Management Control Systems and Corporate Governance: A Theoretical Review

Abstract:
This paper reviews researches that study the relationship between the various components of the management control systems (MCS) as a package namely cybernetic control & cultural control and the organizational performance with the governance structures moderating the relationship by analyzing the theoretical models and empirical research available in the literature. It is concluded that our knowledge of the moderating impact of governance structures on the relationship is limited hence the review proposes a theoretical model proposing a positive associations between cybernetic controls & cultural control and organizational performance, with governance structures moderating the relationship, hence providing considerable scope for empirical testing of the model. A series of future research directions is presented.

Keywords: Management Control Systems (MCS), Cybernetic Control, Governance Structures, Cultural Control

INTRODUCTION
The management control philosophy and corporate governance both are related to the sharing of power among stakeholders and the protection of shareholders' interests. While corporate governance mechanism includes those oversight activities of the board of directors and audit committee, which ensures the integrity of the financial reporting process, management control philosophy includes the activities and attitudes of management related to controls, and the actions taken to convey their importance throughout the organization (Cohen & Hanno, 2000). The activities related to the management accounting in the organizations must be implicated in CG (Seal, 2006).

The history of the debate on the best governance practices in the corporations by establishing
controls can be traced back to centuries. The academic researchers’ as well as the practitioners’ dilemmas in the field of CG are on the crossroads. The phenomenon can be attributed to increasing complexities of the governance codes due to continuous unearthing of the new dimensions pertaining to governance resulting from pluralities of the firm-level and macro-economic variables. In the modern day organizations, separation of ownership & control leads to potential agency problem, which recognizes the need of establishing the control systems, hence agents’ rent seeking behavior for private benefits can be discouraged, while gaining the benefits of professional management from the managers.

The studies on Management control systems as package categorize the control systems in five components such as cultural control, planning, cybernetic control, reward & compensation and administrative control (Malmi & Brown, 2008). The objective of the review is to study the inter-linkage between the various control systems and their relationship with the organizational performance. Section II reviews the Management Control system literature followed by the review of extant literature on the Cultural controls and cybernetic control in Section III and Section IV. Section V analyzes the corporate governance structures. Section VI and Section VIII of the study reviews the literature on the relationship between the various controls and the organizational performance and identifies the various propositions of the study. IX builds the theoretical model along with the discussion and future research direction.

**DEFINING THE MANAGEMENT CONTROL SYSTEM**

Extant literature on Management Control Systems defines the term focusing on different dimensions of the domain. Anthony (1965) defines management control as a process used by the managers for utilizing the resources effectively and efficiently in order to attain the organizational objectives. Ouchi (1979) identified three mechanisms to deal with problem of
control and evaluation in the organizations namely markets, bureaucracies, and clans. Simons (1994) defined the management control systems as formal, information based routines and procedures used by the managers in order to alter the activities in the organizations and suggested a comprehensive framework of how the managers in the organizations control strategies with 4 levers of control: Belief systems, Boundary systems, Diagnostics control systems and interactive control systems. Focusing on the importance of control in the organizations the study (Langfield-Smith, 1997) also explored that how the MCS can affect the process of strategy formulation, implementation and change.

Abernethy considered the control system as a ‘package’ and empirically studied how the strategic choices of the dominant coalitions and institutional environment affect the control system design apart from the technical environment. Contingency theory suggests that the control systems are dependent on the organizational setting and suggested that a better match between the two can result in the improved organizational performance (Fisher, 1998). The studies on linkages between contingency based research and MCS extensively examined the influence of the nature of the environment, technology, size, structure, strategy and national culture in contemporary settings (Chenhall, 2003). Alvesson & Kärreman (2004) identified and questioned the assumption that the technocratic and socio-ideological controls are mutually exclusive by studying the control systems at global management consultancy firm. The present research is based on the typology suggested by Brown (2005), which identifies 5 types of controls considering the MCS as a comprehensive package: Cultural controls, Planning, Cybernetic Controls, Rewards and compensation and administrative control.
Diagnostic and Interactive controls are considered to be the two complementary uses of management control systems (Henri, 2006). The diagnostic controls refer to monitoring the performance variables and thus analyzing the variances in order to achieve the intended organizational outcomes and generally considered to have a negative approach. While interactive controls are considered to use the positive enforcement through dialog and interactive learning among the managers. Langfield-Smith (1997) concluded that the management control systems influence the strategy formulation, implementation and change by using comparative case study approach and also pointed out the importance of managers’ perception in influencing the strategic change process and the MCS design. Bisbe & Otley (2004) studied the moderating impact of interactive use of MCS on the relationship between the product innovation and performance and found support for the relationship. Sandino (2007) studied the sample of US retailers to identify the purpose of investing in the control systems and categorized the same as Basic MCS, Cost MCS, Revenue MCS and Risk MCS.

