

# WHAT FACTORS DRIVE CHANGE IN MANAGEMENT ACCOUNTING IN MALAYSIAN ORGANISATIONS?

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## Abstract

*Without knowledge of how the management accounting (MA) discipline changes, its development cannot be properly understood. Prior research indicates that MA has been changing and that many factors are implicated in its change. This study explores the factors which cause management accounting change in Malaysia. MA change is taken to encompass not only MA per se but also its composition as represented by the techniques, skills and roles of the management accountant. These are investigated by surveying experienced, professionally qualified management accountants working in Malaysian organisations. A range of factors were identified as significant change drivers and these differ across the three components of MA.*

**Keywords:** *Management Accounting change; change drivers; Management Accounting techniques; Management Accountant roles; Management Accountant skills.*

## Introduction

If the discipline of Management Accounting (MA) is to be explained and understood then research focusing on its change will play an important role. It is in the study of the dynamics of the discipline that the forces and influences underlying its development will be most visible. Their identification can illuminate our comprehension of how MA has attained its existing forms. Without such knowledge those involved in the design of MA systems, those involved in the management of the profession and those involved in the education of new generations of management accountants will operate with an inadequate comprehension of the focus of their activities. MA system designers need to be sensitive to the factors which merit change if they are to maintain an important organizational role by supplying relevant information to management and

operating in a role appropriate to contemporary circumstances. Consequently, this study aims to investigate the factors which have caused MA change. This involves identifying these factors and ascertaining the strength of their association with MA change. In contrast with much of the prior research on management accounting change this is done within the setting of a developing country, Malaysia.

MA is an activity involving the provision of information to management within an organisation. It thus comprises not only the application of practical techniques (whose application generates the information) but also the skills (locus of competencies) and the role (from that of pure information provider through information interpreter to business decision-making partner) of the management accountant. All three of these aspects of management accounting can change independently and consequently they are all incorporated separately into the empirical study conducted. Relevant evidence for the investigation was gathered by obtaining the views of professionally qualified, experienced Malaysian management accountants, using the survey method.

The remainder of the paper is structured as follows: A review of the literature relating to various aspects of MA change is undertaken. This is followed by an explanation of the research methods and the presentation of findings. Finally, some conclusions are drawn.

## **Literature Review**

The literature review is designed with three purposes in mind. The first is to demonstrate that MA change is an important characteristic of the discipline as it is a common aspect of real world MA. The second is to identify factors that have been found to cause MA change. This part of the review provided the basis for designing the survey instrument. The third is to describe and substantiate the tripartite composition of MA used in the research i.e. MA techniques, skills and roles.

## **Change in Management Accounting**

Technical innovation has been a marked feature of MA over the past two decades. New methods such as activity based costing, quality costing, life cycle costing, target and kaizen costing, throughput accounting, the balanced scorecard and 'beyond budgeting' have been prominent developments extending the management accountant's tool kit. Empirical research confirms that the new techniques are being used by organizations to varying degrees. Although in most instances adoption has taken place in a minority of companies favouring those of a larger size, the evidence shows that these techniques are now used in at least three continents. Consequently, these developments have resulted in significant levels of real world MA change. Empirical evidence of management accounting change takes the form of both case studies (e.g. Clark, 1985, Innes and Mitchell, 1990, Shields and Young, 1991, Darlington et al., 1992, Kaplan and Norton, 1992, Dutton and Ferguson, 1996, Burns et al., 1999, Anderson and Young, 2001) and surveys undertaken in several different countries [e.g. Bright et al., 1992 (UK), Green and Amenkhienan, 1992

(USA), Omiri and Drury, 2007 (UK), Armitage and Nicolson, 1992 (Canada), Drury and Tayles, 1994 (UK), Innes and Mitchell, 1995 (UK), Shields, 1995 (USA), Lukka and Granlund, 1996, (Finland), Bjornenak, 1997 (Norway), McGowan and Klammer, 1997 (USA), Foster and Swenson, 1997 (USA), Gosselin, 1997 (Canada), Chenhall and Langfield-Smith, 1998 (Australia), Malmi, 1999 (Finland), Innes et al., 2000 (UK)].

