COST AND MANAGEMENT SYSTEMS BETWEEN COST CALCULATION AND PERFORMANCE MEASUREMENT

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Nowadays companies are facing with intense competitive pressure. Market conditions are characterized by aggressive competition, more and more demanding customers who pose serious questions about competitive strategies and underline the importance of an efficient management information and cost system.

In order to with the current requirements, to improve internal and external communication, there is a demand for accurate, reliable and versatile information on financial, internal processes and costs. Therefore the quality of management decisions and performance measurement is tightly linked to the quality of management and cost calculation systems and performance measurement systems.

The purpose of this paper is to cover the available literature in this field and to demonstrate that new and complex cost systems and cost calculation methods represents major innovations within an organization and permits not only cost calculation and analysis but also performance measurement, strategy definition are oriented through competition and customers.

KEY WORDS: costs system, cost calculation methods, performance measurement, strategy

1. INTRODUCTION

The American Accounting Association defined accounting in 1966 as: "The process of identifying, measuring and communicating economic information to permit informed judgements and decisions by users of the information."

This is an important definition (Collier, 2003) because:

- it recognizes that accounting is a process: that process is concerned with capturing business events, recording their financial effect, summarizing and reporting the result of those effects, and interpreting those results
- it is concerned with economic information: while this is predominantly financial, it also allows for non-financial information
- its purpose is to support informed judgments and decisions: this emphasizes the decision usefulness of accounting information and the broad spectrum of users of that information.

Managers need financial and non-financial information to develop and implement strategy by planning for the future (budgeting); making decisions about products, services, prices and what costs to incur (decision-making using cost information); and ensuring that plans are put into action and are achieved (control). This function is called **management accounting**.

Management accounting was defined by the National Association of Accountants (NAA) as "the process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of financial information, which is used by management to plan, evaluate and control within an organization."

According to Johnson and Kaplan (1987) a management accounting system must provide timely and accurate information to facilitate efforts to control costs, to measure and improve productivity, and to devise improved production processes. The management accounting system must also report accurate product costs so that pricing decisions, introduction of new products, abandonment of obsolete products, and response to rival products can be made.

Since the 1980s global competition, that has taken place, has left management accounting behind in terms of its decisions usefulness. Traditional cost systems, such as job order costing or process costing, were no longer effective and efficient, they have lagged behind because they were not useful in a “high tech” environment (Cooper and Kaplan, 1989) and managers had different and various information need.

In time, developments and innovations appeared. Organizations confronted with automation of production processes and technological evolution developed new and complex cost and management systems. The decline of manufacturing and rise of service industries led to the need for “accurate knowledge of product costs, excellent cost control and coherent performance measurement.” (Johnson and Kaplan, 1987:220) And the challenge of today’s competitive environment is to develop efficient and effective management and cost systems which also allows to measure performances and provides timely and accurate information to facilitate efforts to control costs, to measure and improve productivity, and to devise improved production processes.

In this way, management accounting is now implicated with (Collier, 2003): value-based management, non-financial performance measurement systems, quality management approaches, activity-based costing and management and strategic management accounting in order to help managers to increase the value of the business.

2. Advanced management and cost systems and their relationship with performance measurement

2.1 Activity Based Costing and Activity Based Management

Activity Based Costing (ABC) is an alternative to the traditional way of accounting. Traditionally it is believed that high volume customers are profitable customers, a loyal customer is also a profitable one, and profits will follow a happy customer. Studies on customer profitability have unveiled that the above is not necessarily true. ABC is a costing model that identifies the cost pools, or activity centers, in an organization and assigns costs to products and services (cost drivers) based on the number of events or transactions involved in the process of providing a product or service. As a result, ABC can support managers to see how to maximize shareholder value and improve corporate performance.

The benefits of Activity-Based Costing include:

- Identifying the most and least profitable customers, products and channels.
- Determine the true contributors to- and detractors from- financial performance.
- Accurately predict costs, profits and resource requirements associated with changes in production volumes, organizational structure and resource costs.
- Easily identify the root causes of poor financial performance.
- Track costs of activities and work processes.
- Equip managers with cost intelligence to drive improvements.
- Facilitate better marketing mix
- Enhance the bargaining power with the customer.
- Achieve better positioning of products

Calculating and managing costs for all activities is related with using certain specific calculation techniques and its combination with proper managerial procedures. In order to measure up to these expectations the Activity Based Management is added to Activity Based Costing.

Activity Based Management (ABM) is considered by some authors as an improved version, others a sub product of ABC. Anyhow, most authors agree, that ABC/ABM couple is a complete management instrument, with the remark that ABC is a cost calculating system, while ABM is a philosophy of performance management. (Diaconu et al., 2003)

Managers use ABM (Albu, 2005) to learn how the structure of costs and their behavior influences the profits, being able to produce changes in the development of the sale prices or to eliminate the waste, to make the necessary changes in quality, efficiency, speed, and to select the suppliers and also to facilitate the decision making process on long terms though a process oriented thinking.

While ABC provides the necessary information in managing the activities, ABM uses these given information for improving the internal processes. It goes beyond the simple cost calculation and budgeting, it supports the strategic decision making among the companies, creating a relationship between the financial and non – financial information due to the cause - effect relationships.

