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OVERVIEW OF MANAGEMENT ACCOUNTING TECHNIQUES

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ABSTRACT: *In every organization, management must plan, organize, guide, motivate, evaluate and control. The main role of management accounting is to support managers inside the organization in forecasting as well as monitoring the present and past performance, measures and reports financial and non-financial information as well as other types of information on the monthly basis or more frequent depending on organization in the relevance for specific management decisions and control system, that are intended primarily to assist managers in fulfilling the goals of the organization. In this paper, the researcher aims to review some of the modern management accounting techniques, their definitions, process, advantages, and benefits.*

KEYWORDS: Accounting, Activity Based Costing, Balanced Scorecard, Budgeting, Just in Time

INTRODUCTION

There is kind of agreement that accounting is the language of business; to figure out the financial position of an organization; identifying the level of gain or loss which is the result of business' operations, and the efficient use of resources. According to Drury (1997, p.4) "Accounting is a language that communicates financial and non-financial information to people who have an interest in an organization – managers, shareholders, potential investors, employees, creditors and the government". To understand accounting, we should understand the nature of measurement and communication, the features of (economic) information, the theories and practices of decision-making and we must try to identify the users of accounting information (Arnold & Turley, 1996). The necessity of managerial accounting is increased in a dramatic way due to many variables like globalization, increased technology, quality, and the customer-oriented attitudes.

Due to the intensity of competition and the shorter life cycles of new products and services, management accounting becomes fundamental to an organization's success. In other words, a major objective of management accounting is to support the achievement of goals. The Chartered Institute of Management Accountants (CIMA) – the largest association of management accounting in UK –considers management accounting as an integral part of management. According to Horngren et al., (2002, p. 6) management accounting has the following functions: formulating business strategy, planning and controlling activities, decision making, efficient resource usage, Performance improvement and value enhancement, safeguarding tangible and intangible assets, and corporate governance and internal control. Moreover, the role of management accountants according to Coates et al. (1996, p. 2) is to participate in management to ensure efficiency and effectiveness in the formulation of plans to meet objectives (e.g. long term planning), formulation of short term operation plans (e.g.

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budget/ profit planning), recording of actual transactions (e.g. financial accounting & cost accounting), corrective action to bring future transactions into line (e.g. financial control), obtaining and controlling finance (e.g. treasure ship) and reviewing and reporting on systems and operations (e.g. internal audit/ management audit). This paper reviews some of the management accounting methods (mainly modern techniques), these methods comprise three quantitative management accounting techniques (budgeting, Activity-based costing and just- in- time) and one considered quantitative & qualitative management accounting technique which is the balanced scorecard.

Features of Accounting Information

According to Atrill & Mclaney (2005. P. 6) the accounting information must possess the following characteristics: Relevance in which accounting information must have the capability to influence decisions. Without such a feature, there is really no point in producing the information. The information may be relevant to the prediction of future events or relevant in helping confirm past events. Second, Reliability in which accounting should be free from significant errors or bias. It should be able of being relied upon by users to represent what it is supposed to represent. Third: Comparability through which quality enables users to identify changes in the business over time. It also helps users to evaluate the performance of the business in relation to other similar businesses. Also, Understandability in which accounting reports should be expressed as clearly as possible and should be clear to those at whom the information is aimed.
In addition to the above features, management accountant and top management should consider the materiality of information. An item is material if its inclusion or omission would influence or change the judgment of a reasonable person (Kieso & Weygandt, 1995, p. 49). In a similar manner, Atrill & Mclaney (2005, p.9) proposed four certain characteristics that are common to all information systems within a business.
These are:

1) Identifying and capturing relevant information.
2) Recording the information collected in a systematic manner.
3) Analysing and interpreting the information collected.
4) Reporting the information in a manner that suits the needs of users.

