Performance Measurement and Management Promotion through Non-Financial Measures: A Management Accounting Perspective

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PERFORMANCE MEASUREMENT AND MANAGEMENT PROMOTION THROUGH NON-FINANCIAL MEASURES: A MANAGEMENT ACCOUNTING PERSPECTIVE

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ABSTRACT

The purpose of this paper is the discussion of non-financial performance measures that can be adopted in the management accounting function of business organisations. The study is important because it shows how organisational focus on non-financial measures can substantially enhance profitability, albeit being subject to cost constraints.

To begin with, the evolution of management accounting research over the last three decades is presented. The development in the academia is then contrasted with the management accounting techniques used in practice. Among different techniques available, the Budgeting technique and the Activity Based Costing (ABC) technique are assessed from the view-point of decision making and non-financial measures. The focus of the argument is on the suitability of non-financial measures on the evaluation of profitability through customer relationships. Enterprise Resource Planning (ERP) and the Balanced Scorecard (BSc) are identified and evaluated as instruments to include non-financial measures. Furthermore, the application of non-financial measures taken into consideration in management performance evaluation and management promoting decisions is discussed. Managerial focus on promoting measures can be promotion-driven and thus short-term oriented. This threat should be kept in mind when implementing non-financial measures in management accounting systems.

Keywords: Budgeting, Activity Based Costing (ABC), Enterprise Resource Planning (ERP), Balanced Scorecard (BSc), Performance Measurement, Customer Relationships, Management Promotion

JEL Classification: M10, M12, M41, M51

INTRODUCTION

Development of Contemporary Management Accounting Research

Four stages of development of management accounting research that has taken place during the last 30 years can be identified (Scapens, 2006). The application of mathematical models to describe the diversity of management accounting techniques used in practice and the development of the optimal techniques for the practice can be considered as a first phase. This stage took place during the late 1970s and the early 1980s. The main interest of research related to the question: What should managers do?

However, it has proven to be impracticable to develop optimal models for the practitioners due to the gap between research and everyday business: too many techniques have been used by the companies under consideration so that no pattern could be developed by the researchers. The main question turned to be: What do managers do?

The academia started to use more tools while conducting its research. Not only questionnaire surveys to be evaluated by mathematical models, but also fieldwork consisting of
interviews of managers and management accountants were carried out. Thus the 1980s enriched the theory by the following findings:

- It proved impossible to introduce “perfect” solutions in management accounting practice;
- Management accounting techniques emerged in a dynamic way which made them difficult to analyse in cross-sectional studies;
- The personal and social background of the persons involved in management accounting played a significant role for the choice of the techniques used in a particular company.

These latter findings set the scene for the research undertaken in the late 1980s and the 1990s: from this on the research tried to explain why so many different techniques were used instead of just describing them and making suggestions for optimisation. Organisational and social theory along with the institutional theory were used to analyse the processes which took place in companies regarding the choice, the usage and the change of management accounting techniques over time. Thus insights from outside the pure economics have been used from that time on. Due to this shift in focus the way of undertaking research changed, too. More in-depth case studies dealing with just one company have been conducted, despite the limitations of this method for generalising the results.

The 2000s have since seen a broadening of theories and methods used in management accounting research including, but not limited to:

- interpretive research
- critical research
- functionalist research
- positivist research
- surveys
- fieldwork
- case studies
- quantitative work
- analytical work
- organisation theory
- sociology
- social theory
- politics
- social anthropology
- economic theory
- contingency theory
- institutional theory including
  - old institutional economics (OIE)
  - new institutional economics (NIE)
  - new institutional sociology (NIS)
- actor network theory
- labour process theory
- political economy
The research interest shifted from an educative, descriptive and analysing one to one that should help the practitioner given his practical constraints. One such a shift from the established accounting practices considered to be unsatisfactory from the viewpoint of financial accountability of management personnel is presented by strategic management accounting.

Strategic management accounting is addressed by the Burns and Scapens framework (Scapens, 2006). The framework is based on the old institutional economics (OIE). In the OIE thinking rules and routines inside of an organisation greatly influence the organisation’s activities and the behaviour of the persons involved in these activities. According to the Burns and Scapens framework the institution’s actions follow the established routines and rules. But whereas actions, rules and routines can change more or less quickly over time, the institution for the most part remains solid and resistant to change. This is of crucial importance if strategic changes are to be introduced.

