

# From Inception to Inertia – An Institutional Perspective of a Public Accountability Measure

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## **Abstract**

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# From Inception to Inertia – An Institutional Perspective of a Public Accountability Measure

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## Abstract

This paper uses neo-institutional theory to examine the rise and fall of performance indicators adopted as an element of public accountability by Australian universities. We argue that performance indicators were adopted as a symbolic gesture to satisfy the need for externally conferred legitimacy and to demonstrate accountability to various stakeholders through publication in the university's annual report. Also, because adoption was symbolic and universities were coerced by the Australian Federal Government, the reporting was curtailed when the coercive pressures were relaxed or removed.

**JEL Classification:** M480

**Key words:** Accountability; performance indicators; new public management; institutional theory.

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## Introduction

New Public Management has dominated organisational change in public sector organisations for over 20 years. Its thrust was directed towards transforming these organisations from bureaucratic to market-oriented and efficient entities, primarily focusing on slowing down government growth and a shift toward privatisation and quasi-privatisation (Hood, 1991). However, in general terms the focus has been on the introduction of 'private sector' management techniques and an increase in public accountability (Ryan *et al.*, 2008).

The impact of these organisational changes has been well documented over a variety of public sector organisations and government regulated bodies, for example public transport (Wiltshire, 1990); general medical practitioners (Broadbent, Jacobs and Laughlin (2001); public hospitals (Llewellyn and Northcott, 2005); government audit offices (Pallo, 2003); and social housing (Collier, 2005). For the Australian university sector, these changes commenced in 1988 with the Federal Government's *Higher Education: A policy statement* and the establishment of the Unified National System (UNS) of higher education. This policy required universities to adopt private sector management techniques to improve planning, budgeting and decision making. It also required improved public accountability. One of the essential elements for public accountability was the development of performance indicators and their publication in university annual reports.

The inducement to join the UNS was a promise of large financial benefits, continued growth, increased flexibility and greater control over their resources. Conversely, these benefits required a commitment to internal management reviews, the adoption of private sector management structures, techniques and practices, together with a reduction in the size of governing bodies to reflect the size and composition of large private corporations. Failure to meet these conditions would jeopardize the associated financial benefits (Harrold, 1991).

Using an institutional lens this paper explores the adoption and the decline of an accountability measure. Specifically, performance indicators, which were accepted as an objective and systematic procedure for the discharge of a universities public accountability responsibilities (Linke, 1991). However, this study is not about the adoption and decline in the use of performance indicators in Australian universities—it is about the adoption and decline in the public reporting of such indicators in university annual reports as one measure of their accountability.

## Institutional Setting

By the mid-1980s participation in higher education started to increase dramatically, raising questions about its efficiency and effectiveness. This

culminated in the Review of Efficiency and Effectiveness in Higher Education (Commonwealth Tertiary Education Commission, 1986), which was highly critical of management practices within the sector. The economic downturn in Australia during the 1980s highlighted the government's concern about the perceived gap between the sector's contemporary performance and the performance required to help Australia survive and prosper in a more competitive international economic environment. In this manner the reforms emerged as a result of the government's assessment of the gap between the sectors contemporary performance and that which was required to help Australia survive and prosper in a more competitive international economic environment (Harrold, 1991).

From the government's perspective these issues could be resolved by focusing on improving the university's accountability to its different stakeholders and tightening institutional management and accountability practices through a deliberate move from collegial governance to governance through managerial authority, with this move reinforced, in part, by the introduction of new models and management practices. The interesting point is that the managerial and accountability reforms that were key elements of the UNS were never authorized by legislation. They were merely embodied in contractual arrangements between the Minister and the CEO's of member institutions.

### **Performance Indicators: A Mechanism for Accountability**

The evolution of performance indicators in Australian universities can be viewed through an examination of (1) the requirement for their development contained in the Dawkins White Paper (1988), (2) their development by government through the Linke Report (1991), and (3) their performance as an accountability measure as detailed in the Hoare Report (1995). Table 1 presents a tabular summary of the timeline of key events organised by the actors involved.

The white paper only contained a partial range of performance indicators, supporting instead the development of a funding system that responded to institutional performance and accountability (Dawkins, 1988: 85). The performance indicators outlined by the government are displayed in Table 2.

The Performance Indicators Research Group (Linke, 1991) was established by the Australian Federal Government in February 1989 to develop a broad range of quantitative performance indicators suitable for use at both system and institutional levels. The group classified the indicators into three broad categories: indicators of institutional context, indicators of institutional performance and indicators of participation and social equity. While the project was established, in part, to address emerging and persistent calls for improved

**Table 1**  
**A Timeline of Key Events in the Development of Performance Indicators**

Time	Actor(s)	Event	Publication
July 1988	Australian Federal Government — J.S. Dawkins, Minister for Employment, Education and Training	The issue of a white paper detailing specific performance indicators for universities and the penalties for non-adoption	<i>Higher Education: A Policy Statement</i>
Feb 1989 – Jul 1991	Australian Federal Government — R.D. Linke, Chair, Performance Indicators Research Group	The establishment of a cluster of performance indicators recommended for adoption by Australian universities	<i>Performance Indicators in Higher Education</i>
1988–1996	Australian universities	Adoption of performance indicators to satisfy the requirements of the UNS	
June 1995 – Dec 1995	Australian Federal Government — D. Hoare, Chair HEMR	Report on the use of performance indicators and the effectiveness of accountability requirements	<i>Higher Education Management Review</i>
2006	Australian universities	Review of the reporting of performance indicators as an accountability measure	

efficiency and public accountability, the research group issued a note of caution relating to the interpretation of performance indicators (Linke, 1991; 128):

The basic function of performance indicators is to assist in determining how well a particular institution or department has achieved its respective goals. In this respect they form an important part—but only a part—of a broader evaluation process, in which their proper role as an aid to expert judgement rests on establishing a clear understanding of what characteristics are to be evaluated and what the indicators can and cannot measure in relation to these characteristics.

