Management Control Systems: A review of literature and a theoretical framework for future researches

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Abstract
The conventional perspectives of management control system (MCS) restrict MCS scope to economic rationales and merely emphasize on the single theme MCS techniques; i.e. planning, budgeting, performance measure and motivation related issues. Similarly, conventional perspective focuses on the internal processes within an organization. On the other hand, the current perspectives of MCS attempt to address the behavioral issues within and outside organizational operations. However, both perspectives fail to provide enough attention to the important central factors of MCS issues in the developing nations. The role of socio-cultural factors in MCS design and use is an emerging matter that has received less concern in the both conventional and contemporary MCS literature. In an attempt to broaden the scope of MCS functions, the paper reviews the main themes of MCS literature and offers a theoretical framework that considers the different social settings of the different nations. The theoretical framework is intended to enable us to understand the forms of MCS in the developing nations as well as developed nations. The methodology of the paper is mainly driven by theoretical reviews of MCS literature, which is hoped to be useful to reduce the research gaps of the earlier concepts.

Keywords: management control systems, literature review, theoretical framework

1. Introduction
This article reviews the earlier works of management control systems (MCS) as well as the recent emerging themes. The earlier works of MCS practices (Anthony, 1965, 1988; Giglioni & Bedeian, 1974; Hofstede, 1980; Lowe, 1971; Macintosh, 1994; Merchant & Simons, 1986; Otley & Berry, 1980) mainly have emphasized on the conventional perspectives of MCS that is primarily restricted to the economic aspects of organizational activities. Conventional MCS perspective is driven by short term incentives and mostly revolve around a single theme control method such as; planning, budgeting, performance measurement and motivation management, while it provides less concern about the behavioral aspects of the organization’s activities. However, in the course of time, it is attested that MCS is a product of its social setting that is constitutive in its social relations (Hauriasi & Davey, 2009; Uddin, 2009). The influence of societal systems on MCS design and use has been identified as an important factor that determines the types of MCS as social practices (Hauriasi & Davey, 2009; Hofstede, 1980, 1987; Wickramasinghe & Hopper, 2005; Uddin, 2009).

It is evident that the understanding of MCS functions had shifted from merely focusing on the objective economic transactions, within an organization, to socially constructed and more subjective disciple. This move had opened the way to the emergence of new insights that stress on the importance of socio-cultural factors; like political and cultural aspects, within an organization, alongside the economic approaches.

The main purpose of this review is to understand and analyze the prevailing concepts and typologies of MCS and to identify the emerging new insights that incorporate the economic aspects of organization’s activities with the social settings. In addition, this review intends to shed light on how the diverse MCS patterns and themes develop in relation with its social contexts. Based on the analysis, we observe that in the developing countries, MCS design and use is intensely influenced by the social norms and cultures rather than conventional concepts. As a result, we offer new theoretical insights of MCS themes to guide future researchers. The main emerging themes of MCS practices that are discussed in the theoretical insight include: cultural, administrative and process MCS.

2. The control concept and the evolution of MCS themes: A Review
In the early management literature, the control concept was taken as synonymous to financial control, where it was regarded as one of the accounting and financial management functions that had to provide information for decision making (Giglioni & Bedeian, 1974; Merchant, 1985). Similarly, in the early literature, the terms: accounting, financial management and control had been used for the same functions; i.e. providing information and decision making, and also meant the same in the organization (Otley, 1999; Carneys, 2010). However, to set boundaries for the different organizational functions, Anthony (1965, p. 5) defined the function of control as “the process of guiding a set of variables to attain a preconceived goal or objective. It is a broad concept applicable to
people, things, situations and organizations. In organizations, it includes various planning and controlling processes.”

In this definition, the control function involves things, people and organizations that symbolize organization’s activities as a social-based system which interacts with the human behavior. In this sense, the control function is very comprehensive and it encompasses the different aspects of organization’s activities, as a “function” that completes other functions of management systems such as; planning, performance measurement, motivation, communication and feedback (Anthony, 1988). Likewise, the terms: control, management accounting (MA), management accounting systems (MAS) and management control systems (MCS) have been used interchangeably and also sometimes carried the same meanings in the literature (Otley, Berry & Broadbent, 1995; Chenhall, 2003; Hoque, 2003). However, Chenhall (2003) classified that MA represents the specific control tools such as; planning, budgeting and pricing, while MAS refers to the systematic use of the MA tools to achieve organization’s objectives. Furthermore, before the emergence of MCS idea, the concept of control preceded and has been built in the earlier literature (Anthony, 1965; 1988; Eilon, 1979; Giglioni & Bedeian, 1974; Koonz, 1958), which may have paved the way for the present MCS that was developed in the midst of the twentieth century. Therefore, according to Chenhall (2003), MCS is a broader concept that employs MA and MAS tools to establish an inclusive strategic and operational control system that integrates the functions of organizational control, personnel and cultural controls. In a nutshell, in this article, the control concept is considered as an integral part of MCS, whether formal or informal, that is applied by an organization to influence employees’ behavior to achieve the ultimate organization’s goals.

