

AN ANALYTICAL FRAMEWORK FOR EXAMINING CHANGES IN PERFORMANCE MEASUREMENT SYSTEMS WITHIN THE BANKING SECTOR

Rahat Munir*
Sujatha Perera^α
Kevin Baird^β

Abstract

Drawing on institutional theory, more specifically DiMaggio and Powell's (1983) notion of institutional isomorphism, and Oliver's (1991) typology of strategic responses to institutional pressures, this paper develops an analytical framework to examine the factors that influence organisations to change their performance measurement systems, and the responses to consequential change efforts. The paper suggests that various macro-level factors (economic, technological, socio-cultural and political) that affect organisational functioning place pressure (mimetic, normative and coercive) on the organisation to change their performance measurement practices. The paper also suggests that rather than passively conforming to such pressure, organizations often respond strategically, and the strategic responses could take various forms including non-compliance. The proposed framework could be used to examine changes in performance measurement systems in organisations in general and organisations in the banking sector more specifically.

Keywords:

Change in performance measurement systems; institutional theory; banking sector; strategic responses

* Corresponding Address: Associate Lecturer, Department of Accounting and Finance, Faculty of Business and Economics, Macquarie University, North Ryde, Sydney, Australia. email: rmunir@efs.mq.edu.au
Tele: +612 9850 4765, Fax +612 9850 8497.

^α Associate Professor, Department of Accounting and Finance, Faculty of Business and Economics, Macquarie University, Sydney, Australia.

^β Senior Lecturer, Department of Accounting and Finance, Faculty of Business and Economics, Macquarie University, Sydney, Australia.

1. INTRODUCTION

Over the last couple of decades in particular, many organisations worldwide have experienced significant change in their organisational design, competitive environments and information technologies (Johnson and Kaplan, 1987). The changes have largely been driven by globalisation which has profoundly changed the world's political, socio-cultural and economic landscape and created a turbulent environment of change (Chow and Van der Stede, 2006; Bourne *et al.*, 2000; Waggoner *et al.*, 1999; Neely, 1999; Meyer and Gupta, 1994; Kaplan and Norton, 1992; Hopwood, 1987; Johnson and Kaplan, 1987). To adapt to the changing environment, innovative organisations not only changed their strategic priorities, but also implemented new technologies and management practices (Neely *et al.*, 1994; Banker *et al.*, 1993). The adoption of new technologies and management practices has made organisations reconsider the suitability of their control systems, including their performance measurement systems (hereafter referred to as "PMSs"), with organisations making the necessary changes to make those systems more effective in the current business environment.

PMSs have been used for the efficient and effective management of organisations (Kaplan and Norton, 1992) and traditionally these systems have been dominated by financial measures, such as, Earnings per Share (EPS), Return on Investment (ROI) and Return on Equity (ROE). The aim of such systems was to ensure that from a shareholders' point of view the organisation's performance was financially successful and that progress was in accordance with the business plan (Bititci *et al.*, 2000; Neely, 1998; Dixon *et al.*, 1990). While most of these PMSs were developed in the early 20th

century, their usefulness became limited as the business environment changed in the latter part of the 20th century. For example, Johnson and Kaplan (1987) claimed that:

“In this time of rapid technological change, vigorous global and domestic competition, and enormously expanding information processing capabilities, management accounting systems are not providing useful, timely information for the process control, product costing, and performance evaluation activities of managers” (Johnson and Kaplan, 1987, Preface, p.xi).

In particular, Johnson and Kaplan (1987) noted their dissatisfaction with the high focus on financial measures in traditional PMSs, and emphasised the need for change in such systems. As a result, there have been various attempts to develop systems that overcome the purported limitations of traditional PMSs. Examples of these new (or contemporary) systems are the Performance Measurement Matrix (Keegan *et al.*, 1989), SMART Pyramid (Lynch and Cross, 1991), Result and Determinants Framework (Fitzgerald *et al.*, 1991), the Balanced Scorecard (Kaplan and Norton, 1992), the Performance Prism (Neely *et al.*, 2001) and Comparative Business Scorecard (Kanji and Moura, 2002). The common features of these new systems are: they are multidimensional, incorporate financial and non-financial measures as well as leading and lagging indicators, and link performance measures to the strategy of the organisation.

There is evidence which suggests that organisations are moving towards these new PMSs with 50% of the organisations in North America and 40% in Europe having significantly changed their measurement systems by the end of the 1990s (Frigo and Krumwiede, 1999). In Australia, McCunn (1998) found that 30% of the top 1000 organisations are adopting contemporary PMSs. Additionally, a survey conducted in the United States in 1998, showed that 43% of 276 companies had abandoned their traditional performance

measurement practices with the majority adopting the Balanced Scorecard (Rigby, 2001). Silk (1998) found that 60% of the Fortune 1000 firms in the United States have experimented with new PMSs. A similar study conducted by the Gartner Group, also suggests that over 50% of large United States organisations had adopted a new PMS (in this case the Balanced Scorecard) by the end of 2000 (Downing, 2001).

Nevertheless, there are also studies that found contemporary PMSs such as the Balanced Scorecard (BSC) are not widely used. For instance, Perera *et al.*, (2007) reveal that only 17% of the respondents from local councils in the Sydney Metropolitan area in Australia have adopted the BSC or were in the process of adopting it. In a similar vein Chan (2004) examined the adoption of the BSC in the United States and Canada, and found that only 8.3% (11/132) and 5.8% (3/52) of the municipal governments in US and Canada respectively have adopted BSC. These conflicting findings raise the fundamental question of why some organisations have changed their PMSs while others have not. In addressing this question, numerous authors have argued that making changes to PMS is potentially problematic, for instance, due to lack of adequate and necessary management skills, complex design and implementation of contemporary PMSs (Neely *et al.*, 2001; Sinclair and Zairi, 2000; Neely, 1998). In fact, introducing changes to PMS demands fundamental changes to various other systems and procedures within the organisation and, when attempts are made to introduce change, change leaders often become frustrated with the technical barriers which add an additional burden necessitating the management to make detailed adjustments to other allied systems (Hoque and James, 2000; Vaivio, 1999; Ittner and Larcker 1998; Kaplan, 1984).

A review of the existing literature on PMSs indicates that majority of the research conducted has been in the manufacturing industry with limited research undertaken in banking sector institutions (Cobb *et al.*, 1995; Drury and Tyles, 1995). Similar to industrial organisations, banks too have been subject to dramatic changes in their regulatory and competitive environments over the last few decades (Cobb *et al.*, 1995). Progressive deregulation in the 1980s coupled with explosive growth in information technologies and the stringent capital requirements of the Basel Agreement¹ have changed the risk profile of banks. Against this background, the organisational structure of banks has evolved into focused and semiautonomous lines of business, each with a different product, customer, distribution, or geographic mandate (Karr, 1997; Payant, 1996; Zaik *et al.*, 1996; Kimball, 1988; Humphery, 1985). This decentralised organisational structure has created issues concerning performance measurement, risk management, and resource allocation (Karr, 1997). In particular, as these issues emerged and gained momentum, new approaches to performance measurement based on products/services, customers or distribution channels were needed within banks.

Further, many banks found they lacked information that would enable them to accurately measure, manage and mitigate risk across different business areas. For example, many banks in the US and Europe suffered financial losses (to cite an example, in 2008, the US regulators took control of IndyMac Bancorp Inc due to its financial failure which is the second biggest bank failure in the US history) primarily because of breakdowns in

¹ The Basel Agreement is an accord developed during a 1975 meeting in Basel, Switzerland of central bankers of the industrialized nations setting forth guidelines for the supervision of banks. Included are guidelines for minimum capital requirements. The agreement was reached by the Committee (known as the Basel Committee) on Banking Regulations and Supervisory Practices, meeting under the auspices of the Bank for International Settlements (BIS).

internal controls and the failure to perform in a timely manner due to inadequate and ineffective performance information and risk management systems (Helliard *et al.*, 2002). In response to these pressures, many banks have developed and adopted a number of innovative and robust solutions for performance measurement, internal controls, new databases and new analytical ways to prudently assess costs, benefits and risks (Karr, 1997). Effective risk management in banks is the result of an efficient PMS².

