in the second round of the delphi.

Two rounds of the delphi enabled priorities to be identified for the 130 disclosure items. In almost every case, panel opinions about the individual disclosure items became more uniform in the second round of the delphi. The external citizen panel shows the strongest support for disclosures, and the preparer panel, the weakest support. Some polarisation of opinion is detected on two broad item groups, namely disclosures about the quality of teaching, and disclosures to facilitate comparisons between universities. Many panellists strongly support such disclosures, whilst many others thought that these issues should not be addressed in reports.

The delphi exercise is valuable for several reasons. Firstly, it provides empirical support for the inclusion of items in the index and the weightings attached to them. The evidence reveals contrasts in panels' opinions which supports the proposition developed in Chapter Five that the information disclosures to meet societies' accountability expectations is a dynamic process subject to continual re-evaluation, negotiation and change, as society itself changes. The delphi also identified 'accountability gaps' between stakeholders and preparers whereby the former groups tend to attach stronger priorities to many annual report disclosures than the preparers. This reinforces the point made earlier about the danger of accounting disclosures being dominated and determined by the accounting profession

itself.

10.3.3 Index methodology

The public accountability index [PAI] develops the methodology of measuring the quality of annual reports in several important ways. The index builds on earlier indices which have ordinal properties only thus restricting the statistical tests and range of observations that can be made about reports from the index results. The open-ended nature of the parametric index enables recognition to be given to those reports which make disclosures beyond the index standard criteria.

The results of the delphi exercise are used as the prime input to develop the public accountability index in Chapter Nine. Problems of interpretation, overlap and practicality have to be overcome in establishing the categories, items and weights to include in the index. The 130 items identified and tested in the delphi are pared down to 58 adopted in the index. Of the three reporting qualities tested in the delphi, relevance, timeliness and accessibility, it was decided that for practical purposes only one, timeliness, could be included in the index. Criteria to represent 'standard' disclosure are established for each index item.

The methods used to develop the index involve a normative model based on adopted definitions about the objectives of reporting and public accountability. The use of delphi panels provides an efficient and effective means of collecting data about stakeholders' opinions. The delphi exercise was carried out effectively with, as far as could be judged, high quality participation by way of membership and responses. The delphi data is used to form the structure, items and weights adopted in the index. Some of the suggestions on the draft index provided by an experienced

preparer and an academic researcher are also incorporated in the PA Index.

10.3.4 Public accountability index

The public accountability index is applied to the 1994 university annual reports. The resulting scores are slightly lower than the corresponding MAD-scores. There is a wider range of scores reflecting the ability of the PA Index to award higher scores to particularly meritorious disclosures. Correlation tests show a strong relationship with the MAD-scores. Sensitivity tests demonstrate that the PA Index has a high level of stability with report rankings remaining more or less unchanged, even when category weights reflecting a decision usefulness accounting are used.

As argued in Chapter Nine, the similarity of the PA Index results with those of the MAD-score are taken as an indication of the strength of the earlier index rather than a suggestion that the PA Index might be unnecessary. Most importantly, theoretical and empirical support is provided for the PA Index. Clearly, the PA Index is more comprehensive and includes 58 items in contrast to 26 in the MAD-score. A report which omits reference to any of the 32 additional disclosures would be rated equally with a report that included the MAD-score items and the additional PAI items. The inclusion of timeliness and the parametric statistical properties all give the PA Index important features which are an advance on the MAD-score.

10.4 Contribution of the Research

The main contribution of the research comes from the potential for improving the quality of universities' reporting and accountability to the general public. For this to happen several important steps must be accomplished. The study and the PA

Index are only part of the contribution; to influence reporting the Index must be *used*.

As demonstrated by the annual reviews of tertiary education reporting since 1991 (see Coy et al. 1991; Coy et al. 1992, etc.) many report preparers take cognisance of the evaluations and seek ways of improving their accountability scores each year. To achieve this impact several obvious steps must be carried out. Firstly, researchers must take the trouble to collect the reports as they become available and follow-up on those institutions which may omit to respond to initial requests to provide reports. Secondly, the reports must be evaluated in a way that gives confidence to preparers that the process is carried out in a thorough and professional manner. Thirdly, the researchers must compile and submit suitable articles for publication in newspapers, professional journals and the like to disseminate the results to interested stakeholders and the public generally. Wide publication of the results is regarded as critical in providing incentive for preparers to consider improvements in future years. The decisive factor in all this is having the resources, both financial and time, to enable the researchers to undertake the evaluation.

In summary, the main contribution of the Index comes more from its use rather than its development. In using the Index it is vital for the researchers to establish credibility amongst preparers and stakeholders so that their findings may have authority in the community.

Another contribution arises from the evidence collected about accountability gaps in reporting. This reinforces the work of other researchers who have criticised the dominance of the accounting profession in reporting processes (Tower et al., 1993), and who dispute the claim that the public and the profession's interests coincide (Willmott et al., 1993). Evidence of accountability gaps between

stakeholders and preparers is identified at several points in this study: stakeholders place more importance than preparers on the 130 disclosure items tested in the delphi; stakeholders believe that current accountability is less than optimal whereas preparers believe there is excessive accountability; stakeholders attach more importance to accessibility and timeliness in reporting than do preparers. This evidence reinforces earlier claims that society needs to re-examine the structure and relationships in the way that public accountability needs are met.

In the construction of disclosure indices the thesis offers an advance by using a measurement technique which enables an index with ratio power to be constructed. The main benefit is the ability to use parametric statistical techniques with the index results. Also, there is no upper limit to the PA Index scores in contrast to other indices such as the MAD-Index score which has an upper limit of 100, and this restricts its ability to discriminate between high quality reports.

A subsidiary contribution of the thesis arises from the attention drawn to possible change affecting the accounting profession because of society's need for accountability, rather than decision usefulness, information about organisations. Financial statements alone are inadequate, and additional information in annual reports about service performance, objectives and achievements is required. This change provides opportunities and threats to the accountancy profession.

At a simplistic level, the nomenclature for external reports as 'Financial reports' should be replaced by a title that more accurately reflects the contents of the documents themselves, such as 'Annual report' or 'Corporate report'. At a more profound level, organisational responsibilities and territories are changing. Is the chartered accountant properly equipped to take responsibility for public accountability

reports? Do we need a new kind of information professional who can take overall charge of the new style external reporting? Or can the accountant extend her or his role to properly undertake these duties? Should the accounting profession extend its training requirements to equip future generations of accountants with the skills and abilities needed to take responsibility for public accountability reporting? Indeed, what would be the appropriate curriculum for training accountability accountants? The acceptance and adoption of a public accountability perspective to external reporting suggests some fundamental challenges ahead for the accountancy profession.

10.5 Limitations of the Research

The main limitation of the research is the personal perspective brought to the question of universities' annual reporting, and the nature and importance of public accountability in society. This has placed a very different interpretation on the role of traditional 'debit & credit' accounting in the reporting and accountability processes of universities. A decade ago, financial statements were all that was necessary for universities to discharge their accountability obligations in the formal reporting sense.

This thesis argues that the focus of formal public reporting should be on the services provided, and that the audited financial statements are an important, yet subsidiary and supporting part of the annual report. Furthermore, although professional accounting regulators have acknowledged the primacy of accountability over decision-usefulness as the objective of public sector reporting, it is noted that their detailed recommendations still carry an excessive decision usefulness imprint. To those retaining a decision usefulness perspective on public sector reporting the

thesis will be limited by the lack of recognition given to that dimension.

The emphasis given to public accountability over decision usefulness, to service performance over financial performance, to non-financial, narrative and statistical information over financial statements gives a radical perspective on the nature of external reporting in society today. This is both the major strength and limitation. As a strength, it is argued that the suggested changes bring a freshness and relevance to reporting that enable these documents to be more meaningful and interesting to the public at large than formerly. As a limitation, the radical perspective suffers from all such proposals in mature, conservative societies; their very nature makes it difficult for the proposals to be accepted or adopted.

To those who believe that the objective of accounting research is 'to describe, to explain and to predict', then a limitation of this research is that it does none of these things. The strength of the thesis lies in the relevance of the research to an important contemporary social and economic issue, namely the accountability of public institutions. Others claim that replicability and generalisability are also vital elements of accounting research and again these notions are not accepted here. Other researchers developing a public accountability index for universities' annual reports are unlikely to come to similar conclusions and a similar index. Users and evaluators of this research must form their own judgements from the evidence provided about the relevance of the research question, the appropriateness of the methods used, the rigour of their application, the validity of the findings and the usefulness of the index. An important test will be the acceptability and adoption of the findings and suggestions by the stakeholder and preparer communities in the years ahead.

