

THE RELATIONSHIP BETWEEN MANAGEMENT CONTROL SYSTEM ON CORPORATE SUSTAINABILITY IN THE CONSTRUCTION INDUSTRY

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Abstract. Corporate Sustainability (CS) involves an organisation to obey the principles of sustainable development that evolved from the corporate management paradigm, which is used deliberately as an alternative to the traditional growth and profit-maximization model. The construction industry has an important role in the economy of the country. This paper aims to investigate the relationships between MCS and CS in the construction industry. The study focused on the central and southern region of Peninsular Malaysia which comprises 726 companies listed in Real Estate Housing Development Association (REHDA) and 77 companies listed on Bursa Malaysia. Management Control System (MCS) is defined as the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organisation's objectives and organisation success. In this study, simple random sampling was used in the data collection. The sample size was determined by using G-power software and the respondents of the study are 84 in total. Structural Equation Model of Partial Least Square (SEM-PLS) software in SmartPLS 3.2.9 was used to examine the relationship between CS and MCS. The adapted questionnaire was based on two established questionnaire. The results of the study suggest that MCS has a positive impact on CS of the construction industry. The result is consistent with previous studies looking at the relationship between MCS and CS. In conclusion, from the result of this study, the housing development contractors are highly encouraged to implement MCS in increasing their CS because organization with high level of control systems have a higher level of sustainability in the industry. As this is considered to be a pioneer study, the finding of this study has laid a foundation for future directions and exploration in the context of MCS and CS of organisations.

Keywords: *corporate sustainability, management control system, construction industry, sustainable management, sustainable practices*

Introduction

Sustainability is a complex term and has a great variety of elements that are relevant to business success (Schaltegger, 2011). Research in sustainability area has come out with many variations, diversion and extensions on this basic definition and concept. In general, sustainability means survivability of an organisation as they related to strong economic, social and environmental aspects. In other words, sustainability is about ensuring business robustness and resilient due to the sustainable strategies implemented. However, there are some arguments that sustainability has been twisted and commandeered to suit government, industry, and business that crave to continue the business as usual under any circumstances. CS is a new and evolving corporate management paradigm, which is used deliberately as an alternative to the traditional growth and profit-maximization model (Wilson, 2003). More often, these companies maintaining their CS management efficiently relying on their corporate culture and substantial business logic. CS is the management and coordination of economic (financial demands and concerns), social and environmental aspects to ensure accountable, ethical and unending success. In large-scale setting, economic, social and

environmental perspectives are considered the TBL (Triple Bottom Line) of sustainability.

For the past 15 years, MCS had been discussed in academic publications and adopted in business practice. It focuses on the interaction between business processes and management control towards the industry. Previous research had examined MCS and this had encouraged in identifying how the concept interacts with the business' social and environmental agendas which evidently a part of the sustainability concept as stated by Gond et al. (2012), Miles (2012), and Adams and McNicholas (2007) as cited by Kerr et al. (2015). MCS is a tool to assist decision makers in providing sufficient information to achieve organisational objectives and to be sustainable in the industry (Tessier and Otley, 2012; Otley, 2003). Thus, the competitive forces and the changing environment surrounding contemporary organisation require its management control practice to adapt to and to be redefined from a broader, more dynamic and integrated perspective. As work of literature grow, finding new directions by critically evaluating the research and identifying future trends has become central in advancing knowledge especially in sustainability field. Therefore, this paper will try to close the research gap in linking the corporate sustainability towards MCS. This will give a new breath to the current perspective of corporate sustainability generally and of housing development of the construction industry specifically.

Literature review

Theorem of corporate sustainability

The existing corporate model that contributes to sustainability can be analysed by applying instrumental, societal, political and normative theories as stated by Garriga and Melé (2004) as cited by Schaltegger et al. (2014). According to Van Marrewijk (2003), as cited by Schaltegger et al. (2012) explained "CS is promoted if profitable, for example, because of an improved reputation in various markets", which is focusing towards economic elements of the business. Furthermore, to achieve such business cases, the formulation and implementation of corporate strategies need to be revolutionised as compared to strategies that only strive for 'market sustainability' through competitive advantages. Most of the more recent research on the links between voluntary sustainability measures and corporate economic success emphasises the possibility of win-win or triple-win potentials, with a rather direct economic impact, some authors discuss more indirect economic effects driven by the influence of corporate sustainability (Hahn et al., 2015; Schaltegger et al., 2012; Schaltegger, 2011).

