
The role of accounting in transforming public tertiary institutions in New Zealand

Abstract

Purpose - This paper evaluates the role and influence played by the discipline of accounting through its association with the multiple logics of government reforms to transform the public tertiary education sector in New Zealand.

Design/methodology/approach - The study adopts a case study approach utilising multiple data collection methods. Neo-institutional theory (NIT) provides an insightful and valuable complement to neo-liberalism and enhances our understanding of institutional logics driving government reforms and the transformation of public tertiary institutions.

Findings - The findings reveal that accounting has become a powerful conduit for the exercise of the neo-liberalism reforms by government and implemented by managerial control over public tertiary education institutions.

Research implications – By addressing a gap in the literature the paper shows how political and economic neo-liberal policies have been implemented in tertiary education with the discipline of accounting being adopted as a prime driver of these reforms. The paper has significant implications for educational management, academics and learners in understanding how and why the inherent nature, objectives and processes of the overall educational experience has undergone a radical reformation.

Originality/value - New Zealand is one of the first countries to implement these educational reforms and adopted 'accounting technologies' to reduce costs and improve performance. But the reality has often been very different. Most of the government's original objectives have not been fulfilled and the reforms have been costly for the academic profession. This paper provides a valuable source of learning for academics, managers and politicians.

Keywords: government, markets, neo-liberalism, public tertiary education

Paper type – Research paper

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1. Introduction

Over the past three decades, governments in many countries have made substantial efforts to radically transform the public tertiary education sector within the framework of the New Public Management (NPM) reform agenda (Hood, 1991, 1995). The NPM ideologies have given accounting greater prominence and accounting-based technologies have occupied a central role to make operable the activities, programmes and rationalities of government (Kurunmaki and Miller, 2006).

These ‘technologies’ encompass a variety of accounting measures enabling greater management control and enhanced financial reporting measures that included detailed cost control and budgetary reporting systems, investment appraisal techniques and financial performance reports and indicators. Prior literature recognises that accounting has been at the heart of the NPM inspired government reform initiatives to radically transform public funding, financial management and accountability systems (Lapsley and Wright, 2004). However, there is limited understanding of the influence of the discipline of accounting and the manner in which accounting has been utilised to achieve intended organisational objectives (Jackson and Lapsley, 2003; Nasi and Steccolini, 2008). Indeed, accounting has become enmeshed in a much wider set of social, institutional and organisational processes (Kurunmaki and Miller, 2006; Liguori and Steccolini, 2014); but there remains material knowledge gaps between reformers’ ambitions and policy outcomes (Arnaboldi and Palermo, 2011).

The aim of this paper is to examine the role and influence played by the discipline of accounting in transforming public tertiary education institutions (TEIs)¹ in New Zealand. Within this overall context, the paper explores two associated research questions. Firstly, we examine how accounting became associated with the multiple logics of government reforms over a period of nearly three decades spanning the pre-NPM (traditional public administration), NPM and ‘post-NPM’ or New Public Governance (NPG) periods to help drive changes within public TEIs. Secondly, we evaluate the impact of accounting changes on the transformation of the TEIs.

Several authors have been critical of the effects of NPM changes in higher education (e.g. Parker, 2013; Parker and Guthrie, 2010; Moll and Hoque, 2011), but the effects of accounting changes through time, longer term value shifts and reconstruction remain largely unexplored (Parker, 2011). The research aims of this paper are relevant and significant in developing a deeper and richer understanding of the discipline of accounting as a social practice in influencing the transformation of higher education that reflects or diverges from societal, institutional and government expectations (Liguori and Steccolini, 2014; Parker, 2011). This paper, by drawing upon the ‘role of accounting’ and the use of TEI supporting case studies, highlights

¹ The OECD (2008, p.2) states that the use of the term ‘tertiary education’ has become ‘...much more diversified [than just universities] and encompasses new types of institutions such as polytechnics, university colleges, or technological institutes’.

and explains how 'academic-ness' has been sacrificed in favour of a largely market-driven and government-imposed agenda of educational reforms.

The study is framed within the neo-liberal political and economic context and associated discourses of NPM and NPG to help understand the role of accounting within these specific settings. NPG, as an alternative paradigm to NPM, refers to network governance structures of collaboration and coordination, the use of policy tools and greater emphasis on performance and success to deal with the complexities faced by governments (Koppenjan and Koliba, 2013). We also draw on perspectives from the neo-institutional theory (NIT) to build an explanation of accounting's influence and effects on the transformation of public TEIs. NIT also provides an insightful complement to neo-liberalism and enhances our understanding of institutional logics driving government reforms. A case study research method was selected for the study as it closely meets the research aim and is highly appropriate for addressing the research questions.

Through the use of multiple data sources, case studies can assist in providing both a richer and wider understanding of the research context and enables the researcher to gain an in-depth understanding of the phenomenon under investigation in its context (Yin, 2009; Eisenhardt, 1989).

Data was collected from two public TEIs in New Zealand over a recent ten-year period. The New Zealand case is particularly relevant because the public sector was at the forefront of NPM-inspired government reforms in the 1990s with innovations in accounting and financial management systems serving as a benchmark for many other countries (Jones and Kettl, 2003; Pallot, 1999). Over the past three decades, public TEIs have undergone major NPM inspired reforms based on the radical political agendas of government to cut costs, improve quality, ensure social equity and become more strategic in pursuing the goals of economic growth (Narayan, 2012). In particular, the changing social context and different political agenda of successive governments offer unique opportunities for comprehensive insights into accounting and its influence on the transformation of public TEIs.

The remainder of the paper is organised as follows. The next two sections provide an overview of the neo-liberalism and the theoretical perspectives that inform the study. This is then followed by an explanation of the research method. The findings section presents the accounting changes inspired by the logic of government reform initiatives and the role and impact of accounting on the transformation of the TEIs. The final two sections present a discussion of findings and some concluding comments.

2. Neo-liberalism and NPM

This paper reflects and contextualises in a wider and overall setting the neo-liberal political and economic reforms of the New Right philosophies. As Sikka (2000, pp.371-372) points out, the New Right ideology emphasises the importance and superiority of 'markets', individual freedom of 'choice', the 'minimalist state' and with markets being '...the only magical solution to everything.'

In rolling back the role and functions of the State, neo-liberalism has enabled areas such as health, social services and education to be increasingly 'market-ised' and

become 'consumer-orientated' in a competitive and market-driven environment. Wiborg 2013, (citing Harvey, 2005, p.2) believes that neo-liberalism can be broadly defined in the first instance, as a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade. Torres (2002, p.368) stated that neo-liberal governments will typically "promote notions of open markets, free trade, the reduction of the public sector, the decrease of state intervention in the economy and the deregulation of markets."

Almquist *et al.* (2013, p.480) highlighted that during "the past three decades the management of public sector organizations has been subject to major changes" under the general term of NPM. According to Almquist *et al.* (2013, p. 481; see also Osborne 2010), NPM has evolved to NPG emphasising public sector values and outcomes which has, in part, been "a response to the NPM-oriented developments in the public sector, especially with respect to 'market-isation' and 'accounting-isation'." NPM has drawn on the neo-liberal political and economic dogma that regards, *inter alia*, "the integration of private sector management concepts and market mechanisms into the public sector." NPG is now mainly concerned with emphasising public sector values rather than private sector attributes. It recognises and reflects a stronger and clearer emphasis being placed upon governance issues concerning the complex relationships "between mutually dependent (public, semi-public and/or private) actors in complex policy issues or policy programmes." (See Almquist *et al.*, 2013., p. 481, citing Koppenjan and Klijn, 2004, pp. 69–70; see also Klijn, 2012).

Olssen and Peters (2005, p.313) highlighted that the "ascendancy of neo-liberalism and the associated discourses of 'new public management' " has made a significant impact on the education sector. Gorden and Whitty (1997, p.453) stated that "many governments have sought to restructure and deregulate state education" using 'neo-liberal reform policies' largely "linked to an increased emphasis on parental choice and on competition between diversified and specialised forms of provision, thereby seeming to create 'markets' in educational services". Specifically, Rose (1991, p.690) added that under neo-liberalism, "a new 'privatized' relationship between numbers and politics is born." Cooper (2015, p.14) highlighted that "Accounting can serve as a crucial technology of neo-liberalism."

