MODELING THE ORGANIZATIONAL CULTURE, MANAGEMENT CONTROL SYSTEMS AND PERFORMANCE AMONG MALAYSIAN LOCAL AUTHORITIES

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Abstract
The objective of this study is to examine the relationship between organizational culture, management control systems and performance within Malaysian local authorities. A research instrument was developed and self-administered to 899 head of departments in the local authorities of Peninsular Malaysia. Out of the 899 questionnaires distributed, 372 were returned, which resulted in 335 usable responses that were used for further analysis. The findings of the study showed that the organizational culture significantly affects the management control systems and performance. The relationships between organizational culture and performance, through the management control systems were also reported to be significant. Therefore, this study supported the premise of the contingency theory, which holds that organizational culture can influence the practices of management control systems, and, eventually affects the organizational performance. The results also generally support the hypothesis that management control systems serve as important mediators in the relationship between organizational culture and performance.

Keywords: organizational culture, management control systems, performance.

Introduction
In order to improve the performance of the local authorities, the Malaysian government launched several performance measurement indicators, such as key performance indicators, star rating systems and key result areas. All these performance indicators are supposed to be beneficial in various aspects, such as shortening service delivery times, increasing customer satisfaction, and improving service quality (Abdul Khalid, 2010). However, the performance
of Malaysian local authorities is subject to criticism and complaints due to the failure to deliver good services to the public (Ibrahim & Abd Karim, 2004).

In addition, the lack of accountability and good governance, as well as poor financial discipline within the local authorities are becoming hot topics in Malaysia (see for example Tooley, Hooks, and Norida (2010a); Tooley, Hooks, and Norida (2010b); Tooley, Hooks, and Norida (2012); Abdul Khalid (2010); and Salleh and Abd Khalid (2011)). This is because the public are more aware of the roles of local authorities as service providers in delivering efficient services (Hazman Shah & Maniam, 2008). In fact, the performance of local authorities is affected by the citizen dissatisfaction towards the public service delivery (Abdullah & Kalianan, 2008), as well as dissatisfaction with the lack of maintenance management for the public infrastructure (Adnan, Fauzi, Rahmat & Supardi, 2014). The criticism and dissatisfaction with the service delivery of Malaysian local authorities by the public has become worse since the public have been requested to report on the performance of local authorities truthfully (Tooley et al., 2012). Kroll and Proeller (2013) suggested that in order to monitor the controlling systems in an organization, the performance information must be reported.

Furthermore, Ilias et al. (2016) provide evidence that the performance of Malaysian local authorities still receives many complaints from the public even though several performance indicator mechanisms have been implemented. The government initiatives have shown how serious the Malaysian government is about managing the performance of the public sector. However, if the government is serious about the performance management system, why do the local authorities under observations have different monitoring systems and therefore, lead to the different performance level (Ilias et al., 2016)?

The above mentioned issues were caused by lack of monitoring and supervision control. Without good monitoring and supervision control, the management of organization may be disorganized since it is one of the most important issues in management (Armesh, Salarzehi & Kord, 2010). That’s the reason why most of previous studies (i.e. Chenhall, 2003, 2007; Flamholtz, 1983; Cuguero-Escofet & Rosanas, 2013; Mangia et al., 2013; Marques, Ribeiro, & Scapens, 2011) suggest the use of management control systems as a tool for controlling the administration tasks. This is because managers need criteria to determine how well they perform tasks and that they have to control their performance. In this case, measuring performance is an important concept in controlling.

Therefore, the use of management control systems will help managers to find information and ensure the behaviours of employees are consistent with organizational objectives. But, in the case of Malaysian local authorities, they are lacking of monitoring and controlling. That is why such issues (i.e. poor financial discipline, and citizen dissatisfaction towards the public service delivery) exist. Given this scenario, it is crucial to conduct a study of the management control systems in Malaysian local authorities to determine how far they could help reduce these particular issues within the Malaysian local authorities.

In addition, the successful implementation of management control systems in Malaysian local authorities is contingent upon the culture within the organization, due to the fact that if the people have values or beliefs that make them resist the control systems, such implementation of management control systems might be unsuccessful (Flamholtz, 1983). Based on the initial observations by the researcher, it was found that employee commitment towards the internal control system (for example, the internal monitoring process) is lacking, which, has led to
unsatisfactory quality of service. Most of the employees focus on performing their personal tasks in isolation, without considering the need to fulfil the necessities of the public.

**Literature Review and Hypotheses Development**

**Organizational Culture and Management Control Systems**

The framework of management control systems from Merchant (1985), which was developed from Ouchi’s terminology (Ouchi, 1979), is one of the well-known frameworks that provide a link between the control and culture. Considering the management control perspective, the framework concerns how people in the organization can be motivated to follow the organizational interests rather than that of others. By relabeling Ouchi’s terms of management control systems, Merchant (1985) categorizes the types of control into result, action, and personnel or cultural in order to relate it to the management control issues in the organization.

