



Business Process Modeling for effective Cost Management.

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Abstract The article deals with on the structure of business proceses, improvement and relevance of this approach. There are differences between the methods approach in managerial accounting, and shows the main factors influence the methodology of costing. The article shows the activity based costing system model, methodology of planning activities and functions, which allow to coordinate this figures and determine the regularity between them. Much attention is devoted to the modeling of functions within the framework of optimization of business processes. The article concludes that require further study of the function , need for quality analysis and management.

Keywords - activities, method, costing, business processs, modeling.

I. INTRODUCTION

Effective cost management becomes more and more topical for companies, especially taking into consideration macroeconomic situation in Latvia – decrease of GDP and inhabitants' purchasing power, labour force migration abroad, limited possibilities to attract foreign investments. During economic downturn every company attempts to mobilise its inner resources in order to maintain its existence, therefore, the importance of cost management increases as this process ensures rational use of limited resources and reduction of products' and services' prime cost in order to gain successful competitive advantage.

Business processes modelling is the source of information on company's operations and functions, connections between them, moreover, this information can be organised into data base that can be used to solve different management problems, conduct cost management and cost accounting calculations.

II. CRITERIA FOR MANAGEMENT PROCESSES MODELLING OF THE ENTERPRISE

The development of business processes' concept is influenced by environment factors: economics, politics, legal acts, social and cultural factors, technology, government etc. Factors that influence the company should be taken into consideration for modelling business processes and functions. This allows to determine necessity of functions that can appear in comparative evaluation and in analysis of company's operations.

Functional modelling of business processes is a fundamental element of conceptual analysis, certain

projection of information systems including management systems' modelling is done. Development of functional model will allow to deeply identify business processes, determine information flows, identify weak points in the company etc.

For every company and organisation it is possible to identify the list of essential functions that will be typical for such kind of companies or organisations. Modern management methodology first of all must solve the problem of flexibility and ability to adapt continuously to the external environment.

Therefore business processes analysis and modelling allows to:

- evaluate business processes and its components of the organisation,
- identify sources of resources,
- check changes in company's function resources consumption,
- optimise volume of functions' consumed resources and avoid development of unnecessary functions.

Following stages can be introduced in functional modelling of business processes:

- development of concept and company's business processes system according to functions;
- functions development;
- Structuring.

Moreover, there is another range of environment factors that do not influence operations directly, but they determine the direction of managerial decisions. The role of economical, political, legal, social, cultural, technological, environmental and geographical factors is rather important. The importance of environmental factors is increasing due to the fast increase in complexity of social systems' relations (social, economical, political etc.). External environment dictates strategies and tactics of organisations.

Internal environment has developed under changing factors influence on functions. It is the structure of the company, its resources. Despite the fact that these factors function inside the organisation, not always they are under direct control of the company and its management. Operations of the organisation is also dependant on energy, information and other external resources.

Control system of business operations and its elements is tightly connected with the concept of management around which fundamental elements of organisation and company should be consolidated:

- all categories of business processes and their costs;
- operations' cost centres;
- planning and budgeting system;

- managerial follow-up system that is developed based on cost centres and budgets;
- strategical management system that is based on value chains analysis, strategical positioning and analysis of cost comprising factors;
- information flows (documentation circulation) that can provide information for managerial decisions;
- control and analysis of company's results;
- analysis of deviations' reasons and controlling the development of functions.

Integrated components of company's business processes model can be interpreted in the following way:

- model of business processes that are included in chosen classes;
- management system model for every level of business processes and chosen groups for business processes levels;
- the model of quality provision system.

Business processes models, managerial systems and quality provision systems' models for companies can be developed using different instruments, different graphical methods. The aim of the model – achieve better results in following directions of company's operations: costs indicators, efficiency and productivity.

III. RESULTS

The model of company's functions is graphical depiction of its functions composition and interaction (presented in hierarchical structure) or mathematical depiction (matrix). In the graphical representation of functional model main functions of the company are situated on the first (top) level, on the second level there

are basic functions, on the third and following levels there are supplementary functions of the company and its units.

ABC analysis anticipates following actions:

- cost division between cost centres, cost attribution to main operations and supplementary operations, cost formation for products, clients categories, sales channels;
- analysis of products, services and branches profitability according to cost centres;
- discovery of non-efficient processed, actual costs comparison with historical indexes and aimed indexes.