Although existing studies on changes in PMSs within banks address various issues in relation to the nature of the changes, they do not explicitly analyse the factors that influence such change or consequential response to such change attempts. Anecdotal evidence suggests that despite the changes taking place in the general business environment, changes to PMSs in banks is not universal (Hussain and Hoque, 2002; Helliard *et al.*, 2002; Jeucken and Bouma, 1999) with traditional PMSs still considered appropriate in some banks (Adler *et al.*, 2000). This raises some crucial questions including (i) why do some banks choose to change their PMSs, and what factors influence banking institutions to make such changes; and (ii) what is the nature of responses to attempts to change (or not change) the existing PMS? It is important that academics as well as practitioners gain a systematic understanding of such issues (Hussain and Hoque, 2002; Helliard *et al.*, 2002).

The environment has been considered as a central factor affecting organisations with changes in the environment having important implications for organisational systems, structures, strategies and day-to-day activities. Shields (1997) and Scapens (1999) argue

² See for details: (1) Operational Risk Management, Basel Committee on Banking Supervision (1998)
(2) Risk Management in the New Regulatory Environment, Gartner Inc., (2003)

that changes in the environment cause changes within organisations, which in turn cause changes in management accounting practices (see also Chenhall and Langfield-Smith, 1998; Atkinson *et al.*, 1997). Generally, PMSs are expected to respond to environmental changes, since these changes have an impact on the survival and stability of organisations (Siti-Nabiha and Scapens, 2005; Burns, 1998; Cobb *et al.*, 1995). Therefore, organisations should continually be aware of potential environmental changes, be capable of anticipating them in a timely manner (Burns and Scapens, 2000; Eccles, 1991) and, respond appropriately by modifying their PMSs (Chow and Van der Stede, 2006; Eccles, 1991).

Researchers in the PMS area have been interested in understanding the reasons for change, the issues arising in change processes, and the nature and extent of change attempts. Accordingly, over the last two decades research has been undertaken to examine such issues using different analytical frameworks (Waggoner *et al.*, 1999; Cobb *et al.*, 1995; Innes and Mitchell, 1990). For instance, Innes and Mitchell (1990) claimed that change process is determined by three factors namely motivators, catalysts and facilitators. While motivators and catalysts are regarded as the generators of change, they expect that change will not occur without the presence of facilitators.

Cobb *et al.*, (1995) criticized Innes and Mitchell's framework for not including factors that inhibit change and also for focusing too much on change elements outside the organisational realm. More importantly, they noted that Innes and Mitchell's framework ignores the influence of individuals as change agents in the change process. In an effort to overcome these limitations, Cobb *et al.*, (1995) developed an extended model of

organisational change that was based on Innes and Mitchell's framework, which additionally included the significance of individuals in the change process. Similarly, the Waggoner *et al.*, (1999) framework combined several important issues concerning change with the influencing forces grouped into: (i) internal influences (power relationships and dominant coalition interests), (ii) external influences (legislation and market volatility), (iii) process issues (manner of implementation and management of political processes), and (iv) transformational issues (degree of top-level support and risk of gain or loss from change).

Soin (1996) examined change process in a UK clearing bank by drawing on Laughlin's (1991) conceptual framework and later used institutional theory in Soin *et al.*, (2002) to examine the change process in the same context. Majority of the frameworks that have been used to analyse the factors influencing PMS changes in manufacturing organisations are not applicable in banking institutions due to the different conditions they experience. For instance, banks are required to operate under the stringent guidelines of central banks to maintain liquidity, capital adequacy and risk management. Additionally, the frameworks that have been used to examine PMS change are limited in the sense that they have failed to consider managerial responses to the institutional pressures influencing change. Accordingly, further research into the reasons for change and the challenges confronting organisations when changing PMSs is warranted (Helliard *et al.*, 2002; Atkinson *et al.*, 1997; Drury and Tyles, 1995). The main objective of this paper is to provide an analytical framework to facilitate a comprehensive analysis of such research. In developing the framework, this paper draws on institutional theory, more

specifically DiMaggio and Powell's (1983) notion of institutional isomorphism, and Oliver's (1991) typology of strategic responses to institutional pressures.

The remainder of the paper is organised as follows. In section 2, the study outlines the theoretical construct of the study drawn from the new institutional sociology variant of institutional theory. Section 3 discusses a number of factors that affect organisational functioning. The pressures that may influence changes in PMSs are discussed in section 4 followed by a discussion on the strategic responses to institutional pressures in section 5. Section 6 presents the framework developed in this paper and the final section provide a summary of the paper and some concluding remarks.

2. THE NEW INSTITUTIONAL SOCIOLOGY STRAND OF INSTITUTIONAL THEORY

New institutional sociology (NIS) observes that the behaviour of organisations is motivated by the forces within the wider society. Similar to the legitimacy theory³, it argues that organisations seek legitimacy by adhering to rules and norms that are valued by society with their behaviour directed more towards environmental acceptance than technical efficiency. Organisations with reduced legitimacy are forced to consider alternative systems and procedures (Scott, 2001; Carpenter and Feroz, 1992). The mechanism through which organisations adopt systems and procedures is termed institutional isomorphism. Isomorphism is “a constraining process that forces one unit in

³ The Legitimacy theory posits organisations are continually seeking to ensure that they operate with the bounds and norms of their respective societies (Deegan, 2000). Legitimacy is considered as “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs and definitions” (Suchman, 1995, p. 574).

a population to resemble other units that face the same set of environmental conditions” (DiMaggio and Powell, 1983, p.149).

Grounded into NIS reasoning, DiMaggio and Powell (1983, p.150) identify three mechanisms through which institutional isomorphism occurs, each with its own antecedents - coercive, mimetic and normative. “Coercive isomorphism” is the response to “both formal and informal pressures exerted on organisations by other organisations and impinging external factors *e.g.*, government policy, regulation, supplier relationships upon which they are dependent and by cultural expectations in the society within which organisations function” (DiMaggio and Powell, 1983, p.150, see also 1991, p.66). Organisations may change their systems and procedures directly as a consequence of changing legislation. This adherence to pressure helps the organisation to secure resources, influence and legitimacy (Meyer and Rowan, 1991). “Mimetic isomorphism” is the act of “copying other organisations when organisations face uncertainty, and modeling themselves on other organisations in order to overcome uncertainty” (DiMaggio and Powell, 1983, p. 151). In particular, ambiguous institutional goals and strategies or poorly understood technologies may cause organisations to model themselves on other organisations. Scapens, (1994) argues that mimetic behaviour has a conformity element, wherein organisations adopt contemporary managerial practices to legitimise their operations by appearing to be in control. “Normative isomorphism” is associated with professionalisation (DiMaggio and Powell, 1983, p.152, see also 1991, p.66), and arises when professionals operating in organisations are subject to pressures to conform to a set of norms and rules developed by occupational/professional groups (Abernethy and Chua, 1996). In this form of isomorphism, firms feel obliged to adopt

structures and processes that have been advocated by dominant professions and professional bodies (Burns, 2000).

These mechanisms cause organisations to become increasingly alike. Essentially, NIS suggests that organisations react and conform to institutional pressures in order to gain legitimacy, institutional support and long term survival. It suggests the ways in which organisations attempt legitimacy not only in economic terms but also in social terms. However, the presence of isomorphic pressures does not mean that organisational structures are not influenced by technical requirements caused by the economy or market in which they operate (Zucker, 1987). Therefore, tension may exist between the technical requirements and the institutional requirements faced by the organisation.