The literature review suggests that the concept of CS uses elements from other established concept; sustainable development, corporate social responsibility, stakeholder theory and corporate accountability theory (Wilson, 2003). Dyllick and Hockerts (2002) as well as Schaltegger and Burritt (2006) found that the vision of sustainable development has led to CS at the organisational level. Other concepts such as social business (Yunus et al., 2010), sustainability innovation, sustainable entrepreneurship (Schaltegger and Wagner, 2011), or sustainability management (Starik and Kanashiro, 2013) are the evolution of the concept to CS. Although the Collective Efficacy theory and Levers of Control theory cover an extensive range of different relationships between the different dimensions of CS, it is vital to note that most theoretical frameworks do not specifically allow for a non-linear relationship. This is remarkable since the nature of the relationship could change, depending on performance

levels. One non-linear relationship like the inverted U, is particularly interesting, as it reflects the intuitive logic that improvements in environmental or social performance succeeded in alleviating the company financially at the start. Such a relationship that has an optimum level of social and environmental performance has been detailed by Bowman and Haire (1975), Sturdivant and Ginter (1977) and Lankoski (2000) in Steger et al. (2007).

Some of the previous research conducted agreed that managing sustainability is by looking at the organisation's performance (Egbeleke, 2014; Adams, 2013). The level of performance of an organisation is by viewing at financial perspective (Al Nuaimi and Nobanee, 2019; Epstein and Rejc Buhovac, 2014; Epstein and Roy, 2001).

Management control system

Management control in the West grew in prominence over the past few decades along with several other concepts in internal dynamic of an organisation. MCS is a putatively vital for management to resemble to organisational performance. Classically, Anthony et al. (1965) defines MCS as the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organisation's objectives. In this early adopted definition of management control, Anthony et al. (1965) have distinguished the term 'management control' from both the processes of strategic planning and operational or task control. However, according to Otley et al. (1995), Anthony's concept of management control is perceived as being sandwiched between the processes of strategic planning and operational or task control. It ensures that the task performed accords with the strategy of the organisation and ensures that resources are used efficiently and effectively in achieving the organisation's objectives.

Simons (1995) defines MCSs as the formal information-based routines and procedures managers use to maintain and alter patterns in organisational activities. The information is meant to assist managers in performing their jobs and to assist organisations in developing and maintaining a viable pattern of behaviour. Formal routine procedures are concerned with how plans and budgets stimulate informal processes that affect behaviour. Simons (1995) reiterates that MCSs are integrated information-based systems used to search for opportunities, to communicate plans and goals, to monitor the achievement of plans and goals as well as to be kept informed and informing others of emerging developments. The information-based systems become control systems when they are used to maintain or alter patterns in organisational activities. Desirable patterns include goal-oriented activities and innovation according to Simons. However, this dimension of CS to ensure the growth of the organisation and the study will demonstrate how their levers of control operate in Malaysian construction industry

The meaning of MCS has evolved over the years. MCS is the central theme for the development of management practice which is capable of meeting the needs of the contemporary business organisation (Otley, 2003). Previous study relating to MCS is focusing on the management accounting practice (Mahfar and Omar, 2004). Development and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations; governance is also controlling. These concepts are frequently interwoven in practice such that the line distinguishing them becomes hazy. Chenhall (2003) stated that the definition of MCS has evolved from those focusing on the provision of information that is more formal, financially

quantifiable information to assist managerial decision making, to those that embrace a broader scope of information.

Kerr et al. (2015) explained that MCSs are divided into two categories which are interactive control system and diagnostic control system. However, Su et al. (2015), clarify that MCSs are divided into three categories; input controls, behaviour controls and output controls. Input control is applied to manage resources that were acquired by the organisation in order to enhance organisational efficacy (Simons, 1995; Su et al., 2015). Behaviour controls are implemented from the top-down managerial approach with an emphasis on articulated operating procedures and close supervision (Su et al., 2015). Lastly, output controls focus on the achievement of desired results, with employees held accountable for the results, regardless of the means used to achieve the outcome (Su et al., 2015).

The existence of an internal control in an organisation is to provide administrative management with reasonable assurance that the financial information is accurate and reliable and complies with the policies, plan, procedures, laws, regulations and contracts. Internal control also allows the assets to be safeguarded against losses and theft, resources are used economically and efficiently; and established objectives and goals for operations can be met (Fadzil et al., 2005). Budgeting acts as a control mechanism to ensure that the organisation would not venture into any high-risk activities (Rasid et al., 2011). Good quality internal control system scope of work also needs to be informative and communicated (Fadzil et al., 2005). Such failures of non-informative and less coordinated of the above will end up with everyone have their own thoughts.

