MANAGEMENT CONTROL SYSTEMS AND CORPORATE GOVERNANCE: A THEORETICAL REVIEW

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ABSTRACT

This study presents a systematic review of research on the relationships between various management control system (MCS) components as a package with corporate governance and on their impact on organizational performance. The motivation for the study originates from the past studies who suggested a dearth of research on the configuration and inter-linkages among all components of MCS package: cultural control, planning, cybernetic control, reward and compensation, and administrative control. A thematic approach is followed to conduct a systematic literature review. The review builds upon existing literature and contributes toward identifying research gaps, which may contribute to the existing body of knowledge through theory building and empirical testing.

Keywords: management control systems, corporate governance, organizational performance, cybernetic control, administrative controls, rewards and compensation, cultural control, planning

INTRODUCTION

Management control philosophy and corporate governance (CG) are related to the sharing of power among stakeholders and the protection of shareholders’ interests. CG mechanism includes overseeing the activities of the board of directors and the auditing committee, and ensuring the integrity of the financial reporting process. Conversely, management control
philosophy includes the activities and attitudes of management related to controls and actions that convey importance throughout the organization (Cohen & Hanno, 2000). The activities related to the management accounting in the organizations must be implicated in CG (Seal, 2006).

This study presents a systematic review of studies on the relationships between various components of management control systems (MCS) as a package with CG and their impact on organizational performance. The literature survey addresses the research question on how various components of MCS are linked to CG in extant literature. The motivation for the review originates from the suggested lines of inquiry by Malmi and Brown (2008). The authors suggest a dearth of research on the configuration and inter-linkages among various components of the MCS package, which offers an opportunity to present a review on the suggested lines of inquiry. This systematic literature review is conducted following a thematic approach. The argument behind studying the inter-linkages among the various components of MCS with CG as reference point is that CG forms the fundamental building block of administrative controls, and it provides the basic structure for other MCS components to operate in organizations. The review is based on the frameworks of Malmi and Brown (2008) that identify five types of controls that consider MCS as a comprehensive package: cultural controls, planning, cybernetic controls, rewards and compensation, and administrative control. Gillan (2006) classifies governance mechanism into two categories: mechanisms internal to the firm and mechanisms external to the firm. These frameworks are considered the basis for the present review of literature given that the typologies present a broader scope by including the majority of control parameters, which have been suggested by researchers in this field. A plethora of studies is available in this field. However, minimal evidence establishes the relationship between various components of MCS and the different mechanisms of CG.

The remainder of this paper is organized into the following sections. Section II presents the theoretical background of the inter-linkage between MCS and CG. Section III reviews the definitional and evolutionary characteristics of the MCS literature. Section IV reviews the extant literature on CG structures. Section V includes the review of literature on the relationship between MCS and its components and CG. Section VI addresses the research gaps based on the review and discussion.
THEORETICAL BACKGROUND

The objective of MCS is to alter and influence employee behavior toward the achievement of organizational objectives. Positivist agency theory identifies the need for governance mechanisms in the principal–agent relationship, which limits the self-serving behavior of agents (Eisenhardt, 1989). The principal–agent literature on the agency model emphasizes the need for and the requirement of managerial accounting policies and procedures, such as budgeting, performance measures, and monitoring (Baiman, 1990). The link between management accounting and agency theory originates from the information economics literature (Lambert, 2006), in which the author suggests that management accounting is a domain that focuses on the performance measurement and information issues in the organization.

Contingency theory (Lawrence & Lorsch, 1967) provides a common ground for the two constructs under discussion, namely, MCS and CG. Contingency theory asserts that designing the CG system has no best way. The design of governance structures is contingent upon the external environment and context, such as national, industrial, and organizational level disparities (Huse, 2005). Contingency theory suggests that control systems are dependent on the organizational setting and concludes that a better match between the two can improve organizational performance (Fisher, 1998). Studies on the linkages between contingency-based research and MCS extensively have examined the influence of contextual variables, such as the nature of the environment, technology, size, structure, strategy, and national culture in contemporary settings (Chenhall, 2003; Fauzi, Hussain, & Mahoney, 2011). Therefore, agency theory and contingency theory provide a common thread between the two constructs under study.