Scott and Meyer (1983) argue that accounting can be employed to satisfy external constituents, while protecting internal processes from too much intrusion. Management accounting procedures, such as PMSs, may serve this role when authorities are located outside the organisation (*e.g.* central bank, government agency). Based on this view, changes in PMSs can stem from changes in wider societal preferences or institutions. Although NIS discusses the forces that lead to isomorphism and the forces that cause institutions to change, it does not address the possible organisational responses to change efforts (Oliver, 1991) and the strategic behaviours associated with the consequential change (Covaleski and Dirsmith, 1988).

Oliver (1991) discusses various strategies that an organisation can adopt in response to institutional pressures. While questioning the notion of institutional determinism, she

argues that organisational members can resist institutional pressures for change in various ways. It is proposed that institutions do not force a course of action to be selected, but rather they are variables in a selection process of alternative strategies, that constitute a varying degree of active resistance to institutional pressures. Oliver's (1991) continuum of strategic responses enables the examination of institutional pressures for change within the context of strategic responses to change, while the earlier NIS ignored such responses. As Oliver (1992) notes, "the emphasis in the institutional literature on legitimation processes, organisational conformity and enduring organisational change has tended to preclude inquiry into factors that cause organisations to challenge, discard or abandon legitimated or institutionalised organisational practices (p. 564)". Hence, many researchers have advocated the extension of NIS to include explanations and responses to the institutional pressures of change (Greenwood and Hinings, 1996).

The use of the theoretical notions in both DiMaggio and Powell (1983) and Oliver (1991) enables the development of an analytical framework (depicted in Figure I) that facilitates the analysis of the factors that influence changes in PMSs and the responses to change efforts. The next section present a discussion of a number of macro-level factors that influence organisational environment which in turn lead to generating pressures for change in PMSs.

3. ENVIRONMENTAL FACTORS THAT AFFECT ORGANISATIONAL FUNCTIONING

There has been suggestions that changes in PMSs are influenced mainly by the exogenous environment (macro-level) of the organisation (Hussain and Hoque, 2002;

Jazayeri and Hopper, 1999; Cobb *et al.*, 1995; Innes and Mitchell, 1990) and that changes take place to enhance the production of better information for decisions and to survive in a highly competitive environment (Baines and Langfield-Smith, 2003; Cobb *et al.*, 1995). The exogenous environment is an outer realm of organisations which is outside their control. For example, innovations, trade liberalisation, new technologies, degree of competition, changes in regulatory frameworks, and economic conditions (or uncertainty) have often been cited in the literature as major factors that are highly likely to place pressure on organisations (Helliard *et al.*, 2002; Cobb *et al.*, 1995). Hussain and Hoque (2002) suggest that exogenous environmental change influences changes in the strategy and/or structure of an organisation, which in turn can lead to changes in performance measurement practices. Specifically, environmental factors such as economic conditions, technological developments, socio-cultural and political environment impact on performance measurement practices (Hussain, 2003; Johnson and Kaplan, 1987) with organisations attempting to adapt their systems to fit the environment (Granlund and Lukka, 1998).

3.1 Economic Environment

Negative economic conditions place pressure on organisations to increase profitability (Williams and Seaman, 2002; Burney, 1999), making it difficult for management to focus on improving and measuring non-financial performance. In recent years banks globally have faced an uncertain economic climate because of their large non-fund based activities, swelled non-performing loans (NPLs), huge write-offs and high inflation and interest rates in the late 1980s and early 1990s (Helliard *et al.*, 2002; Harker and Zenios,

1998). Such an economic climate places pressures on management to improve performance, either by using existing measurement systems more efficiently or by introducing new control and measurement systems for that purpose (Hussain and Hoque, 2002; Brignall and Modell, 2000). For instance, the current financial crisis has forced many banks to strengthen their PMSs by integrating strategic planning, risk measurement & management frameworks and performance reporting to enable each business area to monitor its contribution, deliver clearer and more consistent financial information (Bank of England Annual Report 2008, p.30)⁴.

Anecdotal evidence suggests that volatile market conditions generate high market risk for banks which primarily reflects their exposures to fluctuations in interest rates, foreign exchange rates and equity prices which threaten their earnings, capital, liquidity, and solvency. Prudent risk management within banks demands accurate and timely risk quantification (Bank of England Annual Report 2008). Therefore, banks need more formal, detailed PMSs that establish specific internal controls and produce cogent analysis that capture all material activities that expose banks to market risk and then measure the specific risks presented.

Deregulation both within countries and across national boundaries has led to severe competition between banks and other financial institutions (Niemela, 1999). As in other industries, the degree of competition in the banking sector is primarily driven for creating efficiency of the financial services, the quality of financial products and the degree of innovation in the sector. The competition in the banking sector has not only facilitated the

⁴ See for details: The Bank's Priorities in 2008/2009, Bank of England Annual Report 2008, pp.27-30

access of organisations and households to financial services and financing but also affecting overall economic growth. Cobb *et al.*, (1995) note that financial markets are becoming increasingly competitive as banks compete for profitable business, as advances in technology and de-regulation allows other organisations to enter the markets. These pressures suggest that the success or even long term survival of an organisation depends upon appropriate utilization of resources as well as control over costs and quality of services and the need for effective management control systems, such as PMSs, is becoming increasingly important. The need for more comprehensive PMSs to enable organisations to operate effectively in today's competitive environment has often been emphasised by accounting academics and practitioners (*e.g.* Johnson and Kaplan, 1987). A number of recent studies have however concluded that traditional performance measures are inappropriate given today's complex competitive environment. In a similar context, Fisher (1995) identified three principal reasons for adopting new PMSs, one of which is competitive pressure. Therefore, the effect of competition merits investigation as a force of change in performance measurement practices in banks.

3.2 Technological Environment

The impact of technology on performance measurement practices is well researched in the management accounting literature (Otley, 1994; Burns, 1992; Johnson and Kaplan, 1987). The impact of advancements in information technology is relatively higher in the service industry (such as banking sector) than in manufacturing (Kimball, 1997), and Kaplan and Norton (1996) argue that the impact of the information era is even more revolutionary for service than manufacturing companies.

Technology provides an opportunity for banks to improve service performance in addition to providing a broader scale of financial products and services. Technological advancements allow banks to offer a wider variety of customer services, not only to fulfill the needs of customers, but also to achieve economies of scale and to be competitive. The literature on banking reveals that over the last two decades there has been a phenomenal increase in the offer of ebanking products/services by banks to stay competitive (Helliari *et al.*, 2002; Harker and Zenios, 1998). Information technology creates opportunities to deliver financial services through alliances which allow the shared use of technology platforms such as Automatic Teller Machines (ATMs) and payment processing systems. International payments has traditionally been carried out through the Society for Worldwide Interbank Financial Telecommunications (SWIFT) network and the banking regulations ensure that the international banks who form the world-wide network of correspondent banks receive income for managing payment transactions and also from interest earned while the money is in their temporary control.

During the 1990s a range of alternative mechanisms for managing international funds transfer emerged. The new entrants include IBOS⁵ and smart card technology (Holland and Cortese, 1995). The effect of these new entrants was to improve efficiency of the bank payments by offering cheaper, and in most cases faster methods of moving money by banks. These developments require more extensive use of risk management and PMSs within banks to create competitive advantage and improve performance. It is therefore

⁵ IBOS, stands for International Banking - One Solution, is an international banking alliance aimed at serving corporate customers with cross border banking requirements. 15 banks worldwide have joined this network to offer corporate customers a comprehensive range of banking services, both locally and internationally.

highly likely that the technological advancements will strongly influence changes in the PMSs and should be included in the framework.