While the result control is defined as the outputs that are expected from the employees in which the achievement of the results is reinforced by rewards, the action control evaluates the means to the end and not the result in itself. The action control prohibits undesirable behaviour and therefore derives the desired employees’ behaviour from plans (pre-action review), and then monitors the behaviour by direct observation or formal control (for example, through the action of accountability). In addition, Merchant (1985) defined the personnel or cultural control as a process of recruitment, training, and the promotion of norms to reinforce employee self-control. While the personnel control is classified as input control since it leads employees to design the desired tasks satisfactorily on their own, the cultural control will shape the organizational norms. As Merchant and Van der Stede (2007) claimed, the cultural control exists to shape the organizational behavioural norms and to encourage employees to monitor and influence one another’s behaviour. That is the reason why culture is seen to be an input control. Having organizational members that work with the same norms ensures that they work in the best interests of the organization and that they will monitor one another. Thus, an important contribution of Merchant and Van der Stede (2007) is that they emphasize culture in the management control terminology.

In investigating the relationship between culture and management control systems, several studies have been conducted by previous researchers. Among these is a study of the relationship between organizational culture and budgetary practices, which was documented by Goddard (1997a, 1997b). Data were collected from the managers of three local authorities; one was in the United Kingdom and two were in Canada. The study only selected large firms as the sample since they were more likely to have a formal control system. The study found that corporate culture and hierarchical culture had a major influence on the budgetary system practices compared to the professional culture.

Specifically, Goddard's findings suggested that managers working in a bureaucratic organizational culture perceived high levels of participation, high hierarchical control, high support for the managerial role, and that budgetary practice will be time consuming. This is because of the dominance of mechanistic control with the exception being budget participation. On the other hand, managers working in a socially oriented or caring culture perceive the opposite. Managers in a task-oriented culture perceived high levels of participation, high hierarchical control, high support for managerial role and found budgetary practice time consuming where the financial control system was perceived to assist the achievement of tasks.
Goddard (1997b) emphasized the importance of an appropriate organizational culture in the design and operation of financial control systems. This is consistent with the previous hypothesis of Flamholtz (1983), that when a financial control system is incompatible with organizational culture, it will meet resistance and eventually fail. Importantly, Goddard (1997a) indicated an overall finding of two sub-cultures: the most dominant is labelled the 'humanist' culture, which is the values of public service management and is concerned with the social aspects of the organization; and the 'managerialist' culture, which focuses on the values of private sector attitudes and practices. The cultural differences highlight the connection of the traditional public sector bureaucrat with the new local government manager. The organizational culture is also found to influence the informal management control systems, such as communication. Anaeto (2010) claimed that when the organizational culture is well managed, then effective communication can be enhanced, and when effective communication is applied, the organization’s goals and objectives become achievable.

Management Control Systems and Performance

In the management control systems literature, a number of studies suggested a positive relationship between management control systems and performance (Herath, 2007; Ittner & Larcker, 1997, 2003). Management control systems are used by management to achieve the desired goals and to ensure that the activities or organization are functioning in accordance with the organizational policies. It is also a process by which managers influence other members of the organization to implement the organization’s strategies in order to achieve the goals and objectives (Anthony & Govindarajan, 2007) by encompassing both financial and non-financial performance measures, which, in turn, might affect the organizational performance. In addition, Chenhall (2003) characterized management control systems as a broader term that covers management accounting systems in achieving goals, and as a tool that provides external and internal information to assist managerial decision-making.

All of these descriptions imply that management control systems are a tool that are used in decision-making and managerial action processes. For many researchers and scholars, management control systems are part of the performance management process (Anthony & Govindarajan, 2007; Chenhall, 2003; Chenhall & Euske, 2007) that readily lends itself to real-world applications of the management process as it leads to achieving the goals and objectives of the organization. This applied control process incorporates performance management techniques to describe and predict outcomes based on management experience.

In addition, it has been proven that performance management would affect the performance of both private and public sector organizations (Chenhall & Euske, 2007; Ittner & Larcker, 1997; Verbeeten, 2008). This is consistent with Otley (1999) who state that the organization must organize its performance management properly to ensure the management control systems could be developed successfully in the process of defining goals, selecting strategies, allocating resources, and measuring and rewarding performance in order to obtain better organizational results.

