

**Research Executive Summaries Series**

**Management accounting practices in the  
UK food and drinks industry**

Vol. 2, No. 8

By

**Magdy Abdel-Kader**

University of Essex

and

**Robert Luther**

University of West of England, Bristol

**An extended version of this report is available in the Research Full Reports section of the CIMA website.**

### 1. Overview

Since the early 1980s a number of innovative management accounting techniques have been developed such as activity-based management, strategic management accounting, and the balanced scorecard. These 'new' techniques have been designed to support modern technologies and new management processes, such as total quality management and just-in-time production systems, and the search for competitive advantage to meet the challenge of global competition.

It has been argued that the new techniques have affected the whole process of management accounting (planning, controlling, decision-making, and communication) and have shifted its focus from a 'simple' role of cost determination and financial control, to a 'sophisticated' role of creating value through enhanced use of resources.

The aim of this study is to explore the current use of management accounting practices (MAPs) in the UK food and drinks industry in order to understand the level of MAP sophistication and the factors that affect implementation of MAPs in the industry.

Analysis of the accounting practices used suggests that the management accounting systems employed in many food and drinks companies are not particularly sophisticated. Taking the industry as a whole, there is little evidence of management accounting directly connected with 'value creation'. There are, however, indications that increased use may be expected of techniques relating to cost of quality information, non-financial measures relating to employees, and analysis of competitors' strengths and weaknesses.

### 2. Background and objectives

The food and drinks industry is the largest in the UK's 'manufacturing' sector. Despite this, little is known about the specific management accounting practices employed across the industry.

The aim of this study is to investigate the current state of management accounting practices in the UK food and drinks industry and explore its 'sophistication level'. In this context sophistication refers to the capability of a management accounting system to provide a broad spectrum of information relevant for planning, controlling, and decision-making all in the aim of creating or enhancing value. Increased sophistication is manifested by a move from 'simple' cost determination and financial control to the creation of value through management information.

By combining analysis of previous research with a survey of over 240 management accountants and production managers in the food and drinks industry, the study aims to understand the perceived value of newer management accounting techniques and the extent to which they are becoming more widely used.

In particular it explores whether, and to what extent, the sophistication of a management accounting system is related to the following possible explanatory variables:

- External factors: environmental uncertainty; customers' power.
- Organisational factors: competitive strategy; structure; size.
- Processing factors: system complexity; extent of implementation of advanced manufacturing technology; implementation of total quality management techniques; implementation of just-in-time techniques, and product perishability.

The study is the first of its kind to investigate the relationships between these factors and management accounting practice. It has particular implications for companies that are large, decentralised, have powerful customers, or apply advanced technology or TQM/JIT 'philosophies'.

### 2.1 The IFAC framework

The International Federation of Accountants describes (IFAC, 1998) the development of management accounting as an evolution of four stages. This framework was adopted in order to locate the concept of sophistication within a widely known framework. The IFAC statement identifies the broad characteristics of each stage as follows:

#### Stage 1 (pre 1950) – cost determination and financial control

Before 1950, management accounting was seen as a technical activity required for the pursuit of organisational objectives. It was mainly oriented towards the determination of product cost. Production technology was relatively simple, with products going through a series of distinct processes. Labour and material costs were easily identifiable and the manufacturing processes were mainly governed by the speed of manual operations. Hence, direct labour provided a natural basis for assigning overheads to individual products. The focus on product costs was supplemented by work on budgets and financial control of production processes. Competition on the basis of either price or quality was relatively low. There was little innovation in products or production processes as existing products sold well and the production processes were well understood. Accordingly, management was concerned primarily with internal matters, especially production capacity. The use of budgeting and cost accounting technologies was prevalent in this period.

#### Stage 2 (by 1965) – provision of information for management planning and control

In the 1950s and 1960s the focus of management accounting shifted to the provision of information for planning and control purposes. Management controls were oriented towards manufacturing and internal administration rather than strategic and environmental considerations. Management accounting, as part of a management control system, tended to be reactive, identifying problems and actions only when deviations from the business plan took place.