Scapens’ school of thought delivered several extensions to the framework with trust, power and agency being such extensions. Trust deals with confidence that management has (or has not) in new management accounting techniques and the management accountants themselves that are about to bring strategic change to the entity. Power of people inside the organisation can hinder or accelerate management accounting change. Finally, agency deals with cognitive processes of decision makers and the role change agents play when management accounting changes (have to) occur.

The dynamics of the usage and the development of management accounting techniques are subject to constraints described by the Burns and Scapens framework and are influenced by trust, power and agency considerations.

Management Accounting Techniques in Use by Practitioners

According to the 2009 CIMA survey among management accountants on techniques and tools used, management accounting has been applied in the strategic planning and control processes in a number of ways.

More than 100 techniques were subject to the survey with 33 of them used by an average respondent. A different pattern of use could be established between large and small organisations, with small entities having less than 50 employees whereas large organisations having more than 10,000. As could be probably expected, large businesses use more techniques than the smaller ones.

To a certain degree, the more established tools are used more widely than those introduced in the recent past. For example, overhead allocation and variance analysis account for 66% and 72% of users, respectively, but target costing and Kaizen for 15% and 5%, only. The same is true for budgeting tools. Financial year forecasts, cash forecasts and rolling forecasts are applied by the vast majority of respondents (85%, 77% and 65%), whereas the beyond budgeting
technique accounts for only 3% of total usage. Interestingly, the profession still relies on the common budgeting tools despite their well-known drawbacks like budget-padding. However, according to the survey, respondents are going to introduce more new techniques. First of all, the balanced scorecards and the customer profitability analysis are considered to enrich the working portfolio in the near future.

Despite the emergence of new and sophisticated techniques, large entities still prefer to rely on such long established and simple techniques like the net present value (76%) or the payback period (60%). Large companies could be expected to use more advanced techniques due to the larger resources available.

There is also some different pattern of use among regions. Rolling forecasts and financial year forecasts are less popular in Africa. In Asia, management accountants tend not to rely on the economic value to customer technique, which, in turn, is widely used in Africa.

However, the usage of management accounting tools could be increased through an improvement of IT systems and a better financial support of the function. Knowledge management is also important as the survey shows that lot of respondents are impressed by the mere number of techniques available that they have not been previously aware of. This clearly highlights a key area of improvement: in 2006, the Accenture survey considered the proper use of the right technique to be of crucial importance for the function if it had to deliver its input for the strategic planning and control process.

**DISCUSSION**

**Budgeting and Activity Based Costing in Focus of Performance Evaluation**

The starting point of budgeting for a business entity is to find the entity’s principal / limiting budget factor (Thompson and White, 2008). This factor will have the greatest influence on the outcome of the budget process; i.e. whether the reality will follow the budget or whether there will be material variances. For a business organisation such a principal budget factor may be sales as the organisation’s performance and further existence depend on its successful trading activities.

To prepare a sales budget for a number of upcoming months a forecast is needed. Also, opening inventory of the first month has to be forecasted. Consideration is to be given to the inventory needed to perform the sales and to remain in stock for the upcoming period, i.e. the next month. This gives the finished goods inventory budget.

The items needed for the monthly sales and closing inventory are to be reduces by the month’s opening inventory, which is the previous month’s closing inventory. Taken all the months under consideration together, the production budget can be fixed.

So far the budgets are in items only. To translate the items into monetary values, the production overhead absorption rate has to be assessed. If the production overheads for the period under consideration can be forecasted, the overheads can be divided by the number of
produced items (if the overheads are absorbed per unit). After the calculation of the absorption per unit the material costs and direct labour costs per unit can be added to arrive at the fully absorbed costs per unit.

Given the finished goods inventory budget and the production budget as well as material used per item (in kg), material costs per item, labour used per item (in h) and labour costs per item the raw material inventory budget (along with the purchases budget) in units and money and the direct labour budget in hours and money can be calculated.

All these budgets can be included in a master budget. In the next step, the budgeted income statement, the cash budget and the budgeted balance sheet can be derived from the master budget. To accomplish this task, certain adjustments have to be performed. So, an income statement consists of revenue (sales budget multiplied with price per unit) and cost of sales (sales budget multiplied with fully absorbed costs per unit). There will be monthly under- and over-absorption of costs, because the fully absorbed costs per unit were calculated using an average absorption rate which in turn depends on the total number of units produced. Clearly, the total number of units produced rarely equals the sales budget.