3.3 Socio-cultural & political environment

The institutional environment is generally characterized by the rules and requirements which individual organisations must conform to if they are to receive support and legitimacy (Scott, 1993; DiMaggio and Powell, 1983). Scott (2001) suggests that political pressures result from changes in interests of individuals or groups and underlying power distributions that provide support for the existing institutional environment whereas, socio-cultural pressure is associated with differentiation of groups and the existence of heterogeneous or divergent beliefs and practices. The presence of multiple competing and overlapping institutional pressures undermine the stability of each, hence resulting in the gradual abandonment of a set of practices within an organisation (Stark 1996). For example, in many Islamic countries banks have been forced to introduce “profit and loss based” banking products abandoning the “interest based” products to satisfy the fundamental belief (faith) of Islamic societies which prohibit charging interest (Ahmad, 1993).

Hoque and Hopper (1997, 1994) have identified a number of socio-cultural and political factors such as political instability and the tendency towards organisational disorder. Within the performance measurement literature, research has largely excluded the examination of social and institutional factors by assuming uncertainty in terms of the technical environment such as economic inputs, market functions and technological

factors (Alam, 1997; Holland *et al.*, 1997). Organisations voluntarily, or at times obligatorily, follow international organisational standards/quality measurement stipulations determined by institutions such as the International Standards Organisation (ISO) and the United Nations Organisation (UNO), and accordingly adapt their performance measures (including quality and standards). Similarly, transnational institutions like the World Trade Organisation (WTO), World Health Organisation (WHO) and regional blocs pressure organisations to change their performance measurement practices to make them consistent with international practices. Hence, the effect of socio-cultural and political institutions on PMSs usage is considered a relevant influencing force for banks.

4. PRESSURE FOR CHANGE

NIS suggests institutional pressures cause organisations to adapt in order to gain legitimacy (Covaleski and Dirsmith, 1988) and long term survival (Hussain and Gunasekaran, 2002). The macro-level factors, discussed in the last section, place pressures on organisations and this may take place in various forms namely mimetic, coercive and normative to change their PMS. Each of these pressures is discussed in the following sub sections.

4.1 Mimetic Pressures

The first process to institutional pressure is called Mimetic isomorphism which drives from uncertainty, either within the organisation or in its environment. DiMaggio and Powell (1983) suggest that in an uncertain environment, organisations will imitate others

in determining appropriate behaviour. Patterning their own operational or decision making systems on the system used by those seen as the industry leaders is seen as a means of reducing uncertainty and risk, and enhancing legitimacy (Greve, 2000; DiMaggio and Powell, 1983). Where management is unable to implement and utilise their own PMSs more effectively for reasons such as inability to link strategy to operational activities, it often tends to copy publicly accredited best practice PMSs from other successful organisations (O'Neill *et al.*, 1998; Fligstein, 1985). This tendency of modeling practices of successful organisations occurs from a desire to gain legitimacy for their operating environment, although the relationship of PMSs with strategy and performance can still be absent. DiMaggio and Powell (1983) suggested that imitating the largest firm in industry was a successful institutional rule. As Haveman (1993, p.598) concluded “under conditions of competition and environmental variability, organisations that mimicked the behaviours of large firms had good survival chances. Large and high profitability firms serve as strong role models for other firms”. Hence following the banking reforms and deregulations under environmental uncertainty, it is highly likely that banks will copy best practices in the industry to gain legitimacy and to signal to stakeholders their intention to improve efficiency.

4.2 Coercive Pressures

Another mechanism is described as coercive pressure. It refers to the pressure (formal or informal) that is exerted on organisations by others to conform to the rules and practices that are considered important within an industry (DiMaggio and Powell, 1983, 1991). Institutional theory suggests that some institutional fields contain powerful environmental

agents who impose structural forms or practices on subordinate organisational units (DiMaggio and Powell, 1983; 1991). Coercive pressures reflect the enforcing and regulative aspects of such environmental agents, and they are receiving increasing attention as important determinants of the structure and functioning of organisations (DiMaggio and Powell, 1991). Coercive pressures on performance measurement practices result from other organisations upon which a particular organisation is dependent (DiMaggio and Powell, 1983). In relation to the banking sector, prior research highlights the coercive influence exerted on organisations or on their behaviours through the government authorities/departments, central bank's regulatory control and financial regulations (Hussain, 2003; Hoque and Hopper, 1994).

Central Bank's Regulatory Control

Banks are required to function within the regulations and guidelines of central banks and Basel Agreements. The Basel Accord II describes a more comprehensive measures and a minimum standard for capital adequacy that supervisory authorities are required to implement through rule-making and adoption procedures. It seeks to improve the existing rules by aligning regulatory capital requirements more closely to the underlying risks that banks face. In addition, the Basel Accord II was intended to promote a more forward-looking approach to capital supervision, one that encourages banks to identify the risks they may face, today and in the future, and to develop or improve their ability to manage those risks. In response to comply with Basel Accord II many central banks introduced

CAMELS⁶ and CAELS⁷ frameworks to evaluate banks' performance (ADB, 2002; Hilbers *et al.*, 2000). As a result, banks were required to improve their performance measurement practices with advances in markets and risk management practices.

Financial Legislation

Financial legislation and accounting standards also affect the design and use of a particular PMS. The international Accounting Standard Board prescribes International financial reporting standard (IFRS), which in turn impacts on the accounting systems which PMSs rely upon. Central banks prescribe banks to follow the IFRSs and International Audit Codes (IACs). The Basel Accord II requires that banks implement a progressive adaptation of risk evaluation techniques; which reflects the demand for bank financial information. This generated pressures on banks to transform their existing systems and procedures to accommodate financial information requirements stipulated in the Basel Accord. Most of these changes resulted in improvements in the disclosure of financial information arising due to the reformulation of accounting rules for entries and reporting. These reformulations were designed to improve the informational quality of statements so that they accurately represented the true performance of the bank. An example of recent legislation introduced in the US is "Sarbanes Oxley Act" which was introduced in response to a series of corporate scandals in the US. The Act require organisations, in particular banks, to identify, assess and test the effectiveness of their key

⁶ The CAMELS framework involves analysis of specific groups of measures such as Capital adequacy, Assets quality, Management, Earning quality, Liquidity and Sensitivity (market risk)

⁷ The CAELS framework involves analysis of five-groups of performance measures such as Capital, Assets quality, Earnings, Liquidity and Sensitivity to other risks

management controls and monitoring within the business for the benefit of greater accountability and transparency (Merchant and Van der Stede, 2007).

4.3 Normative Pressures

Finally, the third mechanism of organisational change stems primarily from professional pressures and is known as normative pressure. Professionalism refers to the collective struggle of members of an occupation, shared educational and professional experience, and infrastructure that establish norms of behaviour reflected in the management who make up the institutions (DiMaggio and Powell, 1991). As DiMaggio and Powell (1983, p.152) state “to a certain extent, learning is legitimate in a cognitive base cultivated by formal training and thought interactions in professional network”. In the banking sector, credit rating agencies, bankers’ professional associations, and training institutions reinforce normative expectations and impose standards, rules and values on banks. In an organisation, normative pressure, therefore, can be exerted by professionals, top management and the prevailing organisational culture.

Professionals

DiMaggio and Powell (1983) identify professionals as having the most dominant influence on organisational practices. They suggest that institutions themselves are the outcome of the actions of organisational members (Burns and Scapens, 2000), and are mediated by values, norms and rules which people adopt in their various domains of social conduct. Professional networks such as associations of accountants are known as prominent sources of isomorphism (Scapens, 1994; DiMaggio and Powell, 1991). In

studying management control practices, Scapens (1994, p.317) regarded the influence of managers as an important factor in adoption of new management practices. Hussain and Hoque (2002, p.167) also acknowledge that “the experience of professionals such as managers may also influence the design and use of a performance measurement system”. Thus, for various reasons, professionals in a banking context, such as bankers associations and professional training institutions could have an influence on management to design and adopt new PMSs.