Additionally, three survey based studies in Canada, Singapore and Malaysia have specifically investigated the incidence of MA change in practice by identifying its frequency and location in responding firms (Libby and Waterhouse, 1996, Williams and Seamans, 2001 and Sulaiman and Mitchell, 2005). The results of all three studies are consistent in identifying MA change as a relatively common and constant feature of MA practice. Moreover, change encompasses all sub areas of MA and comes in a variety of forms including additions, replacements, output modifications and operational modifications (Sulaiman and Mitchell, 2005). Unlike this study Sulaiman and Mitchell did not investigate factors causing change in Malaysian MA.

### Factors That Cause MA Change

Three categories of MA change driver are apparent from the literature and they are outlined in turn below.

#### (a) External

The influence of market competition has long been recognised as an important influence on internal information systems (Khandalla, 1972). In terms of management accounting this influence has been manifest in customer behaviour (Gordon and Miller, 1976) as varying customer tastes and actions underpin market dynamism. Indeed Viavio (1999a, 1999b) has found that the introduction of new non-financial performance measures were linked to attempts to minimise customer dissatisfaction while internal accounting provided a mechanic for transforming the customer into quantified knowledge i.e. the 'quantified' customer.

It is also apparent from research on the diffusion of new MA practices (e.g. Bjornenak, 1997, Malmi, 1999) that their dissemination across national boundaries is representative of the more general process of globalisation (Ajami et al., 2005). Moreover, a key potential change agent in this process is the external consultant aided by a rich supply of novel MA techniques such as those listed above in the first sentence of section 1 of the literature review.

Finally, the connection between financial accounting requirements and regulations and management accounting has been highlighted by Kaplan (1984) who suggests that yesterday's accounting undermines production. Kaplan's view is that product costing systems will be designed to meet the full costing requirements of financial accounting standards. These systems will be used internally instead of installing different systems designed to meet managerial needs. Financial accounting standards covering issues such as fixed asset impairment, research and development and inventory valuation have the potential to influence internal costing systems.

### **(b) Internal Operations**

Management accounting is designed to fit with its immediate operational surroundings and consequently a range of factors relating to internal operations can be implicated in the initiation of MA change. These include the core competencies or work characteristics of the organisation (Woodward, 1965). Similarly, the introduction of modern production technologies has also led to changes in product costing practice (Littrell, 1984, Brimson, 1986). Information technology is a further potential influence on aspects of MA practice as shown by Pike (1996) in the area of capital budgeting. A specific example of this is the new software facilities which lead to the adoption of 'packaged' MA routines (Granlund and Malmi, 2002). Similarly, E-commerce can create new ways of operating for which conventional MA may require modification (Terry, 2003).

Two other operational aspects have been associated with the design of MA systems and may therefore also be viewed as potential change drivers. First, there is the style of management adopted within an organisation. This can determine the nature of managerial demand for information and lead to change in MA information content and use (Hopwood, 1972). Second, the existence of total quality management programmes in both UK and USA firms has been associated with MA innovation (Shields, 1995, Innes et al., 2000). Although the reason for the link has not been uncovered, it remains a factor to be explored in any attempt to determine why change in MA occurs.

### **(c) Organisational**

Organisational factors may also provide the impetus for MA change. Jones (1985) has demonstrated how a change in organisational ownership following acquisition/merger is an event with wide ranging MA implications. For example, a new dominant partner will import its MA methods into its investee in an attempt to improve uniformity of methods such as performance reporting in the new entity. Other forms of organisational restructuring such as those involving alterations in the level of decentralisation, hierarchial structure, downsizing and outsourcing have all been identified as being implicated in MA change (Bruns and Waterhouse, 1975, Shields, 1997, Burns et al., 1999). Recent corporate failures have sparked considerable organisational level changes to enhance corporate governance. One implication of this will be the impact on the information demands of those in management with responsibility for this aspect of performance. As a result, the MA system may have to be modified to supply, in terms of content and frequency information which will allow the Board to discharge its duties.

## **The Composition of MA**

MA practice comprises more than simply a set of techniques. It also involves using these techniques and this requires the management accountant to assume a particular role or roles within the organization, and possess the skills to be effective in his/her work. These roles and skills have altered over time, and MA change as a topic for study must therefore incorporate these aspects of practice.