2.1. The conventional perspective of MCS

In his early works, Anthony (1965) developed the conceptual foundations of MCS in 1960s, whilst the subsequent scholarly works have either attempted to advance Anthony’s MCS concepts or attempted to adopt their own concept (e.g. Anthony & Govindarajan, 2007; Harrison & McKinnon, 1999; Hoque, 2003; Merchant, 1985; Simons, 1995; Otley, 1999; Otley & Ferreira, 2005).

Anthony (1965) classified MCS into three main tasks that are common in any organization; strategic planning, management control and tasks control. According to Anthony (1965), strategic planning is the function for setting goals, strategies, and policies of an organization, while tasks control is the task that is used to ensure that specified tasks are carried out as planned. Similarly, in the earlier literature, MCS mainly concerned on certain activities such as; planning, coordination, communication, feedback/feed-forward, decision-making and influencing people to achieve organizational goal (Anthony & Govindarajan, 2007; Merchant, 1998). On the other hand, even though the concept of MCS is an emerging issue, where its definitions, dimensions, functions and its scope have yet to be settled academically (Berry et al., 2009; Chenhall, 2003), but the emphasis of the earlier MCS works revolves around the main functions of control environment and control process.

Control environment is the control function that is related to the general atmosphere of the organizational culture and system which provides the platform to the other control procedures such as: control process. For instance, according to Anthony (1988) and Anthony & Govindarajan (2007), organizational structure, policies and procedures, governance systems, organizational culture and other external factors are the main parts of control environment. These control elements construct the foundation of the organization’s activities that clarifies the flow of tasks, duties and responsibilities of the individuals in the organization (Cook, Hunsaker & Coffey, 1997; Harrison & McKinnon, 1999; Herath, 2007). In addition, without establishing a concrete MCS environment control, organizational process control will be complicated and may not function properly as it lacks the appropriate control atmosphere (Efferin & Hopper, 2007; Herath, 2007; Wickramasinghe & Hopper, 2005; Zimmerman, 2009).

On the other hand, control process involves the formal and accounting-based control approaches that focus on the tasks of; strategic planning, budgeting, performance measurement, and motivation management (Halabi, Barrett & Dyt, 2010; Davila & Foster, 2007; Hoque, 2003; Stringer, Didham, & Theivananthampillai, 2011). These MCS process control tasks enable the organization to direct, plan and predict an organization’s operations as well as preventing the possible threats and grasping the potential opportunities (Herath, 2007; Horngren et al., 2005; Macintosh, 1994).

The MCS process control is mostly employed to measure the quantifiable aspects of an organization though it does not deal with the non-quantifiable issues in the organization’s activities (Otley, 1999). However, because of the rapid changing environments and with the consideration of the socio-economic factors, the uses of only quantifiable measurements become misleading (Hoque, 2003; Atkinson, Kaplan, & Young, 2004). As a result, many researchers have criticized the MCS perspectives that limits MCS functions to only economic-based approaches or what is called the “conventional MCS perspective” (Herath, 2007; Malmi & Brown, 2008). The conventional MCS is criticized for the restrictive approaches and being less concerned with the social and behavioral aspects of the organizational participants (Berry et al., 1995; Macintosh, 1994; Otley, 1999; Otley et
Therefore, based on the limitations of the conventional MCS perspectives, new MCS perspectives have been attempted and adopted to further the scope of MCS with the consideration of the socio-political and cultural factors.