CULTURAL CONTROL

The cultural variables form one of the fundamental variables of the contingency research in management control systems. The earlier researches on cross cultural systems in some forms such as participation studied the relationship between MCS design and culture (Juralewicz (1974), French Jr, Israel, & Ås (1960)). Owing to the expansion of the an organizations in the different geographical locations in last 20 years culture has become an important element affecting the design of MCS (Chenhall, 2003). The portability of the domestic MCS design across various cultures has remained an important area of research. The earlier researches in 1980s(Chiu & Chang (1979), Daley, Jiambalvo, Sundem, & Kondo (1985), Whitt (1979))on the relationship between the cross cultural diversity and MCS have generally been criticized in many studies later on (Bhagat, Kedia, Perez, & Moustafa (2004), Kraut (1975), Pascale (1978), Rohner (1984))for the lack of specificity for the term culture. Hofstede (1980) defined the term ‘culture’ as an aggregation of four dimensions namely: power distance, individualism, uncertainty avoidance,
and masculinity.

Harrison (1992) took Singapore and Australia as the proxy nations to study the impact of generalizability of participation's effect and found support for the hypothesis that the participation’s effect would be same in low power distance/high individualism and high power distance/low individualism cultures. (Chow et al., 1999) investigated the impact of national culture on the firms design of the various management control systems by collecting the data from the 159 Taiwanese managers working in six each of Japanese-, Taiwanese-, and U.S.-owned, size- matched, computers/electronics firms in Taiwan. Chow, Shields, & Chan (1991) studied the Asian manufacturing firms to analyze the impact of the interaction between the design of MCS and the national culture of employees on the manufacturing performance and concluded that culture and MCS are having an independent impact on the performance. Harrison, McKinnon, Panchapakesan, & Leung (1994) studied four countries namely Australia, U.S., Hong Kong and Singapore and supported the positive relationship between national culture and the organizational design & MCS.

CYBERNETIC & ADMINISTRATIVE CONTROL

Although cybernetic and administrative controls are considered to be contextual variables, however one can consider these control systems to be devices used by the managers to direct the behavior of employees towards achieving the organizational goals and objectives.

Green & Welsh (1988) defined control as “cybernetic regulation of iterative activity within dependence relationships” and provided the framework which integrated the cybernetics & resource dependence in order to identify the constituents of control, to differentiate control from other organizational processes, to suggest the criterion to assess its effectiveness. Otley & Berry (1980) studied the applicability of the cybernetic control systems with focus on the accounting information systems. Fisher (1998) also defined the cybernetic control as “a system in which standards of performance are determined, measuring systems gauge performance, comparisons are made between the standards and actual performance and feedback provides information on variances”. A
cybernetic control system consists of both the formal financial budgeting techniques and incentive compensation systems. The four cybernetic systems defined in the control literature are advanced budgeting (Bunce, Fraser, & Woodcock, 1995), Financial measures, non-financial measure and balanced scorecard (Ittner & Larcker, 1998). While the Hybrid control systems contains the combination of one or more control systems such as a mix of financial and nonfinancial measures. Three types of administrative control (Malmi & Brown, 2008) exist in the organizations namely: Organizational Design and structures, governance structures within the firm and procedures and policies. Also the author (Malmi & Brown, 2008) concludes that as the governance structure may vary among different organization, hence it is important to study the linkages of governance systems with other control systems.

CORPORATE GOVERNANCE STRUCTURE

The objective of management control systems is to alter and influence the employee behavior towards achievement of organizational objectives; hence Agency model provides a coherent framework for studying the management accounting process and analyzing the various issues relating to the field. Agency Relationship according to the contract view is define as “contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent. If both parties to the relationship are utility maximizers there is good reason to believe that the agent will not always act in the best interests of the principal” (Jensen & Meckling, 1976). The principle agent relationship is applied to the various contexts including the contracts between shareholder (owners of the firm) and the managers (agents appointed by the owners) who are responsible for various activities in the firm such as investment activities, operational activities, governance activities and other managing activities. The separation of ownership and control in the most of the modern organizations has motivated the researchers from many decades to explore the underlying issues in the contractual relations between the owners and managers.