**(a) Management Accounting Techniques**

From a discipline criticised by Johnson and Kaplan (1987) as having failed to innovate successfully for sixty years, the practice of MA has been transformed since the late 1980s (Sharma, 2000). It has become a dynamic and innovative discipline at a technical level. All of the new techniques listed in the first section of this literature review and many others have emerged to transform the management accountant's tool kit which constitutes the technical core of MA practice (Bogan and English, 1994).

**(b) Management Accountant Roles**

Management accountants have long been known to have multiple roles. Some of these have been described by Simon (1954) in his seminal study of controllership as scorekeeping, attention directing and problem solving. The scorekeeping and attention directing roles typically focus on compliance reporting and control-type issues, respectively. The problem solving role focuses on providing business unit managers with relevant information for decision-making. More recently, studies have been carried out on how these roles have been changing and evolving (Bromwich and Bhimani, 1989; Hiromoto, 1991; Scapens, 1991; Burns et al., 1996; Atkinson et al., 1997; Burns and Scapens, 2000; Friedman and Lyne, 2001). It has been suggested that the problem solving role has become relatively more important as business unit managers have faced increasingly uncertain environments where new and different information is needed to manage those uncertainties (Granlund and Lukka, 1998). Where management accounting information has not kept pace with these uncertainties, the relevance of management accounting has been increasingly questioned by business unit managers (Murphy et al., 1995; Kaplan, 1986). To more closely meet the changing information needs of business unit managers, there have been calls for management accountants to spend less time working within a centralised accounting function and more time working in business units with the users of management accounting information (Copper, 1996; Evans and Ashworth, 1996). Thus management accountants have filled roles as business partners and information analysts.

It is also concerned with the ways in which management accountants interact with others. For example, some industrial design executives have reported that management accountants are members of their new product developments teams (Hertenstein and Platt, 1998). Participation in new product development and in the early stages of the design and development process may necessitate subtle changes in the role of management accountants. They may have to take a more creative, proactive, flexible approach to cost and financial analyses. Similarly, an involvement with the process of setting and implementing strategy (Simmonds, 1981) has resulted in management accountants playing a role at the highest levels of organisational management. In this role they will also interact with other functional specialists particularly in the sphere of marketing (Roslender and Hart, 2002).

**(c) Management Accountant Skills**

Management accountants have been criticized for their inability to innovate (Johnson and Kaplan, 1987). This has become a key skill underpinning effectiveness in the context

of a dynamically changing discipline. The traditional conservative, change-averse, bean-counting MA function will not function well in this modern context. Service improvement is a constant pressure that demands skill in innovation and flexibility. Failure in this respect will result in a loss of relevance for the management accountant (Emsley, 2005). Inter-personal skills are also needed in the contemporary setting as the management accountant has to integrate with and act as adviser, analyst and partner to specialist functional and general management

## Research Method

The study was conducted by a postal questionnaire issued to practicing management accountants in Malaysia. The survey instrument was pilot tested on ten practising management accountants and amended following their feedback. All 2346 members of CIMA Malaysian Division were sent the questionnaire. Only responses from those with at least 5 years of practical experience were used in the analysis. After 2 follow up requests, a total of 250 usable returns were obtained. This represents a response rate of 11%. A test for non-response bias was conducted by applying a t-test to assess the pattern over time of respondents company size and respondent views on MA change. No non-response bias was detected.

The questionnaire was designed to obtain evidence to address the study aim (see Introduction). Thus, it asked respondents to provide background data both on themselves and their organisations. In addition, it required them to provide their views on the importance, during the last five years, of a set of potential management accounting change drivers derived from the literature (see Table 1). In the relevant section of the literature review (above) the selected 15 change drivers are identified by underlining. Respondents were asked to rate each driver on a 3 point scale of 'vitaly important', 'average importance' and 'negligible importance'.

## Findings

### Factors Which Drive Change in Management Accounting as a Whole

Table 1 shows respondent expectation on the most important factors that drive changes in management accounting at the level of practice.