In the university sector, Christopher (2012, p.556) believed that the corporate management culture of public universities "... has essentially been driven by pressures for more accountability through a transparent accounting system." Furthermore, Neumann and Guthrie (2002, p.724) pointedly stated that the "...manifestation of the wholesale disassembly of the public sector is evident in the AHES² through such mechanisms as 'marketization' and 'performance measurement' of academic activities such as teaching and research. These activities become calculable, marketable and tradable under the commercialized and managerialist regime in which universities must now operate."

It is within this overall neo-liberal context, this paper draws on perspectives from neo-institutional theory (NIT) to build an explanation of accounting's influence and impact on the transformation of public TEIs.

² Australian Higher Education System.

3. Theoretical framework

NIT has become a popular choice among accounting researchers who seek to explain why and how organisations change (Moll et al., 2006) and what variants influence the processes of organisational change (Scott, 1987). NIT also offers theoretical perspectives that include both the social and institutional dimensions of organisations and their environment to help explain organisational change. Among these perspectives are the regulatory, normative and cultural-cognitive institutional elements that largely influence organisational behaviour (Scott, 2001). The regulative element refers to demands of government and regulatory bodies to comply with legislation and accounting regulations, usually imposed through coercive power. The normative element prescribes the accounting profession's wider norms and values and these are transmitted into organisations through the professional association of its members. The cultural-cognitive elements are taken for granted behavior derived from shared understandings and societal beliefs (Scott, 2001).

Individuals and organisations operate within a social context where values, beliefs, culture, power and politics have a major influence in shaping organisational change (Buchanan and Badham, 1999; Quattrone and Hopper, 2001). Organisations tend to converge to prevailing societal beliefs and norms through isomorphic pressures thus leading to homogenization of systems and practices (DiMaggio and Powell, 1983). Isomorphic pressure tends to be mimetic (imitation), normative (professionalization) and coercive (rules and regulations) (DiMaggio and Powell, 1983). Management will usually comply with isomorphic pressures to gain organisational legitimacy and funding support (Scott, 2001).

NIT posits that accounting changes become institutionalised by organisations acquiring social acceptability and endorsement through conformity to the norms and expectations of the government, society and external stakeholders from the institutional environment (DiMaggio and Powell, 1983; Meyer and Rowan, 1977; Scott, 1987; Zucker, 1977). Institutionalisation causes systems and practices to acquire a rule-like status that renders them highly resistant to change (Zucker, 1977). Hence, accounting processes increasingly formalise and become institutionalised as an organisation attempts to project an image of rationality and compliance with convention (Parker, 2011).

Programs and rationalities of government do not work by themselves as their aim is to seek to establish legitimacy of particular ways of delivering services and organizing social life (Kurunmaki and Miller, 2006). They require 'technologies' to be made operable (Miller and Rose, 1990). These 'technologies' refer to a wide range of calculations, measurements, procedures, and rules and routines of government (Miller, 1990). Accounting is one such technology that provides legitimacy (Moll and Hoque, 2011). NIT shows promise in explaining how government may embrace the technical and rational nature of accounting technology to force change in TEIs by focusing on organizational rules and routines (Chen *et al.*, 2008). Organisational rules are formally recognised ways in which "things should be done", and routines are ways in which "things are actually done" (Burns and Scapens, 2000, p. 6). Normally, rules are closely followed (Rautiainen, 2010) and there is a consistency between the rule and its enactment as a routine (Coyte *et al.*, 2010).

Institutional theorists argue that organisations may also attempt to reduce institutional pressures by partially detaching or decoupling their activities from external contact (Meyer and Rowan, 1977; Oliver, 1991). Decoupling may be a rational managerial response to gain support from potential stakeholders, circumvent major potential conflicts within organisations, or maintain flexibility with co-existing values and practices within an organisation while outwardly presenting legitimising formal processes (Parker, 2011). Decoupling could also be a proactive strategic response to protect the organisation's interest and maximise efficiency without having to depend on external intervention or open up to public scrutiny (Covaleski and Dirsmith, 1988; Oliver, 1991).

Institutional change can also be explained through the notion of 'institutional logics' defined as "socially constructed, historical pattern of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material substance, organize time and space, and provide meaning to their social reality" (Thornton and Ocasio, 1999, p.804).

NIT recognizes society as an inter-institutional system characterized by the multiplicity of 'institutional logics' that compete, shift and interact (Friedland and Alford, 1991; Thornton and Ocasio, 2008). As new logics are introduced, organizations and individuals accommodate or adjust practices and norms with the technologies and practices associated with the new logic (Thornton and Ocasio, 1999). Indeed, four key 'institutional logics' are used in this paper: the logic of public accountability; of markets; of business and of the academic profession. These 'logics' provide appropriate lenses to examine and explain the TEIs' reforms.

The NIT concepts, outlined above, offer a rich theoretical framework for analysing accounting's influence and its impact on TEIs transformation. The next section outlines the research method used in the study.

4. Research method

4.1 A case study approach

This paper uses a case-study research method to identify and analyse the role played by accounting on the impact of the government's educational reforms on two public TEIs in New Zealand. A case study research method is used as it is regarded as the more appropriate method for addressing the study's research aim and questions (see Yin, 2009; Eisenhardt, 1989). In particular, case study research provides a clear context and robust forum in which to conduct a detailed contextual analysis of the impact of the government's reforms on the developments and events within TEIs. A case study approach especially assists in explaining and in understanding the historical tertiary reforms and the associated role of accounting (Previts *et al.*, 1990).

The two case TEIs are referred as TEI Y and TEI Z to preserve the anonymity of both the institution and the interview participants. These two TEIs are typical of many public TEIs in New Zealand in terms of government funding, accounting, budgeting,

financial reporting and cost management requirements. They also have similar strategic planning, accountability, auditing and legislative compliance requirements.

This study identifies, analyses and explains the outcome of NPM reforms on TEIs in three phases. The first stage of the reforms was based on the initial transition reforms to a reduction in the role of government and increased financial and managerial autonomy for TEIs. This led to the study in the first phase specifically using documentation and interviews with finance and planning directors which were largely concerned with initial accounting and budgeting changes to meet institutional objectives.

In phase 2, there was increasing emphasis on 'market and business logics' and the specific use on analysing relevant educational documentation from government and an educational advisory commission, in addition to interviews with academic and TEI managerial staff, to investigate the effect of increasing marketization of TEI services and determine accounting's role in commodifying education.

In the final phase, with increasing realisation the government was failing to deliver successfully the NPM reforms in TEIs; the study examines the 'repositioning' of governmental aims by using government documentation and interviews with both TEI finance directors, heads of departments, managers and academics to explain and reflect on the outcome of the attempted NPM reforms and the impact on academics. (See Table 1).

<INSERT TABLE 1 HERE>

4.2 Data collection

A hallmark of case study research is the use of multiple data sources that enhances data credibility and research findings (Patton, 2002; Yin, 2009). Data was gathered from a range of sources including archival records, documentation, interviews, direct and participant observations

To improve the reliability and trustworthiness of the data and minimise researcher bias, this paper triangulates data collected from participant and direct observations and combined with data from interviews, archival sources, and documentation.

Observations

Participant and direct observations were made by the primary researcher during different time periods at the two TEIs. At one institution³, the primary researcher became a participant observer over the course of a decade through involvement in the operation of the accounting and accountability processes of the TEI as well as by 'engagement' in various management meetings and corporate settings. This gave a unique advantage and perspective of "going deep into the field and collecting data about 'real' practices", political influences and power relationships (Malsch and

³ Identities and locations of the TEIs, and dates, have been withheld to preserve confidentiality of participants and to avoid identifying the researchers.

Salterio, 2016, p. 17) and “comparing the rhetoric of reform with the reality of experience” (Norman and Gregory, 2003, p. 35).