The main focus of the systematic review is the control and governance mechanisms, which are internal to organizations. Distinct themes are identified within the scope of topic, and the thematic approach is followed to conduct the systematic literature review process, which integrates theoretical and empirical literature (Cronin, Ryan, & Coughlan, 2008). The major search strategy includes conventional subject or keyword searching combined with journal hand-searching and reference list checking. Table 1 in Annexure I presents the broad themes of the literature review along with the constructs.
EVOLUTION OF THE MANAGEMENT CONTROL SYSTEM

In the early 19th century, Du Pont and General Motors devised various control systems that evolved with the growth of the organizations in the form of organizational structures, i.e., from unitary/functional form to multidivisional form, return on investment, target pricing, profit sharing plans for senior managers, bonus plans, and market based transfer prices (Kaplan, 1984). The control systems evolve from being market result-oriented to controlling through standards and cost centers, reporting and profit centers, plans and investment centers, and mutual goal setting (Greiner, 1972). Therefore, the definitions of the term “Management Control Systems” have also evolved in the academic literature through a variety of authors given that control systems have also evolved in practice. Anthony (1965) defines management control as a process used by managers to utilize resources effectively and efficiently to attain organizational objectives. Flamholtz, Das, and Tsui (1985) develop an integrated organizational control model that defines control as an effort by organizations to enhance the possibility of employees’ behavior that leads to the achievement of organizational objectives and also to identify four control mechanisms: planning, measurement, feedback, and evaluation–reward.

Another important strand of literature examines the relationship between MCS and strategy, in which the literature supports both the directions of causality, i.e., MCS affects strategy (Dent, 1990; Langfield-Smith, 1997) and vice versa (Henri, 2006; Kober, Ng, & Paul, 2007). The study by Langfield-Smith (1997) focuses on the importance of control in organizations and explores how MCS can affect the process of strategy formulation, implementation, and change using the comparative case study approach. The authors also point out the importance of managers’ perception in influencing the strategic change process and the MCS design. Abernethy and Chua (1996) consider the control system as a “package” and empirically study how the strategic choices of dominant coalitions and institutional environment affect control system design apart from technical environment. Simons (1994) defines MCS as formal, information-based routines and procedures used by mangers to alter the activities in the organization. Simons’ study also suggests a comprehensive framework of how managers in organizations control strategies with four levers of control: belief systems, boundary systems, diagnostics control systems, and interactive control systems.
Diagnostic and interactive controls are the two complementary uses of MCS (Henri, 2006). Diagnostic controls are related to monitoring performance variables. These variables measure variances to achieve the intended organizational outcomes and are generally considered to have a negative approach. Interactive controls are the use of positive enforcement through dialog and interactive learning among managers. Bisbe and Otley (2004) study the moderating effect of the interactive use of MCS on the relationship between product innovation and performance and find support for the relationship.

Most of the literature on the field of organizational control systems has been categorized under MCS, but “performance management systems” is a broader term that encompasses all aspects of organizational management and control (Ferreira & Otley, 2009). The most common techniques identified in the literature on performance measurement have also evolved over time from the reliance on accounting-based controls having financial figures as their base to innovative techniques such as economic value measures and balanced scorecard, which also take into consideration non-financial information (Eccles, 1991; Ittner & Larcker, 1998).

**CORPORATE GOVERNANCE STRUCTURE**

The principal–agent relationship is applied to various contexts in the corporate finance literature, including contracts between shareholders (owners of the firm) and managers (agents appointed by the owners). Both parties are responsible for various activities in the firm, such as investment activities, operational activities, governance activities, and other managing activities. The nexus of contracts (Jensen & Meckling, 1976) among various parties to the organization, such as suppliers, employees, creditors, and customers, articulates the rules of the game in the organization. These rules affect the various components of the system, such as performance evaluation system, reward system, and the assignment of decision rights (Jensen, 1983). Parties specify who has control over various dimensions of assets because of the inherent conflict of interest in the relationship and the problems in designing contracts. The allocation of residual control rights between managers and owners has to be carried out efficiently and effectively (Grossman & Hart, 1986). The presence of such allocation issues
among parties in the contract gives rise to the need for having a governance mechanism to address the conflicts.

The corporate world and researchers often focus on CG models and mechanisms that can prevail in various economies for decades. CG mechanism varies a great deal around the world depending upon the micro and macro-economic variables and institutional and political setups. Therefore, different countries have adopted various models of CG, which lead to the enforcement of different CG codes, to promote fair dealings and communicating quality information to investors. The distinction between the two types of financial systems, the market capital-dominated and bank-dominated, indicates that two types of distinct CG models exist: the Anglo-Saxon type of CG system and the German–Japanese type of CG system. The models represent two extremes of the continuum with a “stakeholder model,” which is the internal control exercised by the various stakeholders, such as creditors, bankers, and employees, and the “stockholder model,” which is the external control exercised by the stockholders in the firm.