#### Stage 3 (by 1985) – reduction of resources waste in business processes

The world recession in the 1970s, following the oil price shock, and the increased global competition in the early 1980s threatened the Western established markets and led to a decline in their protected markets. The increased competition was accompanied and underpinned by a rapid technological development that affected many aspects of the industrial sector. In this way, the design, maintenance and interpretation of information systems became of considerable importance in effective management. This was often accompanied by a focus on waste reduction and employee empowerment. In this environment there is a need for management information, and decision making, to be diffused throughout the organisation, in order to support employees at all levels.

#### Stage 4 (by 1995) – creation of value through effective use of resources

In the 1990s, advances such as the internet and globalisation continued to exert considerable uncertainty on businesses. The focus of management accountants shifted to the generation or creation of value through the effective use of resources, through the use of technologies that examine the drivers of customer value, shareholder value, and organisational innovation.

A critical difference in the shift between Stage 2 and Stages 3 and 4 is the change in focus away from information provision and towards resource management, in the form of waste reduction (Stage 3) and value creation (Stage 4). The focusing of the use of resources (including information) to create value is an integral part of the management process in contemporary organisations.

## 2.2 Industry and research context

The food and drinks industry's turnover in 2003 was about £67.6 billion representing 15% of total manufacturing. The industry employs some 500,000 people or 13.1% of the whole UK manufacturing workforce. A total contribution of £20 billion GVA (Gross Value Added) is made to the UK economy<sup>1</sup>. Despite its significance, little is known about the specific management accounting practices employed across the industry.

This study attempts to address this by means of empirical research carried out with over 240 executives in the UK food and drinks industry.

Previous contingency theory studies have tended to focus on broad characteristics of management accounting information such as scope or timeliness, and have not investigated the relationship between the development of management accounting practices and explanatory factors (such as external, organisational and processing factors). This study distinguishes itself by focusing on management accounting practices as outcomes and considers the explanatory factors that have influenced MAPs in order to address the following two questions:

1. How 'sophisticated' are management accounting systems in the UK food and drinks industry?
2. To what extent are UK management accounting practices influenced by external factors, organisational factors, and 'processing' factors?

## 3. Findings

### 3.1 The use and importance of management accounting practices

Questionnaires were mailed to the management accountant and the production manager of 650 companies in the UK food and drinks industry. In total, 245 usable completed questionnaires were received and analysed. Respondents were asked to indicate the frequency of production or use of 38 management accounting practices (MAPs) using a Likert-type scale (1 indicating never and 5 indicating very often). They were also asked to rate the importance of each technique/practice using 'not important', 'moderately important' or 'important'. The following observations were made:

- **Costing systems** – 48% of companies either often or very often distinguish between variable/incremental costs and fixed/non-incremental costs for decision making purposes. By contrast, a relatively small number of companies

indicated a high use of overhead allocation to cost objects, indicating that variable (or direct) costing is much more common than various forms of absorption costing. Respondents are aware of the importance of overhead allocation techniques but many believe that it is not worth implementing them frequently, which suggests they are more commonly used for ad-hoc 'costing studies'. Likewise the costing of quality is seen to be extremely important but not very frequently calculated.

- **Budgeting** – the survey showed that budgeting is either often or very often used for planning and for controlling costs by an overwhelming 84% and 73% respectively. Taken together, budgeting for planning and control was considered either important or moderately important by more than 90% of respondents. It can be concluded that almost all companies use budgeting for planning and control. The majority of respondents (63%) considered activity-based budgeting (ABB) to be important or moderately important. However, only 19% of respondents were using it often or very often, which suggests that companies start implementing ABC and then they use the activity analysis performed during the implementation to prepare their budgets. Finally, 83% rated budgeting as an important part of their long-term strategic planning.
- **Performance evaluation** – respondents were asked to rate the use and importance of five groups of performance measures – traditional financial measures (e.g. profit, return on investment, standard costs and variance analysis); EVA<sup>®</sup> (residual income); benchmarks, and non-financial measures related respectively to customers, to operations and innovation, and to employees. As expected, the majority of respondents (78%) rated financial measures as important and about the same percentage reported frequent usage of these measures. Non-financial measures related to customers and to operations and innovation are clearly very influential with 87% and 77% respectively scoring them as at least moderately important. However, a significant minority of companies (38% for both categories of measures) produce such measures either never or rarely. The non-provision of employee related measures are even more marked, with 41% of respondents answering never. The results show also that neither EVA<sup>®</sup> nor benchmarking have gained popularity yet among UK food and drinks companies.