At another institution, the primary researcher was a complete observer over a recent 10 year period. By being in the field, it was possible to “tap into the knowledge of those who [had] the requisite experience, first-hand knowledge, and understanding to provide meaningful insight into the issue being investigated” (Malsch and Salterio, 2016, p. 6). In particular, the primary researcher made direct observation and experienced the power and politics of budgeting, implementation of accounting technologies including financial reporting, performance measurement, costing and cost management approaches. However, at no time was the researcher a complete participant at any of the TEIs which minimised researcher bias.

Interviews

In total, 15 semi-structured interviews between 40-60 minutes were conducted with senior managers and staff at TEI Y and Z between the periods 2008-2011 (see appendix 1). Semi-structured interviews allowed the freedom to digress and capture individual perspectives and experiences that goes back in time (Berg, 2007; Patton, 2002). The aim of the interviews was to gain deeper and richer insights into the influence of accounting and its impact on the transformation of the TEIs. Hence, it was important to find well-informed respondents (Yin, 2009) who possessed knowledge and could look back in time and discuss their experiences and perceptions of the TEI reforms and the associated accounting changes and their effects. The majority of the interviewees were holders of long institutional memory that allowed them to answer questions related to the period of the study. A set of interview questions that guided the interviews is attached as appendix 2.

Archival sources and documentation

Archival data sources and documentation included an extensive corpus of publicly available government reform reports, policy guidelines, ministerial briefing papers, accompanying legislative frameworks, funding documentation, tertiary institutions' strategic plans, budgets, financial information, audit reports, annual reports, and web-site information (see appendix 3). For the period under study, data was gathered on an iterative basis, with the researcher taking on a reflexive and interpretive role, which is, observing, reflecting, interpreting and gathering more data. The data was obtained from multiple sources which added strength to the findings.

4.3 Data Analysis

Data analysis was carried out to ensure that the resulting narrative was a systematic and rich portrayal of ‘real-life’ organisational systems, processes and practices. The analysis of data involved interpretation of the meanings and functions of human actions beyond what people said (Hammersley, 2006). Negotiated meanings were induced from field based observations through a combination of actors' views and researcher interpretation. Data from various written sources and interviews were “weaved together” to help interpret meanings and understand a particular phenomenon (Lillis, 2008; p. 356). Actual data analysis involved developing narratives of government reforms and accounting developments in TEIs. This helped reduce the data collected into a more manageable form. The next stage of analysis

was reading through the narratives and identifying clear patterns. These patterns were then checked with subsequent rounds of data collection that also included further literature reviews. The final stage involved identifying clusters of meanings and forming opinions. The next section presents the findings of the study.

5. Findings

The findings of this paper are presented in terms of three major phases of tertiary reforms introduced by the New Zealand government since the late 1980s. Indeed, these phases reflect the influence of accounting changes particularly from the adoption of accounting policies and practices of the accounting profession that are associated with the institutional logics of these reforms. This paper's adoption and application of four key 'institutional logics' are the logic of public accountability; of markets; of business and of the academic profession. These key 'logics' are appropriate in order to highlight and explain the following TEIs' reforms in the pre-NPM or traditional public administration era through to NPM and NPG.

5.1 Pre-NPM Accounting

Prior to the NPM reforms of the late 1980s, accounting in TEIs was cash-based and largely under the central state control of the Department of Education which exercised excessive coercive power over detailed resource allocation. The cash basis of tertiary accounting was *"dominated by centralised input controls based on government regulations and the public service manual"* and much of the accounting and audit effort was *"directed at ensuring that these controls were understood and regulations complied with"* (FD-Z)⁴.

The Treasury, in its brief to the incoming Labour government in 1987, highlighted concerns that:

"...the institutes are largely dependent for income upon the Department of Education ... and have many of their costs fixed ..., hidden..., or are dependent upon negotiations with central bodies..." (Treasury, 1987, p.185).

Similarly, a 1987 report of the Ministerial Working Party⁵ on management and funding of TEIs highlighted concerns that,

"...the amount of resources over which the institute ... have discretionary decision is sometimes less than 10 per cent of total expenditure" (Probine and Fargher, 1987, p.ii).

With centralised control and power over resources, much of accounting and financial reporting was decoupled from TEIs direct responsibility since full costs could not be attributed to individual tertiary institutions; and assessing performance and holding institutions accountable for performance were difficult. There was limited annual reporting that mainly arose from isomorphic pressures to maintain the TEIs legitimacy with government and conform to audit compliance. Decoupling also

⁴ See Appendix 1 for the interviewee codes.

⁵ Also referred to as the 'Probine Fargher Report'.

resulted in little concern for public accountability as there was little public knowledge of what the government funding allocations were, or how they were determined.

The Probin Fargher report, was one of the earliest reports to recommend that TEIs *“be given much more discretion to manage the resources allocated to them to best effect, and that they be held accountable for resource use and for quality of education”* (Probin and Fargher, 1987, p.ii).

This report strongly triggered the first phase of the NPM reform of the tertiary sector where the institutional logics of increased TEI autonomy, accounting and public accountability featured prominently.

5.2 Phase 1 reform- financial autonomy and public accountability focus

The transformation of public tertiary institutions commenced in the late 1980s with government adopting neo-liberal political and economic reforms and starting to initiate the beginning of the NPM reform agenda. Driving the NPM logic were institutional pressures from various Treasury and Ministerial Working Party reports that claimed the public sector was overly bureaucratic, too large, costly, inefficient, and unresponsive to public accountability needs. In addition, it was stated that government should seek ways to improve management and accountability by introducing *“clear targets and clear allocation of responsibility”* (Treasury 1987, p.293).

Reflecting the NPM doctrine, the Treasury aimed to implement sound public sector accounting practices which more appropriately reflected and reported the TEIs' role of being more autonomous and responsive to societal needs and held them publicly accountable for the efficient and effective discharge of service⁶.

5.2.1 Accrual based financial statements and impact

Accrual accounting, a key commercial practice norm of professional accountants, was progressively introduced in TEIs during 1987 to 1990 as part of the NPM reform agenda to provide a more comprehensive and transparent set of information than cash accounting. The aim of the accrual accounting changes was also to support the NPM system based on clear objectives, good performance information and enhanced public accountability. Within TEIs, accrual accounting changes were largely facilitated by coercive pressures from government legislation and normative pressures from the accounting profession. For example, in July 1989, the government passed legislation (Public Finance Act 1989) that made a requirement for tertiary institutions to prepare (accounting regulatory enforced) accrual-based financial statements and adopt comprehensive reporting standards in the form of Public Sector Accounting Concepts (PSAC)⁷ to increase financial transparency and improve public accountability. These reporting reforms are now reflected in each TEI's annual report and include the Statement of Objectives (that outlines the mission and objectives of the TEI) and the Statement of Service Performance (that provides specific targets and reports on the degree of achievements).

⁶ These reforms were largely introduced by the State Sector Act 1988, the Education Act 1989, and the Public Finance Act 1989.

⁷ Issued by the NZ Society of Accountants (1987.)

From a public accountability perspective, it became apparent that the supremacy of accrual based financial statements substantially increased the volume of information available about TEI operations. According to the Finance Manager at Institution Y,

“It has substantially enhanced accountability, with the roles and responsibilities of TEIs more clearly defined, particularly in terms of the cost of producing and supplying educational outputs, and about the overall financial worth of the institution” (FM-Y).

The impact of accrual-based financial statements in terms of improving transparency, accountability, efficiency and effectiveness of operations was also highly contested. From interviews and document reviews, it was clear that through the Statement of Objectives and Statement of Service Performance, government had centralised and tightened its control over TEIs outcomes, funding and budgetary processes. Government exercised control through the coercive mechanisms of the Education Act 1989 which required TEIs to align their vision, objectives and strategies with the rolling five year tertiary education strategy formulated and implemented by government. (Tertiary Education Strategy 2002-2007, see Ministry of Education, 2003, p. 5).

It also became apparent from interviews and review of TEI Y and Z's strategic plans that government had driven a substantial change in the social norms and expectations concerning the role of TEIs through its funding mechanisms. In addition, the annual reports have become an institutionalised practice by acquiring social acceptability and endorsement of government. As noted by the Finance Director, TEI Z:

“If you looked at all the university reports they are all pretty much the same” (FD-Z).

