MANAGEMENT CONTROL SYSTEMS, CULTURE, AND UPPER ECHELONS – A SYSTEMATIC LITERATURE REVIEW ON THEIR INTERACTIONS

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Abstract

This systematic literature review of 99 empirical studies, between 1926 and 2016, synthesizes evidence on the interaction of management control systems (MCS) with both national culture and corporate culture. We cast our net widely by considering MCS as a package in relation to macro (national), meso (organizational) and micro culture (upper echelon theory). The literature reviewed suggests that evidence on the interaction of culture and MCS is highly fragmented, and only some authors find that culture matters for MCS. The main reason for these inconsistent findings is that studies investigating organizational MCS tend to focus only on one aspect of culture (macro, meso, or micro). This impairs a comprehensive understanding of the MCS-culture relationship. Our main insight is that culture affects MCS, provided that culture is considered as a multi-layered phenomenon that combines internal aspects of culture – e.g., upper echelon theory – with external aspects of culture, e.g., national culture. The contemporary literature mostly limits itself to discussing whether national culture matters for MCS. Hence, this focus is slightly misguided. Future studies should rather inquire which aspects of culture interacts with MCS across varying contexts.

Keywords: Management Accounting, Management Control Systems, Culture, Upper Echelon Theory, Budgeting, Activity-Based Costing, Balanced Scorecard

JEL Classification: M10, M41
DOI: 10.22495/cocv14i2c2p5

1. INTRODUCTION

In order to manage an organization, managers need to influence decision making and behavior of individuals within an organization. Generally, several mechanisms steer human behavior. Two quite prominent ones are management control systems (MCS) and culture. MCS can be defined as "systems, rules, practices, values and other activities management put in place in order to direct employees behaviour" (Malmi and Brown, 2008, pp. 290). As such, MCS support decision making and functions as a behavior modification mechanism for individuals within an organization (Birnberg and Snodgrass, 1988). At the same time, the phenomenon of culture is seen as a major force that guides individuals' decision making and behavior (Birnberg and Snodgrass, 1988, pp. 448). Therefore, MCS and culture could be regarded as both complementing and competing forces that shape human decision making and behavior. The interaction between MCS and culture is of importance to practitioners when designing MCS in order to achieve the desired results. In particular, it is of importance to multinational companies when implementing their domestic MCS overseas. Managers might need to redesign them, partly to establish a better fit with the different culture (Dalby et al., 2014; Harrison and McKinnon, 1999, p. 483), since MCS "which operate well in one national environment may work very differently in another national culture" (Otley, 2016, p. 54). This is consistent with contingency theory, which states that “particular features of an appropriate accounting system will depend upon the specific circumstances in which an organisation finds itself” (Otley, 1980, pp. 413). Hence, MCS and culture might compete or enforce each other in influencing behavior.

This conundrum has sparked a significant amount of research on the effect of culture and on the cross-cultural application of MCS (e.g. Shields, 1995; Harrison, 1992; Brewer, 1998; Harrison and McKinnon, 1999). Research on culture has primarily focused on national culture (Hofstede, 1980, 1991, 2010; Gray, 1988) and to some extent organizational culture (Dent, 1991; Goddard 1997a; Goddard, 1997b). Yet, there is no consensus on whether these aspects of culture have an effect on MCS (Chow et al, 1991, 1994, 1999b). Many empirical studies remain unclear in their definitions of culture. Most of them deal with national culture, but still, findings remain fragmented as studies focus on different dimensions of national culture (Harrison and McKinnon, 1999; Chenhall, 2003). Moreover, research has focused exclusively on the national value dimensions by Hofstede while ignoring other concepts of culture. This has lead researchers to call for further research on the interaction of MCS and culture from a holistic point of view (Harrison and McKinnon, 1999, pp.
2.1. National culture

Hofstede's work on national culture consists of six cultural value dimensions which describe the culture of a nation and how this affects the values of the members of the given nation (Hofstede, 1980, 1991; Hofstede et al, 2010). However, there has been "An almost total adoption of the... work of Geert Hofstede" (Harrison and McK immen, 1999, pp. 484) by management accounting researchers. The six dimensions identified by Hofstede are the following:

- **Power distance** addresses whether members of society accept an unequally distribution of power.
- **Individualism vs. collectivism** depicts whether society members are mostly concerned with themselves or with the group.
- **Uncertainty avoidance** relates to whether society members feel comfortable in unstructured situations.
- **Masculinity vs. femininity**, where masculinity indicates focus on high-achievements and work prevailing over family.
- **Masculinity** relates to a balance between family and work.
- **Long-term orientation** vs. **short-term orientation** addresses whether members are rather concerned with the past and the present, or the future.
- **Indulgence vs. restraint** is a measure of happiness related to whether social norms and control or human desires define society.

Hofstede has been widely criticized, with main critique points being that he equates nations with culture (Baskerville, 2003; Greer and Patel, 2000), and that the cultural dimensions do not distinguish between different levels of analysis (Harrison and McKimmie, 1999, pp. 496). For instance, the dimension of collectivism for the Japanese relates to the organization, while the Chinese relate to the family. This influences the types of MCS used. Whereas the Japanese have fewer controls than Americans do, these controls are as explicit to workers as the more bureaucratic controls present in the US (Birnberg and Snodgrass, 1988).

Finally, replication of Hofstede's original study has yielded inconclusive findings (e.g. Smith et al, 1996; Baskerville, 2003), and studies that have measured the cultural dimensions of their samples have found that the scores obtained do not match the ones found by Hofstede (e.g. Lau et al, 1997; Lau and Eggleton, 2004; Stammerjohan et al, 2015). Questionnaire surveys of IBM employees in several different countries (117,000 questionnaires for 66 countries) identified the original cultural dimensions. Issues with this approach are that all respondents were from one single company and had the same occupational basis. Hofstede assumes that by keeping these two components constant, the differences found are the result of national culture (McSweeney, 2002).

Though the cultural dimensions developed by Hofstede are widely used, the assumption that there are no differences for organizational and occupational culture might be flawed. As such, a definition of culture for use in this paper needs to encompass not only national culture but also organizational and - what Hofstede labeled - occupational culture.

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2 More detailed as well as descriptive analyses are available from the authors upon request.
2.2. Occupational culture and upper echelon theory

In relation to occupational culture, upper echelon theory is of relevance. Upper echelon theory proposes that experiences, values and personalities of firm executives greatly influence their interpretations of the situations they face and, in turn, affect their choices (Hambrick, 2007), for instance their perceptions of risk (Borisor and Lueg 2012; Janiak and Lueg, 2016; Lueg and Borisov 2014). "Management accounting and control systems can be seen as an organisational outcome…and can thus be expected to also be influenced by top-manager characteristics" (Hiebl, 2014, pp. 224). The organization is thus a reflection of its top managers (Hambrick and Mason, 1984), or put differently, the top executives partly shape the culture present in the organization (Berson et al, 2008).

Burkert and Lueg (2013) show how the educational background of the top management team (TMT) in business administration, especially of CFO’s, is found to be associated with more sophisticated value-based management. Hiebl (2014), similarly, finds the educational background of the CFO to be of importance, but that for CEOs, the results are fragmented. Similarly, Fiss and Zajac (2004) find evidence that the shift from one governance model to another may ultimately depend on the interests and power of actors that make decisions in the organization. The importance of the TMT and its effect on culture should thus be considered.

One important aspect of upper echelon theory is that it depends upon the extend of managerial discretion, so that if a great deal of managerial discretion exists then upper echelon theory is a good predictor of organizational outcomes (Crossland and Hambrick, 2011). This is relevant for the cultural dimension of individualism/collectivism, as well as for the cultural dimension of uncertainty avoidance, where upper echelon theory may have a significant influence on the culture of an organization in countries scoring highly on individualism and where there is low uncertainty avoidance. We may assume that Managers in these countries have more discretion in their choices and, as such, they may influence the organizational culture of the organization more easily.