<sup>1</sup> Food and Drink Federation, <http://www.fdf.org.uk/industrystats.aspx>, accessed on 20 June 2004.

- **Information for decision making** - responses to questions about decision-making MAPs show that product profitability analysis and customer profitability analysis are often or very often calculated in the majority of companies – 69% and 51% respectively. Respondents also rated these analyses as important – 72% and 59% respectively. Cost-volume-profit (CVP) analysis is seen to be important or moderately important by 86% of respondents and is also surprisingly frequently produced – 44% indicating that such analyses are used at least often. Stock control models are largely moderately important and sometimes used. Regarding capital investment decisions, 41% of respondents used traditional accounting measures such as accounting rate of return and payback period to evaluate major capital projects while the equivalent figure for discounted cash flow models, such as internal rate of return and net present value, is only 19%. This points to an apparent scepticism of 'advanced' investment appraisal techniques.
- **Strategic analysis** – the survey shows that only long-range forecasting was often or very often done by most (43%) of the companies. This was followed in frequency by the analysis of competitive position (33%) and the analysis of competitors' strengths and weaknesses (21%). The high scoring of importance, relative to frequency of use, of analyses of competitive position (and competitors' strengths and weaknesses) and of value chains suggests that the application of these practices will become more widespread and frequent.
- **Communication of management accounting information** - to explore this issue management accountants were asked to assess the importance, to their business, of four levels of accessibility of internal reports. They indicate that it is important to provide detailed management accounting information on a systematic, regular, short-term basis (91% of respondents). The ability to provide detailed information immediately on request was rated important or moderately important to 86% of respondents. Immediate updating and the provision of real-time information was important to only 11%, and 48% of respondents indicated that it is important that detailed management accounting information is reported direct to line managers. This confirms the anecdotal evidence that there is now widespread 'ownership' of management accounting which is increasingly less subject to filtering and analysis by accounting specialists.

### 3.2 Levels of importance, usage and emphasis

The survey showed that four management accounting practices were indisputably widely used and important. Two in the category relating to cost determination and financial control are Budgeting for controlling costs and Performance evaluation based on financial measures. The other two relate to provision of information for planning and control and are Budgeting for planning and Product profitability analysis.

At the other end of the scale, are six well-known practices that may be dismissed as peripheral. They are two 'operations research type' practices; Regression and Learning curve techniques, and Risk evaluation with probabilities and simulation and four more modern techniques that are associated with 'strategic management accounting' i.e. the analysis of Economic value, Shareholder value, Industry analysis, and Product life-cycles. This basic 'high-low' snapshot indicates that traditional management accounting seems 'alive and well'.

### 3.3 Classification of firms into management accounting evolution stages

In order to explore the sophistication of current MAPs and to examine whether there are relationships between their sophistication and potential explanatory factors, the study classified respondent firms into their respective evolutionary stage. This was done on the basis of their emphasis on certain MAPs and then relating those MAPs to the IFAC stages of management accounting evolution.

It was observed that of the 113 firms in the study, 19% (21 firms) are in Stage 1, 41% (47) are in Stage 2, 27% (30) are in Stage 3, and 13% (15) in Stage 4 of management accounting evolution. About 40% of firms have management accounting systems in either Stage 3 or Stage 4 of IFAC's evolution. It can be concluded that management accounting systems in many firms of the UK food and drinks industry are moving from a simple or 'naïve' role of cost determination and financial control towards a more sophisticated role of creation of value through effective resource use.