External factors related to the customer and the trend to globalisation were rated as the top two influences on MA change. Other external factors were less important and received only minority support. Internal operational factors also featured prominently with core competencies and information technology filling the other top 2 positions and attracting over 50% support. New management styles and quality initiatives were rated positively but only by around 40% of the respondents. Organisational factors also had some support but only organisational restructuring received a marginal majority citation.

Table 1: Views on Factors Driving Management Accounting Changes

|     | <b>Change drivers</b>           | <b>Categorisation</b> | <b>Frequency</b> | <b>%</b> |
|-----|---------------------------------|-----------------------|------------------|----------|
| 1.  | Customer-oriented activities    | External              | 80               | 61       |
| 2.  | Globalization                   | External              | 78               | 59       |
| 3.  | Core competency aims            | Internal Operations   | 77               | 58       |
| 4.  | Information technology          | Internal Operations   | 71               | 53       |
| 5.  | Corporate governance            | Organisational        | 70               | 53       |
| 6.  | Organizational restructuring    | Organisational        | 59               | 44       |
| 7.  | New management styles           | Internal Operations   | 57               | 43       |
| 8.  | Quality-oriented initiatives    | Internal Operations   | 53               | 40       |
| 9.  | External reporting requirements | External              | 49               | 37       |
| 10. | New accounting techniques       | External              | 43               | 32       |
| 11. | E-commerce/electronic business  | Internal Operations   | 37               | 28       |
| 12. | Production technologies         | Internal Operations   | 32               | 24       |
| 13. | New accounting software         | Internal Operations   | 31               | 23       |
| 14. | External consultants' advice    | External              | 25               | 19       |
| 15. | Takeover/merger                 | Organisational        | 21               | 16       |

### **Relationship between Factors that Caused Management Accountant Roles, Skills and Management Accounting Techniques to Change**

Table 2: Correlation Between Factors and Management Accountant Roles, Skills and Management Accounting Techniques/Tools

|  | <b>Factors Drive Changes</b> | <b>Management Accountant Roles</b> | <b>Management Accountant Skills</b> |
|--|------------------------------|------------------------------------|-------------------------------------|
| Management Accountant Roles            | 0.288**                      |                                    |                                     |
| Management Accountant Skills           | 0.382**                      | 0.394**                            |                                     |
| Management Accounting Techniques/Tools | 0.401**                      | 0.264**                            | 0.249**                             |

\*\* Correlation is significant at the 0.01 level (2-tailed)

Table 2 shows the coefficient correlation between factors that drive changes in management accountant roles, skills and techniques. The correlation indicated a relatively strong positive relationships. The 15 change drivers selected following the literature review were significantly associated with the management accountant roles, skills and technique changes. This provides evidence that the management accountant roles, skills and techniques changes were related to the 15 factors.

## Factors Influencing Change in Management Accounting Roles

The results of obtaining respondents views on the importance of the 15 change drivers on the role component of MA are contained in Table 3.

Table 3: Results of Tests of Independence Between Each Factors That Drive Management Accountant Roles to Change

| Factors that drive changes      | Statistic | p-values <sup>a1</sup> | Coefficient | p-values <sup>b</sup> |
|---------------------------------|-----------|------------------------|-------------|-----------------------|
| Core competency aims            | 1.600     | 0.206                  | 0.111       | 0.206                 |
| Corporate governance            | 1.667     | 0.197                  | 0.113       | 0.197                 |
| Customer-oriented initiatives   | 3.067     | 0.080                  | 0.154       | 0.080                 |
| E-commerce/electronic business  | 0.194     | 0.659                  | 0.038       | 0.659                 |
| External consultants' advice    | 1.923     | 0.166                  | 0.121       | 0.166                 |
| External reporting requirements | 2.272     | 0.132                  | 0.132       | 0.132                 |
| Globalization                   | 2.511     | 0.113                  | 0.139       | 0.113                 |
| Information technology          | 0.097     | 0.755                  | 0.027       | 0.755                 |
| New accounting software         | 1.425     | 0.233                  | 0.104       | 0.233                 |
| New accounting techniques       | 0.370     | 0.543                  | 0.053       | 0.543                 |
| New accounting styles           | 0.056     | 0.814                  | -0.021      | 0.814                 |
| Organizational restructuring    | 2.874     | 0.090                  | -0.148      | 0.090                 |
| Production technologies         | 1.261     | 0.262                  | 0.098       | 0.262                 |
| Quality-oriented initiatives    | 0.573     | 0.449                  | 0.066       | 0.449                 |
| Takeover/merger                 | 0.809     | 0.368                  | -0.079      | 0.368                 |