2.2. The Socio-Economic Perspective of MCS

As discussed earlier, MCS is a discipline that affects and is affected by the contingent factors of its environment such as political, social and economic matters. Thus, MCS is a complex tool that cannot be understood in isolation from its organizational and social circumstance. Given this complication, researchers have taken different perspectives to understand MCS dimensions that are rooted in its social and organizational environment. For example, as previously stated, the early works of MCS have mainly focused on single themes or techniques of MCS and restricted the functions of MCS to include the financially measurable aspects only (e.g. Burney, Henley & Widener, 2009; Davila & Foster, 2007; Frow, Marginson & Ogden, 2010; Früitticher, Stroud, Laster & Yakhou, 2005; Horngren et al., 2005; Laats, Haldma & Moeller, 2011; St-Onge, Morin, Bellehumeur & Dupuis, 2009; 1995; Stringer et al., 2011). Due to the limitations of the conventional MCS perspectives, there are several attempts that aimed to broaden the scope of MCS and humanize its functions in the organizations (e.g. Merchant, 1985; Merchant & Van der Stede, 2007; Simons, 1995; Otley, 1999; Ferreira & Otley, 2005, 2009; Herath, 2007; Malmi & Brown, 2008). These emerging MCS perspective adopted more comprehensive insights about MCS practices, to incorporate qualitative measurement techniques to the conventional MCS perspectives.

For instance, Merchant (1985) and Merchant and Van der Stede (2007) developed the object-of-control concept to analyze the behavioral aspects of organizations’ MCS. Their MCS typology adopted the control variables of action controls, results controls and personnel/cultural controls. Compared to the conventional MCS view, this typology provides a better understanding of MCS operations both for profit and not-for-profit organizations. However, it was criticized for its rigidity in the specific control objects of action, results and culture/personnel controls (Otley, 1999, 2005; Ferreira & Otley, 2005). Furthermore, the object-of-control concept lacks the ability to explain the coupling between control elements of the typology and the coherence of its components (Sandelin, 2008)

Simons (1995) also proposed another MCS typology that has aimed to incorporate the organizational social aspects to its economic approaches. In this control typology, Simons (1995) employed the control concepts of: beliefs, boundary, and diagnostic control to enhance the inclusiveness of MCS scope. Simons’ (1995) framework was praised to be a useful tool for strategic control (Langfield-Smith, 2007), budgeting (Abernethy & Brownell, 1999), performance measurement (Henri, 2006), and products development (Bisbe & Otley, 2004). However, this control typology has been criticized for several limitations. Firstly, it was condemned that it does not conceptualize the different MCS techniques such as process control and administrative controls (Collier, 2005). Secondly, it focuses only on the top management levels and ignores the control roles in the other management levels. Thirdly, there is a vagueness in the definitions and meanings of different terms (Ferreira & Otley, 2009). Finally, the typology does not cope with the informal control practices, particularly, in the small organizations (Ferreira, 2002).

Otley (1999) and Ferreira and Otley (2005, 2009) also developed the “performance management” as a comprehensive tool for understanding MCS. At the initial stages of the framework, Otley (1999) carried out an analysis of the existing knowledge and by using his long experience in the field, Otley (1999) has identified five key areas of MCS in organizational activities. The key MCS areas are: (a) the key organizational objectives, the process and methods to achieve these objectives, (b) the process to establish and apply the strategies, (c) identifying the performance targets, (d) planning a reward system, and (e) identifying the process and necessary information to monitor organizational performance. To test the practicality of these key issues of MCS, Otley (1999) employed the mechanisms of budgetary control, balanced scorecard and economic value added (EVA) and concluded that the three mechanisms can provide better understanding about the entire organizational operations. However, Otley (1999) himself had to modify, with Ferreira, since his typology has faced numerous challenges in the field.

Through case based studies, Ferreira and Otley (2005, 2009) extended the key factors of Otley (1999) and included seven additional key issues to make it more comprehensive. In addition to the previous five areas of Otley (1999), Ferreira and Otley (2005, 2009) established new key indicators, namely; the role of vision and mission, key success factors, influence of organizations structure on MCS, performance evaluation techniques, organization’s key performance measures, the extent of MCS change and the extent of framework techniques coherence. Through longitudinal case studies, they attempted to improve their “integrated performance management” for MCS. Even though this framework has offered broader insights, about MCS, compared to the other previous MCS typologies, however, it has faced several condemnations. First, the framework is in its initial stages and there are no adequate field examinations to ensure its fitness to the organization’s needs in the
diverse business environments and its appropriateness to the rapidly changing world. Second, the framework does not explicitly reflect the role of cultural controls and the other external factors, such as economic and political issues which may affect the design and use of MCS. Finally, majority of the variables in the framework are derived from Simons’ (1995) control lever and the mechanisms.