An increasing number of profit and non-profit organizations implementing management control systems (i.e. Abernethy, Bouwens, & Lent, 2010; Simons, 1990; Triantafylli & Ballas, 2010; Tsamenyi, Sahadev, & Qiao, 2011; Verbeeten, 2008) have proven the importance of the
systems in improving organizational performance. However, there is a lack of empirical evidence concerning how the management control systems affect the performance of local authorities (Batac & Carassus, 2009). Even though there are some previous studies concerning the performance of local authorities (Boyne, 2002; Taylor & Godfrey, 2003; Wisniewski & Olafsson, 2004; Wisniewski & Stewart, 2004) most only focus on performance measurement methods, such as the use of balanced scorecard and performance indicators. The application of management control systems and their effect on performance are rarely discussed in local authorities, especially in the Malaysian environment (Abdul Khalid, 2010).

Organizational Culture and Performance

According to Yakubu (1997), one of the relevant determinants of organizational performance is employee behaviour. This is because the employees’ behaviour is determined by several factors, such as their family background, beliefs and religion, values, attitudes and perceptions of their work, norms and collectivism versus individualism. Aluko (2003) extended the ideology of Yakubu (1997), by studying the impact of culture on organizational performance in textile firms in Nigeria. He identified the factors that might determine employee behaviour in those textile firms. The results of his study show that among the determinants of the employee behaviour are positive work values and attitudes toward tasks, low lateness for work and absenteeism, and high level of commitment to work. The study found that the concern that employees show about the problems of their fellows has a significant relationship to the organizational performance. This provides the evidence that collectivism (i.e., people expect others in the same group as them to look after them and protect them) is significantly related to organizational performance. Aluko (2003) also concluded, that organizations that could satisfy the owners, employees, and customers, would have a better cultural environment that would be suitable for their operations, which, in return, might influence their performance.

Furthermore, corporate personnel are increasingly of the view that the cultural values prevailing in an organization are very essential for the performance of an organization (Booth and Hamer, 2009). The way business is managed in an organization is becoming so crucial that organizations are realizing the need to give more attention to the welfare of their employees so that they can in turn create a welcoming atmosphere and good relationship with the ever needful customers. Organizational culture has been defined by scholars as the values that are generally displayed or upheld by an organization. These values, it is argued, could emanate from the founders of the organization and become embedded in the regulatory structure and practice of the organization (Booth and Hamer, 2009).

Accordingly, as cited by Shahzad, Luqman, Khan, and Shabbir (2012), most of scholars and academia suggest that a strong organizational culture is very important for each organization because of three important functions. Firstly, the organizational culture is extremely fixed with the social control, which may cause it to influence the employee’s decisions and behaviour. Secondly, organizational culture works as the social glue to bond the employees together and make them feel a strong part of the corporate experience, which is useful to attract new staff and retain the best performers; and, lastly, organizational culture is very useful to assist the sense making process, as it helps the employees to understand the organizational events and objectives, which enhances the efficiency and effectiveness of the employees.
The study by Samad, Abdullah, and Ahmed (2013), also found that four components — involvement, consistency, adaptation, and mission — of the organizational culture are crucial in improving the performance of the organization. Among these four components, involvement was found to be the most important component in influencing the organizational performance.

Therefore, the following hypotheses are suggested for testing in the study:

- **H₁**: There is a relationship between organizational culture and management control systems.
- **H₂**: There is a relationship between management control systems and performance.
- **H₃**: There is a relationship between organizational culture and performance.
- **H₄**: The relationship between organizational culture and performance is mediated by management control systems.

The literature also supports the formulation of the theoretical framework as shown in Figure 1:

![Theoretical framework](image)

**Figure 1: Theoretical framework**

**Methodology**

The unit of analysis of the study is all the departments of city councils, municipal councils, and district councils in Peninsular Malaysia. The respondents are heads of department attached to the local authorities. Currently, there are 149 local authorities in Malaysia, including in the state of Sabah and Sarawak. Out of the 149 local authorities, 99 are located in Peninsular Malaysia consisting of eight city councils, 34 municipal councils, and 57 district councils that are governed by the Local Government Act 1976. From the 99 local authorities in Peninsular Malaysia, there are 899 departments as summarized in Table 1.

<table>
<thead>
<tr>
<th>Type of local authority</th>
<th>Number of local authorities</th>
<th>Number of departments</th>
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<tbody>
<tr>
<td>City council</td>
<td>8</td>
<td>97</td>
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<tr>
<td>Municipal council</td>
<td>34</td>
<td>336</td>
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<td>District council</td>
<td>57</td>
<td>466</td>
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<td><strong>Total</strong></td>
<td><strong>99</strong></td>
<td><strong>899</strong></td>
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It was necessary to ensure that the sample was as representative as possible of the population from which it was drawn. Additionally, because the researcher was interested in the organizational culture and management control systems’ implementation in local authorities within Peninsular Malaysia, not just those in city councils or municipal councils, it was essential that the sample include all the departments from each type of local authority. In line with the above discussions and also by taking into consideration the probability of non-response, the main concern of the researcher was to achieve a minimum of 300 usable responses. Therefore, the sample size of 899 was determined for this study by using the total number of departments in the local authorities within Peninsular Malaysia. A questionnaire-based survey was carried out to look for responses from the 899 heads of department. Out of the 899 questionnaires distributed, 372 were returned, which resulted in 335 usable responses that were used for further analysis.

