

Improvement of Modern Costing Methods by Knowledge Management Processes

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Abstract The problems of effective cost allocation, however, in certain cases also allocation of revenues and benefits related to a particular customers, is still very difficult notwithstanding the information technology and bearing in mind a number of accessible costing methods. The company management must take actions to empower common knowledge about modern costing methods and create conditions for effective implementation and usage of them.

This paper deals with problem issues of Knowledge Management concerning building appropriate conditions it the company to meet requirements for implementation and usage of modern costing methods.

Keywords – Knowledge management process, customer's profitability, Cost allocation, Activity Based Costing.

I. INTRODUCTION

In current turbulent environment is almost necessary that a company must be able to identify the most valuable customers as an important step to proceed further and focus on the most effective service provided to the customers. There are many problems for the companies to set the profitability of their particular customers in the most precise and at the same time in the most effective way. Information about customer's profitability (or profitability of products, product lines or market segments) is crucial to made right decision and to choose correct marketing strategy [6]. Calculation of customer's profitability arises many problems starting with determination of proper costs and ending with technical requirements needed to ensure correct data collecting, managing and processing. Unfortunately many companies hope that implementation of expensive management information software systems can solve and provide an adequate level of information required. But information technologies designed to support customer relationship management bring many companies down the wrong road to where technology is seen as the solution instead of the tool. Involvement of all managers and employees must be ensured by Knowledge Management processes. Without a solid grounding in the function and process of costing process and without appropriate knowledge management processes, these businesses only waste money when try to implement technological solutions without first building and empower knowledge and skills of employees.

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II. CURRENT PRACTICE

When business understand customer's needs, usage behaviors, and customer's profitability, than business can build customer relationships and deliver solutions that meet customer needs and that are profitable. Customer relationship management (CRM) covers methods and technologies used by companies to manage their relationships with clients. Several steps CRM process which usually follows these steps [1]:

Step I Market Segmentation – Understanding customer needs, behaviors, and profitability

Step II Customer Identification – Individual customer identification

Step III Customized Solution – Deliver a value based on individual needs

Step IV Customer Interaction – Build cost-efficient and effective ongoing customer interaction

Step V Customer Loyalty – Track customer satisfaction, commitment, and profitability

Most of activities covered in these steps can be improved by appropriate knowledge management process. For the most companies there is common practice continuously educate managers on the field of marketing activities, because understanding customer's needs, behavior, identification of customers and other described activities are visibly related with manager's knowledge and skill and more or less – intuition [x]. Personal qualities determine to quality of those activities.

But one part – *assessing customer's profitability* is basically perceived as a technical problem [6]. If anywhere is identified technical problem it can be often solved by technical solution – information technology. Problems of customer's profitability, costing methods and cost allocations are considered very often on the level of mathematical exercise and many managers in the company have only a misty conception of cost allocation processes. Only a few controlling managers and managerial accountants are confident in that.

But to provide useful information for the future decision about individual marketing strategies is necessary to be as much as possible informed about real profit and real costs related with cost objects or (better) about Net Marketing Contribution related with customers [4]. Determination of customer's profitability is crucial for successful decision-making process and for formulation of marketing strategy. Whenever there are products different for each or some of market segments, different packaging is used, marking and distribution vary, and also costs for these markets segments are different. For this reason must be counted calculation of

variable and fixed production, marketing and sales costs for different market segments. To create calculation related with market segments it is necessary to use dynamic methods, usually based on allocating by activities (ABC calculations). From this point of view we must look at the customer's profitability determination not only as a technical problem but also as a challenge for knowledge management activities how to manage this process to ensure effective, "right" and "rightful" process of allocation of cost and careful separation of overhead expenses.

Not only accountants should be familiarized with costing methods used in the company. Most of managers do not have an imagination how exactly customer's profitability is calculated. They do not know which overheads are allocated to customers and which methods of allocation are used. Especially in chemical and food industries where non-mechanical production processes are complicated and overheads are on a higher level than in other industries are those tasks more relevant. Traditional cost allocation can be expected as an instrument that helps company allocate cost related with products but not to assess customer's profitability, it is understandable that some companies have actively begun search for alternative methods [3]. All these problems should be a part of knowledge management strategy.