A study by Crossland and Hambrick (2007) that finds that CEOs in US firms have a greater effect on firm performance than CEOs in Japan and Germany due to national culture illustrates this. Japan and Germany score high on collectivism, so executives in those countries are limited in their ability to take decisions that may affect the collective. Japan and Germany also score highly on uncertainty avoidance compared to the US, where a high score of uncertainty avoidance often connects with resistance to change (Crossland and Hambrick, 2007). We find additional support for the dimensions of collectivism/individualism and uncertainty avoidance being influential on the level of managerial discretion in Crossland and Hambrick (2011), but we find no support for the dimension of power distance.

Thus, upper echelon theory, which may be linked to what Hofstede named occupational culture, and the cultural dimensions of Hofstede may be somewhat related and should be considered in unison rather than separately as Hofstede did. Hiebl (2014, pp. 224) proposes that including the individual influence of top managers on the design of management accounting and control systems would help to create a more comprehensive picture of the antecedents of such systems than studying environmental and firm-level factors alone would. This reflects the choice of this paper where we look at both environmental factors, in the form of national culture, and the role of the TMT.

2.3. Organizational culture

Organizational culture can be defined as “the aggregation of the norms and values of the organization” (Birnberg, 2004, pp. 11), implying that organizations have separate cultures from the national culture surrounding it. Goddard (1997a) divides organizational culture into internal and external variables of influence. The external variable relates to national culture, while the internal variable consists of corporate culture and organizational climate. The corporate culture variable relates to how leaders influence the development of organizational culture, while the organizational climate variable looks at managers’ personal attributes. This is relevant for upper echelon theory which, in turn, influences the culture of an organization. Trompenaars and Hampden-Turner (1997), who link dimensions of national culture to preferences for specific forms of corporate culture, have also made the link between the external variable of national culture and organizational culture.

2.4. Defining culture for the purpose of this literature review

Culture thus consists of national culture, organizational culture and upper echelon theory as they all interact, and any definition of culture must encompass all aspects. The definition of culture used in this paper is the one by Riabi-Belkaoui (2004, pp. 381); "Culture, through its components, elements, and dimensions, dictates the organisational structure adopted, the micro-organisational behaviour, and the cognitive functioning of individuals in such a way as to ultimately affect their judgement/decision process when they are faced with an accounting…phenomenon." This definition changes the discussion of culture to be concerned with which aspects of culture will shape the behavior of people in the organization, organizational culture or national culture.

3. FINDINGS

3.1. Internal control and culture

The distinction between internal and external aspects of culture relates to three propositions by Berry et al. (2009, pp. 12) about culture and control. First, control can dominate culture, where managers can choose organizational culture. Second, culture can be equal to control, as it determines the norms
and cognitions that shape the organization; control also reconstitutes culture. Third, culture can dominate control, where norms, cognitions and modes of order shape control structures and procedures. These propositions relate to the interactions of MCS and culture. In relation to the discussion on culture, there is a connection between control dominating culture, and internal variables of culture such as cultural controls and upper echelon theory. Similarly, there is a relation between culture dominating control and the external variables of national culture. We discuss these cases in separate subsections.

3.1.1. When control dominates culture (in the form of cultural controls)

The dominance of MCS over culture entails that the internal aspects of culture, i.e. organizational culture and cultural controls, overrule external influences of culture such as national culture. As such, the MCS of multi-national firms would not attune to national culture. Van der Stede (2003), pp. 263) finds that management control and incentive systems “tend to be uniformly implemented within firms, rather than to reflect local business-unit conditions”, in support of control dominating culture. Similarly, Al Chen et al. (1997) find that Japanese subsidiaries in the US are mostly similar to domestic Japanese firms in their use of management accounting methods, reflecting Japanese values, which do not reflect US national values. Yee et al. (2008) also find a Japanese subsidiary located in Singapore to be using Japanese common budgeting practices. Similarly, O'Connor (1995) and O'Connor and Ekanayake (1998) find that foreign-owned subsidiaries in Singapore have a lower power distance organizational culture than their local counterparts, reflecting influences of their foreign parent-companies. These studies show how controls in subsidiaries, in other words, internal organizational culture, can overrule local national culture.