There is a lack of prior evidence about the impact of levers of MCS on the dimension of sustainability management. Prior literature only gives findings on the roles of buy-out management along the four levers of control in relation to strategy. For the boundary, beliefs, and interactive levers of control there is, however, lacking in prior evidence to show the impacts on sustainability dimension in an organisational context. Yet, these levers of control are considered crucial to ensure organisations utilise their resources to the optimum to achieve efficacy to obtain the best value for money for stakeholders in Malaysia. Today, businesses are more complex: organisations combine multiple business units under the same corporate umbrella; global competition results in new strategic alliances and rapidly changing information and production technologies now allow cross pollination of competitive processes, services, and products. In many organisations and industries, this increasing complexity makes it difficult for individuals to comprehend organisational purpose and direction, outright reducing the CS of an organisation. Mainly in the construction industry, it is needed to have proper MCS. Thus, it is ideally suited with the complexity of the construction industry to achieve CS.

Relationship between management control system and corporate sustainability

There is a huge awareness in academia relating to control area in business and management field. But there is lack of evidence on the relationships between MCS and CS. MCS are not only used as control devices that monitor activities to ensure that organisational goals are achieved, but plays a role in maintaining or altering patterns of organisational activity (Langfield-Smith, 1997) as cited in (Qazi, 2009). MCS influences the behaviour of organizational resources to implement organizational strategies (Anthony et al., 1965) as cited in (Qazi, 2009). Relying upon the case of Procter and Gamble (P&G), the paper finds that integration with the traditional planning

and monitoring systems, combination of both formal and informal controls, coordination across business units and decentralized structures are key-factors for successful implementation of sustainability-oriented strategies (Riccaboni and Leone, 2010). In a study conducted by Tsamenyi et al. (2011), the use of non-financial based MCS has a positive effect on sustainability and this finding is consistent with the literature. Previous study by Moon et al. (2011) found that by integrating sustainability in control systems is a necessary condition to enhance sustainability strategy. However, a study done by Ng (2012), found that both efficacy and control beliefs were significant to moderate the effects of various goals on strategies and attitudes.

By using the previous study suggestion by Gond et al. (2012) in management accounting research area on including MCS in CS as they explain how their framework can support future research on the role of MCS and CS in the integration of sustainability within strategy (Gond et al., 2012). Even if a growing body of empirical research has emerged over the last decade, their knowledge of how companies design or use management control to support sustainability strategy appears to be limited, providing considerable scope for further research that will give the additional information on supporting the relationship between MCS and CS (Crutzen and Herzig, 2013). Based on the literature, a question arises as follows:

'Is there any relationship between MCS and CS in the housing development of the construction industry?'

Materials and Methods

To answer the research question 'Is there any relationship between MCS and CS in the housing development of the construction industry?' a hypothesis was formed and tested as follows:

H₀: MCS has no positive relationship with CS.

H₁: MCS has a positive relationship with CS.

The study focused on the central and southern region of Peninsular Malaysia which comprises 726 companies listed in Real Estate Housing Development Association (REHDA) and 77 companies listed on Bursa Malaysia. By reason of rapid urbanization especially in Klang Valley, most of the construction companies (51.22%) are situated in both regions and 64% from 81,434 houses approved and build in Malaysia were located in central and southern regions which consist of Selangor, Kuala Lumpur, Negeri Sembilan, Malacca and Johore. Therefore, this study focused on these regions. In this study, simple random sampling was used in the data collection. This technique begins with refining the sample population of Malaysian organizations in the housing development and construction industry located in the central and southern region of Malaysia. The sample size was determined by using G-power software to calculate the minimum sample size which is 54. Next after listing the organizations, they were numbered 0 or 1. The organizations with number 0 were selected and were invited to take part in the study. Thus, by using simple random sampling technique allows the researcher to increase the precision of the key survey estimates and would reduce the standard of error in this study. The respondents of the study are 84 in total.

The Structural Equation Model of Partial Least Square (SEM-PLS) software in SmartPLS 3.29 was used to examine the relationship between CS and MCS. This method is suitable for this study due to the flexibility and ability of SmartPLS to analyze such construct with multiple items. The initial step in the application of the SEM-PLS is by drawing a diagram which identifies the research hypotheses and variable relationships based on a path model diagram that connects the CS and MCS variables based on theory and logic visually display the hypotheses to be tested (Hair et al., 2016). In this study, the CS and MCS were examined to gain in-depth concept in housing development and construction organizations. The statistical data was obtained by allowing the identification of basic tendencies and significant relations about CS in the housing development and construction industry. These data assisted to create baseline information and provided a reliable explanation of the issue at hand. These statistical data are useful in that they can be further investigated in the subsequent phase of the study. Each data variable was coded and entered in SPSS before analyzing the data with SmartPLS.

