

COSTS MANAGEMENT AND THE ADDED VALUE METHOD IN THE CONSUMER PERCEPTION

Ph.D. Lecturer **Marius BOIȚĂ**
Western University "Vasile Goldiș" of Arad, Romania
cocosboyz@yahoo.com

Ph.D Professor. **Dorina ARDELEAN**
Western University "Vasile Goldiș" of Arad, Romania
c_haiduc@uvvg.ro

Ph.D Professor. **Cristian HAIDUC**
Western University "Vasile Goldiș" of Arad, Romania
c_haiduc@uvvg.ro

Ph.D. Economist **Emilia CONSTANTIN**
Romania
cemi_26@yahoo.com

Abstract:

Knowledge of production costs in all its theoretical and practical complexity, as shown in the research specialized literature, is a basic tool for the operating management and is used to increase business efficiency.

The cost study aims at solving the complex issue of cost production in various aspects, both at the microeconomic and macroeconomic level; at microeconomic level are solved the costs problems of an economic unit, the subject being an order, a production phase, an activity center, a product for which research is carried out of the theoretical and practical phenomenon, the study of the causes which have generated it, growth and forecasting of the activity, and depending on the particularities of the production process is carried out the calculation of the cost of production.

Key words: consumer, costs, activities, strategy, opportunities, added value

JEL Classification: D24

INTRODUCTION

Cost management is a philosophy, an attitude and a set of techniques to create a higher value to lower costs (Blocker Edward, et all, 2006) [1].

In any economy in any industry, companies compete for customers and resources. Competition means there will be winners and losers.

The winners of the economic competition create products and service that customer's value. Losers either aren't providing value to customers, or cannot do it at a cost low enough.

In today's financial world losers are left behind and most valuable customers, employers and sponsors will go elsewhere.

Cost management information helps identify opportunities and eliminate costly processes and practices. Competition and customers can be anywhere in the world. Thanks to the Internet and World Wide Web technology information about products and market opportunities are available to anyone almost instantly.

There can be observed the following global trends:

1. Cost Management allows energy to focus on opportunities, strengths and problems of each company. Information about cost management may indicate, for example, that an organization can improve its product quality and reduce costs by using services provided by others, which are specialized in supplying them.

2. Information technology, in particular electronic commerce through the World Wide Web makes it possible for a company located anywhere in the world to serve customers that find themselves, also anywhere in the world. Electronic commerce is the process to order and pay for

goods and services through electronic connections between customers and suppliers without paper documents. Delivery of physical goods is "arranged" electronically and performed by traditional methods. Cost management information allows to the decision makers to identify the lowest cost suppliers for goods and services.

The main responsibility of managers is to use scarce resources wisely and profitably.

Managers compete for scarce resources globally demonstrating their success by satisfying their customers, gaining market share, introducing new products and services and generating profits. Managers also compete in finding plans and strategies to identify future opportunities for using resources.

Very few organizations are isolated from global competition. This means that managers need to identify and measure the impact of alternative decisions that may potential affect operations worldwide. Managers need to gather and report information within the organization, as well as information about current and potential customers and about current and potential competition.

The information provided by cost managers must identify sources of competitive advantage.

Cost managers are able to measure strategic alternatives costs because they understand what generates costs and how a change in scale and goals of the organization can change the expected profits. Financial managers create financial scenarios that are expected results from alternative decisions on the scale, scope and use of resources. Financial scenarios allow top managers to make informed decisions on what is considered to be the best strategy (Cokins Gary, 2001) [2].

MANAGEMENT BASED ON THE COSTS (ABM)

Management based on activity has as a principle the evaluation of costs and activities levels in order to identify opportunities to improve performances. ABM combines cost analysis with the analysis based on value added activities in order to improve the processes that bring value to customers and reduce wasted resources. ABM is a popular approach in the redesign of process; it focuses on the concept of value for the customer, broader concept than the one of quality.

