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COST ACCOUNTING AS A FACTOR OF QUALITY BUSINESS DECISION MAKING IN MODERN COMPANY

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SUMMARY
Regardless of the specific commitments in terms of business strategy, the modern company is, inevitably, faced with the requirement of cost competitiveness. In modern conditions of great external and internal complexity, achieving and maintaining competitive advantages, as a condition sine qua non *of modern business, is not possible without adequate information system. This paper puts an emphasis on the importance of flexible designed cost accounting information system – a key information core of company accounting information system – in generating quality information as a support to modern company management mechanisms. It also discusses some of the new and, in turn,enhanced existing tools, techniques, concepts and approaches to costing and cost management (ABC/ABM, TQC/TQM, TC/TCM,LCPC/LCPCM, VSA/VSM) which are fundamentally important in order to implement and support the competitive strategies of companies.*

Keywords: management, strategy, competitive advantages, cost accounting, cost management.

1. COST ACCOUNTING INFORMATION ROLE

The modern company achieves its success as a result of the interaction among the environment, resources and management – its ability to employ the resources adequately, bearing in mind the company's position (its strengths and weaknesses). This requires, along with acceptable risk, a maximum exploitation of challenges brought by the environment, in order to realize the interests of various stakeholders. The management is expected to lead the company towards the achievement of set objectives which, in the contemporary settings of market external and internal complexity, inevitably requires sophisticated expert knowledge and skills, as well as quality information support.

The accounting of a company has, basically, the objective to create a quality information basis which, ultimately, has to be in the function of efficient company management. Cost accounting (CA), which measures and reports financial and non-financial information related to the organisation's acquisition or consumption of resources [4,p.5], has an exceptionally important position within the entire accounting information system of an organization because it provides information to both management accounting and financial accounting as subsystems of the accounting information system. When its information is intended for the financial accounting it measures product costs in compliance with the strict legal and professional regulations; however, when its information is used for internal purposes it provides the basis for planning,

control, and decision-making. Thus, CA information support is not exhausted by providing information for the purpose of reporting balance sheets and income statements of the company as a whole, which is its traditional task. It also provides valuable information support for the management in performing the systematic management control as well as in making various business and financial decisions. This means that its information support is expanding towards the creation of relevant information for internal reporting on a company's business activities – especially for short term periods and in smaller organizational segments. Cost data for the purpose of internal reporting are meanwhile relatively free from the constraints of legal and professional regulations. Accounting data used for external reporting very often do not completely satisfy managers' needs for decision-making purposes. Attempts at slight modifications of financial accounting systems for managerial purposes rarely and happily – like eating soup with a fork: it's possible, but it's far from effective [7,p.9]. Meeting various information management needs related to *making individual business and financial decisions* has been emphasized over the last few decades as the fundamental CA task – it assumes calculating costs and benefits of individual business alternatives. By using unroutine cost-benefit analyses, CA creates reports based on the concept of *relevant* information [4, pp.301-328] - relevant costs (relevant revenues as well), in choosing among alternatives, assumes considering the expected future costs which differ in alternative actions. Relevant cost analysis generally emphasizes quantitative financial information, but in decision-making, managers must pay due attention to quantitative nonfinancial and qualitative information and must, occasionally, give greater significance to qualitative or nonfinancial quantitative information. While designing CA information system one must not lose sight of the following [7,pp.71-72]: decision-makers' needs must be met; different cost information is used for different purposes-what works for one purpose will not necessarily work for other purposes; cost information must meet the cost-benefit test – cost information can always be improved, but before establishing a new system, one basic question should be asked: will the benefits outweigh the costs? It is of vital importance that CA information system should be flexibly designed – being flexible, it will be able to adapt to changes occurring in the business environment as well as in the company itself and, accordingly, respond in a qualitative manner to numerous and various company management information requirements. Today, regardless of the concrete orientation regarding business strategy, the contemporary company inevitably faces the requirements of cost competition. Modern business environment inevitably requires CA restructuring and new approaches to cost management (CM) in order to improve cost information quality. In new circumstances, many information weaknesses are attributed to traditional approaches to costing and CM [2, p.355].