Top management and Corporate Culture

Granlund and Lukka (1998) and Scott (1987) argue that top management often creates cultural forms consistent with their own aims and beliefs. These, in turn, can influence organisational practices and systems, including PMSs. Existing literature suggest that board members and chief financial officers can influence change in PMSs. For instance, Cobb *et al.* (1995) explicitly stated that such individuals are generally considered as a significant change agent. Similarly, the dissatisfaction of top management with existing accounting information was identified by Innes and Mitchell (1990) as a driver of change. Cobb *et al.* (1995) also found top management played a dual role in the change process; on the one hand top management as the catalyst which initiated management accounting change processes, and on the other hand their leadership ability was found to be necessary to overcome barriers (Cobb *et al.*, 1995). It has been recognized that the power of a strong individual can accelerate management accounting change (Burns and Scapens, 2000).

The general business environment in which an organisation operate helps to determine the corporate culture. It is combined beliefs, values, ethics, procedures, and atmosphere of an organisation (Pettigrew, 1979). Corporate culture influence opinions of employees about work practices, commitment, respect for managers and attitudes towards service to the customer. The tradition of a particular industry and leadership within an organisation could strongly impact culture of an organisation (Pettigrew, 1979). For example, banks and bankers have a risk-averse nature. The leader's prescription of how things are to done help set standards of acceptable behaviours and best practices. Hence, the manner in which an organisation is managed is likely to influence positively or negatively the beliefs, attitudes and behaviours of the employees towards adopting and using a particular procedure and system (kotter, 1990). If employees are not willing to accept a particular system will resist which may involve conflict, negotiation and/or compromise. For instance, the bank branch managers generally prefer using financial measures and resist implementation of non-financial measures because their rewards and bonuses are directly linked with the financial results of the branch. It is, thus, strongly believed that corporate culture has a tendency to influence organisational systems in general and PMSs in particular.

5. STRATEGIC RESPONSES TO INSTITUTIONAL PRESSURES

Organisational members respond to change efforts in various ways ranging from passive conformity to active resistance and manipulation. Drawing on the institutional theory and

the resource dependence perspective⁸, Oliver (1991) identified different strategic responses and tactics which organisations enact in response to the institutional pressures for conformity. More specifically, Oliver (1991) proposed a typology of strategic responses to institutional pressures that vary according to the degree of resistance exerted by the organisation (See Table I).

Insert Table I about here

As shown in Table I, the most passive response is “acquiescence”, and it may take alternative forms varying from unconscious habit-like adherence to rules or values to conscious compliance to norms, values or institutional requirements (Oliver, 1991, p.152). Therefore, acquiescence is a strategic response that concurs with the idea of institutional environments. More specifically, imitation as an acquiescence tactic is consistent with the concept of mimetic isomorphism. For example, in the banking sector most small local/domestic banks could be expected to imitate the practices of major banks and foreign banks.

Alternatively, organisations may take more active responses to institutional pressures. Active responses have different forms and antecedents. A “Compromise” strategy relates to situations where inconsistencies exist between institutional expectations and internal organisational objectives. In such situations organisations may apply balancing tactics (i.e. attempt to achieve parity among or between multiple stakeholders and internal

⁸ The resource dependence perspective views an organisational environment as a bundle of resources which an organisation seeks to mobilise to reach its goals. In doing so, it exercises active choice of behaviour (Oliver, 1991, p.147).

interest), or pacifying tactics (*i.e.*, monitoring a minor level of resistance to institutional pressure), or bargaining tactics (Oliver, 1991, p.153). In the context of banks, such responses are likely to arise particularly in relation to banks operating internationally. Bank branches located overseas might face a situation where the host banking sector's objectives are in dissonance with the organisational objective of the bank. For example, risk management practices, central bank's capital adequacy and liquidity requirements, and prudential regulations vary from country to country.

An "avoidance" strategy is an organisational attempt to preclude the necessity of conformity (Oliver, 1991, p.154). Here, concealment tactics involve disguising non-conformity behind a façade of acquiescence. Buffering tactics refers to an organisation's attempt to reduce the extent to which it is externally inspected, scrutinised or evaluated by partially detaching or decoupling its technical activities from external contact (Scott, 1987; Pfeffer and Salancik, 1978). A more dramatic avoidance response is escape, where an organisation may exit the domain within which pressure is exerted or significantly alter its own goals, activities or domain to avoid the necessity of conformity altogether (Oliver, 1991). Literature provides evidence of banks operating overseas who have exited (escaped) or buffered themselves from the host banking sector due to an uncertain economic, financial and political environment. For example, in the late 1990s the Bank of America, J.P. Morgan and Credit Agricole Indosuez banks pulled out of their operations from most of the East Asian countries (Fuller, 1999).

In the "defiance" strategy an organisation ignores institutional rules and values, and challenges the existing rules and requirements. The most aggressive defiance tactic is

attacking the institutional pressures and expectations (Oliver, 1991, p.156). Hence, while an avoidance strategy means a partial refusal to follow the rules with the existing practices, a defiance strategy implies that an organisation actively challenges those rules.

Finally, a “manipulation” strategy is the most active response which focuses on actively changing the content of the expectations themselves or the sources that seek to express or reinforce them. As a tactic, an organisation may choose to co-opt the source of the pressure or direct more general influence tactics towards institutionalized values and beliefs, and the criteria of acceptable practices or performance. Organisations also apply controlling tactics wherein they exert specific efforts to establish power and dominance over internal constituents that are applying pressure on the organisation (Oliver, 1991, p.157). For example, large banks tend to create cartels to lobby regulatory authorities to adopt certain practices that fit their needs.

Oliver’s (1991) typology provides an appropriate conceptual basis for exploring the diversity of strategic responses that a bank may adopt in response to institutional pressures to change their systems such as PMS. In addition to classifying strategic responses, Oliver (1991, p.160) hypothesised conditions where different strategic responses would be most likely. She identified five institutional factors (namely Cause, Constituents, Contents, Control and Context), which relate to the willingness and ability of organisations to conform to institutional pressures, and hence may be regarded as antecedents of strategic responses (See Table II). “Cause” refers to the basic question of why the organisation is being pressured to conform to the institutional rules or expectations. For example, in countries where the banking sector is subject to reform,

such reforms may be seen as the cause behind institutional pressure. Further, the introduction of Basel Accords I & II in 1988 and 2003/04 respectively was a major factor in generating pressure on central banks to improve banking institutions' capital requirements, supervision and market discipline.

Insert Table II about here

Moreover, a central factor in predicting the nature of strategic responses is the institutional "constituents". In Oliver's (1991) terminology they are the ones who exert institutional pressures. In the context of banks, these include government, the central bank, professionals, borrowers, depositors and international financial institutions such as IMF and the World Bank. Oliver (1991, p.162) hypothesised that when there are more constituents and/or the less the organisation is dependent on them, the greater the likelihood of organisational resistance to institutional pressures. Furthermore, the easiest way for an organisation to cope with the multiple demands is to comply with those organisations' demands that they are most dependent upon (*i.e.*, central bank in case of banking sector). For example, developing countries are under pressure from IMF and the World Bank to implement Basel Accords and international regulatory benchmarks even though they are voluntary. Countries that do not implement such regulations face sanctions in several ways. Further, banks branches from developing countries are authorised in developed countries only if their home country central bank is complying with Basel Standards (Hilbers *et al.*, 2000).

The “content” of institutional pressure is another factor that can be used to predict organisational responses. Organisations are likely to resist institutional pressures when they are inconsistent with organisational goal and/or when the conformity to institutional pressures leads to the loss in organisational decision making freedom (Oliver, 1991, p.164). In other words, organisations selectively comply with those pressures that are in line with their strategy and that do not threaten their independence. For example, if a government demands a public bank (in which the government is the main shareholder) to invest in a particular segment of the industry/economy which is contrary to the policy of the bank, the bank is likely to use some strategy to resist the change. “Control” is another factor predicting organisational responses. The lower the degree of legal coercion or enforcement, the greater the likelihood of organisational resistance to institutional pressures (Oliver, 1991, p.167). For example, weak enforcement of certain legislations/regulations by the government on the banking sector would delineate the effectiveness of the legislative change.