The indicators developed are also shown in Table 2.

Partly in response to this cautionary note, the Australian Federal Government announced, on 5 June 1995, a review of the higher education system to continue the “development of excellence in management and accountability” (Hoare, 1995: 1). Due to the short timeframe allowed to complete the report, the committee focused on five key areas, among which were accountability and

**Table 2**  
**Outline of Various Performance Indicators Developed**

1988 White Paper	1991 Performance Indicators Research Group	1995 Higher Education Management Review
Relative staffing levels	<b>Institutional Context</b> Academic and general staff provision Student demand and background characteristics Financial resource distribution	Resource usage
Quality of teaching Quality of curriculum Course completion rates Student satisfaction Research publications	<b>Institutional Performance</b> <i>Teaching and Learning</i> Quality of teaching Student progress and achievement Graduate employment <i>Research and Professional Service</i> Research publications, and so on Professional service	Student dropout rates Measures of academic excellence Research performance Quality assurance
Consultancy rates Indigenous participation	<b>Social Equity</b> Social composition Educational provision	
<i>Source:</i> Dawkins, 1988: 85–86	<i>Source:</i> Linke, 1991: 19–125	<i>Source:</i> Hoare, 1995: 63–64

strategic management (which included performance indicators). The report acknowledge contemporary accountability as an outcome-based measure involved in the critical processes of evaluating performance, and as such, it is widely recognized as a major management tool (Hoare, 1995: 35). The report saw accountability as a key theme which permeates the discussion on strategic management and is driven by, and reported through, performance indicators which present specific challenges relating to the measurement of performance, because quantitative measures are not always possible or appropriate. While the report failed to identify specific performance indicators, it did comment on the general indicators it felt appropriate to fulfill an institution's accountability requirement without disturbing the concept of institutional independence. These are also incorporated in Table 2.

### Review of the Literature

Emergent theories drawing on a range of 'institutional' perspectives have attempted to explain the adoption and use of new public management reforms within the context of organisational change (Granlund and Lukka,

1998; Burns and Scapens, 2000; Burns and Vaivio, 2001). This study uses neo-institutionalism approach (DiMaggio and Powell, 1991; Greenwood and Hinings, 1996). This approach represents a convergence around multiple themes suggested by old and new institutionalism. In this model the concept of institutional isomorphism, and its components, coercive, mimetic and normative isomorphism (DiMaggio and Powell, 1983) are seen as a primary means for the analysis of the institutional environment. This, together with institutional legitimacy provides the neo-institutional framework linking the dynamics of power and politics.

New institutionalism also emphasises the legitimacy and embedding of such beliefs and norms within organisational fields, as seen in the seminal works of Meyer and Rowan (1977) and DiMaggio and Powell (1991) and expanded on by Deephouse (1996), Brown (1997) and Deephouse and Carter (2005). They argue that belief systems and norms change over time, and those institutional concepts provide a valid means of studying emerging and changing influences on organisations.

Recent research focusing on change within specific organisational types analyze and explain the adoption (or rejection) of innovative systems and practices at a micro level (Collier, 2001; Burns and Baldvinsdottir, 2005; Ribeiro and Scapens, 2006). In explaining changes that take place in the formal structure of an organization, specifically relating to the societal expectations and acceptance of management issues, considerable emphasis has been placed on the environment in which the organisation exists (Covaleski and Dirsmith, 1988a). Much of this literature focuses on how organisations change to become isomorphic with their environment (DiMaggio and Powell, 1983). Institutional theorists such as Meyer and Rowan (1977), DiMaggio and Powell (1983), Zucker (1987) and Scott (1995) suggest that organisations are influenced by coercive, mimetic and normative pressures placed on them which lead to institutional isomorphism. These pressures often emanate from sources such as the public, government and other regulatory bodies, and have, as a fundamental consequence—organisational legitimacy.

Organisational legitimacy seeks to explain the adoption of new management reforms through the perceived legitimacy associated with information provided to stakeholders, such as government and the public, as a mechanism for raising the profile of the organization or reducing conflict (Ansari and Euske, 1987; Covaleski and Dirsmith, 1988a; Mezas, 1990; Burns and Scapens, 2000; Modell, 2001). This emergent frame of reference recognizes management practices as a medium through which social expectations flow and change organisational practice, and that such practices may develop as a consequence of coercive and mimetic forces arising in institutions outside the organisation.

Research into management practices in publicly funded institutions and government organisations that are required to be self-funded support these predictions. Geiger and Ittner's (1996) study used new institutional theory

to explain the adoption of particular practices in government organisations funded by allocation, together with government organisations required to be self-funding. Their evidence supports the predication that organisations adopt new management practices in order to appear efficient and legitimate. In such instances, these new practices are predicted to be implemented symbolically by organisations to improve their external conferred legitimacy, generally conferred by government, the public and professional associations (Deephouse, 1996; Geiger and Ittner, 1996).