The MCS framework of Herath (2007) also draws similar variables of Ferreira and Otley (2005, 2009), that tries to offer better understanding about organizational management controls. Herath suggested that the MCS framework is more comprehensive which had demonstrated a “control package” that is useful to explore the patterns of management controls in all types of organizations. The framework comprises MCS elements of: organizational structure and strategy, organizational culture, management information systems and core control packages. These control components are the main aspects that Herath used to guide her field study. In this framework, particular important control issues have been emphasized such as management information systems and control package, however, the framework is more ambiguous than previous MCS typologies and it overemphasizes on certain MCS tools such as; management information systems and rules and regulations. On the other hand, other very important administrative controls; i.e. vision, mission, code of conduct and governance system, are neglected from the framework. In addition, the framework did not provide enough attention to the role of social settings on MCS design and use, particularly the informal control practices which is perceived as an essential factor in the different social contexts (Busco & Scapens, 2011). Furthermore, the framework needs further examinations to test its practicality. Such examination may provide better credibility about its viability.

Malmi and Brown (2008) had also developed one of the most inclusive MCS frameworks that is aimed to avoid the limitations of the previous frameworks and had attempted to present more integrated MCS dimensions. This framework is mostly derived from previous MCS frameworks with slight innovations. Through exhausted literature, Malmi and Brown (2008) have analyzed and synthesized the empirical results of the last four decades, resulting in their “MCS as a package” theoretical framework coming into existence. The control framework of Malmi and Brown (2008) provides a broader approach to research MCS phenomenon empirically (Malmi & Brown, 2008). They view that it should be focused on an in-depth discussion in MCS research area, rather than providing suggestive solutions to the conceptual problems in the field (Malmi & Brown, 2008). Moreover, the framework adopts five forms of control approaches: (1) planning, (2) cybernetic, (3) reward and compensation, (4) administrative, and (5) cultural controls.

This framework appears to be the most comprehensive framework for MCS; however, it fails to consider several essential issues. Firstly, it neither implicitly nor explicitly indicates the role of vision, mission and information flow in the organization. Secondly, the role of intrinsic incentive system, which is necessary for some social settings (Stringer et al., 2011), have not been taken into account. Thirdly, as it is newly developed, the framework needs an empirical validation to check its practicality.

2.3. MCS in the traditional clannish contexts: an emerging issue

The role of traditional cultures on management systems, including accounting and control approaches, has been debated since the emergence of Hofstede’s theory of cross-cultural dimensions in 1980s (e.g. Ansari & Bell, 1991; Chenhall, 2003; Hauriasi & Davey, 2009; Hofstede, 1980; Gray, 1988; Jackson, 2002). These studies confirmed that the socio-political and economic setting of a particular society is the main determinant of its social practices, including MCS mechanism. The basis for giving such importance to the traditional cultures is that organizations’ behavior and business transactions cannot be explained without its societal constructs (Minkov & Hofstede, 2011).

In this regard, the early studies of Hofstede (1979; 1980; 1984) acknowledged that the functions of planning and control of an organization, within specific social context, are much shaped by the cultural contexts of that society. In addition, Hofstede asserts that, within the traditional culture and norms, the management system in its social context is considered a symbolic activity that influences decision making of managers. Hence, to understand the type of MCS that is used by an organization necessitate comprehending the societal constructs of the environment in which MCS takes place (Minkov & Hofstede, 2011).

With regard to the traditional societies, which are mainly found in the developing countries, the management activities of the organization, including control systems, are produced by the traditional norms of the society in which the organization carries out its operations (Efferin & Hopper, 2007). This is supported by other empirical studies that explored how traditional clannish norms shape the form of management control, its development, design and practices within its traditional settings (e.g. Ansari & Bell, 1991; Gray, 1988; Hofstede, 1980; 1984; Perera, 1989; Tsamenyi, Noormansyah & uddin, 2008; Uddin & Choudhury, 2008; Uddin, 2009). For instance, Gray (1988) used Hofstede’s (1980) cultural constructs and assumed how cultural values form accounting practices and values. He viewed that accounting related decisions, in any environment, is created in
response to the cultural values under which it is made. Gray (1988) also demonstrated that worldwide diversity requires varied accounting systems depending on the circumstances of the national cultures (Gray, 1988).

In a review of the management accounting literature in the developing countries, Hopper et al. (2009) highlighted that family ownership, which is established on kinship ties, as the dominant factor that makes informal and subjective management controls the prevalent system of institutional governance and MCS. Similarly, in many of the developing countries, family ties and friendship connections overrule organizations systems (Hopper et al., 2009; Wickramasinghe & Hopper, 2005). Wickramasinghe and Hopper (2005) concluded that conventional western management accounting failed, in many of the developing countries, due to the rural cultural norms based on kinship obligations that affected the organization practices. This is inline with the evidence of the other recent studies in the context of the traditional societies (Efferin & Hopper, 2007; Mellahi & Wood, 2003; Tsamenyi et al., 2008; Uddin & Choudhury, 2008; Uddin, 2009).