Finally, the environment “context” can also predict the likelihood of organisational resistance. Organisations are more likely to resist institutional pressures when the level of uncertainty and the degree of interconnectedness in its environment is low. This is consistent with the idea of institutional isomorphic change as related to field level factors. To cope with environment uncertainty organisations look for templates (archetypes) of successful organisations from their environment (Greenwood and Hinings, 1996, p. 1026). For instance banks might mimic other banks with high profitability and stability, thereby conforming to institutional pressures.

To conclude, this section draws on the theoretical constructs from DiMaggio and Powell (1983) and Oliver (1991) in order to develop a framework to analyse the stimulators of change and the strategic responses to consequential changes. The framework is outlined in Figure I.

Insert Figure I about here

6. A FRAMEWORK TO EXAMINE CHANGES IN PMS

The framework depicted in Figure I builds on the concept of institutional isomorphism (DiMaggio and Powell, 1983) and continuum of strategic responses to institutional pressures proposed by Oliver (1991). As shown in Figure I, organisational functioning is influenced by a number of macro-level factors (*e.g.*, economic, technological, socio-cultural and political), which in turn place pressure on organisations in various forms (mimetic, coercive and normative). Organisations respond to such pressures strategically. This paper adopts the view that organisations take strategic actions where necessary, rather than merely conforming to the institutional pressures. This aspect is accommodated within the proposed framework by applying the typology of strategic responses proposed by Oliver (1991), which identifies a variety of strategic responses varying in the degree of resistance from passive acquiescence to proactive manipulation. Overall, the proposed framework will enable the examination of the factors stimulating change in PMSs in institutions within the banking sector and the strategic responses to change efforts.

7. SUMMARY AND CONCLUSIONS

The purpose of this paper was to develop a framework for analyzing change in PMSs in the banking sector. Only limited research has been undertaken, particularly in relation to the banking sector, to systematically examine the factors influencing change in PMS and the organisational responses when change is introduced.

There could be a variety of explanations and theories to explore why PMS change occurs. This paper used concepts mainly drawn from institutional theory to offer a broader explanation as to what influences banks to change their performance measurement practices. The paper also used insights from Oliver's (1991) typology of strategic responses to institutional pressures to complement and bridge the concepts drawn from institutional theory. The theories were chosen based on their ability to provide a comprehensive explanation of the phenomenon. The framework developed based on the two theories will facilitate a comprehensive analysis of the two issues associated with changes in PMSs, namely what factors influence changes and what are the responses to change attempts.

It is believed that the proposed analytical framework is useful in two ways. First, it is a step towards more prudent explanation of performance measurement change in banks. Second, it highlights many important factors of PMS change in banks which may enable researchers and practitioners to identify possible explanations of phenomenon of change more thoroughly.

Banks are more prone to the effects of environment change due to the extremely high level of risk involved in their business activities. The literature shows that the business environments for banks is continuously changing and that banks have to adapt their control systems including their PMS to fit their environmental needs (Cobb *et al.*, 1995). Future studies may apply the proposed analytical framework in organisations in general and in the banking institution to examine the factors that influence change in PMSs and the potential strategic responses to the change. In addition, the interactions between different influencing factors impacting on performance measurement change should be considered, as some of these influencing factors could decrease the effect of others on the PMS change.

REFERENCES

Abernethy, M.A. & Chua, W.F., 1996, 'A Field Study of Control Systems 'Redesign': The Impact of Institutional Processes on Strategic Choice', *Contemporary Accounting Research*, vol.13, no.2, pp. 569-606.

ADB 2002, '*Guidelines for the Financial Governance and Management of Investment Projects Financed*', Asian Development Bank, Manila.

Adler A, Everett, A.M. & Waldron, M., 2000, 'Advanced management accounting techniques in manufacturing: utilization, benefits and barriers to implementation', *Accounting Forum*, vol. 7, no.2, pp. 131-150.

Ahmad, A., 1993, 'Contemporary Practices of Islamic Financing Techniques' *IRTI Research Paper No. 20*. Jeddah: IRTI (Islamic Development Bank).

Alam, M., 1997, 'Budgetary process in uncertain contexts: a study of state-owned enterprise in Bangladesh', *Management Accounting Research*, vol. 8, no.2, pp.147-167.

Atkinson, A.A., Waterhouse, J.H. & Wells, R.B., 1997, 'A stakeholder approach to strategic performance measurement', *Sloan Management Review*, vol. 38, no.3, pp.25-37.

Baines A. & Langfield-Smith K., 2003, 'Antecedents to management accounting change: a structural equation approach', *Accounting, Organizations and Society*, vol. 28, no.7/8, pp. 675-698.

Bank of England, 'The Bank's Priorities in 2008/2009', *Bank of England Annual Report 2008*, pp.27-30.

Banker, R.D., Potter, G. & Schroeder, R.G., 1993, 'Reporting manufacturing performance measures to workers: an empirical investigation', *Journal of Management Accounting Research*, vol. 3. pp. 33-55.

Bititci, U.S., Turner, T. & Begemann, C., 2000, 'Dynamics of performance measurement systems', *International Journal of Operations & Production Management*, vol. 20, no. 6, pp. 692-704.

Bourne, M., Mills, J., Wilcox, M., Neely, A.D., & Platts, K., 2000, 'Designing, implementing and updating performance measurement systems', *International Journal of Operations & Production Management*, vol. 20, no. 7, pp. 754-771.

Brignall, T.J. & Modell, S., 2000, 'An institutional perspective on performance measurement and management in the new public sector', *Management Accounting Research*, vol. 11, pp.281-306.

Burney, S.S., 1999, 'ANALYSIS-small threat globally from Japan megabank', *ABC NEWS Business*, August 20.

Bruns, Jr. W.J., 1992, '*Performance Measurement, Evaluation and Incentives*', Harvard Business School Press, Boston, MA.

Burns, J., 1998, '*Processes of accounting change in a product development department: an 'old' institutional economics approach*', Working paper, University of Manchester.

Burns, J., 2000, 'The dynamics of accounting change: inter-play between new practices, routines, institutions, power and politics', *Accounting, Auditing and Accountability Journal*, vol.13, no.5, pp. 566-596.

Burns, J., & Scapens, RW 2000, 'Conceptualizing management accounting change: an institutional framework', *Management Accounting Research*, vol. 11, no. 1 pp.3-25.

Carpenter, V. L. & Feroz, E.H., 1992, 'GAAP as a symbol of legitimacy: new York state's decision to adopt generally accepted accounting principles', *Accounting, Organization and Society*, vol. 17, no. 7, pp. 613-643.

Chan, Y-C.L., 2004, 'Performance measurement and adoption of balanced scorecards: a survey of municipal governments in the USA and Canada', *The International Journal of Public Sector Management*, vol. 17, no.3, pp.204-221.

Chenhall, R.H. & Langfield-Smith, K., 1998, 'Factors influencing the role of management accounting in the development of performance measures within organizational change programs', *Management Accounting Research*, vol. 9, pp. 361-386.

Chow C.W. & Van der Stede W.A., 2006, 'The use and usefulness of non-financial performance measures', *Management Accounting*, vol. 7, no. 3, pp.1-8.

Cobb, I., Heller, C. & Innes, J., 1995, 'Management accounting change in a bank', *Management Accounting Research*, vol. 6, pp.155-175.

Covaleski, M.A. & Dirsmith, M.W., 1988, 'The use of budgetary symbols in the political arena: an historically informed field study', *Accounting, Organizations and Society*, vol. 13, no. 1, pp. 1-24.

Deegan, C., 2000, '*Financial Accounting Theory*', McGraw Hill Book Company, Sydney.

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, pp.147-160.

