The Impact of Contextual Factors on the Adoption of Management Accounting Practices: A Study Based on Manufacturing Firms Listed in Colombo Stock Exchange

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INTRODUCTION

Globally there is a growing interest among scholars on the impact of contextual factors in adoption of Management Accounting Practices (MAP) in organizations. In order to be competitive and effective in market, the management of a firm needs to use MAP objectively (Affes and Ayadi, 2014). There is no single MAP that can be applied effectively to all conditions or organizations (Otley, 1980), and several MAP are only effective for certain situations or organizations. According to prior literature (Gul and Chia, 1994; Moores and Chenhall, 1991) major part of management accounting research has been carried out by applying the contingency theory. The notion of contingency theory related to management accounting is based on the premise that there is no universally applicable MAP. The suitability of a particular MAP is argued to be contingent upon the environment, technology, size, structure, strategy and national culture of a particular organization (Chenhall, 2003).

Previous studies have also identified that lack of adoption of MAP is associated with high implementation cost and invalid nature of the assumptions underlying competitive markets (Scapens, 1993). Further, Fonseka, Senarathna and Manawaduge (2005) found that lack of human resources, lack of knowledge and skill in respective MAP, resistance to change over from the present system and perception of business community regarding use of MAP are also contributing for the lack of adoption of MAP in Sri Lankan context. Though scholars have identified the association between contingency factors and the adoption MAP (Al-Omiri and Drury, 2007; Abdel-Kader and Luther, 2008), scant

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attention has been paid to assess the influence in the Sri Lankan context. Therefore, an attempt is made to fill the identified gap by this study.

OBJECTIVES

The objectives of the study are set as follows:

1. To investigate the impact of contextual factors on the adoption of MAP in Manufacturing Firms listed in CSE.
2. To investigate the impact of Perceived Environmental Uncertainty (PEU) on the adoption of MAP.
3. To investigate whether the firms following the differentiation strategy adopt more MAP than firms following the cost-leadership strategy.
4. To investigate whether the firms characterized as decentralized adopt more MAP than firms characterized as centralized.
5. To investigate whether the firms with complex processing systems adopt more MAP than firms with simple processing systems.
6. To investigate whether the large firms adopt more MAP than small firms.

METHODS

The study adopted quantitative research approach and employed a cross sectional research design. Since the nature of the data requires respondents to have the requisite knowledge and experience about the subject matter, the target respondents of this study were the senior level management (e.g., CEOs, Financial Managers, General Managers and CFOs) of 39 listed manufacturing firms. The whole population is selected as the sample. A seven-point likert-scale was used in designing the questionnaire where respondents were asked to rate their opinions.

The internal consistency for each variable was estimated by computing Cronbach's alpha. To assess the content validity, the questionnaire was discussed with three academics who have experience in designing questionnaires. Factor analysis undertaken to test the construct validity for all variables shows that the items used to measure each of them have individual loadings of greater than 0.6 indicating all measures have the ability to capture the meaning of the concept and to apply the theory (Dillman, 2000).

The adoption of MAP were calculated as a ratio out of total MAP that were listed. To operationalize the contingent factors, responses on all the items of a variable is pooled and mean score on each of the

variable is computed and dichotomized at the mean. In addition, the data set were tested through various methods. To investigate the relationship, the following regression model is used.

Regression model

$MAP = \beta 0 + \beta 1\ (PEU) + \beta 2\ (Structure) + \beta 3\ (Size) + \beta 4\ (Strategy) + \beta 5\ (Processing\ System) + \varepsilon$

RESULTS

Descriptive Analysis of Respondents

Among the responses, the highest rate of the respondents belongs to Finance Managers (41%). Other respondents are CEO, CFO and GM. The respondents' average age is 39 years and average number of years worked is 6 years for their present company. Most of the respondents (77.5%) are males.

Results of Multiple Regression Analysis

Regression results show that about 54.5 percent adoptions of MAP can be explained using the independent variables. The F value is 10.509 and the respective p value is 0.000 which is statistically significant at 5%.