The “Anglo-Saxon” type, “capital market,” or “stockholder model” (Jeffers, 2005) of governance mechanism is prevalent in the United States and the United Kingdom. These countries have a long tradition and history of democracy and capitalism, which in turn promotes private ownerships in business. In the stockholder model, firms’ work toward the maximization of the shareholders’ wealth, and the main dimension of analyzing the firm performance is its market value (Jeffers, 2005). Another CG model is the “German-Japanese model,” “bank-based model,” or “stakeholder model” (Jeffers, 2005), which is prevalent in Germany and continental Europe. In the German society, the emphasis is on the shareholder value maximization and the costs and benefits that accrue to the society out of the operations of a corporate house.

Researchers consider the governance mechanism to be classified into two categories: mechanisms internal to the firm and mechanisms external to the firm (Gillan, 2006). Internal mechanisms include the composition of the 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 mechanisms include legal and regulatory mechanism (Lazarides...
& Drimpetas, 2010) and financial systems (Anderson & Gupta, 2009). The CG models adopted in various countries over decades are different in various dimensions, such as board structure and ownership patterns, due to the unique set of socio-economic, cultural, legal, and political dimension of the countries.

**MANAGEMENT CONTROL SYSTEMS AND CORPORATE GOVERNANCE: UNRAVELLING THE LABYRINTH**

The various mechanisms of CG and the components of MCS achieve the objective of controlling managers’ behavior in organizations. Therefore, the two concepts are intertwined and give opportunities for researchers to explore inter-linkage in further detail.

This section reviews the literature on inter-linkage of the various components of MCS package: cultural controls, planning, cybernetic controls, rewards and compensation, and administrative control with the various mechanisms of CG. The various CG mechanisms are spread across the continuum, such as board structure, composition of boards, audit committee, executive compensation, board independence, and pay for performance sensitivity. Governance structures form a component of the “administrative controls” of the MCS packages proposed by Malmi and Brown (2008). Governance structures consist of the formal lines of authority, accountability, and systems (Abernethy & Chua, 1996). The administrative controls along with governance structures also include the organizational structures, policies and procedures, and other controls to affect the behavior of employees of an organization. Therefore, the various components of the MCS package form a part of the governance structures and affect organizational performance.

**Culture as a Control and Corporate Governance**

The fundamental variable of contingency research in MCS is *cultural control*. Earlier research on cross-cultural systems in some forms, such as participation studies, focused on the relationship between MCS design and culture (Juralewicz, 1974; French Jr, Israel, & Ås, 1960). Owing to the expansion of organizations in different geographical locations in the last 20 years, culture has become an important element affecting the design of MCS
The portability of domestic MCS design across various cultures has remained an important area of research. Earlier research (Chiu & Chang, 1979; Daley, Jiambalvo, Sundem, & Kondo, 1985; Whitt, 1979) in the 1980s on the relationship between the cross cultural diversity and MCS was generally criticized by many studies (Bhagat, Kedia, Perez, & Moustafa, 2004; Kraut, 1975; Pascale, 1978; Rohner, 1984) for the lack of specificity for the term “culture.” Hofstede (1980) defines the term “culture” as an aggregation of four dimensions: power distance, individualism, uncertainty avoidance, and masculinity. The relationship between MCS and culture has also caught the fancy of empiricists, and many empirical studies have been conducted at various points in time (Chow, Shields, & Chan, 1991; Chow, Shields, & Wu, 1999; Harrison, 1992; Harrison, McKinnon, Panchapakesan, & Leung, 1994). Strong cultural hypothesis (Denison, 1984) suggests that positive cultural traits boost performance in proportion to the strength of their manifestation. Saffold (1988) critically reviews the hypothesis that suggests that the inter-linkage between culture and organizational performance is complex and emphasizes the development of more comprehensive models of the research. Gordon and Di Tomaso (1992) study 11 US insurance companies in 1981 and conclude that a strong culture based on adaptability is associated with better organizational performance in two to three subsequent years. The results of these studies are in accordance with the Denison’s argument, but the author also suggests that more complex contingent models could explain the relationship better. Wilkins and Ouchi (1983) claim that some specific dimensions of the local culture are more critical to organizational performance for some organizations than broad background cultures.