Budgeting

Budgets are one of the most widely used tools for planning and controlling in organizations. Budgeting systems enable managers to think in a future-oriented manner. A forward-looking perspective helps managers to be in a better position to utilize opportunities. It also helps them to expect problems and take steps to eliminate or reduce their consequences (Horngren et al., 2002, p. 468). Although, a budget is a quantitative and financial plan it's still not unique in all organizations. A budget as a quantitative and financial plan at the beginning of period (e.g. a fiscal year) is not considered only as a planning tool but also as a performance evaluation technique for the carried operations. Atrill & Mclaney (2005) said that: "budgeting is a vital process in all businesses as a tool for planning and control, and it is very important to achieve businesses' goals; managers should have a reasonable clear vision about the future". (p. 143).

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A budget can be defined as a business plan for the short term – typically one year, it is likely to be expressed mainly in financial terms, and it is role is to convert the strategic plans into actionable blueprints for the immediate future (Atrill & Mclaney, 2005, p. 143). Moreover, s budget is a quantitative expression of a proposed plan of action by management for a future time period and is an aid to the coordination and implementation of the plan. It can cover both financial and non-financial aspects of these plans and acts as a blueprint for the company to follow in the forthcoming period (Horngren et al., 2002, p. 469).

According to Bonavic (2005, p. 3): budgeting has the following functions:

1) Planning – a budget establishes a plan of action that enables management to know in advance the amounts and timing of the production factors required to meet desired levels of sales.

2) Controlling – a budget can be used to help an organization reach its objectives by ensuring that each of the individual steps are taken as planned.

3) Coordinating – a budget is where all the financial components of an organization – individual units, divisions, and departments – are assembled into a coherent master picture that expresses the organization's overall operational objectives and strategic goals.

4) Communicating – by publishing the budget, management explicitly informs its subordinates as to what exactly they must be doing and what other parts of the organization will be doing. A budget is designed to give managers a clear understanding of the company's financial goals, from expected cost savings to targeted revenues.

5) Instructing – a budget is often as much an executive order as an organizational plan since it lays down what must be done. It may, therefore, be regarded by subordinates as a management instruction.

6) Authorizing – if a budget is a management instruction then conversely it is an authorization to take budgeted action.

7) Motivating – in that a budget sets a target for the different members of the organization so that it can act to motivate them to try and attain their budgeted targets.

8) Performance measuring – by providing a benchmark against which actual performance can be measured, a budget clearly plays a crucial role in the important task of performance measurement.

9) Decision-making – it should never be assumed that a budget is set in concrete and when changing course a well-designed budget is a very useful tool in evaluating the consequences of a proposed alternative since the effect of any change can be traced throughout the entire organization.

10) Delegating – budgets delegate responsibility to the managers who assume authority for a specified set of resources and activities. In this way budgets emphasis, even more the existing organizational structure within the company.

11) Educating – the educating effect of a budget is perhaps most evident when the process is introduced in a company. Operating managers learn not only the technical aspects of budgeting but also how the company functions and how their business units interact with others.

12) Better management of subordinates – a budget enhances the skills of operating managers not only by educating them about how the company functions, but also by giving them the opportunity to manage their subordinates in a more professional manner.

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The objective of budgeting is related directly to the time determined to be managed on the short-run or long-run. According to Garrison et al. (2008): "Operating budgets ordinarily cover a one year period corresponding to the company's fiscal year". However, continuous or perpetual budgets are used by a significant number of organizations. A continuous or perpetual budget (also called a rolling budget) is a 12-month budget that rolls forward one month (or quarter) as the current month (or quarter) is completed. This approach keeps managers focused on the future at least one year ahead". (P. 373) Companies frequently use rolling budgets when developing five-year budgets for long-run planning (Horngren et al., 2002, p. 475).
Also, the success of a budget also depends on two human factors as Garrison et al. (2008, p. 375) said: the degree to which top management accepts the budget program as a vital part of the company's activities and the way in which top management uses budgeted data.

Types of budgets

Operating budgets

The operational budget is the budgeted profit statement and with its supporting budget schedules, for example, revenue budget, production budget, direct materials costs budget, cost of goods sold budget, marketing costs budget and customer-service costs budget. (Horngren et al., 2002, p. 477). Operating budgets consist of plans for all those activities that make up the normal operations of the firm. The main components of the firm's operating budget include sales, production, inventory, materials, labour, overheads and R&D budgets (Banovic, 2005, p. 11).