The results indicate that change in the management accountants' role was positively and significantly associated with the importance of customer-oriented initiatives while it was significantly and negatively associated with the importance of organisational restructuring. This shows that more management accountants' role changes appeared in organizations that focus in meeting their customers need and expectation. However, changes in management accountants' role were lesser in the organization that experienced ownership changes and restructuring.

## Factors Influencing Change in Management Accountants' Skills

Table 4 shows the results of response to the importance of the 15 change drivers in respect to MA skills.

Table 4 shows that changes in the management accountants' skills was positively and significantly associated with both the importance of core competency aims and customer-oriented initiatives.

Table 4: Results of Tests of Independence Between Each Factors That Drive Management Accountants' Skill Changes

| Factors that drive changes      | p-values <sup>a2</sup> | Coefficient | p-values <sup>b</sup> |
|---------------------------------|------------------------|-------------|-----------------------|
| Core competency aims            | 0.062                  | 0.188       | 0.032                 |
| Corporate governance            | 1.000                  | -0.041      | 0.642                 |
| Customer-oriented initiatives   | 0.062                  | 0.188       | 0.032                 |
| E-commerce/electronic business  | 0.565                  | 0.092       | 0.293                 |
| External consultants' advice    | 1.000                  | 0.076       | 0.383                 |
| External reporting requirements | 0.284                  | 0.122       | 0.166                 |
| Globalization                   | 1.000                  | -0.026      | 0.770                 |
| Information technology          | 0.600                  | 0.060       | 0.489                 |
| New accounting software         | 1.000                  | 0.084       | 0.332                 |
| New accounting techniques       | 0.550                  | 0.107       | 0.221                 |
| New accounting styles           | 1.000                  | 0.030       | 0.728                 |
| Organizational restructuring    | 1.000                  | 0.036       | 0.680                 |
| Production technologies         | 1.000                  | 0.086       | 0.327                 |
| Quality-oriented initiatives    | 0.270                  | 0.128       | 0.146                 |
| Takeover/merger                 | 1.000                  | 0.070       | 0.427                 |

### Factors Influencing Change in Management Accounting Techniques

The results of analysing repondents' views on which change drivers of MA techniques are presented in Table 5.

Table 5: Results of Tests of Independence Between Each Factors That Drive Management Accounting Technique Changes

| Factors that drive changes      | Statistic | p-values <sup>a3</sup> | Coefficient | p-values <sup>b</sup> |
|---------------------------------|-----------|------------------------|-------------|-----------------------|
| Core competency aims            | 3.171     | 0.075                  | 0.156       | 0.075                 |
| Corporate governance            | 0.087     | 0.767                  | -0.026      | 0.767                 |
| Customer-oriented initiatives   | 1.987     | 0.159                  | 0.124       | 0.159                 |
| E-commerce/electronic business  | 0.842     | 0.359                  | 0.080       | 0.359                 |
| External consultants' advice    | 0.015     | 0.901                  | -0.011      | 0.901                 |
| External reporting requirements | 2.874     | 0.090                  | -0.149      | 0.090                 |
| Globalization                   | 1.275     | 0.259                  | 0.099       | 0.259                 |
| Information technology          | 0.030     | 0.862                  | -0.015      | 0.862                 |
| New accounting software         | 0.913     | 0.339                  | -0.083      | 0.339                 |
| New accounting techniques       | 0.174     | 0.677                  | 0.036       | 0.677                 |
| New accounting styles           | 0.332     | 0.564                  | 0.050       | 0.564                 |
| Organizational restructuring    | 2.180     | 0.140                  | 0.129       | 0.140                 |
| Production technologies         | 1.088     | 0.297                  | 0.0091      | 0.297                 |
| Quality-oriented initiatives    | 7.836     | 0.005                  | 0.246       | 0.005                 |
| Takeover/merger                 | 1.121     | 0.290                  | 0.093       | 0.290                 |