To examine how socio-political and cultural factors influence accounting control practices, Ansari and Bell (1991) revealed that informal and family-based controls remained strong throughout the organization’s operations. Similarly, the study by Uddin and Choudhury (2008) found that the board of directors, in a traditionally managed firm, noticeably served the family interest rather than the shareholders. This happened even though the family members owned only minority shares in the organization. It is common in the traditional clannish societies, that the management systems (including accounting controls specifically financial reports, budgets and other information) were used only for internal interests (family members) (Uddin, 2009). In addition, informal communication and controls were common in the context of traditional clannish societies where kinship-based family ties dominate. Informal relationships among traditional society members usually structure the way management systems and control is implemented, because of the informal connections that were created by the familial practices of management functions (Uddin, 2009). Similarly, enforcing state rules and regulations and business standards in the traditional societies may not be simple since traditional norms and values overrule the general regulations and state systems.

Tsamenyi et al. (2008) also asserted that the decisions concerning recruitment, rewards, performance evaluation and resource allocation, of the organizations operating in the traditional societies, were based on symbolism and collectivism in the control of the organization. They also indicated that the strong influence of social relations in the organization has rendered the formal practices of the management controls to become irrelevant. This is also confirmed by the study of Efferin and Hopper (2007) who noted that familial relations between employers and employees affected the forms of management controls. In addition, Efferin and Hopper (2007) reported that personnel control such as low participative budgets, subjective controls and few rewards tied to the results, and the common informal practices of management controls are prevalent in the context of traditional societies.

These studies are mainly exploratory in nature, where researchers intend to understand how MCS is designed and used under the traditional systems and to interpret those practices in its social context. Therefore, the results do not provide definitive conclusion about the MCS routines in the traditional environment. Hence, understanding MCS “as a package” with particular emphasis on the developing countries, is an emerging issue which requires further considerations.

2.4. The Emerging insights in the current MCS and the Research Potentials

The current situation of MCS, both conventional and the emerging MCS perspectives, have been criticized for focusing on only specific environment (specific economic situations), for being restrictive to accounting-based information, for employing single theme approach and for neglecting major control issues such as; informal and cultural controls of the organization’s social settings. The early studies of MCS (Anthony, 1965; 1988; Lowe, 1971; Otley & Berry, 1980; Simons, 1995) had mostly emphasized on the developed economies; particularly, on the multinational corporations of the developed nations. Similarly, this early MCS view MCS function through accounting and financial rationales, neglecting the social and cultural factors that may play a central function in the design and use of MCS.

To overcome the limitations of the early and the conventional MCS perspectives, broader MCS concept was proposed as an attempt to capture all aspects of MCS practices (Ferreira & Otley, 2005, 2009; Herath, 2007; Malmi & Brown, 2008; Merchant, 1985; Merchant & Van der Stede, 2007; Simons, 1995; Otley, 1999). Although these works promoted the importance of social aspects in an organization and offered new insights in MCS, however, they did not provide enough attention to the informal and cultural control approaches; particularly the control mechanisms that take place in the social and economic contexts of the developing countries.

Specifically, the vital MCS issue, which is common in the developing countries but has been ignored, is the informal MCS in the developing countries where traditional social cultures prevail (Tsamenyi et al., 2008; Uddin & Choudhury, 2008; Uddin, 2009). Hopper et al. (2009) asserts that in the developing countries,
information flow, information sharing and reporting relationships are restricted to specific group of people who share either biological or ethnicity relations. Moreover, with the strong non-material connections of the traditional society members, the “intrinsic motivation” control factor may be very important in the developing countries. Similarly, many of the conventional and current MCS literature did not provide adequate concern about the role of traditional norms, values and symbols on MCS design and use in the small enterprises.

These aforementioned issues should be considered because of its significance in social sciences, especially MCS practices in different social contexts (Hofstede, 1984; Uddin, 2009; Hauriasi & Davey, 2009), since those factors are indispensable to the success of the organizational strategies and plans (Otley, 1999; Atkinson et al., 1997). In addition, to understand how MCS themes evolve in the organizations operating in the traditional societies, is an MCS matter that received less concern from the academicians as well as practitioners. Therefore, based on the limitations and weaknesses of existing MCS literatures, there is a need for new insights that can incorporate the neglected MCS issues in the future MCS researchers.