Financial budgets

The financial budget as Horngren et al. (2002) claim is: "that part of the master budget that comprises the capital budget, cash budget, budgeted balance sheet, and budgeted statement of cash flows. It focuses on the impact of operations and planned capital outlays on cash". (p. 477) Financial budgets are used to control the financial aspects of the business. In effect, these budgets reveal the influence of the operating budgets on the firm's financial position and earnings potential. They include a cash budget, capital expenditure budget and pro forma balance sheet and income statement (Banovic, 2005, p. 11).

Master budgets

According to (Garrison et al., 2008) the term master budget refers to a summary of a company's plans including specific targets for sales, production, and financing activities. The master budget- which culminates in a cash budget, a budget income statement, and a budgeted balance sheet- formally lays out the financial aspects of management's plans and assists in monitoring actual expenditures relative to those plans. The master budget consists of several separate but interdependent budgets. The following list of documents would be a part of the master budget:

1) A sales budget, including a schedule of expected cash collections.
2) A production budget (a merchandise purchases budget would be used in a merchandising company)
3) A direct materials budget, including a schedule of expected cash disbursement for raw materials.

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4) A direct labour budget.
5) A manufacturing overhead budget.
6) An ending finished goods inventory budget.
7) A selling and administrative expense budget.
8) A cash budget.
9) A budgeted income statement.
10) A budgeted balance sheet.

Static budgets

A (static budget) is prepared at the beginning of the budgeting period and is valid for only the planned level of activity, but the main disadvantage of the static budget is that, this approach is suitable for planning, but it is inadequate for evaluating how well costs are controlled. If the actual level of activity during a period differs from what was planned, it would be misleading to simply compare actual costs to the static budget. If activity is higher than expected, variable costs should be higher than expected; and if activity is lower than expected; variable costs should be lower than expected (Garrison et al., 2008, p. 475).

Flexible budgets

Flexible budgets consider how changes in activity affect costs. A (flexible budget) makes it easy to estimate what costs should be for any level of activity within a specified range. When a flexible budget is used in performance evaluation, actual costs are compared to what the "costs should have been for the actual level of activity during the period" rather than to the budgeted costs from the original budget. This is a very important distinction- particularly for variable costs. If adjustments for the level of activity are not made, it is very difficult to interpret discrepancies between budgeted and actual costs (Garrison et al., 2008, p. 476).

Activity-based budget

Under activity-based budget (ABB), the first step is to specify the products or services to be produced and the customers to be served. Then the activities that are necessary to produce these products and services are determined. Finally, the resources necessary to perform the specified activities are quantified. Conceptually, ABB takes the ABC model (that will be discussed later on) and reverses the flow of the analysis (Hilton, 2002, p. 375). Horngren et al. (2002) argue that: "Activity-based costing principles can also be extended in the budgeting of future costs. Activity-based budgeting focuses on the cost of activities necessary to produce and sell products and services. It separates indirect costs into separate homogeneous activity cost pools.

Incremental budget VS. Zero-based budget

(Incremental) and (Zero-based) budgeting, the two different kinds of budgets based on two different methods. One method is to take the current level of operating activities and the current budgeted allowances for existing activities as the starting point for preparing the next annual budget, this approach determine the next annual budget amounts which is the current one plus a percent (in increase) may imposed by management to meet next period requirements, also to cover higher prices caused by inflation. On the other hand, there is a zero-based budget approach also known as

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priority-based budgeting, this kind of budgets make managers need to be convinced of the rational and priority of each activity before giving the green light to include it in the next annual budget, because of the scarcity of resources. But, the major problem with zero-based budgeting is that it is very time-consuming. However, it does not have to be applied throughout the organization. It can be applied selectively to those areas about which management is most concerned and used as a one-off cost reduction program (Drury, 1997, p. 210-212). The benefits of zero-based budgeting over traditional methods of budgeting according to Drury (1997) are summarized as follows:

1) Zero-based budgeting creates a questioning attitude rather than one that assumes that current practice represents value for money.
2) Zero-based budgeting focuses attention on outputs in relation to value for money.
3) Zero-based budgeting leads to increased staff involvement, which may lead to improved motivation and greater interest in the job.