Results and Discussion

Demographics

Based on the analysis, there are 19% of the respondents have operated less than 4 years within the housing development and construction industry. 21.4% of the respondents have operated more than 25 years within the industry. Most of the respondents, 23.8% have operated between 10 to 14 years in the industry. The analysis also shows that a majority of the respondents, 73% have less than 100 employees. There were two organizations which have more than 1000 employees (2.4%) and two organizations which have between 601 and 700 employees. More than half of the respondents (59.5%) claimed that their turnover was less than RM 24.9 million a year. 4.8% of the respondents were aware of CS for less than three years, 28.6% of the respondents were aware about CS for between three to five years, and 9.5% of the respondents were aware of CS for more than 15 years. *Table 1* shows the demographic information of the respondents.

Table 1. Demographic profile.

Category		Number of respondents	Percentage (%)	Cumulative percentage (%)
Operation period	< 4 years	16	19.0	19.0
	5-9 years	16	19.0	38.1
	10-14 years	20	23.8	61.9
	15-19 years	12	14.3	76.2
	20-24 years	2	2.4	78.6
	> 25 years	18	21.4	100
No. of employees	< 100	62	73.8	73.8
	101-200	12	14.3	88.1
	201-300	2	2.4	90.5
	401-500	4	4.8	95.2
	601-700	2	2.4	97.6
	> 1001	2	2.4	100
Turnover	< RM 24.9 M	50	59.5	59.5
	RM 25-RM 99.9 M	12	14.3	73.8

	RM 100-RM 199.9 M	16	19.0	92.9
	RM 400-RM 499.9 M	2	2.4	95.2
	RM 1000 M	4	4.8	100
Corporate sustainability awareness	< 3 years	44	52.4	52.4
	3-5 years	24	28.6	81.0
	6-8 years	4	4.8	85.7
	9-11 years	4	4.8	90.5
	> 15 years	8	9.5	100

Relative importance of management control system on corporate sustainability

According to Hair et al. (2016), the value for path coefficients falls in between -1 and +1. The estimated path coefficients close to +1 indicate strong positive bounds. *Figure 1* shows the relationship between CS and MCS is 0.850 which indicates a strong positive relationship and statistically it is significant. This study calculated the squared correlation between a specific endogenous construct's actual and predicted values. The R2 value for MCS is 0.723 which is considered to be accuracy substantial. This shows that 70% of the variation in MCS is determined by the relationship with CS. The evaluation tools of SmartPLS include algorithms, bootstrapping and blindfolding methods. It uses the known variable to estimate the unknown in the study. The calculation of the algorithm involves the estimation of the construct scores and then the calculation of the estimated weights and loadings. Bootstrapping is used to test coefficients for their significance without relying on distributional assumptions. It is a resampling approach that collects random sampling from the data sample and uses the data to estimate the path modelling. At each run of bootstrapping, samples produce different results because of their random process. The SmartPLS analysis examines the structural model which predicts the capacity of a model and the relationships between constructs (Hair et al., 2016). Structural models are examined to estimate path coefficient and the key measures are significant paths for the coefficients. The level of the R2 values explains the amount of variance the endogenous constructs in the model. The Q2 effect size is a blindfolding process of re-sampling that deletes and predicts the indicators data in a reflective model. The predictive error can be obtained by comparing the predicted values with the original values (Hair et al., 2016).

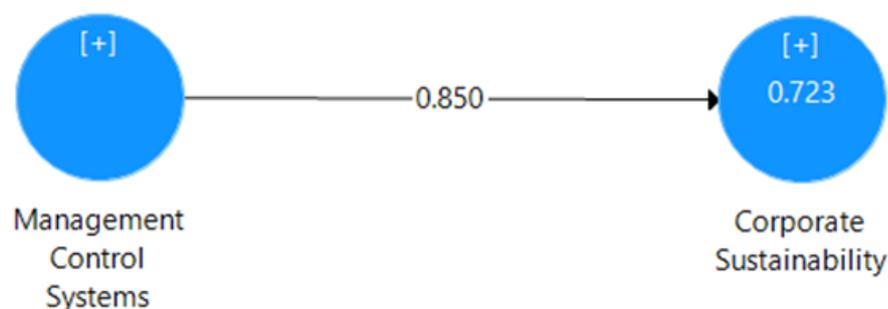


Figure 1. Direct path MCS to CS.

To validate the proposed hypothesis and the structural model (*Figure 2*), the path coefficient between two latent variables is assessed. Assessing the path between MCS and CS, the path coefficient value needs to be at least 0.1 to account for a certain impact

within the relationship (Hair et al., 2016). Assessment of the path coefficient shows that the proposed hypothesis is supported. From the analysis, supported hypothesis is significant at least at the level of 0.5, has expected positive sign direction with value of 0.850 (*Figure 1*) and consists of a path coefficient value ranging from 0.2211 to 0.6517. The t-value is 4.0476. Based on the analysis, it shows that CS is influenced directly by MCS. As a result, therefore, hypothesis H₁ is supported. In this study, MCS has been identified to have positive relationship on CS ($\beta = 0.850$, $t = 25.651$, $p < 0.05$) an effect size of 2.609 indicates a large effect on the relationship (*Table 2*). This result is consistent with previous studies looking at between control and business performance (Ball and Milne, 2005). Córdova-Aguirre and Ramón-Jerónimo (2021) found that organisations have set up various types of management control mechanisms to deal with sustainability, however, they identified a distinctive pattern on the types of control mechanisms in dealing with sustainability.