2.5. A theoretical framework that incorporates the different insights of MCS themes

In this part, we provide theoretical framework that may serve as a tool for better understanding of the MCS practices in all types of organizations and in the different social contexts. The new theoretical framework is presented to enable researchers to explore the themes and patterns of MCS practices empirically and study how social settings of an organization might contribute to the evolvement of specific MCS forms in its respective social environment. Similarly, the framework offers an overall guide about MCS “as a package” to comprehend the role of the diverse social settings on the design and use of MCS practices in its environment.

After a review of MCS literature and analyzing the current limitations of MCS, both conventional and the contemporary perspectives, the key MCS themes are identified and classified as: cultural, administrative and process controls, to understand the forms of MCS in its social context. In addition, the theoretical framework is intended to offer a bigger picture about MCS themes, both formal and informal practices. It is believed that, with this theoretical framework, the different aspects of MCS, namely; cultural, administrative and process controls of an organization will be captured better. The three MCS control components are analyzed in the next section.

2.5.1. Cultural controls

In any society, cultural traditions and norms represent the paramount determinant that structures all other social activities which takes place in that society (Hofstede, 1984). According to Hofstede (1980) cultural traditions and norms are the thinking models and the collective programming that specific societies share and transfer through generations. Similarly, culture demonstrates the meanings that people attach to the various aspects of their own world. In management and control, Hofstede (1984) viewed that “management within a society is very much constrained by its cultural context, because it is impossible to coordinate the actions of people without a deep understanding of their values, beliefs, and expressions” (p. 82).

To understand the role of cultural values in control and planning of the different societies, Hofstede (1980) identified that cultural beliefs, norms and values are the most important factors that shape the type of MCS in an organization. Based on the societal culture, organizations have to develop their own subculture which aims to create goal congruence among different individuals in the organization (Feldman, 1988). Therefore, as Ansari and Bell (1991) and Uddin (2009) argue, the MCS of an organization cannot be understood in isolation of its social setting in which the organization operates.

Even though culture is a social phenomenon which is very complex to understand (Hofstede, 1984), however, there are three types of cultural controls that are recognized in MCS literature; clan control (Ouchi, 1979), beliefs and value controls (Simons, 1995; Herath, 2007) and symbol-based controls (Tsamenyi et al., 2008). The concept of clan control has been developed by Ouchi (1979) and it indicates that individuals, in certain groups, are exposed to socialize each other to instill a set of values in them and develop a sense of belonging inside (Chua, Lim & Sia, 2009). The concept of clan control can informally emerge within an organization to form a kind of boundaries such as an organization section or division (Malmi & Brown 2008). In the anthropology, clan control may be a network based on homogeneous ideology, philosophy, or ancestry that creates a method of peer monitoring system (Ouchi, 1979). For instance, the informal relationship between managers and their employees is a form of clan controls. Such informal connections may produce a kind of solidarity among individuals, self-regulation, mutual trust among members and commitment to the work (Cook et al., 1997; Jones, 2000; Berry et al, 2009).
Beliefs and value control refers to “the explicit set of organizational definitions that senior managers communicate formally and reinforce systematically to provide basic values, purposes and direction for the organization” (Simons, 1995, p. 34). Even though this type of clan control is informal, however, it is a useful approach to easily communicate organizational information such as vision, mission, values and other strategies. Malmi and Brown (2008) view belief and value control as operating at three levels; employees’ selection and recruitment, socialization process and the alignment of employees’ behavior to the organization’s objectives.

Symbol-based control plays less effect on the organization’s operational culture. It refers to the physical expressions of the organizational environment such as the design of offices, dress codes of the key staff and promoting specific behavior of employees (Malmi & Brown, 2008).

These cultural control elements are considered the key factors that shape the design and implementation of an organization’s operation generally and MCS in particular (Ansari & Bell, 1991). To succeed with the technical and operational tasks, cultural control should first succeed (Chenhall, 2003).

2.5.2. Administrative controls

Administrative control tasks refer to the organizational structure and governance system. It is the control tasks that involve the administrative matters such as the design of organizational structure, setting responsibilities and defining governance mechanisms. In this proposed new dimensions, administrative control include the task of vision/mission, organizational structure, governance system and boards and the process of MCS change.

First, is the vision and mission statement which is the “overriding purpose of the organization in line with the values or expectations of stakeholders” (Ferreira & Otley, 2009, p. 268). According to Ferreira and Otley (2009) clear vision and mission statements create goal congruence among individuals as well as directing individuals’ actions towards organizational objectives (Malmi & Brown, 2008). Additionally, clear vision and mission statements may enable an organization to define its relationship with its stakeholders, such as customers, suppliers and the public at large (Chenhall, 2003). Similarly, as Ferreira and Otley (2009) view, the well-defined vision and mission statement certainly will affect the type of MCS in the organization. Although having vision/mission does not guarantee the success of MCS practices, it provides better guidelines to the management and employees and simplifies the communication process within the organization.