Therefore organisational legitimacy is the acceptance of an organization by its external environment (Meyer and Rowan, 1977; Meyer and Scott, 1983; DiMaggio and Powell, 1983). This is a crucial concept in institutional theory, serving as an “anchor-point of a vastly expanded theoretical apparatus” (Suchman, 1995: 571). Therefore, a legitimate organisation is one whose values and actions are congruent with the legitimacy-conferring groups. This status is conferred by social actors (Pfeffer and Salancik, 1978; Ashforth and Gibbs, 1990), who are seen as having the authority to grant such legitimacy, the government (Baum and Oliver, 1991; Galaskiewicz, 1985; Meyer and Scott, 1983) and the public, through public opinion (Meyer and Rowan, 1977; Meyer and Scott, 1983; Galaskiewicz, 1985; Elsbach, 1994; Deephouse, 1996).

This study, informed by new institutional theory, examines the adoption of performance indicators as a measurement of public accountability and the decline of reporting this measure over time. This extends the study of new institutional theory to determine if the theory can be used to examine these issues, thereby strengthening the linkage between institutional theories and practice.

This focus views the environment as comprising symbolic elements that are capable of affecting organisational forms independently of the technical requirement of the organization. In such cases the adoption and use of management practices may be symbolic, mythical or ceremonial, in order to enhance the organization’s appearance of rationality and efficiency (DiMaggio and Powell, 1983; Tolbert and Zucker, 1983; Covaleski et al., 1996). Therefore, a legitimate organization is one whose values and actions are congruent with that external party’s values and expectations for action (Deephouse, 1996; Pfeffer and Salancik, 1978).

The incorporation of institutionalized practices provides a measure of conferred legitimacy on the organisations activities and also protects it from having its conduct questioned. Since the survival of government organisations depend primarily on the support of external constituents, and only secondarily on actual performance (Gupta et al., 1994), the adoption and use of government-initiated management practices maintain organisational legitimacy and ensure continued funding. Building on this body of literature, empirical studies of management practices within the public sector indicate that publicly funded organisations often implement elaborate management

systems to conform to external requirements. However, evidence suggests that the adoption of management practices, including performance indicators, for the purpose of increasing accountability, is symbolic (Berry et al., 1985; Covaleski and Dirsmith, 1991; Lapsley, 1994).

New institutional theory predicts that while the new practices will be implemented, they may not actually be used to improve performance or lead to greater accountability. This prediction is derived from the general theme of the institutional perspective, which is that an organisations survival requires it to conform to social norms of acceptable behavior as much as to achieve high levels of efficiency (Covaleski et al., 1996). Therefore, we argue that the introduction of performance indicators as a measure of accountability only serves as a ritualistic/ceremonial means for symbolically demonstrating an organisations commitment to rational decision making (Meyer and Rowan, 1977). We also argue that where this symbolic adoption is accompanied by coercive pressure the adoption will fail over time.

### Hypothesis Development

The issue of conferred legitimacy provides the prediction from institutional theories that when externally initiated practices are used to improve perceived organisational legitimacy, the adoption will be symbolic. Meyer and Rowan (1977: 341) contribute the theoretical underpinning of this concept. They hypothesize that isomorphism with environmental institutions results in some crucial consequences for organisations. Therefore, all aspects of the formal structure, including the management structure, will “dramatically reflect the myths of their institutional environment instead of the demands of their work activities”. This gives rise to Hypothesis 1:

*H1: The motivation for conferred legitimacy will produce symbolic adoption of government-initiated accountability practices.*

In addition to organisational legitimacy, the mechanism of coercive isomorphism will influence symbolically adopted practices. Coercive isomorphism is an influence that “results from both formal and informal pressures exerted on organisations by other organisations upon which they are dependent” (DiMaggio and Powell, 1983: 150).

Further, where practices adopted to secure external legitimacy through accountability are only symbolic they may lack permanency. Carruthers (1995, 313) argument supports this as “ceremonial adherence to legitimate norms may have little material impact because formal organisational structure is decoupled from actual organisational processes”. This argument of decoupling supports Mouritsen’s (1994) claim that public sector agencies are orientated by the history dependency of organisational action to reject reform programs that politicians may initiate. However, where coercive pressure results in

the adoption of symbolic practices, the practice may be short lived (Swidler, 1979). Indeed, the need to lodge symbolic managerial practices (performance indicators) in a formally defined role (accountability reporting) is a constant obstacle to the maintenance of that organisational role (Kanter, 1972; Rothschild-Whitt, 1979).

This is the basis for Hypothesis 2:

*H2: Practices adopted symbolically under coercive pressure will collapse over time.*

## **Research Methods**

### *Design for Hypothesis 1*

#### *Sample*

For Hypothesis 1 the sample represents the views of senior university administrators within Australian universities. The initial population consisted of 40 organisations defined by the Federal Government as institutions of higher education. Four organisations were removed from the group because, although federally funded, they either had not changed their profile from before the introduction of the UNS, or they were new single-discipline specifically funded institutions. The resulting 36 institutions all carried the status of “university” and were incorporated under their own specific state or territory legislation. These 36 universities represented 90 percent of federally funded institutions of higher education in Australia operating between 1992 and 2007.