The nexus of contracts (Jensen & Meckling, 1976) between various parties to the organization
such as suppliers, employees, creditors and customers articulates the rules of the game in the organization in various components of the system such as the performance evaluation system, reward system, and the assignment of decision rights (Jensen, 1983). The positivist agency theory identified the governance mechanisms in the principle–agent relationship in order to limit the self-serving behavior of the agents (Eisenhardt, 1989). Also, the positivist economist have identified and explored the uniqueness of the principle-agent relationship in the form of shareholders (owners) and the managers (agents) in the large public and modern organizations (Berle & Means, 1932). Because of the inherent conflict of interest in the relationship and the problems in designing the contracts wherein the parties specifies who has controls over various dimensions of assets, the division of residual control rights between the managers and owners has to be carried out efficiently & effectively (Grossman & Hart, 1986). The presence of such allocation issues between the parties to the contract gives rise to the need of having governance mechanism addressing the conflicts.

The corporate world as well as researchers is often found to be focusing on the corporate governance models and mechanism that have prevailed in the various economies since decades. In order to promote fair dealings and communicating the quality information to the investors, different countries on the basis of their macro & micro economic variables have enforced corporate governance codes and have adopted various models of corporate governance. Corporate governance mechanism varies a great deal around the world depending upon the micro & macroeconomic variables, institutional and political setups. According to the distinction between the two types of financial systems namely, the market capital dominated and bank dominated, there exist two types of distinct corporate governance models: Anglo-Saxon type of corporate governance system and German-Japan type of corporate governance system.

In other words, the models are the two extremes of the continuum with ‘Stakeholder Model’(internal control exercised by the various stakeholders such as creditors, bankers, employees etc.) and the ‘Stockholder model’ (external control exercised by the stockholders in the firm).
'Anglo-Saxon’ type or ‘capital market’ or ‘Stockholder model’ (Jeffers, 2005) of governance mechanism is prevalent in United States and United Kingdom which is characterized by the objectives of the corporates to maximize the shareholder wealth and the main dimension of analyzing the firm performance is market value. These countries have a long tradition and history of democracy and capitalism, which in turn promotes the private ownerships in the business.

‘German Model’ or ‘Market based model’ or ‘Stakeholder model’ (Jeffers, 2005) is a prevalent in Germany and continental Europe, which differs from the United States and United Kingdom in social, economic, legal and cultural dimensions. In German society, the emphasis is not only on the shareholder value maximization but also on the costs and benefits that accrue to the society out of the operations of a corporate house.

Often, the researchers have viewed the governance mechanism to be classified into two categories namely: Mechanisms internal to the firm and external to the firm (S. L. Gillan, 2006). Internal mechanism includes composition of board of directors (Nikolic & Erk, 2011), Board Structures (Jensen, 1993), Managerial incentives (Tuschke & Gerard Sanders, 2003) and Capital Structure (Porta, Lopez-de-Silanes, & Shleifer, 1999). External Control mechanism includes Legal & Regulatory Mechanism (Lazarides & Drimpetas, 2010), financial systems (Anderson & Gupta, 2009).

The corporate governance models adopted in the various countries over decades have differed on various dimensions such as Board’s structure, Ownership patterns etc. due to the unique set of socio-economic, cultural, legal and political dimension of the respective countries.

**CYBERNETIC CONTROL AND ORGANIZATIONAL PERFORMANCE**

Although the extant literature is available on Management Control systems, however the term ‘Performance Management Systems’ is considered to be the more holistic term encompassing the broader dimensions of the domain of management and control of organizational performance (Ferreira & Otley, 2009). The literature suggests the improvement in the organizational
performance with the use of various cybernetic controls such as budgets, financial measures, non-financial measures and hybrid systems. Anthony (1965) studied the impact of linking the incentive compensation, which is an important control mechanism to the performance of the strategic business units. Balanced scorecard which uses a combination of the financial and nonfinancial measures to assess the performance, Hoque & James (2000) studied 66 Australian manufacturing companies and concluded that the usage of BSC as a control measure in the organizations is associated with improved performance, but this relationship does not depend significantly on organization size, product life cycle, or market position. Hoque, (2004), surveyed 52 manufacturing companies and suggested that a significant positive relationship exists between management’s strategic choice and organizational performance acting through management’s higher use of non-financial measures for performance evaluation.

**Proposition: 1** A positive and significant association between Cybernetic controls systems in the organization and organizational performance.