III. RESEARCH QUESTIONS

In order to get a better picture of situation concerning the status of customer's profitability assessment we selected four following categories of interest: (1) Current state of cost allocation process; (2) alternative uses of the traditional cost allocation method or other allocation models that has replaced it; (3) assertions concerning Activity Based Costing method, the main alternative to the traditional costing; (4) the relation of cost allocation process with knowledge management activities and processes.

Research questions of the *first category* addresses the status of current cost allocation processes. It can be expected that there is strong resistance to change traditional cost allocation method. Nowadays the crucial problem rests in most companies, used to cost calculations based on effects, in other words, they calculate costs per a product unit or per the whole volume of production. In case the costs are not possible to be matched with particular production, they are allocated to the production according to the selected cost-allocation base [8]. This all happens without detail decomposition of individual items of the calculation formula. The whole areas of overhead costs are then often reallocated regardless their relation to activities that were caused by serving to the customers. Closer view on overheads allows decomposing them in two categories, "not related with servicing customers" respectively "related with servicing customers" overheads. It is obvious that some part of these overheads change as a consequence of servicing a customer [5]. These "customer-related" overheads should be separated from others overheads and should be tracked by specific tools such as: ABC costing, operating accounting or by a specific calculation formula. However because these processes are usually hidden inside of

managerial accounting systems there is no perceived need for radical change.

Research question of *second category* focuses on alternative models and additional methods that are used in the company. Competition environment and strong pressure of stakeholders evoke new tendencies concerning spending costs and their management so it can be expected that most of the companies try to seek new principles of cost management including different cost allocation principles and methods.

Research question of *third category* are concerned with uses of the Activity Based Costing Allocation method. Customer focused Activity Based Costing allocates customer-related activity costs to customers serviced through those activities and product-related activities to the products provided and then to customers based on the level of sales of each product [7]. There are not expected strong attitudes towards ABC method; although in some cases can be principles of this method successfully implemented. Common opinion about ABC method can use words as: time-consuming; expensive; difficult to set-up [2]. Improving employees' knowledge in this area should be covered in knowledge management activities and so a few questions concern this assumption as well.

Research question of *fourth category* are concerned with the role of knowledge management. Implementation of new cost allocation principles must be related with knowledge management activities. Only strong empowerment of human capital on the field of revenues, variable costs, overheads an allocation principles can bring a new focus on that problematic. The questions investigated whether respondents indicate increasing interest of management and which activities are performed to achieve higher level of knowledge in this area. Further education although necessary is not the only one condition for success. Building appropriate conditions in the company to meet requirements for implementation and usage of modern costing methods is another important activity performed by Knowledge Management. All relevant employees should be involved in implementation of modern allocation methods performed by Process management. Survey is mapping whether companies counts contingent implementation of modern methods as a part of Knowledge management activities or not.

IV. DATA COLLECTION

The research methodology for this survey consists of qualitative research based on face to face consultations with top managers realized over the last two years. There was in conjunction with top managers realized detailed decomposition of cost structure in selected companies.

The survey consisted of 34 questions divided into several groups was realized in 7 companies in Czech Republic. Companies was selected after previously realized postal survey including question whether companies of chemical and food industries have any experience with Activity Based Costing and Knowledge Management activities. From completed questionnaires was selected all companies with a turnover of more than 25 million CZK (1 million euro). Following face to face survey study was completed usually by

chief financial officers, but other important categories as managing directors or business controller were also represented.

V. FINDINGS

Although the number of surveyed companies was relatively low, there are many expected as well as surprising results which can be represented as a majority opinion among respondents.

As first questions we want to know the status of current cost allocation processes. Results signalized that all responding companies used traditional cost allocation calculated on product unit with more or less precisely allocated overheads. In responded companies are not applied principles of separating overheads in two categories, “not related with servicing customers” respectively “related with servicing customers” and overhead costs are not separated. Especially General Administration Overheads are often allocated very simply on an equal principle or according to margin generated by every individual product.