#### *Data*

The data source was a structured questionnaire, designed to test particular attributes of new institutional theory in a higher educational setting, and an archival review of the annual reports for the period 1989 to 1996 of all universities included in the sample. This review was carried out to obtain an understanding of the antecedent period, the event period and the outcome of the introduction of performance indicators. The outcome of this review provided verification and an adoption point for performance indicators within universities, displayed in Table 3.

#### *Questionnaire Design and Administration*

The new institutional theory framework used in the study guided the design of the questionnaire. Questions were designed to help explain the factors behind the adoption of performance indicators as an accountability measure, and identify the degree of perceived legitimacy associated with those practices. Two specific questions were used for this, each containing a series of more

**Table 3**  
**Adoption Years for Performance Indicators**

Year of Adoption	1989	1990	1991	1992	1993	1994	1995	1996	Total
Performance Indicators	1	1	2	6	1	7	0	5	23

detailed items. The first question focused on the issue of legitimacy; the second was directed at symbolic adoption of the practices. A pilot questionnaire was tested at four universities before being administered. In addition, a question was asked that determined the perceived level of coercive pressure used by the Federal Government in the adoption of performance indicators.

#### *Response Rate*

The questionnaire was distributed to staff at three levels of university administration: vice-chancellors, senior university administrators, and business managers. Together they represent the three major areas where performance indicators could be used: academic administration, student administration and business administration. Because the focus of this part of the study was the adoption of performance indicators as a measure of accountability by the university, data collection was kept at the central, rather than the faculty level. The questionnaires were distributed by mail to 108 managers in 36 publicly funded Australian universities.

Table 4 shows that, of the 108 questionnaires distributed, 54 were returned, of which 52 were useable. This represented a response rate of 50 percent, with a useable rate of 48 percent. Responses from the three levels of management were evenly distributed at 47 percent from vice-chancellors, 53 percent from senior university managers and 44 percent from business managers. Table 4 also reports the responses of individuals by state, individuals by level and university by state.

#### *Variable Measurement*

##### *Dependent Variable*

A single dependent variable was examined: symbolic adoption. The objective of constructing this dependent variable was to determine to what extent the individual respondents perceived that the adoption of performance indicators as a measure of accountability was a symbolic gesture which conformed to social and institutional expectations. The data was obtained through Question 2 of the questionnaire, which consisted of four items.

**Table 4**  
**Data Collection Results**

	Questionnaires Distributed	Number of Respondents (Useable)	Response (Useable)
<b>Individual Responses — State</b>			
New South Wales	33	19	58%
Australian Capital Territory	6	3	50%
Victoria	24	9	38%
Tasmania	3	2	67%
South Australia	9	3	33%
Western Australia	12	8	67%
Northern Territory	3	3	100%
Queensland	18	5	28%
<i>Total</i>	<i>108</i>	<i>52</i>	<i>48%</i>
<b>Individual Responses — Level</b>			
Vice-Chancellors	36	17	47%
Senior University Administrators	36	19	53%
Business Managers	36	16	44%
<i>Total</i>	<i>108</i>	<i>52</i>	<i>48%</i>
<b>University Responses — State</b>			
New South Wales	11	8	73%
Australian Capital Territory	2	2	100%
Victoria	8	4	50%
Tasmania	1	1	100%
South Australia	3	1	33%
Western Australia	4	4	100%
Northern Territory	1	1	100%
Queensland	6	2	33%
<i>Total</i>	<i>36</i>	<i>23</i>	<i>64%</i>

These items were derived from various studies that considered symbolic use (DiMaggio and Powell, 1983; 1991; Covaleski, et al., 1993; Covaleski, et al., 1996) and were based on the underlying theory espoused by Scott (1995). The items focused on four issues. Item 1 considered the argument that specific

practices are instrumental in the creation of a social reality (Covaleski and Dirsmith, 1988b). Item 2 reflected the view that specific practices are symbols of a need to conform to social expectations of acceptable practice (Covaleski and Dirsmith, 1986; Covaleski *et. al.*, 1993). Item 3 focused on practices as symbols, which have their effect by shaping the meanings attributed to such activities (DiMaggio and Powell, 1991; Scott, 1995). Item 4 probed the concept that practices are a symbolic gesture that reinforces the expectations of external parties (Meyer and Rowan, 1977).

Respondents scored each item on a seven-point Likert scale ranging from 1: no influence to 7: highly influential. The responses to each item were summed and the mean was then used to give an overall symbolic adoption score with a theoretical range of 1 to 7. The higher the score, the greater the symbolic adoption of the practice.

To gain insights into the reliability of the symbolic adoption score, factor analysis was used to examine if the measure was uni-dimensional. As suggested by Lehmann (1989), a factor loading of 0.5 or less was used as a guide for identifying the items least influencing the construct. The analysis showed that, overall, all items exhibited influence on symbolic adoption of the practices. To confirm the findings from the factor analysis, the Cronbach alpha reliability coefficient was calculated. The result was 0.9316.

### *Independent Variable*

The independent variable used to explore the influence that institutional pressure had on the symbolic adoption of performance indicators for accountability was conferred legitimacy. As with symbolic adoption, the review of the literature failed to identify any prior measures that could be used in this study. This was due to the nature of the previous research, which was mainly limited to single organization case studies. Therefore, it was necessary to develop suitable measures for this study. These measures were developed from the empirical and theoretical work of major researchers.