Result and Discussion

Following the data collections, a series of confirmatory factor analyses (CFA) was conducted using the analysis of moment structures (AMOS) to examine the reliability and validity of the measurement model, as well as to improve the model fit. The results of this analysis revealed that most of the loadings of the proposed measures achieved satisfactory level. The results of the measurement model also showed a very good fit of the model with the $\chi^2(413, N=235) = 631.192$, $p < 0.05$, $\chi^2/df = 1.528$, GFI = .861, AGFI = .833, NFI = .903, TLI = .955, CFI = .960, and RMSEA = .048.
### Table 2: Results of CFA for Measurement Model

<table>
<thead>
<tr>
<th>Constructs / Items</th>
<th>Factor Loading</th>
<th>Critical Ratio (t-values)</th>
<th>Composite Reliability&lt;sup&gt;a&lt;/sup&gt;</th>
<th>R&lt;sup&gt;2&lt;/sup&gt;</th>
<th>AVE&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Cronbach’s Alpha</th>
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Note:

<sup>a</sup>Composite reliability = ([square of the summation of the factor loadings]) / ([square of the summation of the factor loadings] + [square of the summation of the error variances])

<sup>b</sup>AVE = ([summation of the square of the factor loadings]) / ([summation of the square of the factor loadings] + [summation of the error variances])

Based on the results in Table 2, it shows that the Cronbach’s Alpha coefficients for all the variables exceeded the .70 cut-off level (Hair et al., 2010), thereby indicating that there was a good level of internal consistency among the constructs, and thus indicates strong reliability.
In addition, Table 2 also presents the convergent validity results, which summarize the standardised loadings, critical ratio, squared multiple correlations, composite reliability and AVE of each item from the measurement model. The value of the factor loadings for each item was above the cut-off value of .70 for the new measurement scales, as suggested by Hair et al. (2010), with all the critical ratios being greater than ±1.96 at the .05 significance level (Anderson & Gerbing, 1988). Furthermore, the values for the squared multiple correlations or $R^2$ were also above the suggested value of .30 (Hair et al., 2010). According to Hair et al. (2010), a composite reliability of .70 or above and AVE of more than .50 are considered to be acceptable. As can be seen from Table 2, all the composite reliabilities were more than .90 and above the threshold values of .50 (Fornell & Larcker, 1981) and .60 (Bagozzi & Yi, 1988). Moreover, the AVE ranged from .62 to .77, which also exceeded the .50 rule of thumb (Bagozzi & Yi, 1988; Fornell & Larcker, 1981). Therefore, based on these results, it can be concluded that convergent validity has been established.

Table 3 presents the results of 4 hypotheses generated in the study. The structural coefficient between organizational culture and management control systems ($H_1$) was 0.26, while, between organizational culture and performance ($H_3$) was 0.20. The two hypotheses ($H_1$, and $H_3$) were supported at the 5% significant level, and thus, leading to the acceptance of these hypotheses. In addition, the relationship of management control systems and performance ($H_2$) was also examined and was found to be positively significant ($P < 0.01$) with the structural coefficient of the path being 0.26. Based on this result, hypothesis $H_2$ was also supported.

Besides, organizational culture positively influenced performance through the management control systems ($OC \rightarrow MCS \rightarrow Performance$: 0.099, $p <0.05$). The coefficients of the indirect effects were less than the direct influence of organizational culture on performance (0.099 < 0.20). This result thus supported Hypothesis 4 ($H_4$) – that management control systems was the mediation variable in the relationship between organizational culture and performance.

**Conclusion**

This study has revealed the importance of organizational culture and management control systems in the Malaysian local authorities, and how both the organizational culture and management control systems affect the performance. In summary, this study contributes to the literature concerning the relationship between organizational culture, management control
systems, and performance within Malaysian local authorities by developing a theoretical framework of the hypothesized relationships that can be tested in the future research. Organizational culture, as a contingent variable, was used as an attribute that has a direct or indirect effect on performance. Furthermore, issues of the performance of local authorities will remain an important agenda for political leaders, managers and employees of local authorities itself, academicians, researchers and community at large. Therefore, the implementation of management control systems was among the focus of the Malaysian government to increase the performance of local authorities in Malaysia.

References