**CULTURAL CONTROLS & ORGANIZATIONAL PERFORMANCE**

Strong culture hypothesis (Denison, 1984) which suggests that positive cultural traits boost performance in proportion to the strength of their manifestation was critically reviewed by the Saffold (1988), suggested that the interlink ages between the culture and organizational performance are complex and emphasized on the development of more comprehensive models of the research. Similarly Gordon & DiTomaso (1992) studied 11 US insurance companies in 1981 and concluded that strong culture based on adaptability is associated with better organizational performance in 2-3 subsequent years. Although the result of the studies was in line with the Denison’s argument, however the author also suggested that more complex contingent mode can explain the relationship better. Wilkins & Ouchi (1983) claimed that few specific dimensions of the local culture are more critical to the organizational performance for some organizations than the broader background cultures.

**Proposition: 2** A positive and significant association between Cultural controls system in the
organization and organizational performance.

GOVERNANCE STRUCTURES AND MCS

Governance structures form a component of the administrative controls of the MCS packages proposed by Malmi & Brown (2008). Administrative control includes the organizational design, structures, managerial remuneration, board composition and other controls in order to affect the behavior of the employees of the organization. Governance structures consist of formal lines of authority, accountability and systems (Abernethy & Chua, 1996).

Essentially there are two types of board structures namely: One-tier boards and two-tier boards (with clear separation between Supervisory boards and the board of directors). The major dimensions of the problems related with the boards are Board Culture, Information Problems, Legal Liability, Lack of Management and Board Member Equity Holdings, Oversized Boards, CEO duality (Jensen, 1993). In Germany & Japan the large block of debt holders directly affect the working through board membership and perform separate functions from the large shareholders (John & Senbet, 1998). Also, unlike U.S., the employees are given representation in the boards in Germany. The studies have shown there is no relation between the existence of two-tier board structure and quality of corporate governance (Franks & Mayer, 2001).

Managerial remuneration is the principal tool for aligning the interests of the managers and the shareholders to reduce the conflict of interest between the two parties and the agency costs. The two governance models differ in the managerial incentives structure and forms to a great extent, accounting for the departures of the two corporate governance models. A comparison of the CEO compensation structure in the beginning of the century in 2000-01 reflects that pay package of German CEOs is significantly lesser than the U.S. counterparts. The contribution of the Basic compensation (other components being variable pay, benefits and perquisites) was found to be 47% for the German CEOs as compared to 28% for U.S. Executives (Goergen, Manjon, & Renneboog, 2008).

Hence the various components of the governance systems forms the part of the MCS package and
impacts the organizational performance. The present study proposes a moderating impact of the governance structures on the association between the two types of control systems (cybernetic control and cultural control) and the organizational performance.

**Proposition: 3** The positive and significant association between cybernetic control and cultural control with organizational performance is moderated by the governance structures.

**DISCUSSION & DIRECTIONS OF FUTURE RESEARCH**

The study of MCS as a package of various control systems such as cybernetic controls, cultural controls and administrative controls motivates the researchers to study the interrelationship between the various components and the impact of the same on the organizational performance.

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The critical review throws a light on the relationship between the cybernetic control systems and the cultural control systems and its impact on the organizational performance. With increased globalization, the corporate governance models adapted by the corporates across globe are impacting the way the business is carried out. The proposed theoretical model suggests that the governance structures, which form an important component of administrative controls, have a moderating impact on the relationship between the other two forms of control (cybernetic and cultural controls) and the organizational performance. Cybernetic controls categorized as the budgets, financial measures, nonfinancial measures and the hybrid systems are found to have a positive association with the organizational performance. Similarly cultural controls are also found to have a positive impact on the organizational performance. The literature suggests that various components of governance structures categorized as internal governance mechanism (board structure, board composition, organizational structure, organizational design, managerial incentives) and external governance mechanisms (Financial systems, legal systems) impact the organizational performance. Hence it can have a moderating impact on the relationship between
the cybernetic controls, cultural control and the organizational performance.

The present review provides the direction for future empirical testing of the model. Secondly, the
similar relationships can be studied among the various other components of the MCS package.
The same model can also be tested in future by considering the governance structures as a
mediating variable rather than a moderating variable. Several limitations of the study must be
acknowledged. The review has focused only on the cybernetic controls, cultural control and
Governance structures in the administrative controls, however the other controls such as planning,
rewards and compensations policies and procedures etc., which can be influence the associations
discussed in the proposed theoretical model.

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Figure 1: Proposed theoretical model