### *Legitimacy*

The objective in constructing this variable was to determine to what extent the individual respondents perceived that their institution was under pressure to conform to the values and actions of interested external parties in order to have organisational legitimacy conferred upon it by that external party/organization. This question consisted of four items, and were designed to capture the notion of organisational legitimacy, which is described as a condition reflecting cultural alignment, normative support or consonance with relevant rules or laws (Scott, 1995). The items focused on three issues: first, organisations established by, and operating in accordance with, relevant legal or quasi-legal requirements (Item 1) (Scott, 1995). The second issue considered the argument that organisations were predisposed to accept structures that

presented a higher level of accountability as legitimate (Items 2 and 3) (Scott, 1995). The third issue is that a legitimate organization is one whose values and actions are congruent with the values and expectations for action of the legitimacy-conferring organization (Item 4) (Pfeffer and Salancik, 1978; Galaskiewicz, 1985).

Respondents scored each item on a seven-point Likert scale ranging from 1: no influence to 7: highly influential. The responses to each item were summed and the mean was then calculated to give an overall score for legitimacy, with a theoretical range of 1 to 7. The higher the score, the greater the level of legitimacy associated with the use of the practice.

Again, factor analysis was used to evaluate the measure. The analysis indicated that the legitimacy score was uni-dimensional for performance indicators, with the loading factor exceeding the required 0.5 requirement. The Cronbach alpha reliability coefficient was calculated at 0.8328.

Table 5 summarizes the descriptive statistics for all variables based on performance indicators.

**Table 5**  
**Summary Statistics for Dependent and Independent Variables**

	<i>N</i>	Mean	Std dev	Median	Min	Max
<b>Dependent Variable</b>						
<b>Symbolic Adoption</b>						
Performance Indicators (SAPI)	52	4.1962	1.1652	4.7000	1.00	5.60
<b>Independent Variables</b>						
<b>Performance Indicators</b>						
Legitimacy (LEGPI)	52	4.1500	1.2661	4.4000	1.00	6.20

A single question was also asked of the respondents: ‘Do you believe that coercive pressure was applied relating to the adoption of performance indicators as part of the accountability framework?’. Respondents were asked to score on a six-point Likert scale ranging from 1: no influence to 6: highly influential. Because the response constituted the entire population no statistical analysis was performed.

*Research Design*

To test Hypothesis 1, the following cross-sectional regression was estimated:

$$SA_{ij} = \alpha + \beta_1 LG_{ij} + \epsilon_j$$

Where:

$SA_{ij}$  = the symbolic adoption by a university  $i$  of performance indicators, as constructed from the survey;

$LG_{ij}$  = measure of legitimacy for a university  $i$ , for the adoption of performance indicators  $j$ , as constructed from the survey; and

$\epsilon_j$  = error term.

Based on the stated predictions, it was expected that the sign of  $\beta_1$  would be positive.

*Design for Hypothesis 2*

Multiple sources, including: different survey sites, documentary evidence and interviews (Simons, 1990; Merchant, 1985; Yin, 1984) was used to test Hypothesis 2. A review of all Australian university annual reports was carried out in 2007. The annual reports were for 2006 and the reporting of performance indicators was grouped into nil, minimal, some and comprehensive usage. These universities were cross-referenced to the universities involved in the earlier study (Watts, 2001). In the 2001 research, 23 universities out of an Australian total of 36 universities responded, of which 20 identified themselves. Telephone interviews were carried out with senior staff at six universities, and followed the interview protocols suggested by Brownell (1995). Three were with universities that had discontinued the reporting of performance indicators and three with universities that still reported performance indicators in their annual reports.

The six respondents were asked a series of open-ended questions focusing on the retention or rejection of the reporting of performance indicators in annual reports. These interviews were conducted by telephone, which provided the opportunity to correct misunderstandings and otherwise redirect the respondent towards the intended thrust of questions.

**Results**

*Hypothesis 1*

Table 6 presents the results of the regression analysis of the relationship between conferred legitimacy and symbolic adoption of performance indicators.

The regression results are positive and significant with an  $R^2$  of .571,

**Table 6**  
**Symbolic Adoption Regression Analyses for the Accounting Practice**

Performance Indicators (SAPI)	LEGPI		
	<b>Constant</b>		
Constant	1.309		
Beta		.756	
t.	3.544	8.164	
Significance	.001	.000	***
R square			.571
Adjusted R square			.563
F			66.654
Significance			.000      ***

*Notes*

$SA_{ij} = \alpha + \beta_1 LG_{ij} + \epsilon_j$

\*\*\* = Significant at 1% level

$SA_{ij}$  = The symbolic adoption by university  $i$  of one of the performance indicators), as constructed from the survey;

$LG_{ij}$  = Measure of legitimacy for university  $i$ , for performance indicators  $j$ , as constructed from the survey.

an adjusted  $R^2$  of .563, an  $F$ - statistic of 66.654, and the overall regression is significant at 0.000. These results suggest that the desire for externally conferred legitimacy serves as a good explanation for the symbolic adoption of performance indicators for accountability purposes.

The results confirm Hypothesis 1, which states that the greater the desire for conferred legitimacy, the greater the adoption of practices will be symbolic. The results add to the empirical weight of management-based institutional studies using multiple sites and standard statistical analysis. The results also provide evidence that institutional theory can be used to examine a specific collection or classification of organisations.

*Hypothesis 2*

The results for the question on coercive pressures are depicted in Table 7, which suggests that the majority of respondents felt that coercive pressure was applied through the incentives and threats associated with the Federal Government’s requirements to join the UNS. Clustering the responses above and below the mid point, it is evident that 78 percent of the respondents considered the influence to be significant, while only 22 percent considered the influence as less than significant. This finding supports Hypothesis 2.