10.6 Opportunities for Further Research

The main hope for this research is that the index methodologies identified and developed may be extended to other parts of the public sector, and possibly the corporate sector as well. Before this can occur, the ideas must be tested for acceptability among the university report user and preparer communities. In applying these ideas to other sectors, appropriate index items would have to be identified, but hopefully the structure and approach of the PAI will provide a reliable foundation.

Measuring and reporting service performance is difficult, and is still in developmental phases. All extant service performance measures and indicators are imperfect in one way or another, and there are those who would claim that this information should not be reported until it can be done perfectly. This argument is rejected as being overly conservative. On the contrary, it is argued here that there is a need to seek and identify the best ways possible of measuring and reporting service performance on a systematic basis to the public at large. Where imperfections are identified then ways should be sought to address these problems.

In this context potentially valuable service performance measures such as ‘value added’ and ‘value added rate of return’ which were identified in the literature could provide useful insights of universities’ performance. Unfortunately, these theoretical ideas have yet to be converted into a practical application and for this reason they are excluded from the Index despite panellists’ support for them. Other important aspects of public accountability such as the accessibility and distribution of reports are excluded from the Index because of the impracticability of accurately measuring these qualities in a neutral, objective way. The measurement and reporting of universities in their roles as critic and conscience of society, and as a store of

knowledge, have not been developed, and further work needs to be done in these areas too.

It would be interesting to explore further the relationships between financial and management accounting in the context of university operations in recent years. Traditional explanations suggest that organisational external and internal reporting have very different roots, objectives, methods and outcomes. My observations suggest that there may be a much closer relationship between financial and management reporting in universities than theory suggests. The requirement of the 1990 legislation for greatly improved quality and comprehensiveness in external reporting has been accompanied by improved internal management information, and this may have contributed to an improvement in management itself. A research project could lead to interesting findings that may cause theorists to re-think relationships between financial and management accounting in organisations.

Another interesting and important study would be one of the impact, if any, of the recent managerial and reporting changes in universities on their prime activities of teaching and research. Universities have claimed that the new era has resulted in more being done with less. Efficiency has no doubt improved; but what of the quantity and quality of teaching, learning and research? Has this changed? And if so, how? And to what extent have these been caused by the financial, managerial and accountability changes? Allied to this is the correlation, if any, between the quality of a university's reporting and the quality of its teaching and research services.

10.7 Conclusion

It is important to repeat that public reporting and accountability are dynamic issues which will continuously change as societies' values and expectations also change. The public accountability index is a step forward but neither the only nor the final word on the subject.

Last of all, explanation is offered for the quotations given at the start of the thesis (see page i). The poet Sam Hunt, notable for his non-conformist lifestyle and confrontations with authority, was asked in a recent interview why he appeared to live metaphorically on 'the edge of a cliff'. He replied that he thought it important for people to think more deeply about issues in society, and be prepared to stand up for their beliefs where necessary. Too many people, he claimed, do not think seriously enough about the important issues and this can allow the unscrupulous and the powerful free rein; "only dead possums should be found in the middle of the road".

For me, Richard Mulgan pinpoints another important issue about this research and its potential contribution. Radicals, he says, are the strongest allies of the rich and powerful because their ideas are impossible to implement. It is hoped that this thesis provides an exception to Mulgan's rule by achieving an outcome which is implementable despite being radical. Reasons for thinking that implementation may be achieved are the evidence provided by successful earlier work in this area, and that the PA Index provides a way forward which harmonises with and develops existing systems. It is hoped, therefore, that the proposals will be accepted and adopted in an evolutionary manner. Indeed, New Zealand universities have already moved a long way towards a public accountability form of annual reporting.

Hopefully, the ideas advanced here will contribute to that momentum being maintained, and even being adopted and extended further afield.

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Appendix A

The Normative Public Accountability NZ Universities' Annual Report Disclosures Framework

ANNUAL REPORT DISCLOSURES	Annual / Financial Reports							
	PFA	MoE	NZSA	CVCP	E	G&H	CDT	F&G
Health & safety information								
Teaching								
Input-Access								
Student numbers (Enrolments & EFTS; Total & field of study)		x			x	x	x	
Qualification of student intake					x	x		x
Demand for new places compared with previous year						x		x
New students by programme area					x			x
Total EFTS as ratio of 18-24 age cohort								
Actual enrollment relative to demand for new places					x			
No. of qualified students not admitted								
No. of qualified admitted students unable to enrol in pref. study								
Total school graduates at university as % of total school graduates								
Input-Efficiency								
\$ value of operating grants from government	x		x	x	x	x	x	x
\$ value of operating grants from other sources	x		x	x	x	x	x	x
Input-Equity								
No. & proportion of designated equity groups by program							x	
Tuition fees as % of total revenue (Total & field of study)					x			
Input-Quantity								
No. of new places created compared with previous year								
Input-Relevance								
No of places available in career programs as % of all programs								
Process-Access								
Classroom space as % of total space					x		x	
Classroom space per EFTS					x		x	
Process-Efficiency								
Student : staff ratio (Total & field of study)		x				x	x	x
Cost per EFTS (Total & field of study)					x	x	x	x
Library expenditure as % of operating expenditure & \$ per EFTS							x	x
Student services expenditure per EFTS								
Library stock						x	x	
Proportion of staff with PhD								
Process-Equity								
Academic Staff (Equity/Seniority/Tenured/Qualification)				x	x	x	x	x
All Staff (Total/Equity)					x	x	x	
Financial aid to students awarded								x

Managerial, Performance & General Indicators						
DEET	PITF	CVCP	J&T	CHK	CTL	KG
X	X	X	X		X	
X			X	X		X
					X	
		X				
		X			X	
					X	
					X	
					X	
					X	
X		X	X		X	
X		X	X		X	
X	X	X			X	
					X	
					X	
					X	
		X			X	
		X			X	
X	X		X	X	X	
X			X	X	X	
X		X			X	
X					X	
X						X
X	X					X
X	X		X			

1993 Annual Report	Total Lit. Refs
	a
x	10
	7
	3
	3
	2
	2
	1
	1
	1
x	12
x	12
x	6
x	3
x	2
	1
x	5
x	5
x	10
x	9
x	6
x	3
	2
	2
x	9
x	7
	1

Appendix A

The Normative Public Accountability NZ Universities' Annual Report Disclosures Framework

ANNUAL REPORT DISCLOSURES	Annual / Financial Reports							
	PFA	MoE	NZSA	CVCP	E	G&H	CDT	F&G
Process-Quality								
No of beds per 100 EFTS					x			
% of students in higher degrees					x			
Processes in place to ensure quality of teaching programs								
Process-Quantity								
No. of UG fields of study / courses						x		
No of PG fields of study / courses						x		
% of students in full-time/part-time/external courses								
Output-Intermediate-Satisfaction								
Measure of student satisfaction at intermediate stages								
Output-Intermediate-Efficiency								
Expenditure per completed program year by student								
Expenditure per EFTS per year (Total & field of study)								
Output-Intermediate-Equity								
No of equity students at intermediate stages as % of original								
% of equity students in each academic year								
Output-Intermediate-Quantity								
% EFTS completing each year prior to graduation		x						
Output-Final-Satisfaction								
Measure of student satisfaction with program at time of completion								
Output-Final-Efficiency								
Expenditure per EFTS (Total & field of study)					x	x	x	
Average time to complete program								
No of UG courses completed / 100 EFTS						x		
No of UG courses completed / academic staff								
Value added								
Rate of return								
Output-Final-Equity								
Equity students graduating as % of total graduates (Total & field of study)								
Output-Final-Quality								
Honours degrees awarded as % of total degrees					x	x		x
Output-Final-Quantity								
No. & % of EFTS completing their program of study (Total & field of study)					x	x	x	x
Crude drop-out rate					x			x
Student unit pass rate					x			
Output-Final-Relevance								
No. & % of graduates employed (Total & field of study, & equity)		x				x	x	

Managerial, Performance & General Indicators						
DEET	PITF	CVCP	J&T	CHK	CTL	KG
X						
X						
					X	
X						X
X						
X						
					X	
		X			X	
		X			X	
X					X	
X					X	
			X		X	
				X	X	
X	X				X	
		X			X	
					X	
					X	
				X		
			X			
	X	X	X		X	
			X	X	X	
X	X	X			X	
X		X	X	X		
X	X	X				
	X	X	X	X	X	

1993 Annual Report	Total Lit. Refs
x	3
x	3
x	2
x	4
x	3
x	2
x	2
	2
	2
	2
	2
	3
x	3
x	7
	2
	2
	1
	1
	1
	4
	6
x	9
	6
x	5
x	9

Appendix A

The Normative Public Accountability NZ Universities' Annual Report Disclosures Framework