2. NEW KEY THEMES

A few new key themes have to be stressed. First of all – *customer in focus* is the of the organization's success. "To be customer-driven" lies at the heart of CM; among all aspects of business operations which the management must take care of, the customer is the most important because without him the organization loses its purpose. There is a permanent question in the way business operations are performed which puts the emphasis on customer satisfaction: how can value be added for the customer? The focus is on the most profitable customers and the ways to first attract them and then retain them. Today, companies first identify customer needs and demands, and then proceed with the product design and production. *Value chain and supply chain analysis* is also a key theme. Value chain (VC) facilitates consideration of the possibilities of achieving and retaining competitive advantage through strategically relevant activities. By using VC and activity cost information companies can identify strategic advantages on the market. Supply chain (SC) assumes the idea of an "extended company" and the focus expands from company *production* VC to *purchase* VC on

the one hand to *distribution* VC as the final part of the whole industrial VC on the other. CM emphasizes integration and coordination of these activities through all links i.e. companies in the SC, as well as through each business function in the VC of individual companies. *Costs, quality, time and innovations* are key factors of business success. The management must continuously focus on these key strategic variables in relation to competition, which surpasses the frames of their company and draws their attention to changes in the external environment observed and assessed by their customers as well. It is of vital importance to manage them carefully and thus affect the level of customer satisfaction. Low costs are a significant business goal but cost improvement does not necessarily have to be sufficient. Customers want more than just lower prices and costs – they want quality, responsibility, punctuality. The combination of *benchmarking and continuous improvement* is an ever-present theme in the new approach to management. Benchmarking is a systemic process of measuring and comparing one's own products, services and activities against the best performance levels (inside or outside of the company). By comparing with the best examples, the management finds ways of continuously improving their proper practice. Benchmarking and continuous improvement are often described as a "the race with no finish" because management and employees displeased with a particular performance level seek continuous improvement. When they adopt this philosophy, the organizations perceive that they are able to achieve performance levels which they previously considered unattainable [7,p.15].

New environment brings new challenges and problems which inevitably impose the need for serious reconsideration of past business philosophy established in stable and predictable business settings. It is of great importance to adopt a wider external orientation with the constant focus on changeable and sophisticated customer demands. The company's existence on the market directly depends on the degree of fulfillment of customer expectations but also on the intensification and strengthening of cooperation with other organizations from the environment (customers, suppliers, distributors). Quality exchange of ideas and information, better interorganizational coordination and integration of vital business activities are necessary assumptions for more successful competitive positioning of the company on the market.

3. TRENDS IN COST MANAGEMENT

While considering the development of CM, it is very important to link it to modern challenges to organizations. Therefore, suggestions go in the direction of separating it from traditional accounting and abandoning the long-standing linearity of measuring historical costs and static standards. Managers should anticipate rather than simply react to changes in cost structure and financial performances. In the past few decades there has been an increasing number of discussions about CM and extending various limits. It is a dynamic process which assumes intensive efforts directed towards continuous improvement, i.e. improving the existing and inventing new tools and techniques, starting with early activity-based costing models and pursuing lately in the direction of strategic cost management (SCM). In that period, the most prominent trend has been *shift the focus* from determining product costs by using standard traditional cost models, towards providing support for strategic and operational decisions by using certain forms of activity analysis. The turning point in the development of CA was the advent of **Activity Based Costing (ABC)** which emerged primarily as an expression of the need to provide much more accurate data about the output cost price compared to traditional methods. It focuses on activities as parts of the entire process in a company and their cause and effect relations with the resources used as well as with cost objects (products and services, market segments, customers) i.e. activity drivers. However, management can use it not only for the purpose of calculation, i.e. more accurate product costing and, therefore, more successful price and product and service range management, but also for providing financial and nonfinancial information on activities, and effective CM – as assistance to activity based

management. When considering the use of ABC for the strategic purposes, many experts think that it offers strategic opportunities to companies. Many companies have gained competitive advantage due to ABC information, i.e. cost reduction by lowering prices in order to increase their market share. **Activity Based Management (ABM)** focuses on managing activities with the aim of increasing the value which the customer receives and profit obtained by providing this value, which assumes driver analysis, activity analysis and performance evaluation. The main data information source for that is ABC. Using cost information about various activities helps managers to identify activities that do not add value to products but waste resources, and also urges them to redesign expensive production methods. Thus, according to ABM approach to company management the attention of managers is directed towards company activities; ABM assumes a set of decisions and actions based on ABC concept information. The goal is to increase the value delivered to customers and to boost company profitability to a higher level. Strategic and operational ABM are singled out. ***Strategic ABM*** assumes directing the organization towards the most profitable use of resources. Due to ABC information we can point out non-profit activities as well as the most profitable ones, and make decisions affecting product development and design, fixing sales prices, specifying the production and sales mix, and establishing and developing relations with key customers and suppliers. All this can be achieved due to skilfully combining of the knowledge about cost behavior (i.e. their drivers) with the knowledge about customer behavior. ***Operational ABM*** assumes decisions and actions with the goal of continuous improvement of business processes; and for designing ABC systems, as its information support, several hundred activities may be necessary in order to obtain better insight into processes underlying production and customer service. Operational ABM is directed towards the improvement of efficiency and reduction of resources necessary for performing respective activities.[1, p.278]. ABC model determines where the greatest possibilities of cost reduction lie; but ABC information is not a current operating tool for the activities of improvement. This model offers the key direction for decision-making where to launch initiatives such as kaizen costing, pseudo-profit centers, TQM and reengineering. **Activity Based Budgeting** (ABB) extends the ABM idea to the planning cycle by using it to establish cost limits and control systems in organizations. Supported by activity analysis ABB uses benchmarking information to help the company to control costs and eliminate the increasing trend of exceeding the budget without improving the company's ability to create value for customers[8, p.14]. ABB is directed towards future resources, activities and outputs and is a valuable information support to the process of strategic decision – making.