Many studies (Webley & Werner, 2008; Mintz, 2006) in the academic literature relate CG to ethical sensitivity and suggest that a corporate culture with well-defined policies that pertain to ethical behavior of employees is needed to have a good governance structure. Chan and Cheung (2012) study the variations in CG practices in 271 firms across 12 countries and find that among the five dimensions of Hofstede’s cultural dimension framework, individualism, uncertainty avoidance index, and masculinity are significant in explaining CG scores across countries. Pizam, Pine, Mok, and Shin (1997) contribute to the literature by examining 192 hotel managers in Hong Kong, Japan, and Korea and conclude that managers’ behavior is more significantly affected by national culture than industrial culture and that a
positive relationship exists between work value and managerial behavior. Private control benefits and earnings management activities are closely related to agency problems that lead to dysfunctional CG, and the same are found to be related to culture. Zhang, Liang, and Sun (2013) recently study 41 countries and regions to support dysfunctional CG, in which the form of extracting private control benefits and earnings management activities is found to be more intense in regions that have a collectivist culture than in those with an individualistic culture. Studies on the domain of CG and culture are dominated by a national culture perspective (Licht, Goldschmidt, & Schwartz, 2005; Licht, Goldschmidt, & Schwartz, 2007; Stulz & Williamson, 2003).

Planning as a Control Mechanism and Corporate Governance

Planning is usually considered the most fundamental and ancient control mechanism, and it forms the basic building block of most organizations’ control system. Planning is regarded as a fundamental constituent of a core control system, which is the starting point of the operational sub-systems given the operational goals and standards as outcomes, and the system’s performance is evaluated continuously against the established standards and goals for correcting any deviations (Flamholtz, Das, & Tsui 1985). Malmi and Brown (2008) categorize the approaches for planning as long-range planning, which has a strategic and long-term focus, and action planning, which has a tactical and short-term focus. Planning has adopted a strategic nature given the growing organizations, increased competition, and increasing effect of externalities. Many studies have linked planning to organizational performance. Literature on the relationship among work-related goal setting, standard establishment, and organizational performance suggests that specific goals, difficulty in achieving standards, and participation of employees in goal setting lead to better performance (Campbell & Ilgen, 1976; Ivancevich, 1977; Mitchell, 1973). Many studies (Brews & Hunt, 1999; Delmar & Shane, 2003; Miller & Cardinal, 1994) have supported the relationship between strategic planning and organizational performance. Nevertheless, some studies (Pearce, Freeman, & Robinson, 1987; Shrader, Taylor, & Dalton, 1984) also provide no evidence of such relation.
The relation between CG and strategic planning as a control mechanism is intertwined with the ethical sensitivity of managers conducting the strategic planning in organizations. Bonn and Fisher (2005) draw an analogy between strategic planning and CG and find three weaknesses: bureaucratic approach, lack of implementation, and lack of integration. These weaknesses prevent the integration of ethics and governance practices. Governance structures and control mechanisms are used to direct employees’ behavior toward the achievement of organizational goals, but planning as a control mechanism also helps in building the right attitude among employees through increased participation and engagement. A dearth in the literature on the direct link is found between planning and CG, as most studies have connected the concepts through strategic planning, audit planning, and taxation planning.

Cybernetic Control and Corporate Governance

Fisher (1998) defines 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.” Otley and Berry (1980) study the applicability of cybernetic control systems with a focus on accounting information systems. Green and Welsh (1988) define control as the “cybernetic regulation of iterative activity within dependence relationships.” It provides a framework that integrates cybernetics and resource dependence to identify the constituents of control, differentiate control from other organizational processes, and suggest the criterion to assess effectiveness. A cybernetic control system consists of formal financial budgeting techniques and incentive compensation systems. The control system literature defines the four types of cybernetic systems: advanced budgeting (Bunce, Fraser, & Woodcock, 1995), financial measures, non-financial measure, and balanced scorecard (Ittner & Larcker, 1998). The hybrid control system contains the combination of one or more control systems, such as a mix of financial and nonfinancial measures. For instance, a balanced scorecard uses a combination of financial and nonfinancial measures to assess the performance. The literature suggests that organizational performance improves with the use of various cybernetic controls, such as budgets, financial measures, non-financial measures, and hybrid systems (Anthony, 1965; Hoque, 2004).
Governance can be considered a cybernetic concept as it is concerned with providing the firm with structures and systems that drive the organization toward organizational goals (Rwegasira, 2000). Cybernetic controls in organizations provide a mechanism of self-governance, and thus it makes governance structures fundamentally more robust. They also establish stringent rules for designing self-regulating mechanisms in firms or social institutions that can achieve self-governance objectives and operating advantages by internalizing the cybernetic criteria in their control systems (Turnbull, 1997). The participative model of governance also emphasizes the cybernetic nature of a system and considers the cybernetic governance mechanism to be more adaptive and flexible to the needs of the dynamic external environment, which depends on autonomous, self-governing systems instead of deriving control from hierarchies (Collier & Esteban, 1999). The cybernetic controls of a management system are related to internal governance mechanisms. The control systems also aim to achieve employee engagement by participating in goal setting and setting challenging task goals. Therefore, governance mechanism is also cybernetic in nature as it has feedback and control mechanisms, which are responsive to dynamic external environments.