Table 2. Direct effect relationship between MCS and CS.

	Direct effect	95% of Cis of the direct effect	t-value	Signification (p<0.05)
MCS>CS	0.850	(0.785, 0.915)	25.651	0.000***

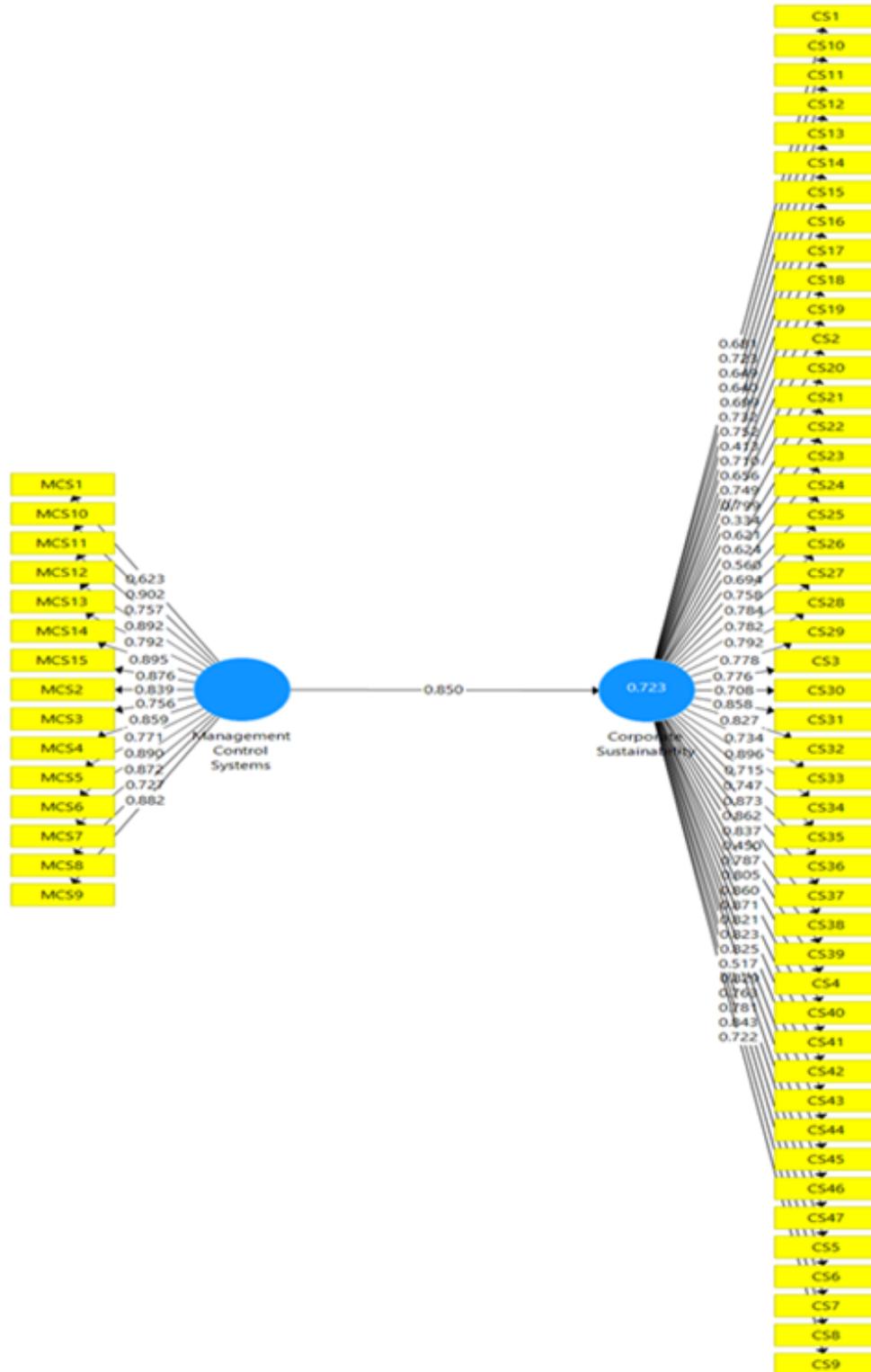


Figure 2. Structural Equation Model.