Soeters and Schreuder (1988) look at the interaction between national and organizational culture at the firm level in six accounting firms in the Netherlands. They find significant traces of US national culture in the organizational culture of the US firms’ branches in the Netherlands, with especially differences in levels of uncertainty avoidance and masculinity. The study highlights how the internal culture of the branches takes precedence over aspects of national Dutch culture. Another noteworthy finding is the ascription of part of the difference to the mechanism of self-selection by the employees, where the work values of the employees are oriented towards US culture and the value dimensions of the US. This shows how individuals, within the Dutch culture, differ in their value dimensions, lending support to some of the criticism directed at Hofstede. Pratt et al. (1993) extended the study to an Australian and British setting, with similar results for the British setting and inconclusive results for Australia. Chow et al. (2002) extend the two previous studies by extending it to a Taiwanese setting as they argue that the national culture of Taiwan is very different from the Netherlands, Britain and Australia, yet the results are similar.

3.1.2. When culture is equivalent to control

Unison between MCS and control would imply that neither national culture nor organizational culture would shape the culture of the organization, but rather the MCS themselves would be driving the culture. Dent (1991, pp. 728) finds that “...accounting can enter into organizational settings to constitute particular rationalities for organisational action; and in turn how this can lead to new patterns of organization, of authority and influence, new concepts of time and legitimate action”. Similarly, Busco and Scapens (2011) find that the introduction of Six-sigma changed the culture present in the organization significantly, illustrating how new accounting cultures become control.

3.1.3. When culture dominates control

Culture may also dominate MCS. Tsamenyi et al. (2008) find that national culture and social relations overrule MCS and make them less relevant in an Indonesian setting. Similarly, Wickramasinghe and Hopper (2005) find that attempts to impose conventional management accounting on an organization in Sri Lanka failed due to confrontations with the traditional local culture. This is similar to the study by Wickramasinghe et al. (2004) that shows how Japanese cost management was implemented in an organization in Sri Lanka but had to be discarded due to political pressure by employees that were dissatisfied due to a cultural misalignment. Efferin and Hopper (2007), similarly, look at how culture, ethnic differences, history, politics and commercial considerations shape management controls at a Chinese-Indonesian manufacturing company. Chow et al. (1999b) look at the effect of national culture on firms’ design of and employees’ preference for management controls in a Taiwanese setting. They find that Taiwanese culture had a stronger influence on the MCS than the original MCS of the US and the Japanese subsidiaries.

Yoshikawa (1994), similarly, claims that Japanese national culture has influenced the application of cost accounting and cost management in Japan. Granlund and Lukka (1998) propose that management accounting in Finland ties to national culture. Similarly, Efferin and Hartano (2015) and Senflechner and Hiebl (2015) find that the MCS in place, in an Indonesian organization, is negotiated and produced based on common cultural grounds of the owner and key employees, and that it is a reflection of the national culture. These later two studies are especially interesting as they not only show how national culture dominates MCS, but also show the importance of the TMT in driving the organizational culture, i.e. the importance of upper echelon theory.

Related to the three different propositions by Berry et al. (2009), we show that culture does influence MCS, but in one of three ways where each can take precedence. Control in the form of MCS
dominating culture is thus, through what Malmi and Brown (2008) label cultural controls, where individuals’ values align with those of the organizational culture and, as such, represent internal culture influencing MCS. Control can also constitute culture, when the MCS shape the culture within the organization. Finally, culture dominating control is when national culture overrules or influences MCS in place in the organization and, as such, represents external culture influencing MCS. This may relate to why the findings on the influence of culture are so fragmented, as most studies only examine the influence of national culture and neglect to look at other aspects such as the cultural controls within the organizations studied.

This raises the issue of which aspects of culture matter for specific aspects of the MCS. Sulaiman et al. (2004) examine the use of contemporary management accounting practices in Singapore, Malaysia, India and China and find that the use of such tools is lacking in all four countries. All the countries examined primarily use traditional management accounting practices rather than contemporary ones such as ABC, target costing and the BSC, and Sulaiman et al. (2004) posits culture as one of the factors influencing this decision.