Rewards and Compensation and Corporate Governance

Managerial remuneration is the principal tool for aligning the interests of managers and shareholders to reduce the conflict of interest between the two parties and minimize agency costs. Organizational theory makes rewards implicit, whereas agency theory emphasizes on the explicit nature of rewards to control employees’ behavior (Eisenhardt, 1985). Therefore, agency theory and organizational theory are both complementary and relate to control strategies but with different approaches. Given that executive compensation cannot be determined in isolation, Barkema and Gomez-Mejia (1998) conceptualize a framework for the factors determining the executive compensation and categorize the factors into criterion-based governance structures and other contingent factors. Apart from the determinants of the compensation structure, debates among the practitioners and scholars on the composition of the managerial compensation are on-going. The major discussion relates to the balance among fixed compensation, variable compensation, and option-based compensation. Option-based compensation aligns the interest of shareholders with that of managers to reduce the agency
cost and develops short-termism and excessive risk-taking behavior among managers to increase firm value. Therefore, CEO compensation should be a mix of base salary and variable pay, including bonus, performance-based incentives, and equity-linked compensation (Ippolito, n.d.).

Extant literature on the linkage among managerial remuneration, top management compensation, and company performance provides evidence of a positive relationship (Coughlan & Schmidt, 1985; Lewellen & Huntsman, 1970; Murphy, 1985). However, the linkage between economic performance and directors’ pay is significantly affected by corporate growth (Gregg, Machin, & Szymanski, 1993). Problems on governance mechanisms in an interdependent fashion empirically prove that organizations with weak governance mechanisms have higher principal–agent problems, and organizations with higher principal-agent problems pay higher executive compensations; thus, the corporate performance of such organizations eventually worsens (Core, Holthausen, & Larcker, 1999). The “form” and “quantum” of compensation are important to motivate an agent toward the organizational goal of “value maximization.” Therefore, a positive relationship exists between firm performance and the presence of equity-linked compensation (Mehran, 1995). The major discussion in the literature on compensation structures relates to the determinants of compensation structures, the trends of the quantum of compensations in various regions, the composition of managerial remuneration, and the effect of the same on corporate performance (Dittmann & Maug, 2007; Dow & Raposo, 2005; Lilienfeld-Toal & Ruenzi, 2014; Ofek & Yermack, 2000). Nevertheless, a scope for the direction of causality in the relationship between the compensation structure and the economic performance of the organizations exists.

Administrative Controls and Corporate Governance

Administrative controls are generally considered explicit management control mechanisms used to direct managers’ or agents’ behavior toward achieving organizational goals, and they include structures and policy frameworks. Malmi and Brown (2008) categorize administrative controls as organizational design and structures, governance structures, and procedures and policies within the firm. Many previous studies emphasize the role of organizational variables in management accounting systems
The design of organizational structures is considered to be contingent on organizational context. Therefore, the characteristics of a specific control mechanism for a specific organization are dependent on organizational structures, which are in turn dependent on other organizational variables, such as environment and technology (Waterhouse & Tiessen, 1978). Research on the effect on the controllers’ department of the organizational variables suggests a high and positive correlation between two organizational variables: size and unionization. Therefore, the structure of controllers’ department is significantly affected by overall organizational structures. Two types of organizational structures, organic and mechanistic, are greatly recognized in the extant literature. They differ in parameters, such as the level of hierarchies and centralization (Burns & Stalker, 1961). A study conducted on Taiwanese firms indicates empirical evidence of the significant effect of organizational structure: the competition for performance measurement system (PMS) with specific reference to two parameters of PMS, namely, the use of hybrid integrated performance measures and the position of development of PMS in the organization. This effect is significant in mechanistic organizations in terms of organizational performance (Lee & Yang, 2011).