The budgeting process includes a number of steps. Whilst these may differ depending on the nature and priorities of the organisation, the process outlined by Thompson and White (2008) is typical of that adopted by most (manufacturing) organisations. The steps and key issues at each stage could be summarised as follows:

- **Sales**: sales may well be the ‘limiting factor’ for most organisations. An organisation that seeks to make a profit would unlikely plan to spend more than it can generate in sales revenue. Forecasting techniques may be of use at this stage.
- **Finished goods inventory (opening)**: an organisation may have finished products in stock at the start of the period.
- **Production**: the production plan should reflect the sales target, as adjusted for finished goods inventory (opening) and finished goods inventory (closing)
- **Finished goods inventory (closing)**
- **Raw materials inventory**: the production plan will demand the use of raw materials, some of which may be in stock at the start of the period.
- **Purchases**: there may well be a need to purchase additional raw materials in order to fulfil the production plan.
- **Direct labour**: it is likely that labour will be needed to fulfil the production plan.
- **Budgeted financial statements**: pro forma financial statements could be produced against which actual financial performance and position could be compared. Typically, these will include a budgeted income statement, a budgeted balance sheet and a budgeted statement of cash flows.

Jensen (2003) is of the opinion that linking pay to performance evaluation using budgets destroys value. The researcher argues that managers and staff who are driven by such a performance evaluation lie to each other when formulating budgets and targets. They do not tell the truth to secure budgets that remain achievable for them so that they do not risk their paycheque. Or they manipulate budgets to achieve certain curvilinear bonuses. By doing so they
feed the organization with biased information which in turn hinders optimal coordination among the participating departments. Thus economic value is destroyed through poor coordination.

Furthermore, when time comes to realise the budgets, misleading actions take place that further destroy value: for example, if sales budgets seem to be not achievable, sales might be postponed to the next budget-period to meet the then target. Alternatively, expenses may be pulled forward to the current period at which the budget is missed anyway to disburden the upcoming period. These manoeuvres are not caused by the true business needs. Instead, they are artificially driven by managers and staff. In so acting they do not enlarge value. They even diminish and destroy value which could only be created or preserved if vital business needs were served. The atmosphere of “gaming the system”, lying and bias can then reach out for other parts of the organisation. Thus value destruction intensifies.

Jensen (2003) believes that productivity (hence: value creation) could be increased by 50-100% if managers’ pay would not be linked to budget and target achievement any more. Roy (1952) even estimates an increase of productivity by up to 150%.

To overcome the drawbacks addressed, Jensen (2003) suggests introducing a liner pay-for-performance system where bonuses and pay increase according to the real performance, not to the budgeted one. This does not constitute elimination of budgets and targets at all. Undoubtedly, they are important for enterprise planning and control. The idea behind this proposal is to eliminate the possibility of “gaming” and to link the performance evaluation to the real performance instead of to biased estimates. However, from the viewpoint of integrity it remains questionable whether the “gaming” behaviour would stop altogether after the proposed change of the performance evaluation. Schweitzer et al. (2001) argue that meeting the budgets is associated with psychological rewards and thus can still induce “gaming the system” even in the absence of monetary returns.

Hopwood (1974) distinguishes between three different ways of using accounting data for performance evaluation:

- Budget constrained style
- Profit conscious style
- Non-accounting style

The budget constrained style focuses on budgets and numbers and is thus short-term oriented. Such a stringent adherence to budgets can cause tensions and conflicts between management and subordinates. Indeed, this style of performance evaluation is predetermined for such problems to occur - managers who adopt this style are interested in achieving the targets set and do not encourage discussion and consulting with subordinates on the very targets. Furthermore, managers using this style more often become subject to the contagion effect compared to the managers adopting the other two styles. Under this effect, the pressures and constraints imposed on them by the higher management are passed down the line of command to their subordinates. This intensifies the clashes between the persons involved.
At the other extreme, there is the non-accounting style. Under this approach, management pays a relatively low attention to accounting data, cost control and budgets. While seeking consensus such managers create an atmosphere of participation and satisfaction among their subordinates.

Between these two styles there is the profit conscious style. This style is long-term oriented. Thus, budgets and accounting data are just one part of information sources used by the management under this approach. For example, cost considerations are important according to Hopwood (1974). But other information is also evaluated to assess profitability and effectiveness. Also, subordinates are consulted to enhance the acceptability of budgets. However, participation under this approach does not automatically mean that the subordinates’ complaints are finally taken into account. This again can lead to tensions.

Despite the significant differences between these three styles, Hopwood (1974) does not argue that management adopts only one of them. To the contrary, his study shows that for example a poor budget record or a large amount of money involved can ask for the budget constrained style for the sake of a better control. Thus, which of the styles is the most appropriate in the given situation may be dictated by the situation itself. These findings support previous studies on managerial behaviour by Kay and Hastman (1966) and Lowin and Craig (1968).