3.1.4. Budgeting as a prominent topic

One of the most prominent cybernetic controls is budgeting (Lueg and Lu, 2012, 2013; Malmi and Brown, 2008). Shields and Young (1993, p. 277) claim that participative budgeting may be "an antecedent to reinforce a particular culture". Superiors and subordinates can communicate beliefs, values and goals through participative budgeting, and as such, it can be an effective way of transmitting and reinforcing a particular culture. This suggests that the influence of culture on participative budgeting may go both ways, so that participative budgeting may reinforce the cultural controls in place in the organization, but also that the national culture of individuals may affect the use of participative budgeting.

Participative budgeting is often used in performance evaluation (Brownell, 1982; Brownell and Hirst, 1986; Brownell and Dunk, 1991), where a three-way interaction between participation, emphasis and task uncertainty has been found to affect job related tension. The influence of national culture on these findings and whether the results can be transferred cross-culturally have been examined extensively (Frucot and Shearon, 1991; Harrison, 1992, 1993). The claim by Harrison (1992) that countries with high power distance and low individualism—as well as countries with low power distance and high individualism—will generate the same results for participation, as proposed by Brownell and Hirst (1986), is significant. More specifically, participation has the same effect on a low power distance/high individualism culture (Australia) as on a high power distance/low individualism culture (Singapore). The findings of Harrison are important as 47 of the 50 countries examined by Hofstede exhibit these combinations (Harrison, 1992, pp. 13), and because it shows the effect of national culture. Lau et al. (1995) support the findings in different industries. Lau et al. (1997), however, caution the use of the framework by Harrison (1992), as they find that managers perform better under high budget emphasis, regardless of the effect of individualism. Similarly, Lau and Buckland (2000) find the three-way interaction to hold in a Norwegian setting for levels of high participation. However, for low participation their results are inconclusive due to low participation not being very common in a Norwegian culture. France does not fit into the cultural dimensions framework by Harrison (1992), as there is high power distance and high individualism. Lau and Caby (2010) examine participative budgeting in France and find support for the three way interaction between budget participation, budget emphasis and task difficulty. However, they do find that the amount of participation is much lower than other studies, which they claim is due to a general low participation in French culture. Similar to Lau et al. (1997), they caution on relying too much on the framework by Harrison (1992), as they find the interaction effect despite the different cultural dimensions. Iriyadi and Gurd (1998) replicate the studies by Harrison (1992, 1993) in an Indonesian setting but do not find participation to influence the budgeting process, a result that differs from the findings of Harrison. Similarly, Otley and Pollanen (2000) replicate the studies of Brownell (1982), Brownell and Hirst (1986), Dunk (1989), Brownell and Dunk (1991) as well as Harrison (1992) and find mixed results in all cases, though they do find that there is a three-way interaction.

O’Conner (1995) only looks at the dimension of power distance and finds that it moderates the usefulness of participation in budget setting and performance evaluation. Similarly, Stammerjohan et al. (2015) find that there is a correlation between participation and performance for both high and low-power distance samples, showing the effect of power distance on the three-way interaction.

Tsu (2001) takes a different approach and looks at the interaction effect of MCS and budget participation on managerial performance in an Asian versus a Western setting. Rather than choosing two different countries, she chooses Caucasian managers and Chinese managers in Hong Kong and focus on power distance, collectivism and long-term orientation. Chinese managers, exhibiting high levels of participation, experience negative performance as the Chinese feel that allowing subordinates to participate in budgeting would run counter to expectations of Chinese autocratic leadership styles. For the Caucasian managers, she finds that participation has a positive effect on performance.

Power distance has also been found to influence the level of budgetary slack (Lau and Eggleton, 2004). Low power distance is associated with high budget emphasis, combined with high information asymmetry. This leads to low propensity to create slack. However, if information asymmetry is low, propensity to create slack is high. Low budget emphasis and high information asymmetry are, similarly, likely to result in high slack. For high power distance, the result is similar for high budget emphasis. Yet, for low budget emphasis, the result differs with high information
asymmetry. This leads to lower propensity to create slack.