**Table 7**  
**The Extent to which Coercive Measures were used when Introducing the UNS of Higher Education**

	No Influence					Total Influence
	1	2	3	4	5	6
New South Wales	2		3	3	7	1
Australian Capital Territory	1			1		1
Victoria		1	1	3		
South Australia			1	2	1	
Western Australia				1	3	
Queensland				2	2	1
Northern Territory				2	1	
Tasmania				1		
	3	1	5	15	14	3
		9			31	
		22%			78%	

The result of the analysis of university annual reports also supports Hypothesis 2: that the practices adopted symbolically under coercive pressure will collapse over time. This is displayed in Table 8, which indicates that 47 percent of Australian universities now do not report, or minimally report, performance indicators in their annual reports.

#### *Interviews with Respondents*

Various explanations can be attributed to the drop in reporting performance indicators in university annual reports. However, to provide a deeper understanding of the phenomena, telephone interviews were carried out with senior staff from six universities: three that had reduced, and three that had retained the reporting of performance indicators. Of the 26 universities that responded to original research (Watts, 2001) 20 identified themselves. This allowed a comparison of specific universities from the Watts (2001) research with the analysis of annual reporting practices in 2006. Of the 20 identifiable universities, eleven (55 percent) are identified as being within the some/high category and nine, (45 percent) are identified in the nil/minimal category. This is displayed in Table 9.

Interviews provided some insight into the decisions to continue with, or disregard, the reporting of performance indicators in annual reports. One

**Table 8**  
**Level of University Performance Indicators Reported – 2006**

University Annual Reports, 2006 — Level of Compliance					
	Reviewed	Nil	Minimal	Some	High
New South Wales	2006	1	6		4
Victoria	2006	1	2	2	3
Western Australia	2006				4
Queensland	2006	2	2		4
South Australia	2006		2		
Australian Capital Territory	2006		1		1
Northern Territory/Tasmania	2006			1	1
		4	13	3	17
Total universities			18		20
			47%		53%

**Table 9**  
**Identifiable University in Previous Research**

Self-identifying Universities					
	Identified	Nil	Minimal	Some	High
New South Wales	6	2	1		3
Victoria	3	1	2		
Western Australia	4				4
Queensland	1				1
South Australia	1		1		
Australian Capital Territory	2		1		1
Northern Territory/Tasmania	3		1	1	1
Total — self-identifying	20	3	6	1	10
Total — grouped			9		11
			45%		55%

senior academic/administrator from a New South Wales university stated that his university had stopped reporting because:

It was seen as a duplication of resources as most of the information is provided to the Federal Government in other university reports, such as our strategic plan. Also, the administrative burden associated with reporting made the practice inefficient.

A senior administrator at a Victorian university observed:

It is no longer necessary to report these indicators. It was when the Labor Government was in power and threatened to reduce resources if we did not give them what they wanted. Now it does not seem so important.

Further, a senior academic from a university in the Australian Capital Territory stated that their university's decision to reduce the reporting of indicators in the annual report was justified:

Over time my university has progressively reduced the amount of information we provided to the opposition (universities) — we are in a competitive business. We now structure our annual report around our key goals and objectives without needing to justify our performance. This, it seems, is acceptable to our stakeholders.

Universities that retained the practice of public reporting did so as a systematic process of defining, measuring and reporting on their performance, and as a marketing tool. In Queensland a senior academic stated:

... that by demonstrating our performance on a number of dimensions we retain the trust given to us by the public and at the same time retain our status.

The interviewee from the Australian Capital Territory suggested that:

The old reporting requirements, through the annual report, empowered and supported senior staff in carrying out their proper functions. It also provided us the opportunity to compare ourselves with other similar-sized universities — to benchmark ourselves, if you like.

A New South Wales a deputy vice-chancellor stated:

One reason we report our performance indicators is because we are good, and we want the public to know it. By showing our high student retention rates, high completion rates, low staff student/staff ratios we attract the best students. Also, our reported research output attracts the best academic researchers. We find this a win-win situation from a marketing perspective.

## Conclusions

This study examined the adoption of performance indicators as a government requirement for improving reported accountability in Australian universities. It concluded with a review of university annual reports in 2006, which identified a significant decline of the reporting of performance indicators in annual reports. The initial analysis considered the responses from 52 senior managers in 23 Australian universities in 1999. The second analysis reviewed the reporting practices in 2006. This study focused on two research questions: (1) to what extent was the adoption of the performance indicators a symbolic action on the part of the universities to increase their level of externally conferred legitimacy, and (2) why the public reporting of performance indicators had declined.

The results support the proposition proposed by institutional theory: that the desire for conferred legitimacy will produce symbolic adoption of government-initiated management practices. The results also support the proposition that practices adopted symbolically under coercive pressure will collapse over time. The study also provides insights which advance the arguments for using institutional theory by examining the theoretical tradition at a national or system level over multiple sites, rather than at the individual unit level. This supports the suggestion that institutional theory can be used to examine a specific collection or classification of organisations.

### *Concluding Comments and Issues of Further Research*

While the response rates in this study may appear small, 64 percent from institutions and 48 percent from individuals, the paper's major limitation is the number of organisations tested. At the time of undertaking the initial research, 36 universities represented the total Australian population of federally funded universities. However, the research potential of this method of investigation seems vast. One way to proceed would be an analysis of larger public sector departments, to determine the extent of symbolic adoption and continued use of accountability measures resulting from new public sector management and reforms.