ABM uses and is built around the ABC analysis, which identifies: all major activities of the organization's ties located within the value chain, cost determinants of the organization and rates of determinants costs specific for each activity.

Management based on activity adds to these:

- customer perceived value of each activity;
- value-added and non-value-added activities, opportunities to improve;
- value-added activities and reducing or eliminating non-value added activities.

Cost analysis is most often understood as a process of assessing the financial impact of alternative management decisions. In contrast, strategic cost analysis is a cost analysis in which the strategic elements became obvious and where cost data are used to develop strategies aimed at achieving substantial competitive advantages.

In the conception of the American authors, Shank and Govindarajan, companies' management is a continuous, cyclic process, consisting of:

- formulating strategies;
- communicate these strategies within the organization;
- development and implementation of tactical solutions to achieve these strategies;
- development and implement of control means for monitoring success of implementation steps and therefore to achieve strategic objectives.

STRATEGIC COST MANAGEMENT IS THE RESULT OF COMBINING TWO MAIN COMPONENTS:

1. Value chain analysis.
2. Analysis of strategic positioning and sources of cost.

The concept of value chain requires a wider coverage than that of production, extending outside the company as well. Such an approach is vital to control costs effectively. Value chain in any company regardless of industry, is that related set of activities that creates value, which, starting from raw materials that parts / components are made of, continued with obtaining the product, including its delivery to the customer.

What is the leitmotif of this approach is to maximize the difference between inputs and outputs.

Exploiting connections with customers is the basic concept of life cycle costs, which deals with the relationship between the amounts paid by a customer for a product the total cost, paid by the customer during the life cycle of a product use.

Looking at the perspective based upon lifecycle cost, it is concluded that it can generate increased profitability. Moreover, special attention given to post-acquisition costs can lead to more effective market segmentation and a better position of the company within it, well knowing that the design of a product with lower costs repurchase may be an important tool in gaining competitive advantages (Eldenburg Leslie, Wolcott Susan, 2004) [3].

The map of the organization can be depicted as a set of business processes arranged horizontally. These processes cross traditional organization compartments.

A function may participate in multiple processes simultaneously. Organizing upon processes allows following the process from its beginning to the end allowing more focus on maximizing plus value and eliminating activities that do not add value. The whole business can be arranged based upon these processes. Therefore, there can be process managers that follow a process from beginning to its end, the goal being to finish it through maximizing efficiency.

The choice of processes that we want to follow is very important. In general, are chosen the processes that bring added value to customers.

The concept of strategic positioning is about finding the answer to the question: What role cost management plays in a company?

In the strategic costs management, the role of cost analysis differs depending on the method chosen by the company in the competitive struggle. A firm can compete either through lower costs (attracting customers through lower prices) or by offering superior products (differentiation).

Since the differentiation and primacy of cost assume different decisions, they involve different cost analysis. In this context, the basic components of management accounting are:

- evidence of expenditure;
- solving problems;
- directing attention.

In strategic cost management is accepted the idea that most costs are caused by multiple factors complex correlated. Understanding cost behavior requires understanding the complex interdependence of the set of sources of cost.

According to some opinions, the production volume is an inappropriate criterion for the exact explication of the behavior of costs. Thus Porter and Riley tried to establish a complete list of sources of cost. Within it, a first category is represented by the sources of "structural" cost. They concern the economic structure of the company and depend on: scale, range of coverage, experience, and technology and production complexity.

Each factor involves structural choices from the company that will determine increases or reductions in product cost. Thus:

- Scale: it sets how big investment in production, design and marketing should be;
- Range of coverage: It concerns the degree of vertical integration, horizontal integration being more linked to the "scale";
- Experience is taken into account as many times, as in the past, the company has done what it wants to achieve at present;
- Technology: Considers the technological processes used in each step of the value chain of the company;

■ Complexity: This refers to how wide is the range of products / services offered to customers.

The second category of cost sources is represented by "enforcement sources."