Table 5 shows that management accounting techniques are positively and significantly associated with the organization's core competency aims and with and quality initiatives. In addition, there is a significant and negative association with external reporting requirements. Organizations that focus on becoming competent in their cost levels, output quality, after sales service, variety of products and price will need to adopt or change their management accounting technique more often. Similarly, more management accounting techniques need to be adopted by the organization that aims in providing quality products or services. However, the organization that focus more on meeting external reporting standards will have lesser changes in their management accounting techniques. Rigid imposition by the accounting profession on financial reporting rules have resulted in a high compliance cost. In a paradoxical way, with the rigid rules the management and control systems were not developed for more effective decision making.

## Summary and Conclusions

The findings of this study confirmed that the antecedents of MA change were complex. None of the change factors investigated in this study found universal support among respondents. On the other hand, all received some support. Several were recognised as important by a strong majority while several others had only the support of a small minority. The conclusion to be drawn was that MA change was likely to be driven by different factors in different situations. It is unlikely that a general, common explanation can be developed to account for it.

Table 6. Malaysian Management Accounting Change Drivers

| Change Drivers                  | MA Roles | MA Skills | MA Techniques |
|---------------------------------|----------|-----------|---------------|
| Customer Orientation            | ✓        | ✓         |               |
| Organisational Restructuring    | ✓        |           |               |
| Core Competencies               |          | ✓         | ✓             |
| External reporting Requirements |          |           | ✓             |
| Quality Orientation             |          |           | ✓             |

Adding to this complexity is the finding that largely different factors are viewed as important for the development of the three composite dimensions of MA employed in the research (see Table 6). Respondents considered that MA techniques, roles and skills were all subject to influence from different mixes of, only a few, of the causal factors included in this study. The role and skills of the management accountant are affected by

the extent to which the firm is customer orientated. This external orientation is likely to call for accountants who can relate to the external conditions experienced by the firm and help drive strategies and policies to meet them. Organisational restructuring may also influence the accountant's role, particularly if the accounting function becomes decentralized and the accountant operates more as a business partner. Accounting skills and techniques have to match the core competency aims of the firm. One would expect this as the technology of the firm has long been recognized as a potential contingency. There is also evidence to suggest that financial regulation does indeed influence the technical core of MA practice while those firms overtly pursuing quality considerations consider that this trait is also a change driver of their MA techniques employed. This latter finding is consistent with prior research on ABC adoption in both USA (Shields, 1995) and UK (Innes et al., 2000).

These results have both practical and academic implications. In practice, it is likely that the initiation and management of MA change has become a more significant issue over the last two decades as MA innovation potential has increased and the internal role of the management accountant shows evidence of a move towards greater integration with management and in particular towards association with the strategy process. Responding to change pressures in these respect, first requires recognition that they exist. Those involved in MA would therefore be best advised to monitor a wide range of factors which may motivate change in their function. Also, given separate consideration from the technical core of MA should be the roles and skills required by the contemporary management accountant.

At an academic level, the findings suggest that the investigation of MA change should recognise the specificity of the relevant circumstances of the individual organisation. These will differ and therefore good explanations of how MA change has come about are likely to require a case study approach. A case study approach would also enable to understand more about the specific changes that had occurred in management accounting. The lack of consistency across the respondents in respect of the recognition of change factors also provides some explanation for the inability of contingency theory studies to generate compatible specifications of the circumstances in which different types of MA emerge (Otley, 1980, Chenhall, 2003). The findings were further limited by the omission of the specific management accounting from the questionnaire.

## Notes

- 1 The p-values<sup>a</sup> are associated with the Pearson Chi-Square and p-values<sup>b</sup> are associated with Phi coefficients
- 2 The p-values<sup>a</sup> are associated with the Fisher's Exact Test and p-values<sup>b</sup> are associated with Phi coefficients. Fisher's Exact Test was referred due to existence of cells with expected counts of less than 5 (Norusis, 1998). The management accountant level of importance had to be regrouped before investigating the relationship.
- 3 The p-values<sup>a</sup> are associated with the Pearson Chi-Square and p-values<sup>b</sup> are associated with Phi coefficients.

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