## References

- Ansari, S., & K.J. Euske 1987, 'Rational, rationalizing, and reifying uses of accounting data in organisations', *Accounting, Organisations and Society*, vol.12, no. 6, pp549–70.
- Ashforth, B.E., & Gibbs, B.W. 1990, 'The double-edge of organizational legitimization', *Organization Science*, vol. 7, pp177–94.
- Baum, J.A.. & Oliver, C. 1991, 'Institutional linkages and organizational mortality', *Administrative Science Quarterly*, vol. 36, no. 2, pp187–218.

- Broadbent, J., Jacobs, K., & Laughlin, R. 2001, 'Organisational resistance strategies to unwanted accounting and finance changes: the case of general practice in the UK', *Accounting, Auditing & Accountability Journal*, vol. 14, no. 5, pp565–86.
- Berry, A.J., Capps, T., Cooper, D., Ferguson, P., Hooper, T. & Lowe, E.A. 1985, 'Management control in an area of the NCB: rationales of accounting practices in a public enterprise', *Accounting, Organisations and Society*, vol. 10, no. 1, pp3–28.
- Brown, A.D. 1997, 'Narcissism, identity, and legitimacy', *Academy of Management Review*, vol. 22, no. 3, pp643–86.
- Brownell, P. 1995, *Research Methods in Management Accounting*, Melbourne VIC: Coopers & Lybrand.
- Burns, J., & Baldvinsdottir, G. 2005, 'An institutional perspective of accountants' new roles—the interplay of contradictions and praxis', *European Accounting Review*, vol. 14, no. 4, pp725–57.
- Burns, J., & Scapens, R.W. 2000, 'Conceptualizing management accounting change: an institutional framework', *Management Accounting Research*, vol. 11, no. 1, pp3–25.
- Burns, J., & Vaivio, J. 2001, 'Management accounting change', *Management Accounting Research*, vol. 12, no. 4, pp389–402.
- Carruthers, B.G. 1995, 'Accounting, ambiguity, and the new institutionalism', *Accounting, Organisations and Society*, vol. 20, no. 4, pp313–28.
- Collier, P.M. 2001, 'The power of accounting: a field study of local financial management in a police force', *Management Accounting Research*, vol. 12, no. 4, pp465–86.
- Collier, P.M. 2005, 'Governance and the quasi-public organization: A case study of social housing', *Critical Perspectives on Accounting*, vol. 16, no. 7, pp929–49.
- Commonwealth Tertiary Education Commission 1986, *Review of Efficiency and Effectiveness in Higher Education*, Canberra: Australian Government Publishing Service.
- Covaleski, M.A., & Dirsmith, M.W. 1986, 'The budgetary process of power and politics'. *Accounting, Organisations and Society*, vol. 11, no. 3, pp193–214.
- Covaleski, M.A., & Dirsmith, M.W. (1988a), 'The use of budgetary symbols in a political arena: a historically informed field study', *Accounting, Organization and Society*, vol. 13, no. 1, pp1–12.
- Covaleski, M.A., & Dirsmith, M.W. 1988b, 'An institutional perspective on the rise, social transformation and fall of a university budget category'. *Administrative Science Quarterly*, vol. 33, no. 4, pp562–87.
- Covaleski, M.A., & Dirsmith, M.W. 1991, 'The management of legitimacy and politics in public sector administration', *Journal of Accounting and Public Policy*, vol. 10, no. 2, pp135–156.
- Covaleski, M.A., Dirsmith, M.W. & Michelman, J.E. 1993, 'An institutional

- theory perspective on the DRG framework, case-mix accounting systems and health-care organisations', *Accounting, Organisations and Society*, vol. 18, no. 1, pp65–80.
- Covaleski, M.A., Dirsmith, M.W. & Samuel, S. 1996, 'Managerial accounting research: the contributions of organisational and sociological theories', *Journal of Management Accounting Research*, vol. 8, pp1–35.
- Dawkins, J.S. 1988, *Higher Education: A Policy Statement*, Canberra: Australian Government Publishing Service.
- Deephouse, D.L. 1996, 'Does isomorphism legitimate?', *Academy of Management Journal*, vol. 39, no. 4, pp1024–39.
- Deephouse, D.L. & Carter, S.M. 2005, 'An examination of differences between organizational legitimacy and organizational reputation', *Journal of Management Studies*, vol. 42, no. 2, pp329–60.
- DiMaggio, P.J. & Powell, W.W. 1983, 'The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields', *American Sociological Review*, vol. 48, no. 2, pp147–60.
- DiMaggio, P.J. & Powell, W.W. 1991, 'Introduction', In W.W. Powell, & P.J. DiMaggio, (Eds.), *The New Institutionalism in Organizational Analysis*, Chicago: University of Chicago Press.
- Elsbach, K.D. 1994, 'Managing organizational legitimacy in the California cattle industry: the construction and effectiveness of verbal accounts', *Administrative Science Quarterly*, vol. 39, no. 1, pp57–88.
- Galaskiewicz, J. 1985, 'Interorganisational relations', In Turner, R.H. and Short J.F. (Eds.), *Annual Review of Sociology*, vol. 11, pp281–304.
- Geiger, D.R. & Ittner, C.D. 1996, 'The influence of funding source and legislative requirements on government cost accounting practices', *Accounting, Organisations and Society*, vol. 21, no. 6, pp549–67.
- Granlund, M. & Lukka, K. 1998, 'It's a small world of management accounting practice', *Journal of Management Accounting Research*, vol. 10, pp153–79.
- Greenwood, R. & Hinings, C.R. 1996, 'Understanding radical organizational change: bringing together the old and the new institutionalism', *Academy of Management Review*, vol. 21, no. 4, pp1022–54.
- Gupta, P.P., Dirsmith, M.W. & Fogarty, T.J. 1994, 'Co-ordination and control in a government agency: contingency and institutional theory perspectives on GAO audits', *Administrative Science Quarterly*, vol. 39, no. 2, pp264–84.
- Harrold, R. 1991, 'The unified national system of higher education – action in haste and repentance at leisure?', proceedings of the *Australian Association of Research in Education* conference, Queensland, July.
- Hoare, D. 1995, *Higher Education Management Review: Report of the Committee of Inquiry*, Canberra: Australian Government Publishing Service.
- Hood, C. 1991, 'A public management for all seasons?', *Public Administration*, vol. 69, pp3–19.
- Kanter, R.M. 1972, *Commitment and Community*, Cambridge, MA: Harvard

