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N328

**School of Commerce**



**A Performance Linked Management Accounting  
Typology Within Contingency And Institutional  
Frameworks In The Malaysian Manufacturing Industry**

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**This thesis is presented as part of the requirements for the award of the  
degree of Doctor of Philosophy of the University of Adelaide**

**August 2006**

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**A PERFORMANCE LINKED MANAGEMENT ACCOUNTING TYPOLOGY  
WITHIN CONTINGENCY AND INSTITUTIONAL FRAMEWORKS IN THE  
MALAYSIAN MANUFACTURING INDUSTRY**

**ABSTRACT**

Management accounting systems' (MAS) information attributes coupled with management accounting practices/techniques (MAPT) form complex configurations that differ across manufacturing firms. The extent to which management adopts and relies on these management accounting configurations is expected to have outcome effects on the performance of their firm. The adoption and reliance upon these configurations are also expected to be influenced by the context in which manufacturing managers operate. In particular, the contingency factors faced by a firm and the institutional norms prevalent on a firm will have an impact on the way management chooses to configure its combination of features of MAS and MAPT. The empirical literature on these complex configurations is not well established.

This study aims to establish a discernable typology of manufacturing firms that adopt and rely on combined features of management accounting systems and practices/techniques in Malaysia. In particular, a systems approach employing cluster analysis is used to determine the existence of a management accounting typology of firms. Using this empirically derived cluster solution, the further aims of this study are to identify which typological group is better performing, based on a weighted average measure of performance of member firms in each MAS/MAPT-type group. The final aim is to model and test a set of predictors of the better and weaker performing MAS/MAPT-type groups of firms. These predictors are drawn from the background characteristics of respondents and their firms, key contingency theory variables and isomorphic institutional theory variables.

Data is collected from a sample of management accountants employed in manufacturing firms in order to obtain measures relating to relevant constructs and their underlying dimensions and variables. The constructs are manufacturing management methods, management accounting systems' presentation of information, management accounting practices/techniques in use, organizational performance, contingency factors (involving

strategic manufacturing priorities, organizational interdependence, decentralization of structure and perceived environmental uncertainty), and institutional influences (involving mimetic, coercive and normative dimensions). The survey instrument for this study was based heavily on a selection of multi-item measures that have been tested and validated in prior empirical research literature. This instrument was pre-tested through interviews with five management accounting experts. It was then mailed to the membership list of the Chartered Institute of Management Accountants (CIMA) in Malaysia. There were 127 useable responses received.

The results first reveal that there are two distinct clusters of manufacturing firms, distinguished by the extent to which management accountants in those firms consider MAS' information attributes as more useful and claim more benefit from practising MAPT. Using a weighted average performance index, it is further found that firms in the cluster of high management accounting users perform significantly better. The inference is that better performing manufacturing firms fall into the group whose management uses a wide range of MAS information attributes and MAPT for their planning, control and performance evaluation functions compared to those who tend to not use these methods.

The two clusters of manufacturing firms are also tested for significant associations and relationships with the background information (predominantly demographic factors), manufacturing management methods, the institutional influences and the contingency factors measured through the survey. Both bivariate analyses and multivariate logistic regression are applied. Under bivariate analyses, variables found to be significant determinants of the cluster solution are: respondents' previous length of service and education at certificate level, manufacturing strategies (all three types), all mimetic and normative institutional influences, one coercive influence, and autonomy of management relating to staffing. Logistic regression analysis results in the following variables having a significant effect on the cluster solution: respondents' previous length of service, top management's attention on the functionality of management control systems, the dependence of top management on advice from the management accountant, and the manufacturing strategy of giving priority to customer service and delivery.

In order to test whether MAS' information attributes and MAPT can predict the weighted average performance index, two multiple linear regression modellings are developed. The first model tests all seventy MAS' information attributes and MAPT indicators and

discovers that only four of them are significant predictors to the weighted average performance index. The four predictors are owners' (shareholders') value analysis, performance evaluation: non-financial measures, performance evaluation: ongoing suppliers' evaluation and cost-volume-profit analysis. The second model utilizes ten factor analysed dimensions of the MAS' information attributes and MAPT. Out of the ten principal components treated as independent variables in the multiple regression modelling, only one significant predictor to the weighted average performance index emerges. The single predictor is the 'performance benchmarking' factor. Except for cost-volume-profit analysis, all the significant predictors in the first model can be found within the performance benchmarking factor.

The findings from this study provide a better understanding of the many variables that are related to the firms that place greater emphasis on the use and perceived benefits of use, of management accounting systems, practices and techniques. These firms, in turn, are established as the better performing manufacturing firms. This study also manages to isolate a number of management accounting practices/techniques instrumental to predicting a firm's performance. The implications for practice are that an emphasis on the use of management accounting generally is integral to success in the manufacturing industry, although some MAPT stand out as key predictors of this success.