ANNUAL REPORT DISCLOSURES	Annual / Financial Reports							
	PFA	MoE	NZSA	CVCP	E	G&H	CDT	F&G
No & % of students continuing to further study; & equity						x		
Outcome-Satisfaction								
Employer satisfaction with former students								
Former student satisfaction at intervals after graduating (2ys. 5yrs etc)								
Outcome-Quality								
Ranking of graduates on standardised scoring system (eg GMAT)								
Research								
Input								
Research income (grants & contracts)(Total \$ / \$ per academic & FoS)				x		x	x	
No of research grants & fellowships							x	
Industry contribution to research \$								
No. of research & sponsored students (Total & field of study)								
Process								
No. of Masters & PhD students (Total & field of study)								
Output								
Publications/patents/copyrights (Total & field of study)						x	x	
No. of Masters & PhD graduates (Total & field of study)						x		
Conference presentations (Total & field of study)								
Overall research rating								
Citations						x		
Destination of research graduates								
Community Service								
Description of local community service								
Description of national community service								
Description of international community service								
	15	22	17	16	27	31	37	14

Managerial, Performance & General Indicators						
DEET	PITF	CVCP	J&T	CHK	CTL	KG
	X					
					X	
					X	
					X	
X	X	X	X	X		
X	X					
X						
		X				
	X	X				
	X	X		X		
	X			X		
	X		X			
			X	X		
	X					
27	20	23	16	12	39	4

1993 Annual Report	Total Lit. Refs
	2
	1
	1
	1
x	9
x	4
x	2
	1
x	3
x	6
x	4
x	3
	2
	1
	1
x	1
x	1
x	1
63	99

Appendix A

The Normative Public Accountability NZ Universities' Annual Report Disclosures Framework

NOTE:

x = item disclosed in contemporary annual reports

a = item suggested at model testing phase

Total Lit Refs = The number of references to the item in 15 literature items

Annual / Financial Report References

PFA	Public Finance Act, 1989
MoE	Financial Reporting for Tertiary Institutions, Ministry of Education, 1991.
NZSA	Statement of Concepts for General Purpose Financial Reporting, 1994
CVCP	Statement of Recommended Practice: Accounting in Higher Education Institutions, CVCP, COSHEP, SCoP, 1994
E	Information Needs of College and University Financial Decision Makers, by J. Engstrom, GASB, 1988.
G&H	External Reporting by UK Universities: An Exploratory Study of Accounting Change, by R. Gray & J. Haslam, Financial Accountability & Management, 1990.
CDT	Quantifying the Quality of Tertiary Education Annual Reports, by D. Coy, G. Tower & K. Dixon, Accounting & Finance, 1993
F&G	Toward better Annual reports for Colleges and Universities, by M Fischer & T Gordon, 1991, Government Accountants' Journal

Managerial, Performance & General Indicators' References

DEET	How Aust universities perform: the DEET tables. Campus Review, 26 May 1994.
PITF	Performance Indicators for Tertiary Institutions. Report of the Performance Indicators Taskforce, 1989.
CVCP	Joint Performance Indicators Working Group: Consultative Report, CVCP, 1994
J&T	Performance Indicators in Higher Education, by J. Johnes & J. Taylor, 1990 (SRHE & Open University Press) Buckingham.
CHK	The Use of Performance Indicators in Higher Education, by M. Cave, S. Hanney & M Kogan, 1991 (Jessica Kingsley Publishers), London.
CTL	Performance Measurement and Accountability in Canadian Universities: Making a start in the area of Teaching, by J. Cutt, L. Trotter & C. Lee, Financial Accountability & Management, 1993.
KG	Quality: the Gannicott Table. Campus Review, 9 June 1994.
93 AR	Annual Reports for 1993 of the 7 NZ universities

APPENDIX B

The Public Accountability Framework & the Elements of Public Accountability

		ELEMENTS OF PUBLIC ACCOUNTABILITY						TOTAL
		Compliance	Efficiency	Effectiveness	Economy	Equity	Future	
	ANNUAL REPORT DISCLOSURES							
1.1	OVERVIEW : Annual Report							
1.1.1	Statement of accounting policies	x						1
1.1.2	Auditors' report	x						1
1.1.3	Statement of managerial responsibility	x						1
1.1.4	Directory information (eg. Table of Contents, Officials' names & titles etc)							0
1.2	OVERVIEW : University							
1.2.1	Statement of objectives	x	x	x	x	x	x	6
1.2.2	Financial review (narrative)		x	x			x	3
1.2.3	Descriptive report / General review (narrative)		x	x	x	x	x	5
1.2.4	Prospective information		x	x	x	x	x	5
1.2.5	Key facts & figures (statistical highlights)		x	x				2
2.1	FINANCIAL							
2.1.1	Balance sheet	x	x				x	3
2.1.2	Operating statement	x	x				x	3
2.1.3	Statement of cash flows	x	x				x	3
2.1.4	Depreciation	x				x	x	3
2.1.5	Statement of commitments	x					x	2
2.1.6	Financial ratios (ie. the common accounting ratios)	x	x	x	x		x	5
2.1.7	Comparative figures for previous year	x					x	2
2.1.8	Investments	x	x				x	3
2.1.9	Statement of contingent liabilities	x					x	2
2.1.10	Budget information		x	x	x	x	x	5
2.1.11	Statement of cost of services	x	x		x	x		4
2.1.12	Statement of movements in equity (ie. owners' equity)	x					x	2
2.1.13	Overhead allocation		x			x		2
2.1.14	Total value of estates (land, buildings, improvements)						x	1
3.1	SERVICE : General							
3.1.1	Equal employment opportunity information	x				x		2
3.1.2	Statement of service performance	x						1
3.1.3	Achievements against objectives & targets	x	x	x	x	x		5
3.1.4	Interpretive comment (narrative explanation of service performance)		x	x	x	x	x	5
3.1.5	Staff training & development		x	x		x	x	4
3.1.6	Health and safety information			x		x	x	3
3.1.7	Environmental related information		x	x		x	x	4
3.2	SERVICE : Teaching							
	Input-Access							
3.2.1	Student numbers (Enrolments & EFTS; Total & field of study)	x		x				2
3.2.2	Qualification of student intake			x		x		2

Appendix B

Public Accountability Framework: Disclosure items & the Elements of Public Accountability

		ELEMENTS OF PUBLIC ACCOUNTABILITY					TOTAL
		Compliance	Efficiency	Effectiveness	Economy	Equity	
	ANNUAL REPORT DISCLOSURES						
3.2.3	Demand for new places compared with previous year			x			1
3.2.4	New students by programme area			x			1
3.2.5	Total EFTS as ratio of 18-24 age cohort			x			1
3.2.6	Actual enrolment relative to demand for new places			x			1
3.2.7	No. of qualified students not admitted			x			1
3.2.8	No. of qualified admitted students unable to enrol in preferred study			x			1
3.2.9	Total school graduates at university as % of total school graduates			x			1
	Input-Efficiency						
3.2.10	\$ value of operating grants from government		x		x		2
3.2.11	\$ value of operating grants from other sources		x		x		2
	Input-Equity						
3.2.12	No. & proportion of designated equity groups by programme					x	1
3.2.13	Tuition fees as % of total revenue (Total & field of study)					x	1
	Input-Quantity						
3.2.14	No. of new places created compared with previous year			x			1
	Input-Relevance						
3.2.15	No of places available in career programs as % of all programmes			x			1
	Process-Access						
3.2.16	Teaching space (inc. teaching labs) as % of total space		x				1
3.2.17	Teaching space (inc. teaching labs) per EFTS		x				1
	Process-Efficiency						
3.2.18	Student : staff ratio (Total & field of study)		x	x			2
3.2.19	Cost per EFTS (Total & field of study)		x	x			2
3.2.20	Library expenditure as % of operating expenditure & \$ per EFTS		x	x			2
3.2.21	Student services expenditure per EFTS		x				1
3.2.22	Library stock		x	x			2
3.2.23	Proportion of staff with PhD		x	x			3
	Process-Equity						
3.2.24	Academic Staff (Seniority/Tenured/Qualification/Equity groups)		x	x		x	4
3.2.25	All Staff (Total/Equity groups)		x	x		x	4
3.2.26	Financial aid to students awarded				x	x	2
	Process-Quality						
3.2.27	No of beds per 100 EFTS			x			1
3.2.28	% of students in higher degrees			x			1

Appendix B

Public Accountability Framework: Disclosure items & the Elements of Public Accountability