- University Press.
- Lapsley, I. 1994, 'Responsibility accounting revived? market reform and budgetary reforms in health care', *Management Accounting Research*, vol. 5, no. ¾, pp337–52.
- Lehmann, D.R. 1989, *Market Research and Analysis*, Homewood, Il: Richard D. Irwin.
- Linke, R.D. 1991 *Performance Indicators in Higher Education*, Canberra: Australian Government Publishing Service.
- Llewellyn, S. & Northcott, D. 2005, 'The average hospital', *Accounting, Organisations and Society*, vol. 30, no. 6, pp555–83.
- Merchant, K.A. 1995, 'Organizational controls and discretionary program decision making: a field study', *Accounting Organisations and Society*, vol. 10, no. 1, pp67–85.
- Meyer, J.W. & Rowan, B. 1977, 'Institutionalized organisations: formal structure as myth and ceremony', *American Journal of Sociology*, vol. 83, no. 2, pp340–63.
- Meyer, J.W. & Scott, W.P. 1983, 'Centralization and the legitimacy problems of local government', in J. W. Meyer & W.J. Scott (Eds.) *Organizational Environments*, Mewbery Park: Sage Publications: 199–215.
- Mezias, S.J. 1990, 'An institutional model of organizational practice: financial reporting at the Fortune 200', *Administrative Science Quarterly*, vol. 35, no. 3, pp431–57.
- Modell, S. 2001, 'Performance measurement and institutional processes: a study of managerial responses to public sector reform', *Management Accounting Research*, vol. 12, no. 4, pp437–64.
- Mouritsen, J. 1994, 'Rationality, institutions and decision making: reflections on March and Olsen's *Rediscovering Institutions*', *Accounting, Organisations and Society*, vol. 19, no. 2, pp193–211.
- Pallot, J. 2003, 'A wider accountability? the audit office and New Zealand's bureaucratic revolution'. *Critical Perspectives on Accounting*, vol. 14, no. ½, pp133–55.
- Pfeffer, J. & Salancik, G. 1978, *The External Control of Organisations*, New York, NY: Harper & Row.
- Ribeiro, J.A. & Scapens, R.W. 2006, 'Institutional theory in management accounting change', *Qualitative Research in Accounting and Management*, vol. 3, no. 2, pp94–110.
- Rothschild-Whitt, J. 1979, 'The collectivist organization; an alternative to rational bureaucratic models', *American Sociological Review*, vol. 44, pp509–27.
- Ryan, N. Williams, T. Charles, M. and Waterhouse, J. 2008, 'Top-down organizational change in an Australian government agency', *International Journal of Public Sector Management*, vol. 21, no. 1, pp26–44.
- Scott, W.R. 1995, *Institutions and Organisations*, London: Sage Publications.

- Simons, R. 1990, 'The role of management control systems in creating competitive advantage: new perspectives', *Accounting Organisations and Society*, vol. 15, no. 1/2, pp127–43.
- Suchman, M.C. 1995, 'Managing legitimacy: strategic and institutional approaches', *The Academy of Management Review*, vol. 20, no. 3, pp571–609.
- Swidler, A. 1979, *Organisations Without Authority: Dilemmas of Social Control of Free Schools*, Cambridge, MA: Harvard University Press.
- Tolbert, P.S & Zucker, L.Z. 1983, 'Institutional sources of change in the formal structure of organisations: the diffusion of civil service reform, 1880–1935', *Administrative Science Quarterly*, vol. 28, no. 1, pp22–38.
- Watts, T. 2001, *Some Evidence on the Adoption of Management Accounting Practices by Australian Universities: An Institutional Theory Approach*, unpublished PhD thesis, Sydney, NSW: University of Technology, Sydney.
- Wiltshire, K. 1990, *The Australian Flirtation with Privatisation*, in A. Kouzmin and N. Scott (Eds.), Sydney: Macmillan.
- Yin, R.K. 1984), 'Case study research design and methods', *Applied Social Research Methods*, Series 5, Thousand Oaks, CA: Sage Publications.
- Zucker, L.Z. 1987, 'Institutional theories of organisations', In N.R. Scott (Ed.), *Annual Review of Sociology*, vol. 13, pp443–64.