In this study, MCS has been identified to have positive relationship on CS. Hence, for the research question, this study confirms that H1 is supported. These findings are consistent with a previous study done by Taylor and Bobe (2010), where they discovered that organisations with distinct capabilities especially in MCS enable resources to be fully utilised resulting in sustainability performance. In another study by

Cintra and Carter (2012), it was also found that MCS has a positive relationship with sustainability disclosure. According to Crutzen et al. (2017) stated that there are two types of MCS; formal-belief and boundary control system and informal-interactive and diagnostic control system and thus, in their study found that formal control systems were more suitable for organisation sustainability management. From the above discussion, most of previous studies found that there is a positive significant relationship between MCS and CS. Some other studies of different industry background and field also supported that there is a positive relationship between MCS and CS (Hatane et al., 2020; Shahbaz and Sajjad, 2020; Sánchez-Expósito and Naranjo-Gil, 2017; Naranjo-Gil, 2016) Thus, this shows that the current study had answered the research question by conforming that there is a positive relationship between MCS and CS in the housing development construction industry.

Crutzen et al. (2017) mentioned that none of the organisation has adopted both formal and informal MCS package, if an organisation with pronounced formal controls; e.g. belief and boundary MCS, tend to have less developed informal controls; e.g. interactive and diagnostic MCS, and same goes to an organisation with distinct cultural controls tend to have less developed formal controls. According to Beusch et al. (2016), in the manufacturing industry top level management need to eventually understand their organisation level in practicing sustainability strategy by integrating MCS (belief, boundary and interactive MCS) because there are potential drawbacks in order to have full integration of the MCS. The findings from previous studies were from different backgrounds, but these studies confirmed that there is a positive relationship between MCS and CS, which the current study manages to do for the housing development and construction industry.

Conclusion

The findings of this study provide significant implications for organizations especially in the construction industry. With the knowledge of CS, housing developers can understand how to enhance MCS within the industry. For example, contractors might want to include four control systems: belief, boundary, interactive and diagnostic control systems into their organization. The housing development and construction industry can facilitate MCS by involving employees at all levels (Tessier and Otley, 2012; Otley, 2003). For example, organizations can do that by appointing employees to observe the activities within the organization. The involvement of employees is crucial as it can increase the control systems compared to passive internal control features. The existence of employees within the community can also assist in preventing other parties from engaging in unwanted behaviour. Housing development contractors are encouraged to increase sustainability to work together on improvising strategy, systems and informative environment among housing development contractors (Abdul-rahman et al., 2015; Abidin et al., 2013).

The objective of the study is to examine the relationship CS and MCS in the housing development construction industry. The traditional management control primarily has focused on an accounting-based framework (Otley et al., 1995). As such the present study tries to examine whether a broader, more dynamic and integrated MCS is currently practised in Malaysian Construction. In conclusion, this research identified and evaluated the relationship between MCS and CS within the housing development of the construction industry. This study is set out to answer the research question on the

relationship between MCS and CS within this industry. The MCS was found to have positive and significant relationship with CS, and this indicated that organizations with a high level of control systems have a higher level of sustainability. In this study, the model is significant that it explains 70% of MCS variance. Thus, this research also provides a beneficial starting point in investigating MCS as an important construct to sustainability development in organizations. The construction industry has an important role in the economy of the country. From the theoretical viewpoint, this study provides a significant implication to examine MCS and CS within the housing development of the construction industry.

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Conflict of interest

The author confirms that there is no conflict of interest with any parties involved with this study.

REFERENCES

- [1] Abdul-Rahman, H., Wang, C., Ariffin, N.H. (2015): Identification of risks pertaining to abandoned housing projects in Malaysia. – *Journal of Construction Engineering* 12p.
- [2] Abidin, N.Z., Yusof, N., Othman, A.A. (2013): Enablers and challenges of a sustainable housing industry in Malaysia. – *Construction Innovation: Information, Process, Management* 13(1): 10-25.
- [3] Adams, C.A. (2013): Sustainability reporting and performance management in universities Challenges and benefits. – *Sustainability Accounting, Management and Policy Journal* 4(3): 384-392.
- [4] Adams, C.A., McNicholas, P. (2007): Making a difference. – *Accounting, Auditing & Accountability Journal* 20(3): 382-402.
- [5] Al Nuaimi, A., Nobanee, H. (2019): Corporate Sustainability Reporting and Corporate Financial Growth. – *SSRN Electronic Journal* 12p.
- [6] Anthony, R.N., Dearden, J., Vancil, R.F. (1965): Management control systems: cases and readings. – In Richard D. Irwin, Inc (1st ed.), Homewood, Ill 771p.
- [7] Ball, A., Milne, M. (2005): Sustainability and management control. – *Management Control Theories, Issues and Performance* 1987: 314-337.
- [8] Beusch, P., Rosén, M., Frisk, E., Dilla, W. N. (2016): Management control for sustainability: The development of a fully integrated strategy. – In *Proceedings of the 2016 Management Accounting Section Meeting: Research and Case Conference*, Dallas, TX, USA 4p.
- [9] Bowman, E.H., Haire, M. (1975): A strategic posture toward corporate social responsibility. – *California Management Review* 18(2): 49-58.
- [10] Chenhall, R.H. (2003): Management control systems design within its organizational context: findings from contingency-based research and directions for the future. – *Accounting, Organizations and Society* 28: 127-168.
- [11] Cintra, Y.C., Carter, D.B. (2012): Internalising sustainability: reflections on management control in Brazil. – *International Journal of Strategic Management* 12(2): 108-125.