		ELEMENTS OF PUBLIC ACCOUNTABILITY						TOTAL
		Compliance	Efficiency	Effectiveness	Economy	Equity	Future	
	ANNUAL REPORT DISCLOSURES							
3.2.29	Processes in place to ensure quality of teaching programmes			x				1
	Process-Quantity							
3.2.30	No. of UG fields of study / courses			x				1
3.2.31	No of PG fields of study / courses			x				1
3.2.32	% of students in full-time/part-time/external courses			x				1
	Output-Intermediate-Satisfaction							
3.2.33	Measure of student satisfaction at intermediate stages			x				1
	Output-Intermediate-Efficiency							
3.2.34	Expenditure per completed programme year by student		x					1
3.2.35	Expenditure per EFTS per year (Total & field of study)		x			x		2
	Output-Intermediate-Equity							
3.2.36	No of equity students at intermediate stages as % of original			x		x		2
3.2.37	% of equity students in each academic year			x		x		2
	Output-Intermediate-Quantity							
3.2.38	% EFTS completing each year prior to graduation			x				1
	Output-Final-Satisfaction							
3.2.39	Measure of student satisfaction with programme at time of completion			x				1
	Output-Final-Efficiency							
3.2.40	Expenditure per EFTS (Total & field of study)		x			x		2
3.2.41	Average time to complete programme			x	x			2
3.2.42	No of UG courses completed / 100 EFTS			x				1
3.2.43	No of UG courses completed / academic staff			x				1
3.2.44	Value added (input & quality adjusted output measure)		x	x				2
3.2.45	Rate of return (quality adjusted productivity measure)		x	x				2
	Output-Final-Equity							
3.2.46	Equity students graduating as % of total graduates (Total & field of study)			x		x		2
	Output-Final-Quality							
3.2.47	Honours degrees awarded as % of total degrees			x				1
	Output-Final-Quantity							
3.2.48	No. & % of EFTS completing their programme of study (Total & FoS)			x				1
3.2.49	Crude drop-out rate			x				1
3.2.50	Student unit pass rate			x				1

Appendix B

Public Accountability Framework: Disclosure items & the Elements of Public Accountability

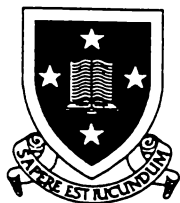
		ELEMENTS OF PUBLIC ACCOUNTABILITY						TOTAL
		Compliance	Efficiency	Effectiveness	Economy	Equity	Future	
	ANNUAL REPORT DISCLOSURES							
	Output-Final-Relevance							
3.2.51	No. & % of graduates employed (Total & field of study, & equity)			X		X		2
3.2.52	No & % of students continuing to further study; & equity			X		X		2
	Outcome-Satisfaction							
3.2.53	Employer satisfaction with former students			X				1
3.2.54	Former student satisfaction at intervals after graduating (2yrs. 5yrs etc)			X				1
	Outcome-Quality							
3.2.55	Ranking of graduates on standardised scoring system (eg GMAT)			X				1
3.3	SERVICE : Research							
	Input							
3.3.1	Research income (grants & contracts)(Total \$ / \$ per academic & field of study)		X	X				2
3.3.2	No of research grants & fellowships		X	X				2
3.3.3	Industry contribution to research \$		X	X	X			3
3.3.4	No. of research & sponsored students (Total & field of study)			X				1
	Process							
3.3.5	No. of Masters & PhD students (Total & field of study)			X				1
	Output							
3.3.6	Publications/patents/copyrights (Total & field of study)			X				1
3.3.7	No. of Masters & PhD graduates (Total & field of study)			X				1
3.3.8	Conference presentations (Total & field of study)			X				1
3.3.9	Overall research rating			X				1
3.3.10	Citations			X				1
3.3.11	Destination of research graduates			X				1
3.4	SERVICE : Community							
3.4.1	Description of local community service			X				1
3.4.2	Description of national community service			X				1
3.4.3	Description of international community service			X				1
								188
		19	37	70	13	26	23	188

NB:

Items allocated to the six elements of accountability according to researcher's perception. Allocation subsequently checked by peer review.

APPENDIX C

Invitation letter to prospective Delphi Panellists



The University of Waikato

Te Whare Wānanga o Waikato

Private Bag 3105, Hamilton, New Zealand
Telephone (07) 856-2889.

DEPARTMENT OF ACCOUNTING

Fax : 7- 838-4332
Email: dcoy@waikato.ac.nz

25 April 1995

Dear

I am writing to ask if you would be willing to help me with some research over the next three months. This would require you to answer two or three questionnaires between May and July and would take about one to two hours on each occasion, with a response time of one week.

As part of my D.Phil. studies I am running a delphi opinion seeking exercise of university stakeholder groups. As a representative of the Minister of Education on Council, the invitation is for you to participate as one of seven anonymous members of the 'External citizens' group. Your opinion would be sought about what information universities should disclose in their annual reports.

Delphi is different to conventional data collection methods and is explained on the enclosure. Participants' identities and responses are confidential to the delphi administrator and are not disclosed at any time - only aggregated responses are reported back.

I will provide you with a summary of the research findings and I believe you will find it interesting to compare your opinions about public accountability issues with those of your peers during the delphi. You may be aware of my earlier work with Keith Dixon and Greg Tower, and I hope that the results of this research may contribute to further improvements in the public accountability of our universities.

I hope you will be willing to help. I plan to hold the first round of the delphi in May and would be grateful for your response to this letter by mid-May. A form and prepaid, addressed envelope is enclosed for your convenience.

Yours sincerely

David Coy
Senior Lecturer in Accounting

THE DELPHI EXERCISE

Delphi works by selecting a panel of stakeholders and asking them to give opinions in isolation from each other about the matter of interest. The results are analyzed and reported back to the panel along with any additional information they may have asked for, to help in formulating opinion. Such information is provided to all panel members. This feedback is then used in repeating the questions to seek either re-confirmation or modification of the original responses. Several iterations may be held until stability of response is achieved.

The most important characteristic of Delphi is that it obtains stakeholders' views about a problem but avoids direct confrontation of panel members with one another so that contamination of their opinions, which may be caused by contact and discussion, is avoided. Delphi avoids the negative effects of the committee process but retains the positive benefits arising from interaction.

Advantages

Where agreement is reached through a committee process the consensus can be unduly influenced in many ways. Some members may dominate by status or age and others may, even sub-consciously, be intimidated to modify their views. There may be an unwillingness to take a view until it is known which way the majority is headed. Also, there may be an unwillingness to abandon a position once publicly taken, and fear of loss of face from raising uncertain ideas that might turn out to be not sensible. In theory, the delphi method avoids problems of human interaction in the committee process.

The individuals receive the views of their peers after each round and are able to reflect on these without the social pressures often found in the committee situation. This may cause them to consider factors they had previously neglected or attach more importance to factors thought at first to be unimportant and modify their view in the subsequent round. This is thought to be conducive to independent thought and the gradual formulation of a considered opinion. Direct confrontation, on the other hand, all too often induces the hasty formulation of pre-conceived notions, an inclination to close one's mind to novel ideas, a tendency to defend a stand once taken, or alternatively, a predisposition to be swayed by the persuasively stated opinions of others. A further benefit is that more stakeholders can be used than would be possible if they had to meet face to face, as problems of travel, time availability and costs are avoided.

PUBLIC ACCOUNTABILITY

Accountability has been around for as long as organised activity, and traditionally has involved forms of confidential reporting between a lord and servant, a business owner and the manager, and more recently (in the past 100 years) between shareholders and management.

The annual report has been regarded as the main way in which corporate management has demonstrated accountability to owners and potential owners, but until recently this has had a narrow decision usefulness focus and been available only to those in a business relationship with the organisation. Thus for many years the annual report was solely a financial report used to demonstrate management's honesty in the use of resources, and for assessing financial performance.

Public accountability extends this traditional concept of accountability in at least two ways; the kind of information reported and the range of people to whom reports are made. Firstly, organisations are expected to provide more than a financial report. All organisations affect the economic, social and physical environment and in recognition of this, modern reporting is expected to include information about the organisation's impact on society through such matters as employment, training, assisting minority groups, discharges into rivers etc. Secondly, organisations are expected to report more widely than formerly and this includes making reports available to the general public.

Society's expectations about improved accountability by commercial firms has extended to the public sector. In New Zealand, annual reporting by public sector entities used to be a low key, almost secret ritual between government departments and agencies, and Wellington. Prior to 1985 it was almost impossible for a member of the public to obtain meaningful information about government departments or agencies on a routine, systematic basis. Following the reforms of the public sector during the latter 1980s, this has changed radically and all public sector entities, including the universities, are now required to publish comprehensive annual reports which are available to the general public.

Universities are complex organisations and the task of designing public reports that satisfactorily communicate their objectives and success in meeting objectives is difficult. Reporting seems to be largely a matter of seeking incremental improvements by exercising judgement to identify information which is relevant and understandable to stakeholders.

And this is where you can help. As a representative of a university stakeholder group, your opinion about the information that should be disclosed is important. By participating in the study, you will be able to help the universities improve their future accountability and enable stakeholders to get a better understanding of the contribution these important national assets make to New Zealand society.