This refers to ability to perform well the operations. Unlike structural sources for each "source of performance", "more" always means "better". The main sources of performance include:

- Manpower, participation of it in continuous improvement of activities;
- Total Quality Management (hopes and achievements concerning the quality of products and processes);
- Capacity utilization (depending on the scale chosen to build production capacity);
- Product configuration (design effectiveness);
- Exploitation of the links with suppliers and/or customers, as indicated by the value chain of the company.

So, whatever the sources of cost are taken into consideration, the basic ideas remain the following:

- in strategic analysis, the volume does not better explain the behavior of costs;
- in the strategic sense, it is useful to explain cost position in terms of structural options and performance skills that outlines the company's competitive position;

ABM has two goals common to all firms:

1. Improve the utility value received by customers.
2. Improve profits by increasing the above value.

Value-added activities in the customer and business perspective

Activities create outputs and consume resources during the production process. Activities with added value increase the value of the products and services in the eyes of the consumer together with achieving the organization goals.

The consumer can be both internal and external to the organization, but the final test of consumer value is given by external consumer perception. Activities without added value do not contribute to the value perceived by consumers. Elimination of such activities by redesigning processes will not reduce the value in the eyes of the consumer.

In a competitive environment, an organization must consume as little as possible resources to activities without added value, as competition continues to create more added value at lower prices.

Competition can occur unexpectedly; an environment that does not currently have a great competition can quickly become competitive.

All organizations have certain activities without value that may be reduced or even eliminated. In manufacturing firms, the most common sources of non-value activities are:

- waiting for processing;
- transportation from suppliers and to the customers;
- reducing defective products and services.

Even in a less competitive environment, the organization may be interested to reduce activities which don't have added value in order for the organization to redirect resources to activities that produce value or to distribute them to the employees or owners of the organization. Organizations without non-value activities should be more competitive than those that have allowed for wasteful practices to become part of their practices.

The answer to the following questions can determine whether or not an activity brings value to the consumer, and it is performed as a test as it follows:

- would a foreign consumer encourage that increase of the activities volume?
- the organization is closer to that goal or task?

If both answers are "Yes" then the activity brings a plus value.

If both answers are "No", the activity brings no added value and it probably uses resources in a useless way.

Analysis of added value

Added value can be measured on a scale of 1 to 5 in ascending order (5 being the highest value, with 1 being the lowest).

Complete value-added analysis measures the costs and values of the entire value chain activities of the organization. Even if this seems a difficult one it is imperative to do because departments and processes depend on each other. Thus improving a range of activity requires changes in many other departments.

Management based on activities uses information arising from the analysis of value added activities in order to identify opportunities to improve the process. It's hard to believe that an organization can eliminate unnecessary activities without redesign work processes. This could mean only the decision to reduce costs, which reduces both activities without added value and the value-added ones, without changing the work to be done.

If the organization can eliminate non value added activities through process redesign, the resources wasted on such activities can be used either to reduce costs or they can be allocated to value-added activities in order to increase their effectiveness. Thus, simply eliminating non value added activities can create short-term benefits, but also redesigning processes, in order to eliminate the need for such activities, can generate long-term profits.

CASE STUDY

To highlight the implementation of decisions based on activities, we will exemplify by presenting a case study of a company that manufactures plastic office supplies. We've analyzed combined data from the cost analysis with value-added activities to prepare the data for (Table 1).