Slightly better approach can be found in Manufacturing, Sales and Marketing overheads where responding companies often separate the most important costs from others. Those costs are usually separately calculated and allocated on causal principles. Other costs are allocated as a whole mixture of costs without relation to particular customer. On the other hand most of respondent recognize that arisen mistakes are not so significant, because other overheads are relatively small part of total costs. However there are not any rules set concerning significance of any individual cost. Despite that fact most of respondent thinks of cost allocation processes as well designed and appropriately assessed!

Results from second category of questions showed that almost all respondents do not use any alternative methods of cost allocation, but in some cases they leave traditional costing process and use additional calculations. When allocating (above mentioned) important overhead costs they very often use basic principles of allocation based on activities. Although some respondent do not know theoretical background of Activity Based Costing method, they are able to use basic principles of this method.

The pressure of competitive environment and stakeholders on improving performance and “cutting of costs” is evident, but the lack of knowledge concerning allocation principles usually does not allow introducing any changes or improvements.

Research questions of third category concerned with uses of the Activity Based Costing Allocation method. As mentioned above in Data Collection Section 3 the survey was realized among companies that have any experience in allocating costs by means the ABC method. The level of ABC method utilization was different among respondents. None company realized ABC method as a base principle for cost allocation, several companies use ABC for support activities and the rest of companies used this method as a one-time analyze to investigate cost of their activities. All these findings indicate tendency does not change traditional costing system although the current cost allocation processes are not accurate and

transparent. Respondents answer according to expected opinions following objection against ABC method:

1 it is expensive and outputs are lower then inputs

2 it is time-consuming

3 it cannot be used for transformation processes

Research fourth category of questions is: the role of knowledge management. As can be deduced from previous two areas of interest, in companies which answer those questions knowledge management activities do not cover allocation and costing processes. Basic principles of costing and allocations are not represented and explained to managers and very often respondents are not familiar with them. Although the allocation cost is important for all companies, the allocation cost process as a technical solution is almost unknown to the majority of managers that uses outputs from these processes. A few managers answer, that those allocation principles was set up by controllers in managerial information system in the past and methodology do not change for a couple years. It is evident that marketing and sales managers realize marketing activities with detailed but inaccurate information about costs related with particular customer. Application of differentiated CRM on customers can not be effective and leads to wasting of resources.

All of them agreed, that further education in this area should be necessary and useful not only for them, but for all levels of company’s management. When answering question related whether companies counts contingent implementation of modern methods as a part of Knowledge management activities findings are not so unambiguous. Some respondents answer, that relevant employees should be involved in implementation of modern allocation methods performed by Process management, when other answer, that such involvement is not required. From this survey thus cannot be formulated unique findings and this question should be possible topic for further research.

VI. CONCLUSION

The survey shows that improvement of modern costing methods by knowledge management processes is necessary. Majority of companies use traditional costing method and other modern and progressive costing methods as an ABC are used as a support at maximum. On the other hand most of companies solve costs related to the customers and at least they separate the most important costs from others. Those costs are usually separately calculated and allocated on causal principles – in several cases by ABC method. When company’s management manage and allocate overhead costs they very often use basic principles based on activities, although do not know theoretical background of Activity Based Costing method. The further education in this area should be oriented on following topics:

1 Controllers and financial managers should be educated on the field of Activity Based allocation. Not only basic principles but particular examples, technical solutions or industry problematic should be covered in. Without theoretical background as well as concrete and detailed examples they are not able to improve and correct current stage of allocation processes in chemical and food industries.

2 Sales and marketing managers should be educated in basic cost allocation processes, so they can understand determination and calculation of cost related to customers. Often they are responsible for these cost and they must understand that detailed information about their marketing activities have an influence on cost related to customers.

3 Other low and middle level managers should be familiar with cost allocation principles as well, because appropriate cost allocation requires involvement of all participants.

These knowledge management activities have one overarching goal to change the opinion: Costing and allocations are not suggested to by mathematical calculation only made by specialist of controlling department.

Knowledge management activities required to reach this goal should be:

1 controlling manager should explicitly encode their knowledge into any suitable technology supporting Knowledge management system,

2 managers should make knowledge requests of controllers whenever cost allocation became unclear,

3 TOP management should undertake sharing knowledge about cost allocation and customer's profitability assessment by motivation system.

Engagement and cooperation of most of managers for effective allocations as well as modern method utilization is a necessary requirement.

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