The Statement of Cost of Services has also drawn some criticisms since a clear relationship between costs and level of service provided could not be accurately determined. Often, the rising administration overhead costs and arbitrary accounting allocations distorted the real cost of services, raising questions whether the NPM goals of cost efficiency and effectiveness were in fact being met. For example, one Head of School commented:

“40% of my school's cost of producing educational outputs is central services cost allocations. How am I supposed to be cost effective and efficient in producing outputs when accounting makes these arbitrary allocations?” (HOS-Y).

Numerous comments also highlighted the extent to which external financial reporting requirements had taken preference over internal cost management needs within TEIs.

“External financial reporting seems to dictate accounting requirements within TEIs and has shifted the major focus of accounting away from internal management accounting needs of cost management” (HOD-Z).

From interviewee accounts, it seemed that external financial reporting gained its supremacy because it becomes enforced by coercive government compliance mechanisms and legal and contractual requirements. These mechanisms and

requirements affect the allocation and use of financial resources, accountability statements of goals and objectives and reports on service performance.

5.2.2 Budgeting

The move to accrual accounting in the early 1990s was also accompanied by an output-based accrual budgeting system that recognised the full cost of producing education outputs against which outcomes or expected benefits to the community could be compared by government. At both TEIs, senior management used the coercive power of budgeting to implement government policy decisions which significantly impacted operations as reflected in the following statements:

“I had to cancel my community-based courses since they were not financially viable based on cost category funding from government” (HOS-Y).

“We rely heavily on budgets to drive cost cutting measures to achieve a budget surplus in disguise of having to operate more efficiently and effectively” (HDD-Z).

In addition to the coercive power of budgeting, concerns were also expressed by managers at both TEIs that myopic budgeting practices emerged with an emphasis on short term budget surpluses rather than long term value creation. This undermined the real purpose of accrual budgeting. Budgets actually became a political symbol; and success was often claimed when ‘budgeted surpluses’ were achieved. Finance Managers at both institutions emphasised that budget deficits symbolised an inefficient organisation.

5.3 Phase 2 reforms – introducing the market and business logics

The government’s commitment to implementing neo-liberalism reforms continued unabated. By the 1990s, NPM ideologies inspired government to revolutionise its funding system based on the application of market forces. The Treasury’s briefing to the incoming government in 1990 was explicit:

“The scope for efficiencies...are limited under present forms of funding and delivery of services” (Treasury, 1990, p.9).

As a result, the government refocussed its attention with aims to help improve the effectiveness of government expenditure to achieve desired tertiary outcomes and to drive the knowledge-based economy. The institutional logic of the market became an important mechanism of the change process. It drove the government’s marketization policy to widen access and increase tertiary education participation rates for New Zealanders that had fallen below the OECD average. Inspired by the Hawke Report⁸, the government was of the view that using the logic of the market, tertiary education providers should derive a considerably greater proportion of their funding from private sources including student fees. The Education Amendment Act 1990 became the carrier of the market logic that gave TEIs the autonomy to develop a business culture and compete in the marketplace for students, government bulk funding, and other sources of income.

⁸ ‘The Hawke report’, Report of the Working Group on Post Compulsory Education and Training, 1988, NZ Cabinet Social Equity Committee <http://hdl.voced.edu.au/10707/161943>

Managing resources through the influence of market forces and proactive income generation policies also introduced a complementary business logic that served as a powerful incentive to TEIs to pursue growth strategies, make profits and become financially less dependent on government. At the same time,

“...by becoming strictly financially oriented, the norms and values of tertiary education started to erode” (HOS-Y).

Given this scenario, institutional logics both enabled as well as constrained social action.

From a NIT perspective, programs and rationalities of government do not work by themselves. They need to establish legitimacy as well as utilise technologies that make it operable. Accounting is one such technology that played a major role in the implementation of the government’s marketization policy in TEIs. In particular, accounting’s calculative practices and costing tools gained rule-like status and became an institutionalised practice. Government used costing mechanisms to establish bulk funding grants using complex funding formulas based on equivalent full-time students (EFTS). The calculative practices of accounting also helped establish standardised course costs⁹.

The homogenising ability of accounting as a technology of government coerced TEIs to implement the controversial ‘user pays’ fees policy in 1990 by legitimising fees as a means of recovering student costs from TEIs bulk grants. Requiring tertiary institutions to set fees became a useful government strategy to impose market incentives on TEIs. Accounting technologies, routines and processes played a crucial role within TEIs to help set fees, facilitate student fee payments and implement debt recovery procedures.

Between 1992 and 2000, government’s marketization policy encouraged increased student numbers by dramatically reducing per student funding but allowing students to borrow against a government student loan scheme established in 1992 to help pay their fees. The marketization policy had a strong positive impact on enrolments since *“over the last decade alone, the number of students enrolled in formal programmes of study just at public tertiary education institutions has grown by 59%”* (Ministry of Education, 2001, p. 14).

By 1999, *“New Zealand’s net entry rate into university-level education (71%) was well above the OECD average (45%)...”* (Ministry of Education, 2001, p. 15). These results were then used to demonstrate the success of accounting as a technology of government in delivering the political rationalities of education reforms, that is, to help transform economic and social life through increasing participation rates in tertiary education.

5.3.1 Impact of accounting changes

But not all accounting changes went according to the rationalities or the objectives of government reforms. While the government still recognised the considerable social as opposed to individual benefits of education through rationalisation of public

⁹ ‘Shaping the Funding Framework: Fourth Report of the Tertiary Education Advisory Commission’, 2001, Chapter 6.1. See: <https://www.beehive.govt.nz/feature/fourth-report-tertiary-education-advisory-commission-full-report-1858>

funding, the construction of TEIs shifted from that of a community of scholars producing knowledge as a public good for community uses, to that of a market-led business producing knowledge as a private good for individual consumption.

Based on the logic of the market, education became a cash generative industry. In the education market-place, student recruitment policy reliant on a competitive business culture and the process of financialisation, aided by corporate accounting practices, shifted tertiary education from a social to an individual good. The logic of the market created some key trends that included *‘increased demand for tertiary education...increased costs of meeting the demand... and increased pressure to reduce government spending...’*¹⁰. In addition, since the government implemented the ‘user pays’ fee policy in 1990, tuition fees for domestic students increased by an average of 13% each year for the rest of the decade (Healey and Gunby, 2012). The Student Loan Scheme Annual Report 2015 highlights that the nominal value of loan balances was \$14,837 million as at 30 June 2015 and 72.4% of eligible students borrowed in 2014.

The market logic also created some distortionary behaviour. In 1992, government policy dictated that the student tuition fees reflect more accurately the real cost of individual courses. However, many TEIs defied this policy in favour of the logic of the market forces and greater financial gains from increasing enrolments. The evidence of distortionary behaviour was summed up by the Director of Corporate Services at TEI Y who noted:

“Many TEIs served up a host of low cost and low-level programmes to capitalise on government funding” (DCS-Y).

The progressive decline in government funding made TEIs Y and Z pursue growth strategies in order to diversify their income from non-government sources. Government’s marketization policy encouraged these TEIs to become more entrepreneurial and develop “profit centres” to operate commercial activities. The need for increased student numbers to bolster budgets led the TEIs to undertake active recruitment drives to increase full fee-paying overseas students. The government also regulated the export education market via the Education Amendment Act 1989¹¹ requiring all tertiary institutions to charge international fees that covered the full cost of delivery. As competition intensified, there was immense isomorphic pressure on the TEIs *“to brand themselves as ‘leading’ or ‘world class’ institutions to attract international fee-paying students”* (MM-Z). Accounting has been heavily complicit in the adoption of strategic approaches to costing, pricing and marketing of courses. Institutions Y and Z developed new customised courses within target costs and market based prices to recruit international students.

A review of annual reports for TEIs Y and Z for the 1990-2000 periods revealed that international student fees, research, consultancy, and entrepreneurial income provided major alternative funding sources. The total income of all New Zealand tertiary institutions grew by 64% between 1992 and 1999, and the proportion of total

¹⁰ See: ‘Student loans and funding for tertiary education’, no.1999/5, 5th November 1999, (New Zealand) Parliamentary Library. see: <https://www.parliament.nz/resource/0000021263>

¹¹ See sec. 20.4.

income from non-government sources increased from 12% in 1992 to 23% in 1999 (Ministry of Education, 2000).