- [12] Córdova-Aguirre, L.J., Ramón-Jerónimo, J.M. (2021): Exploring the inclusion of sustainability into strategy and management control systems in peruvian manufacturing enterprises. – *Sustainability* 13(9): 17p.
- [13] Crutzen, N., Herzig, C. (2013): A review of the empirical research in management control, strategy and sustainability. – In *Studies in Managerial and Financial Accounting* 26: 165-195.
- [14] Crutzen, N., Zvezdov, D., Schaltegger, S. (2017): Sustainability and management control. Exploring and theorizing control patterns in large European firms. – *Journal of Cleaner Production* 143: 1291-1301.
- [15] Dyllick, T., Hockerts, K. (2002): Beyond the business case for corporate sustainability. – *Business Strategy and the Environment* 2(11): 130-141.
- [16] Egbeleke, A.A. (2014): Improving organizational performance: building organizational resilience and sustainability through knowledge-sharing relationships. – *Journal of Management and Sustainability* 4(2): 92-106.
- [17] Epstein, M.J., Rejc Buhovac, A. (2014): A new day for sustainability. – *Strategic Finance* 96(7): 25-33.
- [18] Fadzil, F.H., Haron, H., Jantan, M. (2005): Internal auditing practices and internal control system. – *Managerial Auditing Journal* 20(8): 844-866.
- [19] Garriga, E., Melé, D. (2004): Corporate social responsibility theories: Mapping the territory. – *Journal of Business Ethics* 53(1/2): 51-71.
- [20] Epstein, M.J., Roy, M.J. (2001): Sustainability in action: Identifying and measuring the key performance drivers. – *Long Range Planning* 34(5): 585-604.
- [21] Gond, J.P., Grubnic, S., Herzig, C., Moon, J. (2012): Configuring management control systems: Theorizing the integration of strategy and sustainability. – *Management Accounting Research* 23(3): 205-223.
- [22] Hahn, T., Figge, F., Aragón-Correa, J.A., Sharma, S. (2017): Advancing research on corporate sustainability: Off to pastures new or back to the roots? – *Business & Society* 56(2): 155-185.
- [23] Hair Jr, J.F., Hult, G.T.M., Ringle, C.M., Sarstedt, M. (2016): A primer on partial least squares structural equation modeling (PLS-SEM). – SAGE Publications 384p.
- [24] Hatane, S.E., Lesmanaputri, E., Firman, J.J.P., Wijaya, V.L. (2020): The Design and the Use of Management Control System in Developing Organizational Learning. – In *International Conference on Logistic and Business* 18p.
- [25] Kerr, J., Rouse, P., de Villiers, C. (2015): Sustainability reporting integrated into management control systems. – *Pacific Accounting Review* 27(2): 189-207.
- [26] Langfield-Smith, K.I.M. (1997): Management Control Systems and Strategy: A Critical Review. – *Accounting, Organizations and Society* 22(2): 207-232.
- [27] Lankoski, L. (2000): Determinants of environmental profit: An analysis of the firm-level relationship between environmental performance and economic performance. – Helsinki University of Technology 118p.
- [28] Mahfar, R., Omar, N. (2004): The current state of management accounting practice in selected Malaysian companies. – *Universiti Tenaga Nasional* 11p.
- [29] Miles, J.A. (2012): Management and organization theory: A Jossey-Bass reader. – John Wiley & Sons 9: 480p.
- [30] Moon, J., Grubnic, S., Herzig, C., Gond, J.P. (2011): Management control for sustainability strategy. – *Chartered Institute of Management Accountants* 7(12): 1-15.
- [31] Naranjo-Gil, D. (2016): The role of management control systems and top teams in implementing environmental sustainability policies. – *Sustainability* 8(4): 12p.
- [32] Ng, C. (2012): The role of self-efficacy, control beliefs and achievement goals on learning among distance learners. – *International Perspectives of Distance Learning in Higher Education* 19p.
- [33] Otley, D. (2003): Management control and performance management: whence and whither? – *The British Accounting Review* 35(4): 309-326.