DiMaggio, P.J. & Powell, W.W., 1991, 'Introduction' in W. W. Powell and P. J. DiMaggio (Eds.) *The New Institutionalism in Organizational Analysis*, The University of Chicago Press, pp. 1-38.

Dixon, J.R., Nanni, A.J. & Vollmann, T.E., 1990, *'The New Performance Challenge - Measuring Operations for World-Class Competition'*, Business One Irwin, Homewood, IL.

Downing, L. M., 2001, *'The global BSC community: a special report on implementation experience from scorecard users worldwide'*, Balanced Scorecard European Summit, Nice.

Drury, C. & Tyles, M., 1995, 'Issues arising from surveys of management accounting practices', *Management Accounting Research*, vol. 6, no.3, pp. 267-280.

Eccles, R.G., 1991, 'The performance measurement manifesto', *Harvard Business Review*, January-February, pp. 131-137.

Fisher, J.G., 1995, 'Contingency-based research on management control systems: categorization by level of complexity', *Journal of Accounting Literature*, vol. 14, pp. 24-53.

Fitzgerald, L., Johnston, R., Brignall, T.J., Silvestro, R. & Voss, C., 1991, 'Performance Measurement in Service Businesses', *Chartered Institute of Management Accountants*, London.

Fligstein, N., 1985, 'The spread of the multidivisional form among large firms, 1919-1979', *American Sociological Review*, vol. 50, no.3, pp.377-391.

Frigo, M.L. & Krumwiede, K.R., 1999, 'Balanced scorecards: a rising trend in strategic performance measurement', *Journal of Strategic Performance Measurement*, vol. 3, no. 1, pp. 42-44.

Fuller T., 1999, *'Midsized Operations Hit Hard by Shakeout: Asian Banks Count Cost'*, published in International Herald Tribune, Wednesday, May19, 1999.

Granlund, M. & Lukka, K., 1998, 'It's a small world of management accounting practices', *Journal of Management Accounting Research*, vol. 10, pp.153-179.

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, pp. 1022-1054.

Greve, H.R., 2000 'Market Niche Entry Decisions: Competition, Learning, and Strategy in Tokyo Banking, 1894-1936', *The Academy of Management Journal*, vol. 43, no. 4, pp. 816-836.

Harker, P.T. & Zenios, S.A., 1998, 'What Drives the Performance of Financial Institutions?', Financial Institutions Center, The Wharton School, University of Pennsylvania, pp.1-27.

Haveman, H.A., 1993, 'Follow the leader: mimetic isomorphism and entry into new markets', *Administrative Science Quarterly*, vol. 38, pp. 593-627.

Helliar, C., Cobb, I. & Innes, J., 2002, 'A longitudinal case study of profitability reporting in a bank', *British Accounting Review*, vol. 34, pp. 27-53.

Hilbers P., Krueger R. & Moretti M., 2000, 'New Tools for Assessing Financial System Soundness', *Finance and Development, International Monetary Fund*, vol. 37, no.3, pp. 8-12.

Holland K. & Cortese, A., 1995, 'The future of money: e-cash could transform the world's financial life', *Business Week*, June 12, p. 36.

Holland C.P., Lockett A.G. & Blackman I.D., 1997, 'The impact of globalisation and information technology on the strategy and profitability of the banking industry', *System Sciences*, vol. 3, pp. 418-427.

Hopwood, A.G., 1987, 'The archaeology of accounting systems', *Accounting, Organizations and Society*, vol. 12, no. 3, pp. 207-234.

Hoque, Z. & Hopper, T., 1994, 'Rationality, accountability and politics; a case study of management control in Bangladeshi jute mill', *Management Accounting Research*, vol. 5, pp. 5-30.

Hoque, Z. & Hopper, T., 1997, 'Political and industrial relations: turbulence, competition and budgeting in the nationalized jute mills of Bangladesh', *Accounting and Business Research*, vol. 27, no. 2, pp. 125-143.

Hoque, Z. & James, W., 2000, 'Linking balanced scorecard measures with size and market factors: impact on organisational performance', *Journal of Management Accounting Research*, vol. 12, pp. 1-17.

Humphrey, D., 1985, 'Costs and Scale Economies in Bank Intermediation' In Richard Aspinwall and Robert Eisenbeis (Eds.), *Handbook for Banking Strategy*, John Wiley & Sons, New York.

Hussain, M.M. & Gunasekaran, A., 2002, 'An institutional perspective of non-financial accounting measures: a review of the financial services industry', *Managerial Auditing Journal*, vol. 17, pp. 518-536.

Hussain, M.M. & Hoque, Z., 2002, 'Understanding non-financial performance measurement practices in Japanese banks: a New Institutional Sociology perspective', *Accounting, Auditing and Accountability Journal*, vol.15, no.2, pp 162-183.

Hussain, M.M., 2003, 'The Impact of economic conditions on management accounting performance measures: experience with banks', *Managerial Finance*, vol. 29, no. 2/3, pp. 23-41.

Innes, J. & Mitchell, F., 1990, 'The process of change in management accounting: some field study evidence', *Management Accounting Research*, vol.1, no.1, pp. 3-19.

Ittner, C.D. & Larcker, D.F., 1998, 'Innovations in performance measurement: trends and research implications', *Journal of Management Accounting Research*, vol. 10, pp. 205-238.

Jazayeri, M. & Hopper, T., 1999, 'Management accounting within world class manufacturing: a case study', *Management Accounting Research*, vol. 10, no. 3, pp.263-301.

JJeucken, M.H.A. & Bouma, J.J., 1999, '*The Changing Environment of Banks*', In Sustainable Banking, Deloitte & Touche, pp. 26-37.

Johnson, H.T. & Kaplan, R.S., 1987, '*Relevance lost - the rise and fall of management accounting*', Harvard Business School Press, Boston, MA.

Kanji G.K. & Moura P.E., 2002, 'Kanji's Business Scorecard – quality assurance and total quality management', *Total Quality Management and Business Excellence*, vol. 13, no. 1, pp. 13-27.

Kaplan, R.S., 1984, 'The evaluation of management accounting', *The Accounting Review*, vol. 56, no. 3, pp.390-418.

Kaplan, R.S. & Norton, D.P., 1992, '*The balanced scorecard - measures that drive performance*', Harvard Business Review, vol. 70, no.1, pp.71-79.

Kaplan, R.S. & Norton, D.P., 1996, '*The Balanced Scorecard – Translating Strategy into Action*', Harvard Business School Press, Boston, MA.

Karimi, J., Gupta, Y. & Somers, T., 1996, 'Impact of competitive strategy and information technology maturity on firms' strategic response to globalization', *Journal of Management Information Systems*, vol. 12, no. 4, pp.55-88.

Karr, J., 1997, 'Line-of-Business Performance: 1995 Disclosures and Best Practices' *The Journal of Bank Accounting and Finance*, Winter, pp. 36-42.

Keegan, D.P., Eiler, R.G. & Jones, C.R., 1989, 'Are your performance measures obsolete?', *Management Accounting*, vol. 71, pp.45-50.

Kimball, R.C., 1988, 'Trends in Funds Transfer Pricing' *The Journal of Bank Accounting and Finance*, May/June, pp. 19–25.

Kimball, R.C., 1997, 'Innovations in performance measurement in banking', *New England Economic Review*, May/June, pp.23-38.

Kotter, J.P., 1990, '*A Force for Change: How Leadership Differs from Management*'. New York, Free Press NY, 1990.

Laughlin, R., 1991, 'Environmental disturbances and organisational transitions and transformations: some alternative models', *Organisation Studies*, vol. 12, no. 2, pp. 209-232.

Lynch, R.L. & Cross, K.F., 1991, '*Measure Up – the essential guide to measuring business performance*', Mandarin - Blackwell, London.

Merchant, K.A. & Van der stede, W., 2007, '*Management control systems: performance measurement, evaluation and incentives*', 2nd edition, Financial Times – Prentice Hall.