Marketization led to the adoption of corporate governance structures and a rise in the power of senior management. Both TEIs Y and Z appointed professional managers from the private sector to fill senior management positions. They were awarded high remuneration packages often contingent on growing student enrolments, substantial budget responsibility and demanding financial performance targets. These changes were seen as necessary by the TEIs so that they could respond to the changing accountability demands of external stakeholders such as government and other resource providers. From the NIT perspective, this allowed simultaneous alignment and decoupling from multiple environment pressures and underlying institutional logics in order to cope and survive. The following comments from academics highlight the impact of the changes:

“...the power of academics have been redefined and evaluated by accounting cost and profit measures leading to increasing trends towards the commodification of teaching and research” (AS-Y).

“... student: staff ratios continue to rise. In 2008 there were fewer than 17 students for every full time academic staff member. By the end of 2010 there were nearly 20 students for each full time academic staff member” (SAS(U)-Z).

The dramatic increase in academic workloads was confirmed by a recent OECD report that New Zealand academics, lecturers and tutors have an average ratio of 17.8 students compared to the OECD average of 15.8. (OECD, 2010).

Pointedly, phase 2 reforms reflected the maturing of the NPM policies. The increased use of market pressures and the resulting business logic made TEIs more financially focused but it failed to influence tertiary providers to create incentives to improve the quality of education and, in general, improve efficiency of services provided.

5.4 Phase 3 reforms – strategic re-positioning and performance accountability

Nevertheless, by the beginning of the millennium, government policies were signalling a noticeable change of direction. In future, there would be a marked turning away from the competitive market model of provision of tertiary education to a system of greater collaboration between TEIs (Ministry of Education, 2001) which began to reflect the shifting of NPM policies to the emergence and development of NPG. This new policy signified that the competitive market model of the government had failed to deliver on the NPM goals of greater efficiency, effectiveness, performance and quality improvement. The Fourth Report of the Tertiary Education Advisory Commission pointedly highlighted that:

“...a tertiary education system left to the dictates of the market would not deliver desirable outcomes” (TEAC, 2000; Chapter 1)

The report identified clear concerns about the lack of vision and strategic direction for tertiary education, the high costs to students and that the competitive system was not sufficiently aligned to New Zealand’s social and economic needs (TEAC, 2000).

As a consequence, in 2001, the government implemented reforms to ensure long-term strategic alignment of the tertiary institution's visions, objectives and strategies with those of the government, (see Ministry of Education, 2003).

5.4.1 Role of accounting

Accounting's role has been to operationalize the government strategy through a funding framework based on calculative practices and funding formulas to help determine where monies were allocated and on what basis. Accounting rationales were used by government to provide an assessment of the strategic relevance of policy decisions and helped determine which outputs to purchase and which courses to fund to meet social and political objectives.

But many aspects of the competitive model emphasising the business logic remained, with accounting given a new role to provide a centrally guided system with increased emphasis on strategic priorities and performance requirements of government. A common view expressed by respondents was:

"...accounting's role has been to establish linkages between the government's strategies and priorities and TEIs objectives and strategies through key performance indicators (KPIs), performance measures and reporting systems" (FM-Y).

In 2004, formal research accounting systems were given far greater prominence when government introduced three performance-based research funding (PBRF) measures of quality evaluation of staff, research degree completions, and external research income as a strategy to increase tertiary institutions research outputs and quality.

Academics at TEIs Y and Z expressed concern that PBRF has led to institutionalised forms of 'managerial gaming' such as the removal of research inactive staff, employing significant number of staff on teaching-only contracts, basing promotions on PBRF ratings and hiring of highly-rated researchers solely to conduct research.

Budgets, course costing templates, monthly financial reports and profitability measures were common institutionalised forms of accounting technologies in widespread use within both TEIs. As new forms of accounting shaped how academic performance was measured, decoupling of teaching from research appeared to be a rational response from management of both TEIs. However, decoupling also led to greater polarization between teaching and research. Senior academics were particularly frustrated that their teaching was assigned to more junior or casual staff to save money and creative accounting was used to divert research funding to administration:

"There is \$2.5m in PBRF money that is coming for our research, but none of it has ever gone to research. It has all gone straight into corporate coffers" (SAS-Y).

This senior academic strongly indicated that accounting for research needed to be more transparent. At both TEIs, individual researchers were given budgets against which all income and expenditure were traced and performance monitored through monthly financial reporting. TEI Z implemented more demanding research

performance measures based on research publications and external research funding to reward staff with low teaching loads.

Accounting technologies have been playing an equally important role in internal cost management, improvement of financial performance, and meeting the accountability and performance monitoring requirements within TEIs. Throughout the 2000-2012 periods, funding pressure from reduced government funding and policy changes forced TEIs Y and Z to strategically reposition themselves and adopt a business logic emphasising a commercial and entrepreneurial approach to TEI management. Both TEIs formed strategic alliances and forged closer relationships with major businesses as evidenced from their strategic planning documents and annual reports. Many academic staff and managers were frustrated that accounting was used as a legitimisation strategy to make restructuring decisions, organisational changes and cut costs. The following are some examples of comments that capture their frustration:

“Restructuring seems an easy option to hide past management blunders, inefficiencies and failure to account. It results in a significant loss of organisational capability, something that has taken years to develop at a considerable cost, but hard to replace in the short-term” (AS-Y).

“Restructuring is done under the guise of having to make efficiency gains and cost savings without realising how much it is costing in the first place” (DRI-Y).

Another senior academic and staff union representative revealed that:

“Since August 2007, there have been over twenty redundancy rounds...resulting in the closing of programmes totalling 5,100 EFTS and costing 120 FTE staff their jobs” (SAS(U)-Z).

At TEIs Y and Z, accounting information regarding restructuring costs and savings were not always transparent and often decoupled from financial reports or hidden in consolidated accounts. While accounting was central to restructuring decisions, with decoupling, the exact manner in which accounting technologies used budgeting and calculative practices of cost and savings to justify managerial decision making was not clear. In addition, both TEIs used strategic pricing based on target costs rather than traditional cost-based pricing for new innovative programmes to remain competitive. For example, a senior manager emphasised that:

“Our international MBA and other postgraduate fees should be no different from our competitors” (DPP-Z).

Often programmes were designed to meet the needs of the market and the target price set at what the market could bear. Greater emphasis on income and cost management by individual programmes, departments and faculties resulted in the implementation of segmented reporting systems within tertiary institutions to help monitor financial performance. At TEI Y, all departments were made to operate as profit centres to ensure that department managers were held responsible for all income and expenditure under their control.

During interviews, there was greater resentment that accounting in TEIs had a narrow view of costs and efficiency, and that there was too much emphasis on profitability and solvency as measures of performance and accountability. However,

there was also a general acceptance that financial viability was an important element of performance. Often, TEIs encountered difficulties in deciding on performance targets as illustrated by the following comments:

“... actually when you are setting targets and things ... some of us, probably made some of the numbers up – an informed way of doing it” (DPL-Z).

From 2010, the government strategy on tertiary education introduced educational performance indicators to ensure that tertiary organisations contributed to the government’s vision for the tertiary education system (TEC, 2013). The strategy linked improvements in educational performance to course and qualification completion through to the progression and retention rates for all students. However, evidence gathered from the 2012 annual reports for TEIs Y and Z suggest that, so far, there have been only slight improvements in course completion, progression and retention rates.

6. Discussion

This paper examines the influence of accounting in the transformation of public TEIs and addresses two associated research questions: firstly, how accounting became associated with the multiple logics of government reforms in transforming TEIs; secondly, what impact did accounting have on the transformation of public TEIs. Overall, the findings clearly indicate that accounting has been integral to the transformation of public TEIs as waves of reforms, largely based on neo-liberal political and economic dogma, have been introduced over the past three decades.