Table 1: Coefficients

Model		Unstandardized Coefficients		T	Sig.
		B	Std. Error		
1	(Constant)	0.208	0.804	0.258	0.000
	PEU	0.441	0.153	2.882	0.000
	Strategy	0.161	0.514	0.313	0.088
	Structure	0.309	0.097	3.193	0.003
	Processing system	0.673	0.899	0.748	0.153
	Size	0.251	0.141	1.780	0.010

Table 1 shows the coefficients of PEU, Structure and Size are 0.441, 0.309 and 0.251, respectively and these are statistically significant ($p<0.05$).

DISCUSSION

The results indicate that when PEU move from highly predictable to highly unpredictable, the adoption of selected MAP may increase by 44.1 percent. Accordingly, the first hypothesis can be accepted. This finding is matched with the studies undertaken by Gordon & Narayanan (1984); Chenhall (2003) and

Abdel-Karder & Luther (2008). From this finding, it can be inferred that increase in PEU affects firm's need for more MAP to make the best decisions to minimise cost and improve performance.

The second hypothesis states that firms following a differentiation strategy adopt more MAP than firms following a cost-leadership strategy. This hypothesis was rejected as the results showed a positive insignificant relationship between strategy and MAP. It infers that, when firm strategy moves from cost leadership to differentiation or vice versa it does not affect the adoption of MAP. This finding is in line with Abdel-Karder and Luther (2008). Therefore, it can be concluded that firms adopt MAP regardless of the strategy that they follow.

The third hypothesis can be accepted as the results showed a positive significant relationship between structure and adoption of MAP. When a firms' structure move from centralized to decentralized, the adoption of selected MAP may increase by 30.9 percent. This finding is also matched with the studies undertaken by Chia (1995); Chenhall (2003) and Baines & Langfield-Smith (2003) indicating that the companies with more delegation adopt more MAP.

The results indicate a positive insignificant relationship between processing system and MAP and hence, the fourth hypothesis is rejected. The findings show that whether firms use complex processing systems or simple processing systems, it does not affect the adoption of MAP. This result contradicts with Krumwiede (1998), who found that complexity is positively correlated with MAP.

As the result shows a positive significant relationship between firm size and adoption of MAP, the fifth and last hypothesis is accepted. It shows that when firm size is large, selected MAP increases by 25.1 percent. This means that large firms tend to adopt more MAP than small firms. This may be because large organisations are associated with more diversified operations and specialisation of functions. This finding is in line with the findings of Chenhall (2003); Abdel-Karder and Luther (2008) and Otley (1995).

IMPLICATIONS

The findings of the study state that PEU, Organizational structure and Firm size have significant positive impact on the adoption of MAP while Organizational Strategy and Processing System do not have a significant impact on the adoption of MAP. From the above findings, it can be inferred that when environmental uncertainty perceived by firms' increases, when firms move towards decentralization and when firm size is large, the need for accounting information becomes more. This, in turn, may demand

for more MAP to be adopted in manufacturing firms. However, there are positive insignificant relationships between organisation strategy and adoption of MAP, and processing system and adoption of MAP. This indicates that firms adopt MAP regardless of the strategy that they follow. Further, it shows that the complexity of processing systems does not affect the adoption of MAP.

Even though this study contributes to the understanding of the applicability of contingency theory across the adoption of MAP, these results are subject to certain limitations and can be addressed in future studies. Firstly, the results might be sensitive to the managerial level selected for the analysis. The second limitation relates to the methodological improvement. Since there were some concerns in the literature as to the objectivity of self-ratings, instrument developed in this study may be further refined in future studies. Thirdly, as the study uses cross-sectional research design, the cause and effect relationships among the variables of interest may not be assessed. Finally, the current study is restricted to few contextual factors, where other contextual factors (e.g., culture) also may have an influence on MAP adoption. Secondly, objectivity of self-rating instrument developed in this study.

KEYWORDS

Management Accounting Practices, Organization Structure, Organization Strategy, Firm Size, Processing System, Manufacturing Firms.

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