Meyer, M.W. & Gupta, V., 1994, 'The performance paradox', *Research in Organizational Behaviour*, Vol. 16, JAI Press, Greenwich, CT, pp. 309-369.

Meyer, J.W. & Rowan, B., 1991, 'Institutionalised organisations: formal structures as myth and ceremony', *American Journal of Sociology*, vol. 83, no. 2, pp. 340 - 363.

McCunn, P., 1998, 'The Balanced Scorecard: the eleventh commandment', *Management Accounting - London*, vol. 76, no. 11, pp 34 -36.

Neely, A.D., Mills, J., Platts, K., Gregory, M. & Richards, H., 1994, 'Realising Strategy Through Measurement', *International Journal of Operations & Production Management*, vol. 14, no. 3, pp 140-152.

Neely, A.D., 1998, '*Measuring Business Performance - Why, What and How*, Economist Books, London.

Neely, A.D., 1999, 'The Performance Measurement Revolution: Why Now and What Next?', *International Journal of Operations and Production Management*, vol. 19, no. 2, pp. 205-228.

Neely, A.D., Adams, C. & Crowe, P., 2001, 'The performance prism in practice – measuring business excellence', *Journal of Cost Management*, vol. 5, no. 2, pp.6 - 11.

- Niemela, J.E., 1999, 'Assessment of Capital Adequacy in the Banking Sector: The BIS Ratio vs. an alternative multivariate approach', working paper, Accounting and Finance, Acta Wasensia 68, University of Vaasa, Vaasa.
- Oliver, C., 1991, 'Strategic responses to institutional processes', *Academy of Management Review*, vol. 16, no. 1, pp.145-179.
- Oliver, C., 1992, 'The Antecedents of Deinstitutionalization', *Organization Studies*, vol. 13, no. 4, pp. 563-588.
- O'Neill, H.M., Poudier, R.W. & Buchholtz, A.H., 1998, 'Pattern in the diffusion of strategies across organizations: insights from the innovation diffusion literature', *Academy of Management Review*, vol. 23 no.1, pp.98-114.
- Otley, D., 1994, 'Management control in contemporary organizations: towards a wider framework', *Management Accounting Research*, vol. 5, no.3, pp.289-299.
- Payant, W.R., 1996, 'Ways of Assigning Capital to Lines of Business', *The Journal of Bank Accounting and Finance*, Spring, pp. 25–30.
- Pettigrew, A.M., 1979, 'On studying organisational cultures', *Administrative Science Quarterly*, vol. 24, pp.570-581.
- Pfeffer, J. & Salancik, G.R., 1978, *The External Control of Organizations: A Resource Dependence Perspective*, Harper & Row, New York.
- Perera, S., 2007, 'The change in the role of management accounting in a government trading enterprise: An institutional interpretation', *Asia Pacific Management Accounting Journal*, vol. 2, Issue 1, pp. 1-34.
- Rigby, D., 2001, 'Management tools and techniques: a survey', *California Management Review*, vol. 43, no. 2, pp.139-160
- Scapens, R.W., 1994, 'Never mind the gap: towards an institutional perspective on management accounting practice', *Management Accounting Research*, vol. 5, no. 3/4, pp. 301-321.
- Scapens, R.W., 1999, 'Broadening the scope of management accounting. From a micro-economic to a broader business perspective', working paper (September), University of Manchester.
- Scott, W.R., 1987, 'The adolescence of institutional theory', *Administrative Science Quarterly*, vol. 32, no. 4, pp. 493-511.
- Scott, W.R., 1993, 'The organization of medical care service: towards an integrated theoretical model', *Medical Care Review*, vol. 50, no. 3, pp. 271-303.

Scott, W.R., 2001, '*Institutions and Organisations*', 2nd Edition, Thousand Oaks, California, Sage.

Scott, W.R. & Meyer, J.W., 1983, 'The Organization of Societal Sectors' in J. W. Meyer and W. R. Scott (Eds): *Organizational Environments: Ritual and Rationality*, Sage Publications, Beverly Hill, California, pp. 129-153.

Shields, M.D., 1997, 'Research in management accounting by North Americans in the 1990s', *Journal of Management Accounting Research*, vol.9, pp.3-61.

Silk, S., 1998, 'Automating the balanced scorecard', *Management Accounting*, vol. 11, no. 17, pp. 38-44

Sinclair, D. & Zairi, M., 2000, 'Performance measurement: a critical analysis of the literature with respect to total quality management', *International Journal of Management Review*, vol. 2, no.2, pp.145-168.

Siti-Nabiha A.k. & Scapens R.W., 2005, 'Stability and change: an institutionalist study of management accounting change', *Accounting, Auditing & Accountability Journal*, vol. 18, no. 1, pp.44-73.

Soin, K., 1996, '*Organisational Change and the Introduction of Activity Based Costing in a UK Clearing Bank*', working paper, Sheffield Hallam University.

Soin, K., Seal, W. & Cullen, J., 2002, "ABC and organizational change: an institutional perspective", *Management Accounting Research*, vol. 13, pp. 249-271.

Stark D., 1996, 'Recombinant Property in East European Capitalism', *American Journal of Sociology*. vol. 101, no. 4, pp. 993-1027.

Suchman, M.C., 1995, 'Managing Legitimacy: Strategic and Institutional Approaches', *Academy of Management Journal*, vol. 20, no. 3, pp. 571 - 610.

Vaivio, J., 1999, 'Exploring a 'non-financial' management accounting change', *Management Accounting Research*, vol. 10, pp. 409-437.

Waggoner, D.B., Neely, A.D. & Kennerley, M., 1999, 'The forces that shape organizational performance measurement systems: an interdisciplinary review', *International Journal of Production Economics*, vol. 60, no. 1, pp. 53-60.

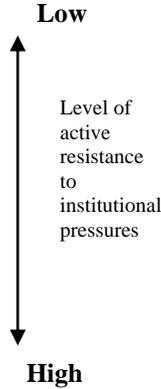
Williams, J.J. & Seaman, A.E., 2002, 'Management accounting systems change and departmental performance: the influence of managerial information and task uncertainty', *Management Accounting Research*, vol. 13, no. 4, pp. 419-445.

Zaik, E., Walte, J., Kelling, G. & James, C., 1996, 'RAROC at Bank of America: From Theory to Practice', *Journal of Applied Corporate Finance*, vol. 9, no. 2, summer, pp. 83-93.

Zucker, L.G., 1987, 'Institutional Theories of Organizations', *Annual Review of Sociology*, vol. 13, pp. 443-464.

Table I

A continuum of strategic responses to institutional pressures



Strategies	Tactics	Examples
Acquiescence	Habit Imitate Comply	Following invisible, taken-for-granted norms Mimicking institutional models Obeying rules and accepting norms
Compromise	Balance Pacify Bargain	Balancing the expectations of multiple constituents Placating and accommodating institutional elements Negotiating with institutional stakeholders
Avoid	Conceal Buffer Escape	Disguising nonconformity Loosening institutional attachments Changing goals, activities, or domains
Defy	Dismiss Challenge Attack	Ignoring explicit norms and values Contesting rules and requirements Assaulting the sources of institutional pressure
Manipulate	Co-opt Influence Control	Importing influential constituents Shaping values and criteria Dominating institutional constituents and processes

Source: Oliver (1991), p.152

Table II

Antecedents of strategic responses

Institutional factor	Research question
Cause	Why is the organisation being pressured to conform to institutional rules or expectations?
Constituents	Who is exerting institutional pressure on the organisation?
Content	To what norms or requirements is the organisation pressured to conform?
Control	How or by what means are the institutional pressures being exerted?
Context	What is the environmental context within which institutional pressures are being exerted?

Source: Oliver (1991), p.160

Figure I

An Analytical Framework for examining changes in performance measurement systems within the banking sector