6.1 Accounting-isation

A number of accounting technologies within TEIs became institutionalised as a result of multiple coercive pressures from government regulations and funding mechanisms. Normative pressures from the accounting profession in the form of public sector accounting concepts have institutionalised the financial accounting reporting and accountability framework. The findings also highlight the prevalence of four key institutional logics operating in TEIs: the logic of public accountability; of markets; of business and of the academic profession. Private sector accounting technologies introduced into TEIs have largely shaped the logics of public accountability, markets and business. While the logic of the market competition has been progressively assimilated into the business logic, there remains considerable tension between the business logic and the professional logic of the academics and researchers. The business logic shaped by accounting technologies and cost, revenue and profit measures have become a dominant logic firmly embedded in the organisation culture of TEIs. With this emphasis, there are increasing concerns that the professional logic of academics and researchers is being undermined and eroded by the business logic and ‘accounting-isation’ of the academic life. There are also concerns that public accountability has been reduced to financial performance measures that undermine the ‘public-ness’ in TEIs.

The influence of accounting and the impact that accounting had in the transformation of TEIs can be critiqued further using the NIT lens. Government has relied on accounting technologies to visualise, construct and make its tertiary sector reform programmes operable. In the late 1980s, government reform inspired by NPM implemented accounting changes to enhance the public accountability role of TEIs.

Government, through the coercive pressures of legislation and normative pressures from the accounting profession, supported the implementation of accrual accounting and budgeting to provide a more comprehensive and transparent set of information rather than by the use of cash accounting. Government through legislation empowered accounting to create new forms of visibility in reporting formats to help inform the purposeful action of TEIs to the general public. Accounting gave language and meaning referred as rationales to make possible the discursive representation about TEIs activities (Miller, 1994). For example, the preparation of ten comprehensive accrual based financial statements that incorporates objectives, measures, revenue and expenses, profit or losses and assets and liabilities, are inextricably linked with the notions of 'accountability', 'responsibility', 'transparency', 'efficiency' and 'effectiveness' to help portray TEIs in a variety of specific organisational and social settings (Potter, 2005). Financial reporting has been "one of the major success stories" of the NPM reforms and

"the financial statements are of high reliability, few are qualified, and they enable the government to prepare audited Crown Financial Statements... meet external requirements ... they also make departments responsible for managing their balance sheets, cash flows, financial operations, and accounts" (Schick, 1996, p. 81).

The innovative financial statements have been designed to provide clear expressions of financial and social objectives to meet various important public policy objectives of the government. Since the implementation of accrual accounting, the domain of accounting has expanded significantly and its pervasive and enabling characteristics have created particular forms of financial visibility within TEIs that has enhanced public accountability (Miller, 1990). Viewed from the NIT perspective, these accounting changes have become institutionalised within TEIs as they have acquired social acceptability and endorsement through conformity to the norms and expectations of the government, society and external stakeholders. Accounting and its associated discursive representations have also created isomorphic pressures on TEIs to comply with changes. Through accounting, TEIs respond to institutional environment pressures to enhance their legitimacy and uphold public accountability. From the government's perspective, the NPM logic removes the government controlled safety net in education and welfare of society and requires citizens to become more self-sufficient (Parker, 2011).

6.2 Markets, business logics and accounting

Since the beginning of 1990, the NPM reforms have been inspired by the logic of the market. The market logic since then has been progressively assimilated into the business logic. Both logics have led to the development of an enhanced and innovative role for accounting. Government has relied on accounting technologies to shift TEIs from bureaucratic control to a managerial orientation. The market and business logics have pushed the boundaries of accounting making it broader in scope, multifarious in process, and wider in application (Pettersen and Solstad, 2007). Government reforms placed increased emphasis on accounting in TEIs to help secure and manage resources, monitor and control operations, and report on performance. Accounting has not only facilitated policy implementations, it also laid the foundations for shifts in government policy and materialises processes and activities to be regulated. Accounting as a set of technical calculative practices

guided the allocation of tertiary funding. The shift from traditional budgets towards sophisticated funding formulas has been described as “an innovative allocation mechanism” aimed “...to insulate allocation decisions from excessive political pressures and encourage positive institutional behaviours” (Salmi and Hauptman, 2006, p. 4).

Accounting is also viewed as a dynamic, socially constructed practice that can shape the behaviour of individuals and the functioning of organisations and societies (Burchell, et. al., 1980). Based on the market and business logics, accounting have intervened in the functioning of TEIs with its representation of activities, processes and events in financial terms thus shifting the idea of tertiary education from a social to an individual (private) good whereby students must consider education as an investment in their human capital and TEIs must consider education as a commodity sold in the open market (Beverungen, et. al., 2014). Indeed, Lawrence and Sharma, (2002, p.674) believed “...that a degree is a commodity...that can be exchanged for a job rather than as a liberal education.” Using the business logic, government has been able to expand tertiary participation rates; TEIs have been able to raise additional revenue from private sources; and students, employers and local communities have been able to intensify pressure on TEIs to respond more fully to their demands and societal needs.

6.3 Education as a commodity

Based on the logic of the market, education has now become a cash generative industry where the “quest for new student 'consumers' has seen the profusion of 'commodities' on offer, namely university qualifications... [I]n this industry, “students are reconstructed as 'clients', universities become 'knowledge factories', managers are constituted as 'entrepreneurs', and lecturers become 'service providers'” (Berg and Roche, 1997, pp. 154-155). With TEIs branded as ‘knowledge factories’, “academics work longer hours to cope with the increasingly mass or large batch production-line teaching, assessment and administration associated with increasing student numbers and class sizes” (Parker, 2011, p. 444). Indeed, similar neo-liberal reforms in the UK, Puxty et al, (1994, p138) noted ‘...most academics...are having to work more intensively, often also increasing their hours... [T]he pressures on research are similarly visible...’ Likewise, Harley (2000, p.549) identified how the neoliberal educational policies had also led to a ‘...growth of managerialism in UK higher education and to the increasing commodification of academic labour,’ [see also Montgomery and Canaan (2004)].

From the beginning of 2000, accounting has been given an expanded role in guiding the strategic planning and managerial decision making. The failings of the marketization policy led to sustained effort to its reinvention by government in the form of central strategic steering to address societal needs. This third wave of reforms, according to (Kelsey, 2002) “provided fresh rhetoric rather than fresh policy” (Curtis, 2008, p. 181). Government policy initiatives relied on accounting to produce new types of cost information to guide funding decisions and promote greater efficiency. Indeed, accounting played a major role in decision making that led to the financial performance of all tertiary institutions improving significantly. In 2010, 90% of TEIs reported an operating surplus above government’s benchmark for prudent financial performance, compared to 42% in 2005 (Ministry of Education, 2012). Improvements in financial performance were also a result of refocusing tertiary

institutions attention to internal cost management. There was greater innovations in accounting use through reliance on technologies such as costing, budgeting and profitability measures.

6.4 NIT perspective

Viewed from the NIT perspective, corporate accounting practices based on the business logic have become institutionalised. They have become an important means by which TEIs respond to the isomorphic pressures to homogenise and enhance their legitimacy and obtain government funding. At an organisational level, TEIs are driven to incorporate the institutionalised accounting practices and procedures of the government as these become the prevailing concepts of what is 'rational' rather than its ability to produce the desired or intended results at the individual departmental level. For example, achieving the government's financial surplus benchmark is considered rational as it signals an efficient organisation. But at an individual department level, reporting higher profits for the institution may be due to employing lowly paid casual staff, lowering the course entry requirements, and lowering the quality of courses to attract high number of students and funding. The market logic stimulated competition for students and aided by accounting, has transformed TEIs by embedding the business logic in the TEIs organisational field. However, the business logic has encouraged a 'negative isomorphism' in TEIs – particularly the proliferation of low quality programmes and courses by TEIs in search of higher student enrolments and funding (Curtis, 2008).

The impact of accounting in terms of improving transparency, accountability, organisational performance, and efficiency and effectiveness of operations has been highly contested within TEIs. Budgets became political instruments for cost cutting. Despite being promoted as helping drive managerial efficiencies, in reality accounting became an instrument to implement neo-liberal politically determined policies and objectives. Budget deficits symbolise an inefficient organisation and budget surpluses symbolises an effective and efficient organisation.