In the last few decades, *quality* has become an important competitive dimension for both service and manufacturing organizations - quality is an integrating theme for all organizations. Increased attention to quality is result of not only increased competition but also increased customer demands for higher-quality products and services. Improving quality may actually be the key to survival for many firms. Continual improvement and waste elimination are foundation principles that govern a state of manufacturing excellence, which is the key to survival in contemporary world-class competitive environment. A philosophy of **Total Quality Management** (TQM), in which managers strive to create an environment that will enable workers to manufacture perfect (zero-defects) products, is replacing the acceptable quality attitudes of the past. Reducing defects, in turn, reduces the total costs spent on quality activities. Four categories of quality costs are emphasized: *prevention* costs are incurred to prevent poor quality in the products/services being produced (quality: engineering, training programs, planning, reporting, audits, circles; suppliers evaluation and selection, design reviews, field trials, design reviews); *detection* (appraisal) costs are incurred to determine whether products/services are conforming to their requirements or customer needs (inspection/testing raw materials, packaging, inspection, supervising appraisal activities,

product/process acceptance, inspection/test equipment); *internal failure* costs are incurred because products/services do not conform to specifications or customer needs (scrap, rework, downtime-due to defects, reinspection, retesting, design changes); *external failure* costs are incurred because products/services fail to conform to requirements/satisfy customer needs after being delivered to customers (costs of recalls, lost sales because of poor product performance, returns and allowances because of poor quality, warranties, repair, customer dissatisfaction, lost market share. Quality costs can also be classified as *observable* (available from an organization's accounting records) or *hidden* (opportunity costs resulting from poor quality – not usually recognized in accounting records). Quality costs must be reported and controlled. A quality cost report is prepared (by listing costs for each item within each of the four major quality cost categories) to improve managerial planning, control and decision making (strategic pricing and cost-volume-profit analysis). There are two views concerning the optimal distribution of quality costs: the *conventional* view (holds that there is a trade-off between costs of failure and prevention and appraisal costs, which produces an optimal level of performance called the *acceptable quality level*) and the *world-class* view (espouses total quality control – maintains that the conflict between failure and appraisal and prevention costs is more conjecture than real – the actual optimal level of defects is the *zero-defects level*). In achieving a defect-free state, a company is strongly dependent on its suppliers' ability to provide defect-free parts. This linkage has to be incorporated in a standard "partnering agreement"between purchaser and supplier (foster a sense of interdependence, including a sense of trust and ethical treatment). Perhaps the most important observation is that quality cost information is fundamental in a company's pursuit of continual improvement. Quality is one of the major competitive dimensions for world-class competitors [3, pp.907-933]. Organizations operating under the TQM philosophy have introduced a broad array of non-financial measures to monitor and improve the quality of their products/processes. For example, Motorola, a leading company in applying the TQM philosophy, adopted an aggressive approach to quality, setting a quality target of a level representing fewer than 12 defects per 1 million parts. [1, p. 137].

Target Costing (TC) is a tool [8, p.14] which emphasizes the relation between the price and market share as a basis for disciplining an organization's spending during product and process design, development and engineering. Basically, it assumes cost reduction per product unit. It is a completely new approach: how much a product *is allowed to* cost [10,p. 80]. As a concept of a much more comprehensive and aggressive CM information support, TC is built in the decision-making (planning) process concerning introduction of new and making radical changes to the existing products and processes. **Target Cost Management (TCM),** as a tool for a comprehensive cost and profit management and as a concept of long-term strategic CM, focuses on the design stage. It initiates CM in the earliest stages of product development and is aimed at intensifying the cooperation with the suppliers and other organizations on the market. TC operates after a general model: target costs = target sales price – target profit. If the target cost (as the difference between the sales price needed to ensure a previously determined market share and the desired profit per unit) is below the presently feasible cost, the management budgets cost reductions which direct real costs to target costs. Bearing in mind the organizational aspect, a successful implementation of TC concept assumes the creation of an organizational team structure that should include experts from different functional areas of the company as well as from the organizations it cooperates with on the market.