Also, the Zero-based budgeting involves the following three stages: 1. A description of each organizational activity in a decision package. 2. The packages are then evaluated and ranked in order of priority. 3. The resources are allocated accordingly.

Activity-Based Costing

In a series of articles Cooper and Kaplan drew attention to the limitations of traditional product costing systems. Their criticisms relate to the methods of allocating overheads to products (Drury, 1997, p. 104). Certainly, there are many variables in the business especially in the industrial world that contributed to shift from traditional costing to activity-based costing (ABC). ABC assigns costs to products or services based on the resources that they consume. Having accurate costs is important for a variety of reasons: a company might find that it has a difficult time determining which of its products is most profitable. Alternatively, it finds its sales increasing but profits declining and can't understand why. Perhaps the company keeps losing competitive bids for products and services and does not understand why. In many cases, accurate cost information is the answer to these questions. Accurate cost information provides a competitive advantage. It helps a company or organization to develop and to execute its strategy by providing accurate information about the cost of its products and services, the cost of serving its customers, the cost of dealing with its suppliers, and the cost of supporting business processes within the company (Blocher, 2008, p. 120).

According to Garrison et al. (2008, p. 310) ABC system as a costing method is designed to provide managers with cost information for strategic and other decisions that potentially affect capacity and therefore "fixed" as well as variable costs. Blocher (2008, p. 122) mentioned that ABC is a costing approach that assigns resource costs to cost objects such as products, services, or customers based on activities performed for the cost objects. The main idea of this costing approach is that a firm's products or services are the results of activities and activities use resources which incur costs. Costs of resources are assigns to activities based on the activities that use or consume resources, and costs of activities are assigned to cost objects based on activities performed for the cost objects. ABC recognizes the casual or direct relationships between resource costs, cost drivers, activities, and cost objects in assigning costs to activities and then to cost objects.

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The key issue in ABC approach is the cost driver. "With the ABC system costs are traced to products according to the product's demands for activities". (Drury, 1997, p. 106). Cost driver is a factor that causes, or "drives" an activity's costs (Maher & Deakin, 1994, p. 248). ABC system simply recognizes that businesses must understand the factors that drive each major activity, the cost of activities and how activities relate to products. The design of ABC systems incorporates the following steps as Drury (1997, p. 107) suggested:

1) Identifying the major activities that take place in an organization.
2) Creating a cost pool/ cost centre for each activity.
3) Determining the cost driver for each major activity.
4) Assigning the cost of activities to products according to the product's demand for activities.

Finally, with all the benefits ABC can provide to an organization, it still has some of the limitations. Garrison et al. (2008) identified the following limitations of ABC system:

1) Substantial resources required to implement and maintain.
2) Desire to fully allocate all costs to products.
3) Resistance to unfamiliar numbers and reports.
4) Potential misinterpretation of unfamiliar numbers.
5) Does not conform to GAAP, two costing systems may be needed

Just-in-time

Just in time is a modern system implemented by organizations to manage and control costs under a variety of challenges and limitations. Just-in-time (JIT) refers to a system in which materials arrive exactly as they are needed. Demand drives the procurement or production of any needed materials and immediate delivery eliminates waiting times and the need for stock. Managers in such companies as Renault in France, AT&T in the USA, Honda Motors in Japan, Siemens in Germany, Cummins Engineers in the UK and DAF Trucks in Holland, which have implemented just-in-time systems, believe stock is waste that can be minimized and even eliminated through careful planning (Horngren et al., 2002, p. 706).

The concept of 'time' is the key issue in this costing system. According to Horngren et al. (2002), JIT refers to a system in which materials arrive exactly as they are needed.
There are five main features in a JIT production system according to Horngren et al. (2002, p. 706-707):

1) Production is organized in manufacturing cells, a grouping of all the different types of equipment used to manufacture a given product.
2) Workers are trained to be multi-skilled so that they can perform a variety of operations and tasks.
3) Total quality management is aggressively pursued to eliminate defects.
4) Emphasis is placed on reducing set-up time, which is the time required to get equipment, tools and materials ready to start the production of a component or product, and manufacturing lead time, which is the time from when an order is ready to start on the production line to when it becomes a finished good.