David Coy
April 1995

APPENDIX D

Delphi Questionnaires

THE PUBLIC ACCOUNTABILITY UNIVERSITY ANNUAL REPORT FRAMEWORK

DELPHI QUESTIONNAIRE

Round One

INSTRUCTIONS

The objectives of this study are to:

- i) Identify what should be disclosed in university annual reports from a public accountability perspective, and
- ii) Obtain stakeholders' opinions on the relative importance of the items that should be disclosed.

The PINK MODEL gives a list of some 100 items identified from the current literature and research into university accountability. I want you to review these suggested items and indicate which ones should be disclosed by placing a number 1 - 3 alongside, and which ones should not be disclosed by placing a 0 alongside.

I realise that this is a large number of items to ask you to review, but I cannot think of another practical way of obtaining this important information about stakeholders' opinions. So I hope you will bear with me. The questionnaire has been pilot tested and takes about 1 hour to complete.

Do not take the perceived difficulty of collecting data into account at this stage, but do take the perceived cost : benefit into account. In other words, if you think an item should be reported even though it is not presently collected or calculated, then include the item. However, if you believe that the cost of reporting an item exceeds the benefit to stakeholders of having it, then exclude the item.

There are FOUR sections in the questionnaire dealing with Public accountability issues (page 1), Overview information (page 2), Financial information (page 3), Service performance information (pages 4 to 7), and report qualities (pages 7 & 8).

I suggest that you keep the yellow sheet, which explains the meaning and logic of many of the suggested disclosure items, alongside you whilst completing the questionnaire.

PLEASE NOTE THAT THE PINK LIST DOES NOT REPRESENT THE RESEARCHER'S
OPINION ABOUT WHAT SHOULD BE INCLUDED IN UNIVERSITIES' REPORTS.

Delphi - First Round - May 1995

1

SECTION ONE : PUBLIC ACCOUNTABILITY ISSUES

[for the scaled questions circle the number which corresponds with your opinion]

PUBLIC ACCOUNTABILITY

What do you understand by universities being publicly accountable?

(write a sentence or two)

[illegible]

How important is the contribution of the annual report to the accountability of the universities?

1	2	3	4	5
Minor Importance		Quite Important		Extremely Important

To what extent do you think that the right level of accountability has been achieved for the NZ universities in 1995? The current level represents:

1	2	3	4	5
Inadequate Accountability		Right level of Accountability		Excessive Accountability

Delphi - First Round - May 1995

2

SECTION TWO : OVERVIEW DISCLOSURE ITEMS

1.1 & 1.2 OVERVIEW : Annual Report and University

Review the items in the Overview section of the PINK model, 1.1.1 to 1.2.5, and place a number 0 - 3 in the column to the right which represents your opinion on the following scale. To assist you, the items that are generally disclosed in current university annual reports have been shaded.

0	1	2	3
Should NOT be disclosed	Should be disclosed, BUT item is of minor importance	Intermediate importance	Should be disclosed, AND item is extremely important

If you believe an item should not be disclosed because the cost of the information exceeds the benefit, then respond "0 C/B".

Is there any other 'Overview' type information that you think should be disclosed in universities' annual reports? If so, state this below and indicate its importance on the scale, 1 to 3.

<u>Item(s)</u>	<u>Importance</u> (1- 3)
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Delphi - First Round - May 1995

3

SECTION THREE : FINANCIAL DISCLOSURE ITEMS

Review the items in the Financial section of the PINK model, 2.1.1 to 2.1.14, and place a number 0 - 3 in the column to the right which represents your opinion on the following scale. To assist you, the items that are generally disclosed in current university annual reports have been shaded.

0	1	2	3
Should NOT be disclosed	Should be disclosed, BUT item is of minor importance	Intermediate importance	Should be disclosed, AND item is extremely important

If you believe an item should not be disclosed because the cost of the information exceeds the benefit, then respond "0 C/B".

Is there any other 'Financial' type information that you think should be disclosed in universities' annual reports? If so, state this below and indicate its importance on the scale, 1 to 3.

<u>Item(s)</u>	<u>Importance</u> (1- 3)
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

SECTION FOUR : SERVICE PERFORMANCE DISCLOSURES

3.1 SERVICE : General

Review the items in the SERVICE : General section of the PINK model, 3.1.1 to 3.1.7, and place a number 0 - 3 in the column to the right which represents your opinion on the following scale. To assist you, the items that are generally disclosed in current university annual reports have been shaded.

0	1	2	3
Should NOT be disclosed	Should be disclosed, BUT item is of minor importance	Intermediate importance	Should be disclosed, AND item is extremely important

If you believe an item should not be disclosed because the cost of the information exceeds the benefit, then respond "0 C/B".

Is there any other 'SERVICE : General' type information that you think should be disclosed in universities' annual reports? If so, state this below and indicate its importance on the scale, 1 to 3.

<u>Item(s)</u>	<u>Importance</u> (1- 3)

Delphi - First Round - May 1995

5

3.2 SPECIFIC SERVICE DISCLOSURES : TEACHING

This is the longest and hardest part of the questionnaire (and the model).

The reason is not hard to find; teaching is the most important part of the university's activities and appropriate information and indicators about teaching performance and achievement are difficult to identify.

The teaching items in the PINK model have been divided into three sections:

INPUT - items 3.2.1 to 3.2.15. There are sub-categories for access, efficiency, equity, quantity and relevance.

PROCESS - items 3.2.16 to 3.2.32. There are similar sub-categories as per input items

OUTPUT - items 3.2.33 to 3.2.52. With sub-categories for intermediate and final output etc.

OUTCOME - items 3.2.53 to 3.2.55.

Please review these items, and place a number alongside 0 - 3 representing your opinion as follows:

0	1	2	3
Should NOT be disclosed	Should be disclosed, BUT item is of minor importance	Intermediate importance	Should be disclosed, AND item is extremely important

If you believe an item should not be disclosed because the cost of the information exceeds the benefit, then respond "0 C/B".

Is there any other 'Teaching - Service' type information that you think should be disclosed in universities' annual reports? If so, state this below and indicate its importance on the scale, 1 to 3.

<u>Item(s)</u>	<u>Importance</u> (1- 3)
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Delphi - First Round - May 1995

6

3.3 SPECIFIC SERVICE DISCLOSURES : RESEARCH

Review the items in the SERVICE : Research section of the PINK model, 3.3.1 to 3.3.11, and place a number 0 - 3 in the column to the right which represents your opinion on the scale as before.

Is there any other 'SERVICE: Research' type information that you think should be disclosed in universities' annual reports? If so, state this below and indicate its importance on the scale, 1 to 3.

<u>Item(s)</u>	<u>Importance</u> (1- 3)
_____	_____
_____	_____
_____	_____

3.4 SPECIFIC SERVICE DISCLOSURES: COMMUNITY SERVICE

The final set of report disclosures relate to COMMUNITY SERVICE, items 3.4.1 to 3.4.3. Indicate your opinion about these in the column to the right with a number, 0 - 3 as before.

Is there any other 'SERVICE: Community' type information that you think should be disclosed in universities' annual reports? If so, state this below and indicate its importance on the scale, 1 to 3.

<u>Item(s)</u>	<u>Importance</u> (1- 3)
_____	_____
_____	_____
_____	_____

This completes the formal references to specific report disclosures. Is there any other information that you think should be disclosed in universities' annual reports? If so, state this below and indicate its importance on the scale, 1 to 3.

<u>Item(s)</u>	<u>Importance</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

SECTION FIVE : REPORT QUALITIES

Three report qualities were identified as being particularly important in the context of a public accountability perspective on university annual reporting. These are relevance, timeliness and accessibility. Please respond to the following questions which relate to these qualities.

5.1.1 **RELEVANCE**¹ (to stakeholders' needs): How important do you consider this quality of university annual reporting to be? [circle one number]

1	2	3	4	5
Minor Importance		Quite Important		Extremely Important

¹ Information is relevant to users if it can be used to:

- (a) confirm or correct prior expectations about past events (feedback value); or
 - (b) assist in forming, revising or confirming expectations about the future (predictive value)
- (definition adopted by the New Zealand Society of Accountants, 1994)

5.1.2 **TIMELINESS**: How important do you consider this quality of university annual reporting to be?

1	2	3	4	5
Minor Importance		Quite Important		Extremely Important

5.1.3 **TIMELINESS**: How soon after the balance date should university annual reports be available to the public?² [circle one item below]

within
4 weeks

within
8 weeks

within
12 weeks

within
16 weeks

within
20 weeks

within
26 weeks

² NZ legislation requires reports to be tabled in Parliament on or before the sixth sitting day after 1 May. Due to the parliamentary timetable this usually falls in the first week of June (22 weeks after balance date). Recently, university annual reports have been available to the public between mid-May and mid-June, about 20 to 24 weeks after the balance date of 31 December.