Second, refers to the organizational structure. Organizational structure plays an important role to determine individuals’ responsibilities and accountabilities in the organization (Abernethy & Brownel, 1997). Depending on the contingent factors, there is no an identical organizational structure that is applicable to all organizations at all time, but every organization adopts the structure that is applicable to its organizational needs and that complies with its social environment (Herath, 2007). As a result, every organization should design and implement the structure that enables it to achieve its ultimate goals. Organizational policies and procedures are part of the organizational control, which is considered the most critical part of organizational structure, as well as the processes and employees’ behavior that an organization wishes to achieve (Malmi & Brown, 2008).

Third, refers to the governance system that is used to determine the relationship between the agent (management) and the principal (stakeholders) of an organization. The governance system draws whether an
agent is undertaking his/her duty to the best interests of the principal. The organizational governance refers to how organizational boards and management committees direct and manage their activities and responsibilities both vertically and horizontally (Malmi & Brown, 2008). In other words, governance is a way to harmonize the different interests of the stakeholders and create formal relationship among different management lines and authorities, decision-making units and how these different divisions liaison their managerial tasks. To understand organization’s governance in the different social context, Tapsell and Woods, (2010) revealed that traditional governance theories could not sufficiently explain governance forms in the various socio-cultural contexts. This means that different societies may necessitate adopting different localized forms of governance that matches to its socio-political, economic and cultural contexts.

Forth, is the process of MCS change which refers to the possible changes that may occur in the MCS practices in a certain times. With the fact that an organization is an open social system, which interacts with its socio-cultural and economic factors, it should cooperate and be responsive to its surrounding environments. In response to the possible changes of market situation; technology, customer perceptions and employee attitude and morale, may also necessitate changing MCS practices to match with the organizational needs and circumstance. Ferreira and Otley (2009) point out that introducing new structure, approaches, technology, management procedures or new products and services may also make necessary to change and undertake the adjustment of certain MCS practices.

2.5.3. Process controls
Unlike the previous control factors which involved the structural and governance systems, this type of control mostly involves the operational activities and daily routines of an organization. Process control is an integrated group of activities that are employed to accomplish specific organizational goals, such as physical, people and material elements (Atkinson et al., 1997; Anthony & Govindarajan, 2007). Based on the literature of MCS, process control refers to those operational tasks used repeatedly for operational controls. According to Anthony and Govindarajan (2007), the control mechanisms of process control include planning, budgeting, performance measurement and compensation plans.

As the first operational task in an organization, planning is the “the conscious determination of courses of action designed to accomplish purposes” (Koontz, 1958, p. 48). For any organization, there are five major stakeholders to serve customers, employees, suppliers, owners, and the community (Atkinson et al., 1997). To achieve the needs of these customers, an organization should set standardized results (plan) that is in accordance with the ultimate goals (Atkinson et al., 1997). Planning enables the management to control employees’ behavior and align it with the organizational goals. Also planning represents a contract between an organization and what its stakeholders desire (Anthony & Govindarajan, 2007). Planning can be action plan (short term) or strategic plan (long term). An action plan refers to the issues of the near future such as twelve months or less, while strategic (long term) planning focuses on medium and long term future activities (Malmi & Brown, 2008).

Where there is planning budgets should also exist. Budgets refer to the tasks of forecasting the future financial performance of an organization to analyze its financial competence to implement its strategies and plans (Davila & Foster, 2007). In other words, budgeting tasks concern the accounting-based information that helps translate plans into measurable actions. As King, Clarkson and Wallace (2010) state, budgets can be used as the best instrument of MCS, because it can effectively influence employees’ behavior to translate organization’s goals into achievable actions. In MCS concept, there is budgeting and budgets. Budgeting refers to the process of budget preparation, while budgets are arithmetical expressions of the allocation of available financial resources to the different planned activities (Atkinson et al., 1997; Malmi & Brown, 2008). Empirically, the role of budgets in MCS was extensively researched (e.g. Fruiiticher et al., 2005; King et al., 2010; Libby & Lindsay, 2010; Frow et al., 2010). However, the findings of the empirical studies reflect the role of socio-cultural and economic situations of organizations studied. Basically, organizations use two types of budgets; operating budgets (sales, capital, production/service, labor and administrative) and financial budgets. Even though, budgeting and budgets are criticized for its rigidity, however, to the present day budgets serve as the most common performance measures to the extent that without budgets, performance measurement may not have any meaning. Therefore, budgets still seem to be a prerequisite to the efficiency of performance measurement.