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5) Suppliers are carefully selected to obtain delivery of quality-tested parts in a timely manner.
Also, according to Acevedo (2013) JIT has the following features:
1) Long-Term Perspective: JIT systems require a long-term focus for production development and supply needs.
2) Automated Purchasing: An automated purchasing system supports the intense coordination needed to ensure a steady, consistent stream of materials for production.
3) Strong Relationships: JIT systems exhibit strong relationships between suppliers and the manufacturer.
4) Efficiency: Efficiency in the supply process is essential for a JIT system, but these efficiencies often spill over to the rest of the production and supply process.
5) Constant Improvements: Just-in-time manufacturing inventory processes rely on constant improvement to help eliminate production problems, quality issues and to help drive more simplistic operations.
Moreover, JIT tends to focus broadly on the control of total manufacturing costs instead of individual costs such as direct manufacturing labour. According to Horngren et al. (2002, pp. 709-710) JIT has the following benefits as follows:
1) Lower investment in stocks
2) Reductions in carrying and handling costs of stocks
3) Reductions in risk of obsolescence of stocks
4) Lower investment in plant space for stocks and production
5) Reductions in set-up costs and total manufacturing costs
6) Reduction in costs in waste and spoilage because of improved quality
7) Higher revenues because of responding faster to customers

Balanced Scorecards
The Balanced Scorecard (BSC) is a strategic performance management framework that has been designed to support an organization control its performance and manage the execution of its strategy. Simply, BSC divides performance monitoring into four interconnected perspectives. Financial, Customer, Internal Processes and Learning & Growth.

The BSC has traditional financial measures. But financial measures concern past events, an adequate story for industrial age companies for which investment in long-term capabilities and customer relationships were not critical for success. These financial measures are inadequate, however, for guiding and evaluating the journey that information age companies must make to create future value through investment in customers, suppliers, employees, processes, technology, and innovation (Kaplan & Norton, 1996, p. 7).

According to Nair (2004, p. 13), BSC is a methodology to solve challenges in balancing the theories of a strategy with its execution. BSC has the following characteristics:
1) Its methodology is suited for managing business strategy.
2) It uses a common language at all levels of the organizations.
3) Is uses a common set of principles to manage day-to-day operations as well as to framework the company's strategy.
4) It is designed to identify and manage business purposes.
5) It provides a balance between certain relatively opposing forces in strategy.

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6) It aligns strategic goals with objectives, targets, and metrics.

The benefits of BSC The key benefits of using BSC according to Kaplan and Norton (1996) are:

1) The BSC provides managers with the instrumentation they need to navigate to future competitive success.
2) The BSC translates an organization's mission and strategy into a comprehensive set of performance measures that provides the framework for a strategic measurement and management system.
3) Clarify and gain consensus about strategy.
4) Link strategic objectives to long-term targets and annual budgets.
5) Perform periodic and systematic strategy reviews.
6) The BSC enables companies to track financial results while simultaneously monitoring progress in building the capabilities and acquiring the intangible assets they need for future growth.
7) Communicate strategy throughout the organization.
8) Obtain feedback to learn about and improve strategy.

Kaplan and Norton defined a four-step process for building a balanced scorecard

1) Define the measurement architecture – when a company initially introduces the balanced scorecard, it is more manageable to apply it on the strategic business unit level rather than the corporate level. However, interactions must be considered to avoid optimizing the results of one business unit at the expense of others.
2) Specify strategic objectives – the top three or four objectives for each perspective are agreed upon. Potential measures are identified for each objective.
3) Choose strategic measures – measures that are closely related to the actual performance drivers are selected for evaluating the progress made toward achieving the objectives.
4) Develop the implementation plan – target values are assigned to the measures. An information system is developed to link the top-level metrics to lower-level operational measures.

CONCLUSION

The paper discussed some of the modern management accounting techniques used by organizations to control and manage their performance, costs and operations in general. The paper highlighted the definitions, advantages, usage, benefits and processes of budgeting, Activity based costing, Just in time and Balanced scorecard.

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