CG as an administrative control is an essential part of MCS. Various governance models differ in their internal governance systems to a huge extent because of various factors that are internal and external to the organizations. The major components of internal governance mechanisms are composition of board of directors, board structure, managerial incentives, and capital structure.

Policy and procedures are essentially the written rules in the organization to direct employees toward the overall objective of the organization. As Macintosh and Daft (1987) explain, “The set of written rules, procedures, policies, and operating manuals (SOPS) are used to guide managers as they administer their departments. The SOPS also include general policy guidelines, job descriptions, and prescriptions for how managers should handle operational situations that might arise.” Policies and procedure establish the standards of performance, workflow, scope of authority, and responsibility of the employees, which facilitate managers’ analyses of deviations and correcting them. Administrative controls as a package works
with all interwoven components, such as organizational structure and design, governance structures, policies and procedures, and managerial incentives, to induce agents’ behavior toward the value maximization objective of the firm.

**DISCUSSION AND RESEARCH GAPS**

The study of the MCS as a package of various control systems, such as cultural controls, planning, cybernetic controls, rewards and compensation, and administrative controls, motivates researchers to examine the interrelationships among various components and their effect on governance structures and organizational performance (Seal, 2006; Speckbacher & Wentges, 2012). Malmi and Brown (2008) conclude that governance structures may vary across different organizations, and thus studying the linkages of governance systems to other control systems is important. The critical review throws a light on the relationships between the various components of MCS and CG and their effect on organizational performance.

First, the research gap proposes a theoretical model that suggests that governance structures, which form an important component of administrative controls, have a moderating effect on the relationships among other forms of control and organizational performance. Cybernetic controls categorized as the budgets, financial measures, nonfinancial measures, and hybrid systems have a positive association with organizational performance. Cultural controls, planning, and administrative controls have a positive effect on organizational performance. The literature suggests that the components of governance structures categorized as internal governance mechanism, such as board structure, board composition, organizational structure, organizational design, and managerial incentives, and external governance mechanisms, such as financial systems and legal systems, affect organizational performance. Therefore, CG can be proposed to have a moderating effect on the relationship between MCS as a package, which includes all the control mechanisms, and organizational performance. The present review provides the direction for future empirical testing of the model.
Second, the review suggests that MCS and CG share the common objective of directing the employees’ and managers’ behavior to motivate them toward organizational goals and minimize the rent-seeking behavior among them. MCS and CG, as concepts, are intertwined, and a dearth in the literature on the direction of the causality of relationship exists. The review proposes to test the direction of causality of the relationship between governance and control mechanisms. The causal relationship can be argued in both directions. Good governance mechanism leads to robust control systems, or the presence of robust control mechanisms leads to the better governance of firms. The research can be further extended to explore the characteristics of MCS in the context of two governance models lying on the extreme sides of the continuum focusing on the compositions of internal control systems in different governance mechanisms.

Finally, considering the individual components of the MCS package, the critical review of the literature suggests that a scope for research on the relationship between corporate culture and CG exists. Studies on culture and governance focus mostly on national and industrial cultures, which show a gap in the relationship between organizational culture and CG that can be explored. The relationship between planning as a control mechanism and CG is also relatively unexplored. In the literature on individual control mechanisms, studies on the direction of causality between executive compensation and firm performance are also sparse, and thus researchers are motivated to explore the area further.

Several limitations of the study must be acknowledged. The review focuses on internal governance mechanisms given that MCS pertains to control systems, which are internal to organizations rather than external. Both CG and MCS concepts under review are complex in nature, and thus they give rise to definitional problems. The review is based on particular frameworks given by Malmi and Brown (2008) for MCS and Gillan (2006) for CG. The frameworks are chosen because they are the most comprehensive and cover maximum dimensions pertaining to the constructs. The review identifies research gaps and adds to the existing body of the knowledge through theory building and empirical testing.
REFERENCES


## APPENDIX 1

**Broad Themes of the Literature Review and their Constructs**

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<th>S. No.</th>
<th>Broad Themes</th>
<th>Constructs</th>
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<td>1.</td>
<td>Management Control Systems (MCS)</td>
<td>Cultural control</td>
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<td>Planning</td>
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<td>Cybernetic control</td>
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<td>Reward and compensation</td>
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<td>2.</td>
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<td>3.</td>
<td>Organizational Performance (OP)</td>
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