Performance measurement (PM) is defined as “the financial or nonfinancial measures used at different levels in organizations to evaluate the success in achieving their objectives, key success factors, strategies and plans” (Otley, 1999). The purpose of PM is to fulfill the expectations of stakeholders through quantitatively measurable results. The common financial performance measures (FPM) that are used by many organizations include; the financial ratios; profitability, liquidity, return on investment, return on equity, residual income, net earnings, earnings per share and revenue growth that are used to assess the success of the organization’s
operation (Hoque, 2003; Halabi, Barrett & Dyt, 2010). Similarly, to complement the deficiency of FPM, nonfinancial measures have been developed to assess non-quantifiable aspects of an organization’s activities. The main nonfinancial measures are the economic value added, total quality management, productivity, customer satisfaction and market share (Otley, 1999). Recently, balanced scorecard (BSC) is considered as the most integrative performance measurement systems. Developed by Kaplan and Norton in 1990s, BSC was questioned as it failed to explain the informal aspects of the organizational operations specifically that which relates to the human behavior (Berry et al., 2009; Ferreira & Otley, 2009). BSC focuses on the financial measures while it ignores the regular changes of an organizations’ environment (Chenhall, 2005). Furthermore, BSC is criticized for its inflexibility in managing the incentive plans and reward as well as for its subjectivity in measuring intrinsic rewards of the employees (Berry et al., 2009).

Incentive plans and reward system is the thing that employee value, and hence motivates them to act in a specific way that is in the interest of the organization (Atkinson et al., 1997; Merchant & Otley, 2007). As Anthony & Govindarajan (2007) view, the main goal of incentive plans and reward system is to form goal congruence between organizations goals and employees interests. There are two types of motivating employees; extrinsic and intrinsic. Extrinsic motivation represents the quantifiable benefits that are provided to the employees through financial rewards (Stringer et al., 2011). Commonly, this type of incentive management is the collective rewards that are given to the employees such as profit sharing schemes, team-based incentives and gain-sharing plans. On the other hand, intrinsic motivation is the psychological satisfaction that individuals gain through unquantifiable approaches (Ferreira & Otley, 2009; Stringer et al., 2011). These unquantifiable approaches may include; recognition, fairness and equity, inclusiveness and praise of the employees (Ferreira & Otley, 2009). In the MCS literature, majority of the organization employ the extrinsic motivation methods while intrinsic approaches are hardly used by the studied organizations (Stringer et al., 2011).

The flow of the information and communication represents the binding engine that keeps the entire system of the organization together (Ferreira & Otley, 2009). Information flow systems and networks are the approaches used to make the information flow among different divisions, both horizontally and vertically, through formal and informal roots. The efficiency of the information determines the success of the other MCS practices (Herath, 2007). The importance of information sharing among individuals in the organizations is developed by Ferreira and Otley (2009) who considered it as an indispensable control mechanism. Ferreira and Otley (2009) view that information distribution system is a mechanism that motivates employees to behave in the best interest of the organization. Efficient MCS of information flow enables the organization to take proper corrective actions on time and encourages innovation and creativity (Ferreira & Otley, 2009). Additionally, according to Ferreira and Otley (2009), information flow depends on the technology infrastructure, accounting information systems, financial reports and the budgets control practices. Furthermore, information timeliness, accuracy, relevance and reliability may also be essential elements for information flow and distribution.

2.6. Conclusion

This paper reviews the different perspectives of MCS. After an analysis of the MCS literature, from the early works to the current MCS issues, new emerging insights have been identified. Based on the emerging concepts, a theoretical framework has been proposed to guide future researcher with wider insight of MCS practices in the different social settings.

Even though the development of the framework is its early stages, however, it incorporates the emerging control components with the previous conventional control factors. It is hoped that the incorporation of different control elements, both conventional and contemporary control factors will enable us to understand the role of social, political and economic factors on MCS design and use in the different environments. In this framework, control components are categorized into: cultural, administrative and process controls. The main purpose of the framework is to capture the major MCS areas with the consideration of internal and external, social, economic and cultural aspects of an organization’s activities. Similarly, the framework was intended to cope with socio-political, economic and cultural circumstances of the developing countries. Finally, it is perceived that this theoretical framework would be beneficial for the future researchers to broaden the focus of MCS functions to include both conventional and contemporary control elements as well as other emerging MCS themes that have explored by the recent MCS literature.

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