Life Cycle Product Costing (LCPC) is an extension [8, p.14] to TC tools, which links all costs driven by a new product, from the conception of the idea for the product through to its removal from the production program and withdrawal from the market, i.e. 'from the cradle to the grave'. The products are analyzed in order to determine whether they will bring profit during their entire life cycle. **Life Cycle Product Cost Management (LCPCM)**, according

to the integrated approach, consists of activities leading to product design, development, manufacturing, marketing, distribution, use, maintenance, service and removal, with the aim of maximizing life cycle profits. As a result, product costs are tracked and analyzed through all stages of its life cycle, which is radically shortened due to changeable customer demands and the increasingly ambitious competition regarding the technological product innovations. In contemporary settings it is of vital importance to launch a new product on the market and replace the existing product with the innovated one as soon as possible (regarding quality and functionality). LCPCM stresses cost reduction, not cost control. Since 90% of the life cycle product costs are determined in its design process, i.e. in the stages of a new product development and construction, activity management during this stage of product existence is stressed. This should, by all means, affect the managerial decisions regarding investments and directing more resources towards activities in the early stages of product life cycle. **Value Chain Analysis (VCA),** i.e. costing and CM through the value chain, is a concept representing the broadest approach to management. It assumes monitoring the relations among activities that create value with the aim of cost reduction, where the problems of tracking, measuring, analyzing and managing costs are extended outside the borders of a company. Beside internal value chains (VC), it extends to the area of supply chain, i.e. suppliers, on the input side, and distribution chain, i.e. customers – distributors and end users, on the output side, because the internal VC of a company is built in the broader value system which includes both supply VC and customer VC. That is to say that the leadership strategy in low costs and/or the differentiation strategy can lead to sustainable competitive advantage, but successful application of these strategies requires the managers to understand all the activities that contribute to their achievement. It is necessary to understand the industrial value chain as a whole, not only the part in which the company participates. Without an external focus there is no effective strategic CM. With the aim of successful implementation of the relevant strategies it is necessary to break the VC into strategically relevant activities of a company. VC is a necessary approach to understand these activities; understanding both the complex links and interrelations between activities performed inside the internal VC of a company (internal linkages), and those describing the linking of activities of a company with the activities of suppliers' VC and customers' VC (external linkages). Therefore, in order to describe and exploit these relations, it is necessary to identify company activities and choose the ones that can be used for creating and sustaining competitive advantage. The optimal choice assumes the knowledge of costs and value created by each of the activities, as well as relevant cost drivers.

We must also point out that one of the critical factors of the success of pursuing competitive strategies on the market is to provide a rounded up performance measuring system. One of the solutions is the so-called **Balanced Scorecard (BSC)** which provides a comprehensive framework linking strategic objectives of the company with a coherent set of performance measures.[10, p.5]. BSC attempts to unite and balance traditional financial perspective (concerning the measuring of current and designing future financial results) with three more perspectives of vital importance for a successful pursuit of competitive strategies on the market – the perspectives of customers, business processes and innovations and learning. In the BSC approach to performance improvement the most critical processes for the success of a strategy are identified. They are stressed not only for their potential for cost reduction, but also for their ability to fulfill end users' expectations. When using BSC, managers usually realize that for the implementation of a new strategy it may be much more important to stand out in completely new processes than to create gradual cost improvements in the existing processes.[1, pp.280-281]

Value Stream Accounting (VSA) is characteristic of *lean manufacturing* (LM) which developed from Toyota production system based on the JIT model and is the complete

opposite of traditional production. Many companies, aspiring to the "world class" position, follow LM whose objective is to improve efficiency and effectiveness in every area – including product design, interaction with the suppliers, factory operations, managing employees and customer relations. In order to keep this position, they must persist in "endless journey" which requires continuous innovations and improvement. "Lean" includes making the right product at the right place at the right time in the right quantity with minimum waste and sustaining flexibility. Thus, the key for successful LM lies in the achievement of production flexibility which includes physical organization of production plants and the application of automated technologies including CNC machines, CIM, *robotics*, CAD, CAM. [2, pp. 347-364] Companies inclining to LM often use the tool *value stream map (VSM)* to present their business process graphically in order to identify the wasteful aspects which should be eliminated. Information needs of a lean company cannot be adequately supported by traditional information provided through conventional accounting techniques, because of inaccurate cost allocation, promotion of non-lean behavior, inaccessibility in real time, financial orientation. Therefore, many lean companies have adopted an alternative accounting model, so-called VSA. VSA tracks costs by the value stream instead of department or activity; the value streams cut across function lines and departments, i.e. horizontally, and thus links with traditional vertical reporting on structure and cost flows are broken. [8, p.17] It is of fundamental importance for its implementation to define *product families.* [2, p.358] As for the information support to lean manufacturing and world class companies, three information systems are being considered - from MRP and MRP II to ERP.

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