The literature review by Dunk and Nouri (1998) looks at antecedents to budgetary slack, where three variables are relevant in relation to culture. If employees are risk-averse, they are more likely to create budgetary slack, which relates to the cultural dimension of uncertainty avoidance. Similarly, a highly ethical organizational culture is, similarly, likely to result in less slack, which may links to national culture. Curtis et al. (2012) show that power distance, country of origin, and gender influence ethical decision making. Finally, individuals with power within the organization are more likely to create budgetary slack. This relates to power distance. However, it is also relevant for upper echelon theory, as it shows how the TMT is able to shape aspects of MCS.

Yet, there are also studies on budgeting that claim that national culture has little or no influence on budgeting, with Goddard (1997b) finding that organizational culture has a bigger influence than national culture. Similarly, Goddard (1997a) claims that financial control systems have to be compatible with the organizational culture of the organization in order to be effective, highlighting the importance of cultural controls. O'Connor and Ekanayake (1998) highlight three reasons for differing results regarding cross-cultural studies on budgeting; the influence of multiple cultural dimensions, the level of analysis, and comparisons of means used to test hypotheses.

3.1.5. Activity management as a prominent topic

Activity management is the effective and consistent organization of a strategic business unit’s activities in order to use its resources in the best possible way to achieve its objectives (Gosselin, 1997, pp. 106). It is synonymous with a cybernetic control. Gosselin classifies activity management (AM) into three basic categories; activity analysis, activity cost analysis and activity-based costing (ABC). He finds that organizational structure plays an important role in the selection of the level of AM, where centralized top-down organizations prefer to adopt ABC, while organizations with a lower focus on a top-down approach prefer the other levels of AM. Similarly, behavioral and organizational factors often have a significant effect on the success of ABC implementation (Shields, 1995). Malmi (1997, p. 475) finds that “…organisational culture...is worthy of consideration in explaining resistance to ABC, and ABC failure”, which shows the importance of culture for AM.

Baird et al. (2004, 2007) find that top management support and the link to quality initiatives are the two organizational factors that are associated with success, while the cultural factor of outcome orientation is associated with success for each level of AM. The findings on top management support also mirror the findings of Shields (1995) who claims that it is an important variable for successfully implementing ABC. In relation to upper echelon theory, it stresses the importance of top management support, echoing the findings of Fiss and Zajac (2004) and Burkert and Lueg, (2013), as they show that the TMT has the power to decide on the adoption as well as the customizing of management practices to personal characteristics and perceptions.

Zhang et al. (2015) look at organizational culture, structure, and its effect on the success of implementing ABC. They find that a formalized organizational structure and outcome orientation affect the success of ABC implementation, but that centralization does not matter. Liu and Fun (2007), similarly, find that top management support, as well as a top-down approach, are essential to the successful implementation of ABC in China. They resonate prediction 1 of Brewer, as China has a high power distance score and, as such, ABC should be easier to implement with a top-down approach.

3.2. Hybrid measurement systems: long range versus action planning

One of the most popular hybrid measurement systems is the Balanced Scorecard (BSC) (Jakobsen and Lueg, 2012, 2014; Lueg, 2015; Lueg and Nørreklit 2012). Carmona et al. (2011) find that subjects from an individualistic culture respond differently to the BSC than subjects from a collectivist culture, with individualistic cultures putting more emphasis on the financial aspect of the BSC, and the collectivist cultures putting more emphasis on the long-term perspective. Similarly, Modell (2012) claims that the BSC represents an individualistic ideology, reflecting the managerial styles of the US. For planning, Chan (1998) finds that the dimension of long vs short-term orientation influences the negotiation outcomes of transfer prices and thus planning controls.
3.3. Reward and compensation

Several researchers have examined the influence of national culture on reward and compensation for both executives and employees. Chow et al. (2001) find that the dimensions of collectivism/individualism and power distance influence the acceptance of high stretch performance standards, with the Chinese more readily accepting imposed high stretch performance standards than US-nationals, and more readily accepting autocratic management. Based on a US and Taiwanese sample, Awasthi et al. (2001) find that the cultural dimensions of individualism/collectivism and power distance can modify employees’ decisions and satisfaction with imposed performance evaluation and rewards aimed at modifying work-related behavior. They also find that US nationals have significantly lower satisfaction under imposed performance evaluation and reward structures, showing the influence of power distance but also individualism/collectivism on the reward and compensation aspect of MCS.