The impact of accounting in reconfiguring teaching and research has been apparent. Accounting routines and practices seem to support the business logic through 'tight coupling' but decouple practices that do not support the business logic. This study has highlighted an apparent conflict between the professional logic associated with teaching and research and the business logic of generating higher profits from teaching and research. Accounting routines based on academic performance and PBRF measures have, to a large extent, decoupled teaching from research activities. According to Curtis (2008, p. 181), "decoupling the teaching-research nexus appears rational from the perspective of management but flies in the face of the prevailing professional ethos". Since the teaching and research profession is protected under the Education Act 1989, it seems that decoupling provides much needed legitimacy while enabling TEIs to pursue their business logic. Clearly, decoupling has weakened the professional logic between teaching and research. As new organisational forms and processes of accounting take over, there are fears that the teaching and research profession will become hybridised in varying degrees (Kurunmaki and Miller, 2006); perhaps indicating that there will no longer be a tight coupling between teaching and research.

With financial gains and funding success becoming the primary benchmarks for research success, “the invasiveness and pervasiveness (of) formal research accounting systems have assumed far more than a formal window dressing role, becoming deeply embedded in university research values and behaviour”(Parker, 2013, p. 17). Managerial gaming led to a disaggregation of the academic labour market “in which academic professional power is displaced by a “regime of performance management’ and teaching and research is commodified” (Curtis, 2007, p. 2). Our findings also confirms the views of Parker (2013, p. 17) that research performance is “aided and abetted by the management accounting and financial reporting systems that both drive and report research for funding strategies and outcomes”.

As the NPM reform agenda became more financially focussed, tertiary institutions responded with innovations in fees setting; revenue generating strategies; cost management and cost allocation strategies. These strategies led to cancellation of unprofitable community-based courses and revealed contradictions between government funding policy and the desire to achieve social objectives. Indeed “funding formulas are not conducive to recognising the special needs” and “closing equity gaps” (Salmi and Hauptman, 2006, p. 50). As commented by Beverungen et al. (2014), the corporate style of accounting that prevents the TEIs from carrying out their social responsibilities, undermines the ‘public-ness’ of the TEIs. After three decades of funding cuts, New Zealand now has one of the lowest rates of public funding (just 60%) for its tertiary education spending of all OECD countries (UNESCO, 2009). There are concerns that accounting driven by politically motivated funding cuts by successive governments are not achieving the desired reforms objectives but rather undermining the academic profession. Indeed, as Parker (2011, p. 442) highlighted, the corporate style of management has led to a “reduction in standards and quality of both students recruited and of programs taught through low cost-high revenue strategies”.

6.5 Use and mis-use of accounting

The exact manner in which some of these accounting techniques have been applied to achieve politically motivated objectives with TEIs is also highly questionable. For example, radical restructuring to manage costs and drive efficiencies in reality became a mechanism to hide managerial inefficiencies, blunders and failure to account. Innovations in accounting and its associated calculative and reporting systems transformed tertiary institutions mission and strategies into a short-term financial performance culture (Parker, 2013). Accounting as a technical practice plays an important role by being “intrinsically involved in the financial-isation of objectives, KPIs, targets, language and reporting routines” (Parker, 2013, p. 18). In practice, accounting performance measurement and compliance reporting has become too bureaucratic with “measurements applied to only that which can be most readily measured” and reporting regarded as “a game that must be played” rather than actually achieving results (Norman and Gregory, 2003, p. 41).

Also, despite a shift in government strategy with greater reliance placed on non-financial educational performance measures, financial surplus remains the key performance measure of efficiency, effectiveness and accountability. The financial performance benchmarks have coerced TEIs to adopt rapid changes that are commercially oriented thus emphasising the dominance of the business logic. With

this, the logic of public accountability has been narrowed down to financial accountability. The discourses of financial accountability fail to recognise the ‘publicness’ of TEIs with major social objectives which cannot be sensibly reduced to a monetary value. A tertiary institution that makes a large profit is not necessarily an efficient and effective organisation. It can still harbour suspicions about inefficiencies, lack of public accountability and transparency.

7.0 Conclusion

The role and influence of accounting as both an agent of change and control has been unleashed in different phases of higher education reforms. Accounting has become a powerful conduit for the exercise of government control over TEIs. For over three decades, the government’s implementation of its neo-liberal policies has relied on accounting technologies to visualise, construct and make its tertiary sector reform programmes operable. Accounting technologies have transformed TEIs from a traditional compliance role to a broader public accountability role. It has intervened in the functioning of TEIs with its representation of activities, processes and events in financial terms thus embedding a dominant business logic that has shifted the idea of tertiary education as a commodity bought and sold in the open market. As a consequence, the role and influence of accounting has accelerated and expanded to assume far greater prominence beyond levels previously noticeable in public TEIs.

The business logic is at odds with the professional logic of academics and researchers. Supported by accounting technologies, the business logic has permeated the tertiary education sector to such an extent that it now threatens the professional role of academics and researchers. Management has resorted to decoupling the teaching from research to help ease the tension between the business logic and the professional role of academics and researchers. However, there are fears that decoupling may weaken the prevailing professional ethos of academics and researchers. With new organisational forms and processes of accounting taking over, there are also growing fears that teaching and research activities will become increasingly polarised. As a result of educational reforms in the UK, which have been similarly experienced in New Zealand, Hopper (2013, p130) pointed out that government imposed research evaluations have “concentrated state research funding into a relatively small number of elite universities and departments.” As a result, the “production rather than just the reproduction of knowledge has increasingly become the preserve of universities and departments funded to conduct research: those lacking research funding have little option but to concentrate on teaching.” Likewise, Neumann and Guthrie (2002, p.726) identified how university reforms have led to “the separation of teaching and research activities...”. The dominance of the business logic has also made TEIs the objects of financial-isation. Increasing financial-isation of public TEIs has narrowed down the logic of public accountability to financial accountability thus undermining the conception of the public-ness of TEIs.

This paper makes a number of valuable contributions to literature and practice. Indeed, it is not just relevant and applicable in New Zealand but also in other countries – especially such as the UK, Australia and Canada which have adopted neo-liberal educational policies. The paper addresses an important gap in literature by providing a more comprehensive account especially of the practical impact of accounting changes on the transformation of public TEIs. In particular, through a

systematic examination of the historical and recent reforms using case studies, the research highlights, compares and explains the rhetoric of government policy aided by accounting technologies with the reality of experience in terms of implementation. The paper also explains the impact of accounting changes and informs the logic behind the transformation of TEIs and whether it reflects or diverges from societal, government, institutional, and individual academic expectations. This paper provides a valuable source of learning for public sector reformers and TEIs. The challenge is for future studies to examine how wider conceptions of accountability using non-financial measures of education and research performance indicators may be implemented in higher education to help overcome the narrow focus on financial accountability.

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APPENDIX 1: INTERVIEWS

For confidentiality reasons, the following list does not contain details sufficient to identify any interviewee.

Interviewee	Position	Affiliation	Date
FD-Z	Finance Director	TEI Z	5 Aug 2008 and 23 Feb 2011*
FM-Y	Finance Manager	TEI Y	19 Aug 2008 and 8 Dec 2010*
FM-Z	Finance Manager (Faculty)	TEI Z	8 Dec 2010
DCS-Y	Director of Corporate Services	TEI Y	1 Oct 2008
DPL-Z	Director of Planning	TEI Z	17 Sept 2008
BM-Y	Business Manager	TEI Y	22 Sept 2009
MM-Z	Marketing Manager	TEI Z	8 Dec 2010
HOS-Y	Head of School	TEI Y	11 Sept 2008
HOD-Z	Head of Department	TEI Z	28 Sept 2009
HDD-Z	Head of Department and Director, Research Institute	TEI Z	15 June 2009
DRI-Y	Director, Research Institute and Senior Academic	TEI Y	28 Sept 2009
DPP-Z	Director, Postgraduate Programmes	TEI Z	9 Dec 2010
AS-Y	Academic Staff	TEI Y	15 Feb 2011
SAS-Y	Senior Academic Staff	TEI Y	15 Feb 2011
SAS(U)-Z	Senior Academic Staff (and Staff Union Rep)	TEI Z	16 Feb 2011

* denotes follow-up phone conversations.