Delphi - First Round - May 1995

8

5.1.4 ACCESSIBILITY : Five possible levels of public accessibility are offered below. Which do you think is the appropriate level?

[circle the number at left which corresponds closest with your opinion]

- 1 Reports are presented to University Council, sent to Ministry of Education and tabled in Parliament only
- 2 As per 1 above, and also distributed to representatives of major community and business groups
- 3 As per 1 & 2 above, but more widely distributed to ALL stakeholder groups³, and placed in local and regional libraries
- 4 As per 1, 2 & 3 above, and also public notices placed advising public of availability
- 5 As per 1- 4 above, and also given to all students and other users of the university's services.

³ Stakeholder groups include Internal and external citizens, Other Tertiary education institutions, Government and oversight agencies, Resource providers, and the Public, analysts and the media.

Further comments on accessibility?

This completes the first round of the delphi exercise.

Please check that you have completed all the pages, and then return the questionnaire and the completed PINK model using the freepost envelope provided to:

David Coy, Department of Accounting, University of Waikato, Hamilton.

I will be in touch again about the beginning of July with the second round questionnaire.

Thanks for your help.

David Coy
May 1995

Public Accountability University Annual Reporting Model

NOTE: Shaded items are already generally disclosed in all or most university annual reports

Place a number in the column at right which corresponds with your opinion about each item on the following scale;

0=Should not be disclosed; 1=Minor Importance; 2=Quite Important; 3=Extremely Important

If your answer is 0 because you believe the cost of the information is greater than the benefit then respond "0 C/B"

**Your
Opinion?
0-3**

ANNUAL REPORT DISCLOSURES

1.1	OVERVIEW : Annual Report	
1.1.1	Statement of accounting policies	
1.1.2	Auditors' report	
1.1.3	Statement of managerial responsibility	
1.1.4	Directory information (eg. Table of Contents, Officials' names & titles etc)	
1.2	OVERVIEW : University	
1.2.1	Statement of objectives	
1.2.2	Financial review (narrative)	
1.2.3	Descriptive report / General review (narrative)	
1.2.4	Prospective information (future plans & activities)	
1.2.5	Key facts & figures (statistical highlights)	
2.1	FINANCIAL	
2.1.1	Balance sheet	
2.1.2	Operating statement (or Income & expenditure account)	
2.1.3	Statement of cash flows	
2.1.4	Depreciation	
2.1.5	Statement of commitments	
2.1.6	Financial ratios (eg. debt/equity, surplus/assets etc)	
2.1.7	Comparative figures for previous year	
2.1.8	Investments	
2.1.9	Statement of contingent liabilities	
2.1.10	Budget information	
2.1.11	Statement of cost of services	
2.1.12	Statement of movements in equity (ie. owners' equity or financial interest)	
2.1.13	Overhead allocation (eg. methods of allocation, amounts allocated to faculties etc)	

Public Accountability University Annual Reporting Model

NOTE: Shaded items are already generally disclosed in all or most university annual reports

Place a number in the column at right which corresponds with your opinion about each item on the following scale;

0=Should not be disclosed; 1=Minor Importance; 2=Quite Important; 3=Extremely Important

If your answer is 0 because you believe the cost of the information is greater than the benefit then respond "0 C/B"

**Your
Opinion?
0-3**

ANNUAL REPORT DISCLOSURES

2.1.14	Total value of estates (land, buildings, improvements)	
3.1	SERVICE : General	
3.1.1	Equal employment opportunity information	
3.1.2	Statement of service performance	
3.1.3	Achievements against objectives & targets	
3.1.4	Interpretive comment (narrative explanation of service performance)	
3.1.5	Staff training & development	
3.1.6	Health and safety information	
3.1.7	Environmental related information	
3.2	SERVICE : Teaching	
	INPUT - Access	
3.2.1	Student numbers (Enrolments & EFTS; Total & field of study)	
3.2.2	Qualification of student intake	
3.2.3	Demand for new places compared with previous year (Total & field of study)	
3.2.4	New students by programme area	
3.2.5	Total EFTS aged 18-24, as ratio of 18-24 age cohort	
3.2.6	Actual enrolment relative to demand for new places (Total & field of study)	
3.2.7	No. of qualified students not admitted (Total & field of study)	
3.2.8	No. of qualified admitted students unable to enrol in preferred study	
3.2.9	Total school graduates at university as % of total school graduates	
	INPUT - Efficiency	
3.2.10	\$ value of operating grants from government (Total & field of study)	
3.2.11	\$ value of operating grants from other sources broken down by significant groups (Total & field of study)	

Public Accountability University Annual Reporting Model

NOTE: Shaded items are already generally disclosed in all or most university annual reports
Place a number in the column at right which corresponds with your opinion about each item on the following scale;
0=Should not be disclosed; 1=Minor Importance; 2=Quite Important; 3=Extremely Important
If your answer is 0 because you believe the cost of the information is greater than the benefit then respond "0 C/B"

**Your
Opinion?
0-3**

ANNUAL REPORT DISCLOSURES

	INPUT - Equity	
3.2.12	No. & proportion of designated equity groups by field of study	
3.2.13	Tuition fees as % of total revenue (Total & field of study)	
	INPUT - Quantity	
3.2.14	No. of new places created compared with previous year (Total & field of study)	
	INPUT - Relevance	
3.2.15	No of places available in vocational programmes as % of all programs	
	PROCESS - Access	
3.2.16	Teaching space (inc. teaching labs) as % of total space	
3.2.17	Teaching space (inc. teaching labs) per EFTS	
	PROCESS - Efficiency	
3.2.18	Student : staff ratio (Total & field of study)	
3.2.19	Cost per EFTS (Total & field of study)	
3.2.20	Library expenditure as % of operating expenditure & \$ per EFTS	
3.2.21	Student services expenditure per EFTS	
3.2.22	Library stock	
3.2.23	Proportion of staff with PhD	
	PROCESS - Equity	
3.2.24	Academic staff statistics - Seniority/Tenured/Qualification/Equity groups (Total & field of study)	
3.2.25	All staff (academic, admin & general) statistics (Total/Equity groups)	
3.2.26	Financial aid to students awarded	

Public Accountability University Annual Reporting Model

NOTE: Shaded items are already generally disclosed in all or most university annual reports

Place a number in the column at right which corresponds with your opinion about each item on the following scale;

0=Should not be disclosed; 1=Minor Importance; 2=Quite Important; 3=Extremely Important

If your answer is 0 because you believe the cost of the information is greater than the benefit then respond "0 C/B"

**Your
Opinion?
0-3**

ANNUAL REPORT DISCLOSURES

	PROCESS - Quality	
3.2.27	No of hostel beds per 100 EFTS	
3.2.28	Number & % of students in higher degrees (Total & field of study)	
3.2.29	Processes in place to ensure quality of teaching programmes	
	PROCESS - Quantity	
3.2.30	No. of undergraduate fields of study / courses	
3.2.31	No of postgraduate fields of study / courses	
3.2.32	Number & % of students in full-time/part-time/extramural courses (Total & field of study)	
	OUTPUT - Intermediate-Satisfaction	
3.2.33	Measure of student satisfaction at intermediate stages	
	OUTPUT - Intermediate-Efficiency	
3.2.34	Expenditure per completed programme year by student	
3.2.35	Expenditure per EFTS per year (Total & field of study)	
	OUTPUT - Intermediate-Equity	
3.2.36	Number of equity students at intermediate stages as % of original	
3.2.37	Number & % of equity students in each academic year	
	OUTPUT - Intermediate-Quantity	
3.2.38	% EFTS completing each year prior to graduation (Total & field of study)	
	OUTPUT - Final-Satisfaction	
3.2.39	Measure of student satisfaction with programme at time of completion (Total & field of study)	

Public Accountability University Annual Reporting Model

NOTE: Shaded items are already generally disclosed in all or most university annual reports
Place a number in the column at right which corresponds with your opinion about each item on the following scale;
0=Should not be disclosed; 1=Minor Importance; 2=Quite Important; 3=Extremely Important
If your answer is 0 because you believe the cost of the information is greater than the benefit then respond "0 C/B"

**Your
Opinion?
0-3**

ANNUAL REPORT DISCLOSURES

	OUTPUT - Final-Efficiency	
3.2.40	Expenditure per EFTS (Total & field of study)	
3.2.41	Average time to complete programme	
3.2.42	No of undergraduate courses completed per 100 EFTS	
3.2.43	No of undergraduate courses completed per academic staff	
3.2.44	Value added (measure of student improvement or development)	
3.2.45	Rate of return (value added / cost of service)	
	OUTPUT - Final-Equity	
3.2.46	Equity students graduating as % of total graduates (Total & field of study)	
	OUTPUT - Final-Quality	
3.2.47	Honours degrees awarded as % of total degrees	
	OUTPUT - Final-Quantity	
3.2.48	No. & % of EFTS completing their programme of study (Total & field of study)	
3.2.49	Crude drop-out rate (Total & field of study)	
3.2.50	Student unit pass rate (Total & field of study)	
	OUTPUT - Final-Relevance	
3.2.51	No. & % of graduates employed (Total & field of study, & equity)	
3.2.52	No & % of students continuing to further study; & equity	
	OUTCOME - Satisfaction	
3.2.53	Employer satisfaction with former students	
3.2.54	Former student satisfaction at intervals after graduating (2yrs. 5yrs etc)	