Table1. Breakdown of injection activity in manufacturing office products

	DATA FROM THE ANALYSIS OF COSTS PER ACTIVITY					DATA ON THE ADDED VALUE
	A	B	C	D	E	F
	Activity	Description of work	The Cost of the sub-activity	The Cost of activity	The Cost of process	Value for the consumer
1.	1.10.	Injection processes			45.530 €	
2.	1.10.1.	Adding materials			42.650 €	
3.	1.10.2.	Manual injection			545 €	
4.	1.10.3.	Computer injection			665 €	
5.	1.10.3.1.	Cleaning the system		47 €		3
6.	1.10.3.2.	Setting the machine		112 €		3
7.	1.10.3.3.	Production		46 €		5
8.	1.10.3.4.	Inspection		174 €		3
9.	1.10.3.5.	Recycling damaged parts		49 €		1
10.	1.10.3.6.	Storing the good products in the inventory		154 €		
11.	1.10.3.6.1.	Removing the roughness	53 €			1
12.	1.10.3.6.2.	Placing the roughness in recycling bins	11 €			1
13.	1.10.3.6.3.	Placing the good	23€			3

		piece o the rack				
14.	1.10.3.6.4.	Completing the pieces lot	16 €			3
15.	1.10.3.6.5.	Moving the complete lot to the warehouse	32 €			2
16.	1.10.3.6.6.	Registration in the inventory of the lot	18 €			2
17.	1.10.3.6.7.	Finishing production		42 €		3

Source: Data processed by the author, taken from the production technology Manual

The most direct use of the information in (Table 1) consists in sorting the activities by value and cost. This classification can clarify opportunities for improvement of activities that bring added value and of other as well.

Considering computer-controlled injection activities contained in the 1.10.3 activity, by totaling the costs of activities with the same score value contained within this complex activity, we obtain (Table 2).

Table 2. Comparison of consumer value given to the activities with the cost of activities

Value in the consumer eye	Sum of the costs of sub activities	Percentage
5 (maximum value)	46 €	8,1 %
4	-	-
3	414 €	72,1 %
2	50 €	8,7 %
1 (minimum value)	64 €	11,1 %
Total	574 €	100 %

Source: Data processed by the author

This table shows that only 8.1% of the process resources are consumed on activities with the highest rate of value (denoted by 5).

This is a very low percentage of value added but not unexpectedly small for processes that require improvement before ABM method. Managers must find out why this process generates so little added value and why it uses 11.1% of its resources for activities marked with "1", the lowest value. Consumers will not want to pay for these costs; a competitor that could eliminate these activities without value would have an advantage.

It seems that there is room for much improvement of the process. For example, if they could eliminate the activities denoted by "1" and "2" by redesigning the process, its costs would be reduced by 19.8%. Even if these resources cannot be saved because they were purchased, reallocation of resources to activities marked with "4" and "5" can significantly increase value for consumers.

Table 3. Cost analyses through the added value

BEFORE IMPROVING THE PROCESS		AFTER IMPROVING THE PROCESS	
ACTIVITY	DURATION	ACTIVITY	DURATION
1.10.3.6.1.	144 MIN.	-	-
1.10.3.6.2.	30 MIN.	-	-
1.10.3.6.3.	72 MIN.	1.10.3.6.3.	72 MIN.
1.10.3.6.4.	10 MIN.	1.10.3.6.4.	0,1 MIN.
1.10.3.6.5.	20 MIN.	1.10.3.6.5.	10 MIN.
1.10.3.6.6.	10 MIN.	1.10.3.6.6.	0,1 MIN.
TOTAL TIME	286 MIN.	TOTAL TIME	82,2 MIN.

Source: Adapted from Chadwick, Leslie, The Essence of Management Accounting

From the above analysis, it was concluded that a large proportion of costs are consumed with low-value activities. We've closely watched a number of activities, among which was included sub-activity "1.10.3.6.6. - Spare good inventory ", which has no high-value activities; with the purpose to find out where they could make changes. The results of the analysis of the "1.10.3.6.6." activity appears in Table 3, that shows the flow of activities and their duration before and after improving. The old process is represented on the left. The reviewed process appears in the right.

Anyone who has had around a young graduate knows that he often tends to ask experts "Why". This is, in fact, the rational process of exploration through which we can find out why activities without added value remain in the organization. If you ask "why" enough times (some experts consider that a sequence of five times would be sufficient), you will get to the roots of the problem.