### 3.4 The effect of explanatory factors on management accounting practices

Having classified responding companies into four stages according to the sophistication level of their MAPs, the study then sought to understand the extent to which explanatory factors – external, organisational and processing factors – have an effect on the level of MAP sophistication.

### External factors

The study found that as companies move into a more uncertain environment, the level of sophistication of their MAPs increases (i.e. from Stage 1 or 2 to Stage 3 or 4). Likewise, as their power relative to customers' diminishes, companies tend to move from naïve stages of management accounting evolution (Stage 1 or 2) to more sophisticated stages of 3 or 4.

### Organisational factors

- **Strategy** - it has been argued in the past that companies following a product differentiation strategy need a more sophisticated cost system that accurately measures the cost of product and volume diversity arising from following such a strategy. Without a sophisticated system companies run the risk of not being able to determine whether the higher revenue generated from their products or services exceeds the extra costs associated with differentiation. This study could not, however, find evidence to suggest that competitive strategy influenced the sophistication of costing systems.
- **Firm structure/decentralisation** – the results of the survey suggest that companies with more delegated managerial structures may need more sophisticated MAPs to provide managers with enhanced relevant information for the planning, controlling and decision making for which they are responsible.
- **Size** – organisation size is an important factor that affects both structure and other control arrangements. The survey found that more sophisticated MAPs are likely to be implemented by large companies.

### Processing factors

Overall the survey found relationships between companies that have adopted Advanced Manufacturing Technology (AMT), Total Quality Management (TQM) or Just-in-Time (JIT) and the level of MAP sophistication.

There was little evidence, however, to suggest that the complexity and diversity of the businesses' product lines, processes and volume had any significant impact on MAP sophistication levels.

### 4. Summary

This in-depth investigation into the use and importance of management accounting practices in the UK food and drinks industry has provided some interesting conclusions:

- The 'typical' UK food and drink firm is positioned at a mature Stage 2 or early Stage 3 on the IFAC four stage classification.
- Management accounting is more highly evolved in companies facing powerful customers (e.g. retailers). Management accounting practices are also subject to economies of scale, and investment in sophisticated systems can more readily be justified in large businesses.
- Budgeting, product profitability and financial performance measurement remain the central pillars, while some newer management accounting techniques (e.g. the balanced scorecard) are less widely used than might be assumed by the reading of textbooks.
- Increased trade liberalisation and international competition suggest the need for more companies in the food and drinks sector to identify improvement opportunities through benchmarking and consider adopting 'more advanced' MAPs.
- Of the more sophisticated techniques, increased use may be expected of:
  - information concerning the cost of quality
  - non-financial measures relating to employees
  - analysis of competitors' strengths and weaknesses.

Copyright © CIMA 2006  
 First published in 2006 by:  
 The Chartered Institute  
 of Management Accountants  
 26 Chapter Street  
 London SW1P 4NP

Printed in Great Britain

The publishers of this document consider that it is a worthwhile contribution to discussion, without necessarily sharing the views expressed which are those of the authors.

No responsibility for loss occasioned to any person acting or refraining from action as a result of any material in this publication can be accepted by the author or publishers.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, method or device, electronic (whether now or hereafter known or developed), mechanical, photocopying, recorded or otherwise, without the prior permission of the publishers.

Translation requests should be submitted to CIMA.

CIMA (The Chartered Institute of Management Accountants) represents members and supports the wider financial management and business community. Its key activities relate to business strategy, information strategy and financial strategy. Its focus is to qualify students, to support both members and employers and to protect the public interest.

**April 2006**

**The Chartered Institute  
of Management Accountants**

26 Chapter Street  
London SW1P 4NP

T. +44 (0)20 7663 5441

F. +44 (0)20 7663 5442

E. [technical.services@cimaglobal.com](mailto:technical.services@cimaglobal.com)

[www.cimaglobal.com](http://www.cimaglobal.com)

REF: TE033V0406