Public Accountability University Annual Reporting Model

NOTE: Shaded items are already generally disclosed in all or most university annual reports
Place a number in the column at right which corresponds with your opinion about each item on the following scale;
0=Should not be disclosed; 1=Minor Importance; 2=Quite Important; 3=Extremely Important
If your answer is 0 because you believe the cost of the information is greater than the benefit then respond "0 C/B"

**Your
Opinion?
0-3**

ANNUAL REPORT DISCLOSURES

	OUTCOME - Quality	
3.2.55	Ranking of graduates on standardised scoring system (eg GMAT)	
3.3	SERVICE : Research	
	Input	
3.3.1	Research income (grants & contracts)(Total \$ / \$ per academic & field of study)	
3.3.2	No. & \$ value of research grants & fellowships (Total & field of study)	
3.3.3	External contributions to research (\$ 000)	
3.3.4	No. of research & sponsored students (Total & field of study)	
	Process	
3.3.5	No. of Masters & PhD students (Total & field of study)	
	Output	
3.3.6	Publications /patents /copyrights (Total & field of study)	
3.3.7	No. of Masters & PhD graduates (Total & field of study)	
3.3.8	Conference presentations (Total & field of study)	
3.3.9	Overall research rating (National independent system)(Total & field of study)	
3.3.10	Citations (Total & field of study)	
3.3.11	Destination of research graduates (Total & field of study)	
3.4	SERVICE : Community	
3.4.1	Description of local community service	
3.4.2	Description of national community service	
3.4.3	Description of international community service	

THE PUBLIC ACCOUNTABILITY UNIVERSITY ANNUAL REPORT FRAMEWORK

EXPLANATION OF SUGGESTED DISCLOSURE ITEMS

- 1.1.4 Directory information refers to a table of contents, university address, telephone & fax numbers, names and titles of senior officials etc.
- 2.1.12 Equity in 'Statement of movements in equity' refers to financial equity or owners' interest in the organisation.
- 2.1.13 Overhead allocation: eg. indication of methods used to allocate overheads, summarised analysis of the overheads allocated to Faculties.
- 2.1.14 Total value of assets basis of valuation to be disclosed.

TEACHING SERVICE PERFORMANCE ITEMS

These disclosure items are divided into four sections: Input, Process, Output and Outcome, with further sub-divisions into the following elements of performance: Access, Efficiency, Equity, Quantity, Quality, Relevance and Satisfaction.

- 3.2.1 - 9 **Input-Access:** Information about student access to the university
- 3.2.1 et al EFTS:Equivalent Full-Time Students
- 3.2.1 et al Field of study refers to disaggregation of information by academic discipline, academic department, School or Faculty of study as appropriate.
- 3.2.4 et al Programme of Study eg. BA, BSc etc.
- 3.2.10 - 11 **Input-Efficiency:** Information about sources of finance
- 3.2.11 \$ value of operating revenues from other sources. Includes breakdown of all significant 'other' categories, such as NZ student tuition, International student tuition, commercial activities, research activities, interest earned etc.
- 3.2.12 - 13 **Input-Equity:** Equity refers to information about disadvantaged, minority or under-represented groups (eg. ethnic, gender, disabled, etc). Also includes information disaggregated by field of study (School or Faculty), and related to inter-generational equity
- 3.2.12 No. & proportion of designated equity groups by programme
- 3.2.14 **Input-Quantity:** Capacity to take additional students
- 3.2.15 **Input-Relevance:** Relevance of courses offered to society's needs
- 3.2.15 et al Vocational programmes refers to courses which prepare students for direct entry into a specified profession or job, eg law, engineering, marketing.
- 3.2.16 - 17 **Process-Access:** Space dedicated to teaching purposes
- 3.2.18 - 23 **Process-Efficiency:** Resources used relative to outputs in the provision of teaching services
- 3.2.24 - 26 **Process-Equity:** Contribution from and to equity groups in teaching processes

3.2.27 - 29	Process-Quality: Indicators of quality in teaching process
3.2.30 - 32	Process-Quantity: Indicators of quantity and type of available courses
3.2.33	Output-Intermediate-Satisfaction : Indicators of student satisfaction during their study programmes
3.2.34 - 35	Output-Intermediate-Efficiency : Resource use relative to outputs during programmes of study
3.2.36 - 37	Output-Intermediate-Equity : Progress of designated equity students during study programmes
3.2.38	Output-Intermediate-Quantity : Progress of students through study programmes
3.2.39	Output-Final-Satisfaction : Indicators of student satisfaction at time of completing programmes
3.2.40 - 45	Output-Final-Efficiency : Resource use relative to completed programmes of study
3.2.44	<u>Value added</u> refers to a measure of the value added by the university. The difference between students' attainment at exit and on entry.
3.2.45	<u>Rate of return</u> is a quality adjusted productivity measure which might be calculated by taking the value added divided by the operating expenditure, or value added divided by the total assets.
3.2.46	Output-Final-Equity : Proportion of designated equity group students graduating
3.2.47	Output-Final-Quality : Proportion of honours graduates amongst total graduates
3.2.48 - 50	Output-Final-Quantity : Indicators of those completing, and not completing their study programmes
3.2.51 - 52	Output-Final-Relevance : Indicators of relevance of completed study programmes to society's needs
3.2.53 - 54	Outcome-Satisfaction : Impact of graduates
3.2.55	<u>Standardised scoring system</u> refers to an evaluation system which assesses graduates' ability without reference to field of study. Graduate Management Aptitude Test (GMAT) is an established system of this kind used in the US.

RESEARCH SERVICE PERFORMANCE ITEMS

3.3.1 - 4	Input : Indicators of resource inputs into research activities
3.3.5	Process : Students involved in research activities
3.3.6 - 11	Output : Indicators of research outputs
3.3.9	<u>Overall research rating</u> eg. results of an independent assessment of research quality

APPENDIX E

Public Accountability Index 'Standard' Criteria

Disclosures required to meet 'Standard' criteria,
and a score of 5 on the public accountability index.

1. **Timeliness**

Report available to the public in 10-13 weeks from balance date (score = 5)

14 - 17 weeks = 4 22 - 25 weeks = 2

18 - 21 weeks = 3 26 - 29 weeks = 1

Reports published sooner than 10 weeks or later than 29 weeks after balance date score >5 or 0 as appropriate.

2. **Overview : report**

Auditors' Report

Full audit report as required by statute. Clearly titled, statement that auditor has had access to all information required, basis of audit opinion, audit opinion, name of auditor and date audit signed.

Statement of accounting policies

Separate headed sections for General, and for Particular Accounting Policies, and for Changes. Under General Accounting Policies full detail, showing full basis of presentation. Under Particular, > 7 issues explained, Under Changes, if none, stated fully, and consistency of application stated. If some, reason for change, detailed explanation, with quantitative impact; clear statement that all changes have been disclosed and consistent application of all other items stated.

Directory information

Address, telephone, fax nos; Contents page; Date annual report issued; Council members and who they represent; Senior management staff.

Statement of managerial responsibility

Clearly titled statement, with full particulars as required by statute. Signed by Vice Chancellor, Council Chairperson and Financial Director

Brief summary

A summary of the annual report either as a separate document, or in abstract form at the start of the full annual report. Clearly titled, summarising the key information contained within the annual report with a particular focus on the objectives and achievements in respect of teaching and research service and financial performance

3. **Overview : university**

Statement of objectives

Separate statement which must include the following items: Charter, mission, goals and performance targets in specific, concise, understandable and realistic terminology. The items must have measurable / quantitative dimensions and a given time-frame.

Descriptive report / general review

Report(s) by Council Chairperson, Chancellor, and / or Vice Chancellor. Title(s), thorough yet inviting to read, full review, reference to broad spectrum of activities and achievements, set in context of social, economic and political environment. Includes some quantification with comparatives. May include Students' Review.

Financial review

Separate, titled section providing review of revenues, costs, assets, liabilities, capital projects and any other significant financial issues. Includes explanation of trends; possibly illustrations.

Key facts and figures

Separate, titled section providing key facts and figures (statistical highlights), including 4 year trends and comparatives; possibly illustrations.

Prospective information

Expected future performance including financial, teaching and research service performance. Includes narrative and quantitative information, with latter in the form of budget and target data about the year following the reporting year. Medium and long term information may also be provided.