Identification and modification of these primary causes leads, almost always, to the elimination of the need for non value added activities and often brings additional benefits, because of the links between processes.

Thus, while consulting with the provider of dies, appeared questions for the employees about the need to eliminate roughness of plastic molded products as follows:

- Why? Because the appearance and function of the product requires removal of excess;
- Why? Because, due to high injection pressure, mold plastic flows on the edges;
- Why? Because high pressure is required for the proper molds;
- Why? Because mold design allows dripping;
- Why? Because molds are based on an obsolete design.

We concluded that the company must replace the old molds with some improved ones that eliminate, in turn, the need to take the excess material and recycle. This would save 174 minutes, reduce workload and prevent loss of good material.

Resource cost savings

Workers on the injection machines earn, on average, 5 € per hour.

Before improving the process, activity "1.10.3.6.6. - Spare good inventory " for an order of 100 pieces costed:

$(286 \text{ minute}/60 \text{ minute per hour}) \times 5 \text{ € per hour} = \text{€ } 23.83$

After the improvement, the cost of this activity was reduced to:

$(82, 2 \text{ Minute}/60 \text{ minutes per hour}) \times 5 \text{ € per hour} = \text{€ } 6.85$

This means savings of € 16.98 (23.83 to 6.85) for each order of 100 pieces of plastic office supplies. The percentage of savings is 71.25% (16, 98:23, 83).

It may be unrealistic to expect to find the same level of savings in each process; however the company can pass the economy to the consumer, or to use the saved resources (time, labor and materials) for added value.

CONCLUSIONS

Free economies are characterized by an increase in production of goods and services, each economic agent assuming the responsibility for ensuring the appropriate profit for all products manufactured and services rendered.

Lack of production cost level may lead to erroneous decisions in the production process. This implies the need to adopt an adequate system of cost calculation, forecasting, tracking and control. All this can be achieved only with costs given by the cost study.

Economic activity depends on the perspective adopted in the organization, by the depth followed and by the position occupied by the person (manager) involved in the activity, or by the interests they have.

As a result, managers are interested in data collection and analysis of sources internal and external, processing, interpretation and communication of results in order to plan, make decisions and control in a more fundamental manner.

Strategic management is vital as it involves understanding the organization's objectives "where you want to reach."

Therefore, in any management system, there should be a process of evaluation, control and also change when necessary.

REFERENCES

1. Andronic, B.C., (2001), Performanța firmei, Editura Polirom, Iasi
2. Blocker Edward, Stout David, Cokins Gary, (2006), Cost Management: A Strategic Emphasis (4th Edition), Editors McGraw-Hill/Irwin, [1]
3. Calin, O., Cârstea Ghe., (2002), Contabilitatea de gestiune și calculația costurilor, Editura Genicod Ltd., Bucuresti
4. Cokins Gary, (2001), Activity-based Cost Management: An Executive's Guide, John Wiley & Sons [2]
5. Chadwick, Leslie, (1998), The essence of Management Accounting, Prentice Hall Europe
6. Eldenburg Leslie, Wolcott Susan, (2004), Cost Management: Measuring, Monitoring, & Motivating Performance, Editura Wiley [3]
7. Govindarajan, Shank, (2003), Strategic Cost Management: The New Tool for Competitive Advantage, Editura Free Press
8. Kaplan Robert, Cooper Robin, (1997), Cost & Effect: Using Integrated Cost Systems to Drive Profitability and Performance, Harvard Business School Press
9. Mowen Maryanne, Hansen Don, (2006), Management Accounting: The Cornerstone for Business Decisions, Editura South-Western College Pub
10. Porter E. Michael, (2008), Despre concurență, Editura Meteor Press, București
11. Shank John, (2005), Cases in Cost Management: A Strategic Emphasis, Editors South-Western College Pub
12. Smith Ralph, (2006), Business Process Management and the Balanced Scorecard: Focusing Processes on Strategic Drivers, Editura Wiley