- [34] Otley, D., Broadbent, J., Berry, A. (1995): Research in Management Control: An Overview of its Development. – *British Journal of Management* 6: S31-S44.
- [35] Qazi, T. (2009): Parenting Style, Locus of Control and Self-efficacy: A Correlational Study. – *Revista Costarricense de Psicología* 28(41-42): 75-84.
- [36] Rasid, S.Z.A., Rahman, A.R.A., Ismail, W.K.W. (2011): Management accounting and risk management in Malaysian financial institutions: An exploratory study. – *Managerial Auditing Journal* 26(7): 566-585.
- [37] Riccaboni, A., Leone, E.L. (2010): Implementing strategies through management control systems: the case of sustainability. – *International Journal of Productivity and Performance Management* 59(2): 130-144.
- [38] Sánchez-Expósito, M.J., Naranjo-Gil, D. (2017): Effects of management control systems and cognitive orientation on misreporting: an experiment. – *Management Decision* 55(3): 579-594.
- [39] Schaltegger, S., Hansen, E.G., Lüdeke-freund, F. (2014): Business Models for Sustainability: Entrepreneurship, Innovation and Transformation. – Sustainable Business Model Official Portal. Available on: <https://sustainablebusinessmodel.org/2013/07/29/call-for-papers-for-a-special-issue-of-organization-environment-business-models-for-sustainability-entrepreneurship-innovation-and-transformation/>
- [40] Schaltegger, S., Lüdeke-Freund, F., Hansen, E.G. (2012): Business Cases for Sustainability: The Role of Business Model Innovation for Corporate Sustainability. – *International Journal of Innovation and Sustainable Development* 6(2): 95-119.
- [41] Schaltegger, S. (2011): Sustainability as a driver for corporate economic success: Consequences for the development of sustainability management control. – *Society and Economy* 33(1): 15-28.
- [42] Schaltegger, S., Wagner, M. (2011): Sustainable entrepreneurship and sustainability innovation: categories and interactions. – *Business Strategy and the Environment* 20(4): 222-237.
- [43] Schaltegger, S., Burritt, R.L. (2006): Corporate sustainability accounting: a nightmare or a dream coming true? – *Business Strategy and the Environment* 15(5): 293-295.
- [44] Shahbaz, W., Sajjad, A. (2020): Integrating management control systems, mindfulness and sustainability: an occupational health and safety perspective. – In *Corporate Governance (Bingley)* 21(3): 433-449.
- [45] Simons, R. (1995): Levers of Control: How Managers Use Innovative Control Systems to Drive Strategic Renewal. – Harvard Business School Press 278p.
- [46] Starik, M., Kanashiro, P. (2013): Toward a Theory of Sustainability Management: Uncovering and Integrating the Nearly Obvious. – *Organization & Environment* 26(1): 7-30.
- [47] Steger, U., Ionescu-Somers, A., Salzmann, O. (2007): The economic foundations of corporate sustainability. – *Corporate Governance* 7(2): 162-177.
- [48] Sturdivant, F.D., Ginter, J.L. (1977): Corporate Social Responsiveness: Management Attitudes and Economic Performance. – *California Management Review* 19(3): 30-39.
- [49] Su, S., Baird, K., Schoch, H. (2015): Management control system effectiveness: The association between types of controls with employee organizational commitment across organisational life cycle stages. – *Pacific Accounting Review* 27(1): 28-50.
- [50] Taylor, D., Bobe, B.J. (2010): Uses of management control and performance measurement systems by Deans and Heads in Australian universities: Their effects on research, teaching and networking capabilities. – In *Proceedings of the 1st RMIT Accounting Educators' Conference* 32p.
- [51] Tessier, S., Otley, D. (2012): A conceptual development of Simons' Levers of Control framework. – *Management Accounting Research* 23(3): 171-185.

- [52] Tsamenyi, M., Sahadev, S., Qiao, Z.S. (2011): The relationship between business strategy, management control systems and performance: Evidence from China. – *Advances in Accounting*, 27(1): 193-203.
- [53] Van Marrewijk, M. (2003): Concepts and definitions of CSR and corporate sustainability: Between agency and communion. – *Journal of Business Ethics* 44(2): 95-105.
- [54] Wilson, M. (2003): Corporate sustainability: What is it and where does it come from. – *Ivey Business Journal* 67(6): 1-5.
- [55] Yunus, M., Moingeon, B., Lehmann-Ortega, L. (2010): Building social business models: Lessons from the grameen experience. – *Long Range Planning* 43(2-3): 308-325.