APPENDIX 2: INTERVIEW QUESTIONS

- RQ1 (a) How and why accounting became associated with the early NPM reforms of the TEI?
- (b) What accounting changes were made during this period?
- (c) What was the logic behind the accounting changes?
- (d) What was the impact of the accounting changes?
- RQ 2 (a) How and why accounting became associated with the government's marketization policy?
- (b) What was the key role of accounting under the competitive model of government funding?
- (c) What accounting changes were made during this period of reforms within the TEI?
- (d) What was the impact of the accounting changes?
- RQ 3 (a) How did accounting respond to the change in government policy requiring greater alignment with the strategic priorities and performance requirements of government?
- (b) What accounting changes were made during this period of reform?
- (c) How did these changes assist in internal cost management, improvement of financial performance, and meeting the accountability and performance monitoring requirements of government?
- (d) How is performance measured and reported? What is being measured and reported? Why?
- (e) What has been the impact of the accounting changes during this period of reform?

APPENDIX 3: ARCHIVAL SOURCES AND DOCUMENTATION

The following list provides the key documents analysed and the period covered. Confidential documents are not included in the list.

Document	Period Covered	Number of Documents	Institution	Triangulates with Research Question
Statement of Public Sector Accounting Concepts	1987	1	NZ Society of Accountants	RQ1 (a) & (b)
Government Management: Brief to the Incoming Government 1987	1987	1	Treasury	RQ1 (a) & (c)
Probine Fargher Report on Management and Funding of TEIs	1987	1	Ministerial Working Party	RQ1 (a) & (c)
Hawke Report on Post-compulsory Education and Training	1988	1	Ministerial Working Party	RQ1 (a) & (c)
State Sector Act 1988; The Education Act 1989; The Public Finance Act 1989	1988 onwards	3	NZ Government	RQ1 (a) to (c)
Learning for Life Reports One and Two	1988-1989	2	Ministerial Working Party	RQ1(a)
Putting it Simply – an explanatory guide to Financial Management Reform	1989	1	Treasury	RQ1(a)
Briefing to Incoming Government 1990	1990	1	Treasury	RQ1(a) to (d)
Annual Reports for TEI Y and Z	1990-2013	46	TEI Y and Z	RQ 1(a), (b) & (d); RQ 2(a), (c) & (d); RQ 3(a) to (e).

Counting the cost: An analysis of domestic tuition fees	1992-2008	1	Ministry of Education	RQ1 (d), RQ2 (d), RQ 3(e).
Accounting for what? The value of accrual accounting to the public sector	1993	1	OECD	RQ 1 (c) & (d)
Todd Report – Funding Growth in Tertiary Education and Training	1994	1	Ministerial Consultative Group	RQ 2 (a)
Overview of tertiary funding. https://www.ssc.govt.nz/node/6664	1995	1	State Services Commission	RQ 1 (a) to (d)
The Spirit of Reform: Managing the New Zealand State Sector in a Time of Change	1996	1	State Services Commission	RQ 1 (a) to (d)
Putting It Together: An Explanatory Guide to New Zealand's State Sector Financial Management System	1996	1	Treasury	RQ 1 (a) & (b)
Implementing Accrual Accounting in Government: The New Zealand Experience	1996	1	International Federation of Accountants	RQ 1 (a) to (d)
Budgeting and Accounting Issues - New Zealand	1998	1	International Federation of Accountants	RQ 1 (a) to (d)
Profiles and Trends: New Zealand Tertiary Education Sector	1998-2014	17	Ministry of Education	RQ 1 (a) to (d) RQ 2 (a) to (e) RQ 3 (a) to (e)
Internal accounting reports, budget documents, council papers, management reports, accounting policy documents, costing spreadsheets	1996-1999	various	TEI Y and TEI Z	RQ 1 (a) to (d) RQ 2 (a) to (e)

				RQ 3 (a) to (e)
Key financial performance indicators for public tertiary education institutions	1997-2010	1	Ministry of Education	RQ 1 (b), RQ 2 (c), RQ 3 (c) & (d)
A future tertiary education policy for New Zealand – Green Paper	1997	1	Ministry of Education	RQ 2 (a) & (b)
Student loans and funding for tertiary education. Background note for members of Parliament 1999/5, 5 November 1999	1999	1	NZ Government	RQ 1 (c) & (d)
The Economic Impact of Export Education	1999-2008	1	Ministry of Education	RQ 2 (d)
Shaping a Shared Vision: Initial Report of the Tertiary Education Advisory Commission Shaping the System: Second Report of the Tertiary Education Advisory Commission Shaping the Strategy: Third Report of the Tertiary Education Advisory Commission. Shaping the Funding Framework: Fourth Report of the Tertiary Education Advisory Commission	2000 - 2001	4	Tertiary Education Advisory Commission	RQ 2 (a) & (b)
The Education (Tertiary Reform) Amendment Act 2002	2002		NZ Government	RQ 2 (a) to (c)
Tertiary Education Strategy	2002 to 2015	3	Ministry of Education	RQ 1 (a), RQ 2 (a), RQ3 (a)
Strategic Plan (replaced by Investment Plan in 2008)	2002-2015	5	TEI Y and Z	RQ 2 (a) to (d) RQ 3 (a) to (e)

Student Loan Scheme Annual Report	2002, 2008, 2015	3	Ministry of Education	RQ 2 (d) & RQ 3 (e)
University objectives: An analysis of university annual reports 2002 to 2006	2002-2006	1	Ministry of Education	RQ 2 (d) & RQ 3 (c) to (e)
A Guide to Tertiary Education Funding	2003	1	Ministry of Education	RQ 2 (a) to (c)
Statement of Tertiary Education Priorities	2003/4;2008/10	2	Ministry of Education	RQ 2 (a) to (c), RQ 3(a) to d)
Charter Guidelines for TEIs	2003	1	Tertiary Education Commission (TEC)	RQ 2 (a)
Tertiary Education Funding – Overview of Recent Reform. Background note for members of Parliament 2003/08 26 August 2003	2003	1	NZ Government	RQ 2 (a)
Charters and Profiles	2003-2010	3	TEI Y	RQ 2 (a), RQ 3 (a)
Performance-Based Research Fund: evaluating research excellence PBRF QE 2012 Final Report	2004-2012		Tertiary Education Commission	RQ 3 (c) to (e)
Research Newsletters	2004-2009	Various	TEI Z	RQ 2 (d), RQ 3 (d) & (e)
TEI financial performance by year	2004-2015	1	Tertiary Education Commission	RQ 2 (d), RQ 3 (c) to (e)
A Guide to Public Finance Act 2005	2005	1	NZ Government	RQ 2 (b) & (c)
Charter (Updated)	2005	1	TEI Z	RQ 2 (a)

Performance-Based Research Fund Evaluating Research Excellence The 2006 Assessment	2006	1	Tertiary Education Commission	RQ 2 (d), RQ 3 (d) & (e)
Academic Audit Portfolio	2006	1	TEI Z	RQ 2 (d)
How does New Zealand's education system compare?" OECD's Education at a Glance	2006-2012	7	Ministry of Education	RQ 2 (d), RQ 3 (e)
How the PBRF has shifted research funding	2008	1	Ministry of Education	RQ 3 (c) to (e)
Tertiary Education Performance Report	2010	1	Tertiary Education Commission	RQ 3 (c) to (e)
Educational Performance Indicators – Definitions and methodology	2013	1	Tertiary Education Commission	RQ 3 (a) to (d)
Web-pages	various	various	Treasury, Ministry of Education, TEC, TEI Y and TEI Z	All questions.

Table 1

Research questions/Sources of data

1. How accounting became associated with the multiple logics of government reforms

- a) Phase 1: NPM Early Reform Process - data source documentation/ Treasury/government reports: interviews with finance managers and academics.
- b) Phase 2: Introduction of 'Market and Business logics' : relevant educational documentation from government and an educational advisory commission, in addition to interviews with academic and TEI managerial staff.
- c) Phase 3: Repositioning: government documentation and interviews with both TEI finance and planning directors, managers and trade union officials. Also participant observation at TEIs.

2. Impact of accounting changes on transformation of TEIs.

See evaluation and discussion: sections 5 and 6 and appendices 1, 2 and 3.