The study by Awasthi et al. (1998) shows the effect of national culture on performance measures. They find that the US subjects select more team-based performance measures when they perceive a higher level of task interdependence. This is because they are aware of their own and their teammates’ individualistic tendencies and seek to compensate for them by restricting individualistic behavior. This finding is very important as it goes against the expectations based on the cultural dimension of individualism. It suggests that national culture matters, but can be negated through awareness. This study is very significant in relation to the discussion, undertaken in this paper, regarding how control can dominate culture in the form of cultural controls, as that is, essentially, what the participants chose in order to negate national culture. The study is further of importance to upper echelon theory, as the sample in this study consists of MBA students: Burkert and Luig (2013) have previously shown that individuals with a business oriented educational background have a positive impact on the level of TMT value-based management sophistication.

Chow et al (1998) find that the dimensions of collectivism and uncertainty avoidance influence the upward communication of private information under different pay schemes. In the absence of face-to-face interaction, individuals from collectivist/high uncertainty avoidance cultures will make smaller misrepresentations than will individuals from high individualism/low uncertainty cultures.

Harrison et al. (1999) look at a cross-cultural investigation of managers’ project evaluation decisions in a US and Taiwanese setting. They find that when the participants have private information and the potential for personal gain, both US and Chinese subjects are inclined to continue with an unprofitable project, though the Chinese are less inclined. These findings reflect the cultural dimensions of individualism/collectivism and the long/short term orientation accounting for the differences. Similarly, Salter and Sharp (2001) find that a small difference in individualism matters, as the Americans in their study were more likely to escalate commitment than the Canadians were. This is because the rewards for managers for continuing the project were substantially larger than if it was discontinued.

3.4. Administrative controls

Administrative controls are synonymous with policies and procedures. National culture has an influence on administrative controls. Harrison et al. (1994) examine the influence of national culture on organizational design and planning controls. For the US and Australia, organizational design has a greater emphasis on decentralization, responsibility centers, and quantitative and analytical techniques in planning and control. This reflects individualism, low power distance and a short-term orientation. For Singapore and Hong Kong, there is a greater emphasis on long-term planning and on group-centered decision making. This reflects collectivism, high-power distance and a long-term orientation. These conditions imply greater managerial discretion for the US and Australia, and as such, upper echelon theory would have greater impact on the culture within these organizations.

4. CONCLUDING DISCUSSION

Figure 1 categorizes our main findings on the most relevant of the 99 identified studies. This categorization corresponds to the two perspectives of national culture (incl. upper echelons) and selected MCS.

4.1. Contributions to theory

This paper addresses culture from a broad perspective by combining internal aspects (organizational culture and upper echelon theory) with the external aspect (national culture), responding to the restricted definition of culture in many empirical studies that primarily deal with national culture. At the existing state of knowledge on MCS and culture, “...it proves almost impossible to generalize about even the major effect of (national) culture on MCS design and use”, and it “is likely that organisational culture will also have a significant influence on attitudes and behaviour within an organisation” (Otley, 2016, p. 51).

Our review of the empirical literature merely suggests that culture dominates MCS, but not in the exact same way that Berry et al. (2009) conjecture. Rather, there is a tendency of culture dominating control in situations where national culture influences the MCS. Similarly, controls dominate culture in situations where organizational aspects of culture influences the MCS such as the cultural controls proposed by Malmi and Brown (2008) and upper echelon theory. As such, this review demonstrates that taking a more holistic approach to culture will be beneficial, as the dimensions of national culture interact with upper echelon theory as well as organizational culture. As such, it corresponds to what Harrison and McKinno (1999) suggest, namely that “...we may have reached another turning point at which we must reconsider the way in which we approach culture in MCS research” (pp. 502).
There is an ongoing debate about whether MCS should be seen as a package or whether the separate parts can be examined separately (Malmi and Brown, 2008; Ferreira and Otley, 2009; Grabner and Moers, 2013). This paper contributes to this discussion as it shows how the elements of the MCS link through culture, and as such, must be seen as a package.