4. Financial**Operating statement**

A summary statement(s) by input items (eg. salaries, consumables), or organisational unit (eg. faculty, school) or programme (eg. course of study, research discipline); detailed disclosure with informative footnotes, one year comparative and sub-headings and other aids to understanding. Includes all expenses (eg depreciation, leave accruals) and revenues including analysis of tuition fees paid by students. Not more than 10% of total expenses in any single unanalyzed item.

Statement of cash flows

Cash flow format, one year comparatives, sub-headings, informative footnotes or other aids to understanding, clear reconciliation with operating surplus / deficit.

Statement of cost of services

A series of Cost of Services Statements by appropriate service divisions (faculties, schools and significant operating units). Detailed cost and revenue breakdowns including salaries broken down by academic, administrative, technical and other staff costs, allocated overhead costs, depreciation, rental & leasing costs, loss/gain on sale of assets and other costs and revenues. One year comparatives. Clear reconciliation with university total costs and revenues.

Balance sheet

Detailed statement, disclosing all assets including land and buildings and inventories, and all liabilities. Details of reserves and movements on reserves, Loans & lines of credit. One year comparatives, extensive footnotes, sub-headings, appropriate classifications, not more than 20% of assets in a single item, assets analyzed by faculty / department. Assets controlled but not legally owned, clearly stated. Financial equity at start of current year, changes during the year and balance at close of year.

Budget information

Comprehensive disclosure in all major accounting statements, including operating statement, cash flows, cost of services and balance sheet. Showing variance and narrative explanations of major variances.

Overhead allocation

Clear titled statement showing composition of total overheads. In addition, detailed allocation of overheads to faculties/schools; basis of allocation; comparative for previous year.

Depreciation

Comprehensive disclosure of depreciation of all assets in use. Includes policies and amounts analyzed by asset type. Depreciation to be included as operating expense and as a movement on accumulated depreciation account(s).

Financial ratios

Appropriate ratios including debt, interest, government funding / total revenues, NZ tuition fees / total revenues, Full fee tuition fees / total revenues and others as appropriate. At least one year comparatives.

Investments

Separate schedule showing all holdings, movements and investment income. Comparatives, valuations at cost and current market value. Basis of valuation. Any restrictions (eg trusts, endowments).

Total value of estates

Titled section showing land and buildings owned, leased and crown assets and significant changes. Valuations showing cost, nbv and gv, area per EFTS (total and by faculty), illustration(s) and comparatives.

Commitments & contingencies

If no commitments and contingencies then clear statements to this effect.

If yes for contingencies: Separate, clear statement disclosing individual items with financial impact, clearly stating that all items disclosed. If yes for commitments: separate statement with full disclosure, stating purpose / project and showing total expected expenditure, and expenditure to date, with expected completion date. A clear statement that all items disclosed.

5. Service : generalAchievements vs objectives and targets

Clear specification of objectives or targets especially in respect of teaching and research service, and achievements in respect of each. Quantified where possible in respect of inputs, process, costs and outputs. Comparisons between objectives / targets and achievements should be made for at least 10 elements of service performance.

Interpretive comment

Narrative explanations for the level of success achieved in service performance, particularly those elements deemed to be critical to the university's objectives.

Analysis of community and student services

Narrative, financial and quantitative information with comparatives where appropriate for the main community and student services provided such as accommodation, health, advisory, counselling, recreational and other support services available.

Staff training and development

Separate titled section in form of report of staff training and development activities undertaken. Includes administrative, academic and other staff; narrative and quantitative information where appropriate. Objectives and achievements as appropriate. Qualification of administrative staff.

Equal employment opportunity information

Separate titled section, disclosing quantitative and descriptive information about representation of appropriate groups (eg. gender, ethnic, disabled etc) amongst the staff, level of positions, illustration(s) and comparatives.

Environmental related information

Separate titled section explaining policies towards environmental issues such as use of hazardous substances, waste disposal, emissions of pollutants, recycling, Resource Management Act etc. Narrative description of programmes and activities undertaken with indication of outcomes and quantitative information where possible.

Health and safety information

Separate titled section explaining policies towards health and safety issues for staff and students. Programmes undertaken, outcomes. Quantitative information as appropriate such as accidents (number and type, with comparatives), work days lost due to sickness and accidents etc.

6. Service : teaching**Input (of students and resources)**Student numbers

Number of students and EFTS based information both in aggregate for institution and by faculty / school. Section title, at least 4 year trend and including illustration(s). Full-time, part-time and extramural breakdowns; undergraduate, postgraduate, diploma and other courses as appropriate. Age distribution of students. No. of qualified students not admitted or unable to enrol in preferred course of study.

Cost per EFTS

Clear statement, showing EFTS unit cost in total and by faculty / school, at least 4 year trends and illustration(s).

Revenues

Operating revenues showing main sources including government, NZ students' tuition fees, international students' tuition fees, and other significant sources of teaching revenues. Section title, at least 4 year trend and illustration(s).

Staff

Clear titled statement, showing staff EFT in total and by faculty / school, classified into academic by seniority, administrative, technical and other, full-time, part-time with at least 4 year comparative. % of academic staff with PhD. Staff turnover.

Equity group information

Number of students enrolled meeting the main equity criteria such as gender, ethnic, disabled. Educational progress of equity students. Clearly titled statement including at least 4 year trend.

Qualification of student intake

For undergraduate programmes, the number and proportion of students admitted based on bursary results; % A bursary, % B bursary overall and by field of study. At least 4-year comparatives.

Space

Space per EFTS in total and by faculty / school with at least 4 year comparatives. All space including teaching rooms, laboratories, common rooms and offices.

Financial aid

Summary of all financial aid provided to students including disbursement of government funded allowances, scholarships, hardship allowances etc. At least 4 year comparatives.

Service : teaching**Process**Student : staff ratios

Clear titled statement, showing ratio (EFTS/EFT) in total and by faculty / school, with at least 4 year comparatives, narrative and illustration(s).

Processes to ensure quality of teaching

Description of processes in place to monitor and ensure quality of teaching. Changes made to these processes during the year under review, and indication of the outcome of the changes.

Library service information

Narrative description, non-financial, and financial information. Periodicals and volumes held: collection changes. Details of patronage. IT, videos and similar collections. Staff and library facilities. Comparatives. Valuations and valuation method disclosed.

Computer service information

Narrative description, non-financial and financial information. Comparatives. Changes during year under review. Number and type of computer facilities available to academic staff, administrative staff and students. Adoption of leading edge computer technology.

Fields of study

Range and type of programmes available; undergraduate, postgraduate, diploma etc. Changes during year under review.

Service : teaching**Output / outcomes**Graduates

Separate statement with title, type of award (eg degrees / diplomas) by discipline, at least 4 year trends, includes illustration(s).

Destination of graduates

Separate statement with title and including the following items: detailed analysis by discipline, 4 year trends, and illustration(s). Numbers moving into further education, employment, seeking employment etc.

Departmental reviews

Number of external reviews of teaching departments. Names of departments and summary indications of reviewers' findings and recommendations.

Pass rates

Summarised course pass rates by discipline. Crude drop-out rate by discipline. 4 year trends.

Student satisfaction

Summary of surveys of student evaluations of teaching by discipline, undergraduate and postgraduate. Indicate rating of courses and rating of teaching. 4 year trends.

Employer satisfaction

Summary results of surveys of employer satisfaction with graduates. 4 year trends.

UG courses completed per 100 EFTS

Number of undergraduate courses completed per 100 EFTS during the year under review. In total and by discipline with 4 year trends.

Average time to complete programme

Average time elapsed for graduates to complete programmes. % completing within the standard time for the programme of study. 4 year trends.

7. Service : researchGraduates

Number of graduates in total and by discipline and course of study. 4 year trends and illustrations.

Postgraduate students

Number and EFTS of postgraduate students in total, by discipline and course of study (PhD, Masters, MBA, Diploma etc). 4 year trends, illustration(s).

Research income

Separate section with title, narrative, analysis by project types or disciplines including amounts, sources (eg. Government, FRST, industry etc.) and at least 4 year trends and illustration(s).

Publications

Separate section with title, narrative, analysis by discipline and publication type (eg refereed journals, working papers etc), and at least 4 year trend and illustration(s).

Destination of research graduates

Analysis by discipline, 4 year trends, and illustration(s). Numbers moving into further education, employment, seeking employment etc.

8. Community serviceLocal community service

Descriptive; such as public lectures, advisory and affiliation roles, town and gown relationships, other academic, cultural and artistic services provided.

National community service

Descriptive; contributions at the national level, advisory committees, political and social arena, national awards and distinctions received by staff. Contributions as critic and conscience of society.

International community service

Descriptive; such as contributions to the international academic community, international recognition received by the university and its staff.

David Coy
November, 1995