To Searcy and Roberts (2007) budgeting as described above represents just another statistical and accounting tool that does not necessarily help business to improve decision making. Instead, in their view, organisations should consider the implementation of Activity Based Costing (ABC). The ABC system should be integrated with the organisational decision-support-systems. The integration processes should focus on the following issues:

- Using data external to the organization
- Including non-financial information
- Creating a One-Stop-Shop for the relevant information in the organisation
- Introducing analytical tools for the ABC system
- Generating custom reports quickly and easily
- Creating a user-friendly system

To achieve these results, the ABC system should work together with the decision-support-systems and not operate in isolation. The benefits from the ABC analysis can only be derived if the decisions made are really based on the findings. However, Searcy and Roberts (2007) propose that human involvement should be reduced as far as possible to arrive at optimal plans through automated processes. This provokes certain criticism. Indeed, ABC helps to identify cost drivers and to account for them properly, depending on the activities consumed. Just feeding this data into the decision-support-systems without asking why the activities are consumed in a given way would mean to make decisions on a probably sub-optimal level. To the contrary, activity consumption should be adjusted and improved through human interaction to allow for a better cost pattern. On that new basis better decisions could be made with the decision-support-systems at place.
Improvement of Decision Making in Performance Evaluation through Non-Financial Measures

Banker et al. (2000) show that introducing non-financial performance measures into a managerial compensation plan makes managers focus on these measures for the sake of their compensation. If the non-financial performance measures are crucial for the business success such an enhanced awareness of these measures can help to increase profitability.

For the hospitality business analysed by Banker et al. (2000) customer satisfaction was identified as such a critical success factor (ACCA, 2012a). As soon as managers were assessed by customer satisfaction measured by occupancy (volume effect) due to returning customers, they extended their efforts to generate more revenue through higher customer returns and lower customer complaints.

However, according to Campbell (2008) non-financial performance measures like service quality and employee retention gain momentum after controlling for financial performance. Termination of managers (in the sense of a negative performance reward) is primarily assessed by financial performance.

Non-financial performance measures help managers understand the magnitude and timing of their decisions on success factors and its financial consequences (Kaplan and Norton, 1996). This in turn increases their accountability for their own performance and reward. This is consistent with Campbell (2008) who finds that the managers’ performance improves more in areas with a higher weighting of non-financial performance measures in promotion and reward systems.

Campbell (2008) also finds that performance increases in pre-promotion periods. However, it decreases remarkably after the promotion / reward takes place, albeit remaining on a higher level compared with areas where no promotion took place at all. These facts can be incorporated into the decision making of the higher level management when evaluating performance of the subordinates using non-financial performance measures. Also, measuring non-financial performance via guest comment cards can be easier than calculating financial ratios to assess and enhance performance (Banker et al., 2000). However, trying to attract and retain customers through increased service can have a negative impact on costs. So cost control should still be achieved via financial performance measures according to Banker et al. (2000).

Non-financial performance measures can facilitate the evaluation of the managers’ abilities to perform on a set of critical success factors (Campbell, 2008). Similarly, the managers’ ex post ability to perform can be estimated: Campbell (2008) argues that this task can be performed on a set of given non-financial metrics in a more meaningful way as opposed to financial measures. Indeed, if non-financial success factors are at stake, they should be measured accordingly using non-financial methodology.
Inclusion of Non-Financial Measures in Enterprise Resource Planning and the Balanced Scorecard

In a paper from 2006, Gupta and Zeithaml investigate whether and how enhanced customer relationships can increase profitability. Their focus is on the allocation of marketing expenditure and on costs that occur when an entity raises its service quality to increase customer satisfaction. This is an issue of Enterprise Resource Planning (ERP) that is concerned with the proper allocation of the entity’s financial and non-financial resources to its activities.

Customer relationships are maintained to achieve and sustain sales and (hopefully) profitability. These relationships can be divided into the sub-categories of customer acquisition and customer retention. At this stage, allocation of marketing expenditure to attract new and / or to retain old customers can have an impact on profitability: not all new customers can be profitable in the long-term and some of the old clients may be worth neglecting if income generated by them does not recover the costs. Customer value and customer equity are two models to assess the long-term-profitability of customers to allow for the proper ERP.