Figure 1. Interaction of selected MCS with national culture and upper echelon theory

4.2. Contributions to practice

Practitioners need to be aware of how culture might influence MCS, as they need to take into consideration the aspects of national culture and upper echelon theory. National culture influences preferences and implementation of AM, the BSC, organizational design, participative budgeting and budgetary slack. Practitioners must also keep in mind that upper echelon theory is more likely to be relevant under conditions of high individualism and low uncertainty avoidance. It is important that the cultural controls in place in the organization can negate other influences of culture through practices such as the hiring process (e.g. Soeters and Schreuder, 1988), which may be a useful way to avoid friction with different aspects of culture.
4.3. Limitations

This review is subject to several limitations. First, we limit ourselves to journals found in the ABS guide, which has been subject to some criticism (Tourish and Willmott, 2015). Second, this review focuses only on MCS and disregards other aspects of accounting. Future research could investigate how culture interacts with other accounting practices, such as intellectual capital (Lueg et al., 2012), CSR and sustainability (Lueg et al. 2015) or integrated reporting (Lueg et al., 2015; Velte und Stavinoga, 2016).

4.4. Future research

Several opportunities for future research arise from this literature review. First, little research has been done on which of the cultural dimensions of Hofstede influence the managerial discretion managers have. There is support for individualism and low uncertainty avoidance having an effect. However, the other dimensions need further examination, as well. Crossland and Hambrick (2011) find that power distance does not have an influence, but this should be tested further, as it has been shown that managerial support is often of importance when implementing various MCS, and power distance may have an influence on this level of support. Second, future studies should also consider including qualitative methods as well as more TMT-characteristics. The influence of masculinity/femininity on the TMT should be examined as it has been found that male CEOs and CFOs are more risk seeking than their female counterparts (Huang and Kisgen, 2013). However, future studies utilizing Hofstede must include all the cultural dimensions. Third, another viable option for future research is an investigation of the interaction between the long/short term orientation and long-range/action planning according to the Malmi and Brown (2008) framework. Wang and Hunton (2011) have examined the effect of the cultural time orientation on the interaction between the budget horizon and employees satisfaction with participative budgeting. They find that the two must be congruent. Since their article has been retracted, it provides an excellent starting point for future research. Fourth, the propositions by Brewer (1998), on how international cultural diversity may affect implementation of AM, have been given relatively little attention, which should be addressed in future research. In addition, the link between the TMT and the implementation of AM would be a viable addition to the propositions. Fifth, for participative budgeting, the three-way interaction between budget emphasis, participation and task uncertainty affecting job-related tension is a viable topic for further research as there is agreement on the interaction effect, but disagreement on how they relate (Otley and Pollanen, 2000). Sixth, the few studies encountered on family businesses could indicate that the owners shape the culture of the organization, and that this often overrules formal MCS. There may be a viable research opportunity to link this with upper echelon theory to examine whether the MCS of family businesses reflect top manager characteristics. Researchers may turn to the review of MCS in family businesses by Sentflechner and Hiebl (2015) for inspiration. Seventh, external consultants also shape MCS through advisory. This review has excluded this external type of organizational culture but it constitutes an interesting branch of research (Canato and Giangreco, 2012; Lueg 2009, 2010). Eighth, some studies have developed constructs for culture that are supposedly created through MCS, such as a value-based culture (Homburg and Pfessler; Lueg 2008). Future research could look into the cause-and-effect of the MCS and these specific cultures. Ninth, the primary focus in this review has been on two of the predictions by Berry et al. (2009). We have only given limited attention to the second proposition, which states that control is equal to culture. Recent papers such as the one by Mikes and Morhart (2016) as well as the editorial by Jeacle and Miller (2016) find that MCS shape popular culture and may fall under this proposition, and as such, this area would make for an interesting future research topic.

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