Several stages, management levels (degrees) and connections are identified in the organisational management structure – horizontal and vertical, their main meaning is to coordinate actions of people that are unified by the structure of the company in order to achieve aims of the company. Author divides management levels into 3 main categories:

- 1) strategical level (in literature term “institutional level” can be found, but in author's opinion it is more attributed to large companies);
- 2) managerial level;
- 3) technical level.

Author notes, that in all management levels managers execute not only managerial functions, but also executing functions, although the higher the level the less is the weight of executing functions. In the model that the author have developed the weight of these functions in highest management level is around 10%, in middle level – 50%, but in the lowest level – 70% from total volume of functions (image).

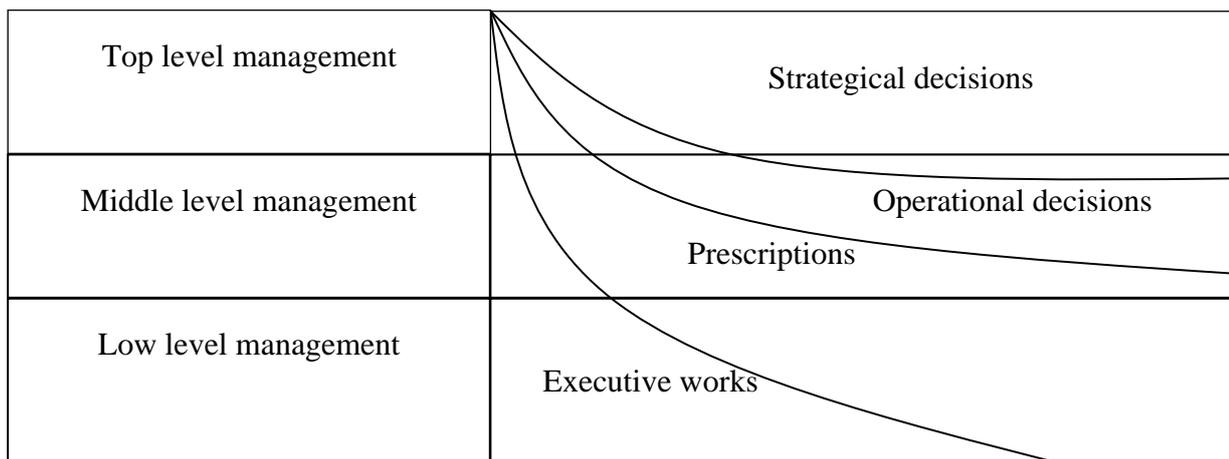


Fig.1. Classification of managers' time expenditure according to management levels

Such division of time is determined by the fact that managers of all levels perform two types of tasks: managerial tasks and specialised tasks. This means that manager of any level uses part of his time for decision making and the other part of his time for decision making

in his specialisation. As we can see in the image 2.2 at the top levels the weight of specialisation decision decreases and the weight of managerial tasks increases.

Every company has functional division of business functions, where associated costs can be accumulated. Author offers to arrange these functions according to management levels in order to use this model for cost

division for attribution to cost objects according to ABC method. Management range is mostly defined by delegation which means that some managerial functions are delegated to lower level managers retaining

responsibility. Division of activities between management levels according to author's model is represented below:

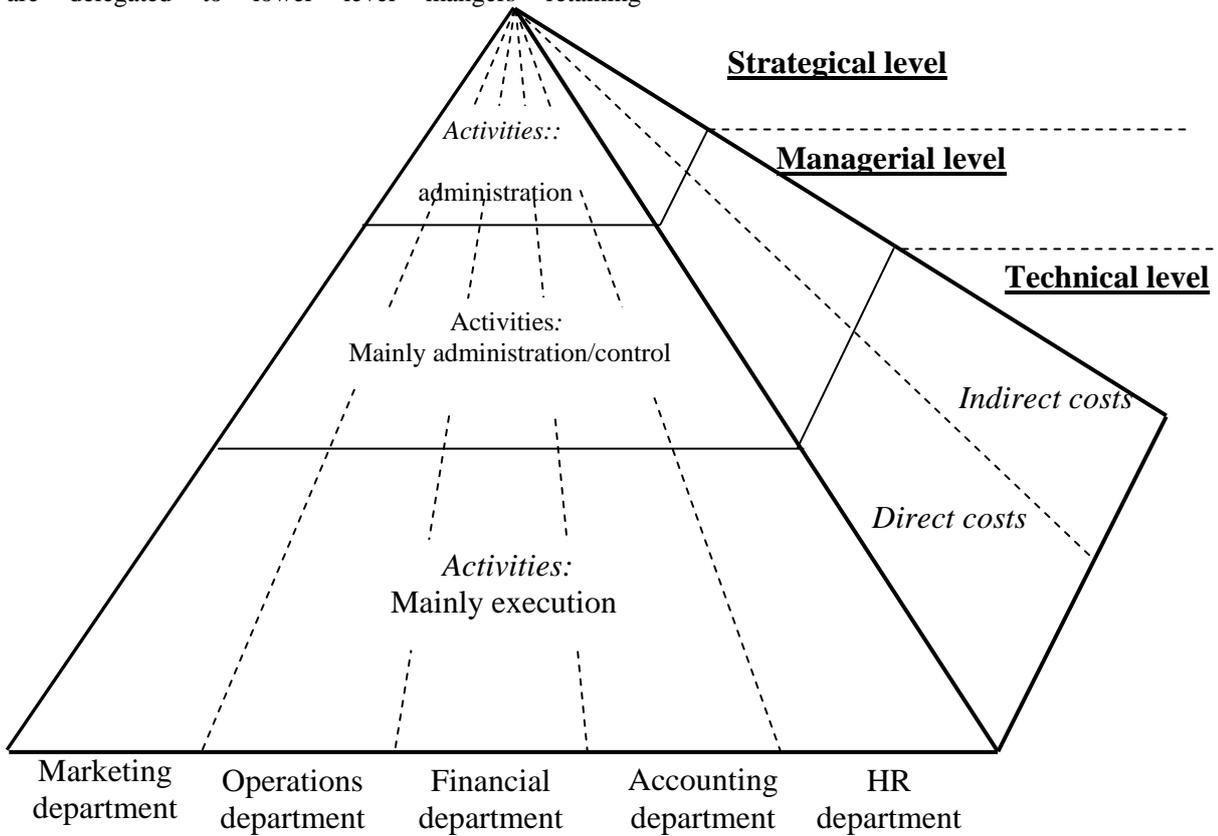


Fig.2. Activities division between management levels

The developed model is based on operations functional fields (marketing, accounting etc.) that correspond to company's sections, departments or units, these fields are realized at every management level. It can be seen that depending on management level both the content and the direction of activities changes: the higher the level the more activities are connected with administration and the less they are connected with executive works and vice versa.

The model has three management levels that are characteristic to small and medium sized enterprises in Latvia: strategical level, managerial level and technical level. Strategical level has the least number of managers in comparison with other levels and usually it has all or most of shareholders depending on the size of the company and shares number. Common positions are president, executive board member, chairman of the board, executive director, director deputy etc.

Managerial level of this model consists of middle management that subordinated to the top level managers and organises the work of lower managers, coordinates and controls them. Managers of this level are usually managers of departments, managers of functional units etc.

Technical management level is represented by low level managers. These managers usually supervise the work of several employees. In small companies there might not be

managers on technical level and in such case the workers of technical level are directly subordinated to middle management.

The specifics of different management levels lies in the fact that top management is dominated by interests and needs of shareholders, middle management is dominated by interests of clients, but in low management the most important is the result of executed works.

Such division of interests and priorities is explained by the fact that top management works to gain profit and maximise shares value as they own the capital or their remuneration and bonuses are greatly dependant on operations' results.

Middle management focuses on clients as usually they interact with client a lot and their results are dependant on number of attracted clients, clients' satisfaction and loyalty. Technical level employees (including lower management) focus on executing prescriptions and assignments of higher level managers and specific works results. In manufacturing companies workers of main processes usually do piecework where the volume and quality are most important.

IV. CONCLUSION

On of the problem of small and medium companies of Latvia that is a substantial obstacle for long term development and competitiveness is the fact that top and middle management is focused on costs decrease and not on costs management. This problem become especially important during economics downturn. In short term it allows to save resources and increase profit, but in the long term perspective it will inevitably lead to value reduction for the client. Therefore it is important for SME managers to change their way of thinking and pay more attention to development. And one of important components of this development is cost management that allows to optimise costs without value decrease for the client.

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