According to Gupta and Zeithaml (2006) improved customer satisfaction has a positive effect on profitability, albeit in a nonlinear and asymmetric manner and varying across industries and across companies within an industry. Anderson et al. (2004) and Ittner and Larcker (1998) showed that the improvements can be quite considerable if measured in firm value, i.e. stock returns. For example, an increase of just 1% of the American Customer Satisfaction Index leads to an increase of firm value of 240–275 million USD. However, such customer intentions are not necessarily reflected in actual increased sales.

Nevertheless, the research conducted by Gupta and Zeithaml (2006) showed that expenditure linked to marketing and service quality improvement generally has a positive impact on the entity’s overall profitability. Therefore, marketing programmes and service quality enhancement programmes should be payed attention to when allocating resources among the company departments.

Nagar and Rajan (2005) used four different metrics to assess the effect of customer relationship on profitability:

- Price of the product
- Service offered to customers, measured through product turnaround times (service speed), employee retention rates (service quality) and service and human resource expenditure
- Customer usage and volume
- Customer satisfaction

They apply these metrics to their structural-form path model which sees the effect of improved customer relationships as a result of chronological effects:

- firstly, improve service quality internally,
- secondly, achieve customer satisfaction through the improved service quality,
thirdly, the customer makes more business with the company based on his satisfaction,
finally, the increased business with the customer results in higher sales and profits.

The key to the Nagar and Rajan (2005) findings is that the above activities can achieve the best results if applied in bundles, instead of on a stand alone basis. Therefore, measuring the metrics alone does not provide the company with an advantage. The intangible asset of customer relationship can only be deployed with profit if the company can improve its performance along all the metrics, or at least along bundles that fit together (Milgrom and Roberts, 1995).

Resources allocation can be accomplished using the Balanced Scorecard (BSc). This approach incorporates four measures (Kaplan and Norton, 1992; Kaplan and Norton, 2000):

- Financial
- Customer
- Internal business process
- Learning and growth

The last three of them can be qualified as non-financial. Thus, they provide a deeper insight into the company’s matters compared to the financial only perspective of a balance sheet and a profit and loss account.

Leung et al. (2005) mentioned that the management and evaluation of performance can be further enhanced through the application of Analytic Hierarchy Process (AHP) and the Analytic Network Process (ANP). AHP creates a hierarchy among the measures under consideration and thus allows for weighting up between the different categories. ANP provides an application to address the interdependencies between the measures involved. Thus it shows which measures are influenced by others or which measures in turn have an impact on other categories.

Time-dependencies help to assess the relationship between performance drivers and the outcome measures. Not all management actions immediately result in a measurable success or failure. Therefore it is important to address the time lag when evaluating performance. This is especially the case if looking at the product life cycle: customer satisfaction can be a key driver at the introduction stage, whereas cycle time reduction and employee satisfaction can be important during the growth stage. All the three measures are non-financial, but properly addressing these issues can be essential for the product placement (introduction stage) and the market share (growth stage).

Above this, BSc helps to weight up between subjective and objective criteria. At first sight, it appears favourable to use objective criteria to prevent bias and inaccuracy. However, it may be reasonable to use subjective measures, too, as they may consist of insider information that is not provided for by the standard formula and thus generate advantages (Baiman and Rajan, 1995).
CONCLUSION

Internally generated intangible assets are not recognised in the statement of financial position according to the IFRS and the prevailing GAAP (ACCA, 2012b). Nevertheless, they can considerably contribute to the company’s performance and profitability. Customer relationships can be seen as such an intangible asset. Fulfilling customer demand is the only way business entities can survive in the long term. Therefore, sustaining a satisfactory customer relationship is of great importance for the going concern of a business, even without this intangible being part of the financial statements that are usually used to assess the business’ performance. Therefore it appears necessary to assess the customer relationship’s contribution to the entity’s profitability to see the whole picture of its performance.

Customer relationships have to be put in the wider strategic context of the company to achieve long-time profitability. For example, if the company is or wants to be seen as an innovative one, it has constantly to create new products and services to sell to the customers. Clientele interested in doing business with innovative suppliers will thus be satisfied.

Campbell (2008) shows that non-financial performance measures can be used to assess the competences and the possible future input of the promoted managers. However, non-financial measures are often considered to be subjective and unreliable by management and even by those whose performance is to be evaluated (Ittner et al., 2003) qualifying its importance. Nevertheless, in case those who are to be promoted can directly influence non-financial performance, they may allocate their efforts and intensify their learning to improve their performance (Huber, 1991; Lapre and Tsikriktsis, 2006). This, in turn, can have a positive effect on the overall performance of the organisation.

Therefore, management accounting systems have to incorporate non-financial performance measures into promotion decisions on a proper basis.
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