More and more companies are implementing ABM and ABC techniques because (Barfield et al, 2001:911) "ABM is concerned with increasing throughput by reducing non-value-added activities; ABC is concerned with long-run, rather than short-run, cost measurement. ABM and ABC can provide information on the overhead impact created by reengineered processes to streamline activities and minimize non-quality work. As quality improves, management's threshold of "acceptable" performance becomes more demanding and performance is evaluated against progressively more rigorous benchmarks."

2.2 Balanced Scorecard

Performance measurements should concentrate on things that create customer value. Measures can be quantitative or qualitative, financial or non-financial. Measurement selection should be related to the performance that management wishes, usually the two most important performance measures of businesses at this time are quality and service.

A **Balanced Scorecard** was originally developed "to provide top managers with a set of measures that give a fast but comprehensive view of the business. The balanced scorecard includes financial measures that tell the results of actions already taken. And it complements the financial measures with operational measures on customer satisfaction, internal processes, and the organization's innovation and improvement activities—operational measures that are the drivers of future financial performance." (Kaplan and Norton, 1992:71)

A balanced scorecard can help an organization to assess its performance through the use of financial and non-financial as well as internal and external measurements. The four areas of the scorecard are (Kaplan and Norton, 2001:90):

1. ***Financial perspective*** – refers to the strategy for growth, profitability, and risk viewed from the perspective of the shareholder.
2. ***Customer perspective*** – refers to the strategy for creating value and differentiation from the perspective of the customer.
3. ***Internal Business Processes*** – refers to strategic priorities for various business processes that create customer and shareholder satisfaction.
4. ***Learning and Growth*** – refers to the priorities to create a climate that supports organizational change, innovation, and growth.

The scorecards four perspective reflect the dissimilar activities in which an organization must engage to prosper and survive. By analyzing these processes managers are able to monitor present performance but also try to capture information about how well the organization is positioned to perform well in the future.

Managers can use the Balanced Scorecard to:

- clarify and gain consensus about the strategy,
- communicate the strategy throughout the organization,
- align departmental and personal goals to the strategy,
- link strategic objectives to long-term targets and annual budgets,
- identify and align strategic initiatives,
- perform periodic and systematic strategic reviews,
- obtain feedback to learn about and improve strategy.

2.3 Quality management and quality costs

In order to be globally competitive in today's tumultuous environment, organizations place an increased emphasis on quality and productivity.

Total quality management (TQM) is an effort in this direction. TQM (Shim and Siegel, 1998:340) is a system for creating competitive advantage by focusing the organization on what is important to the customer. Total quality management can be broken down into:

- ***total*** - that is, the whole organization is involved and understands that customer satisfaction is everyone's job;
- ***quality*** - the extent to which products and services satisfy the requirements of internal and external customers; and "management" -the leadership, infrastructure, and resources that support employees as they meet the needs of those customers.

TQM is essentially an endless quest for perfect quality. It is a *zero-defects* approach. It views the optimal level of quality costs as the level where zero defects are produced. This approach to quality is opposed to the traditional belief, acceptable quality level which allows a predetermined level of defective units to be produced and sold.

Costs of quality are costs that occur because poor quality may exist or actually does exist. More specifically, quality costs are the total of the costs incurred by

1. investing in the prevention of non-conformances to requirements;
2. appraising a product or service for conformance to requirements; and
3. failure to meet requirements.

Quality costs are classified into three broad categories (Shim and Siegel, 1998:340-341):

- ***Prevention costs*** are those costs incurred to prevent defects. For example: amounts of money spent on quality training programs, researching customer needs, quality circles, and improved production equipment.
- ***Appraisal costs*** are costs incurred for monitoring or inspection; these costs compensate for mistakes that are not eliminated through prevention.
- ***Failure costs*** may be internal, for example scrap and rework costs or external for example product returns due to quality problems, warranty costs, lost sales due to poor product performance, and complaint department costs.

In order to achieve quality management and quality costs it is necessary to review, improve and facilitate the existing cost and management systems, the planning, control and decision making processes. By doing this managers can use quality cost information to implement quality programs, to evaluate the effectiveness of the existing quality programs and to elaborate short and long term strategies for business decisions.

3. CONCLUSIONS

Traditional cost and measurement systems have sprung from the finance function and focuse on control. These systems specify the particular actions they want employees to take and then measure to see whether the employees have in fact taken those actions. In that way, the systems try to control behavior.

New and complex cost and performance measurement systems, on the other hand, put strategy and visions to the centre. Financial and non-financial measures must be part of these systems for employees at all levels of the organization. Front-line employees must understand the financial consequences of their decisions and actions; senior executives must understand the drivers of long-term financial success. These systems are more than a collection of quantitative and qualitative measures they represent a process driven by the mission and strategy of the business units.

By combining the financial, customer, internal process and innovation, and organizational learning perspectives, and using both quantitative and qualitative, financial and non-financial information these systems helps managers to understand interrelationships within an organization, helps them to focus on continuous improvement and customer orientation and leads to the improvement of the decision making process.

Facing the intensive competitive pressure and environment, knowing the managerial needs regarding costs, strategies and performances each company needs to consider what cost and management system and performance measurement system contributes to their unique needs. These systems must help organizations to improve and achieve quality costs and quality management, to develop cost systems and evaluate managerial efforts that accurately measures costs, profitability and performances.

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