

Developing a Project of an Integrated Supply Chain Planning and Establishment of Budgeting

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Abstract—The main goal of this research is consists in development of the project of complex statement of a budgeting system on small business by considering the supply chain management. It is used systemically - process approach to statement of a budgeting system, an integrated approach to formation of financial and budgetary structures, the analytical approach assuming specification of categories and allocation of basic elements of model of process of budgeting of small enterprises. The integrated approach to management including formation of financial structure on the basis of organizational structure, determination of the budgetary structure and existence of result from modeling of elements of process. The technique of complex statement of budgeting of small enterprises is developed for realization of long-term supply chain strategy. The project of complex statement of budgeting can act as the fundamental tool in management of development by the small business representing the indicator of actual state for monitoring and adoption of effective management decisions.

Keywords— *budgeting system, financial structure, budgetary structure, supply chain planning, system and process approach.*

1. Introduction

Now questions of technologies of budgeting at small enterprises are actively considered, which one of them is supply chain strategy. There are features of activity of small enterprises having an impact on the organization of process of budgeting by considering the supply chain strategy in planning and budget controlling. To them it is possible to refer low investment activity, sensitivity of liquidity to changes of the general economic situation, inefficient redistribution of financial resources. At small enterprises there is no coordination of strategic and tactical plans, the systemacy in planning, process of planning does

not work as the uniform mechanism. The weak development of separate elements of process of budgeting takes place. The solution of this problem leans on systemically - process approach to statement of a budgeting system. On the one hand, formation of financial structure on the basis of organizational structure of the enterprise, on the other hand, determination of the budgetary structure provides an integrated approach to management and existence of result from modeling of elements of process of budgeting.

The significant contribution to a research of theoretical bases of the process focused budgeting and the directions of its practical use was made by the following scientists: [1-6].

In definition "budgeting" as economic category is expressed its economic essence. Many domestic and foreign authors, such, as: [9-11].

In Hrutsky V.E., Sizov T.V. and Gamayunov V.V. definition budgeting is defined as technology of financial planning, account and control of the income and expenses received from business at all levels of management. [7].

V.B. Ivashkevich considers that budgeting is a development of the interconnected plans of production and financial activity of the enterprise and its divisions proceeding from the current and strategic objectives of functioning. [8].

V.T. Chaya and N.I. Chupakhina consider budgeting as an important point of control of optimum and rational use of resources [12-14].

From the definitions offered by authors we will formulate several aspects characterizing the considered category.

First, budgeting is the instrument of achievement of the goals of the organization. A preliminary stage to development of the plan is definition of the purposes which are formed at the strategic level of corporate management. Secondly, budgeting is a business management. The base of statement of budgeting is the financial structure reflecting structure of business and types of activity in which

the organization is engaged. Thirdly, budgeting is a management on the basis of the balanced financial performance. Before development of budgets, it is necessary to define that financial performance by which the management of the organization what indicators are used as criteria of success of activity of the company for planning is guided. These indicators have to be coordinated to strategic to the purposes.

Thus, budgeting is the integrating process which allows increasing efficiency and efficiency of the made management decisions, to maximize the expected result and to control risks of economic activity. Finally, the efficiency of process of budgeting defines overall performance of the company in general. Strategic planning is impossible without formation of the budget as main instrument of management.

2. Research Methods

Supply chain integration with budget managing is considered in the research. Within the conducted research it is supposed to use systemically - process approach to statement of a budgeting system, an integrated approach to formation of financial and budgetary structures, the analytical approach

assuming allocation of basic elements of model of process of budgeting of small enterprises. As the main method of the solution of objectives the comparison method giving the chance to improve earlier offered approaches is applied.

Complex statement of budgeting has to represent the multi-stage process consisting of organizational and methodical blocks. In Figure 1 the model of complex statement budgeting which was developed for the enterprise, being the representative of small business is presented. [15].

Let's present the main development stages of the project of a budgeting system for small business. First, it is necessary to form financial structure, but not to consider budgeting process in general for small enterprise as it is accepted to carry out in activity of the companies. Secondly, it is necessary to allocate the centers of financial responsibility, dividing the enterprise into zones of responsibility for the planned result, for the purpose of control of results of certain actions. Thirdly, on the basis of the created financial structure to define the budgetary structure. The budgeting system on the basis of the offered model can be used as a complex control system and allows increasing efficiency of activity of small enterprises [16].

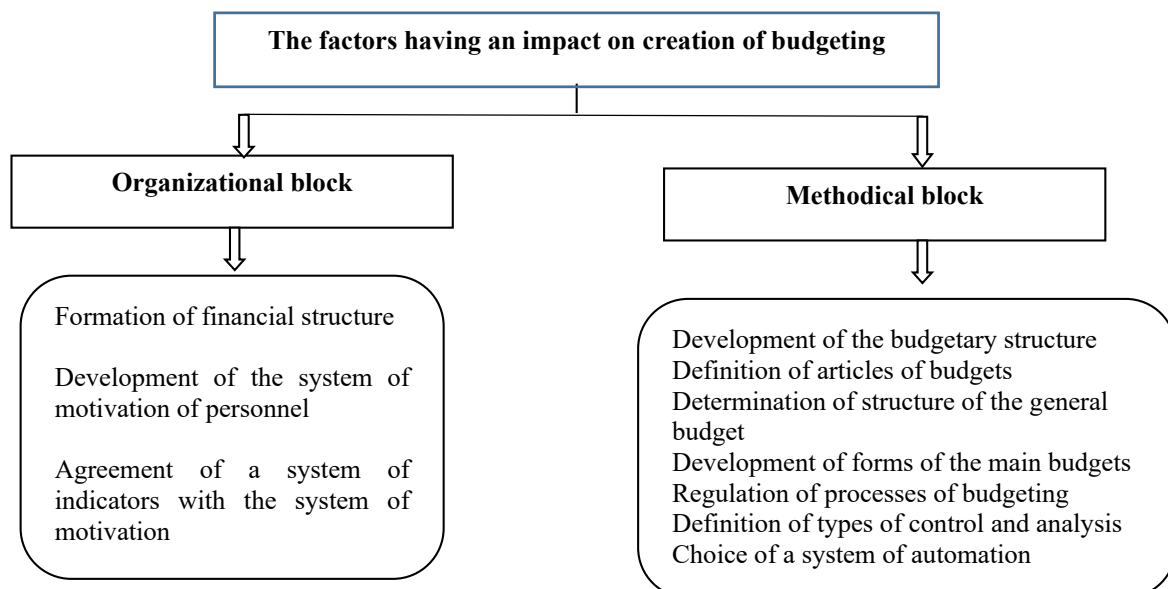


Fig. 1. model of complex statement of budgeting

One of initial stages of statement of a system of the budgetary management at the enterprise is determination of structure and hierarchy of the financial responsibility center (FRC). The list of all the FRC represents financial structure. Formation of financial structure is made on the basis of already existing approved organizational structure of the enterprise. Creation of accounting of expenses according to organizational structure allows connecting activity of each division with

responsibility of particular persons, to estimate results of each division and to define their contribution to the general results of activity of the enterprise.

The list of organizational links is formed of a list format of organizational structure. Is defined to what type of the center of financial responsibility each division depending on its functional purpose can be carried: "Investment Center" (IC), "Profit

center” (PC), “Revenue Center” (RC), “Cost center” (CC).
 On the following step the structure of the centers of financial responsibility is defined, each of which

was given the name according to functional duties (Table 1).

Table 1. Centers of financial responsibility of the enterprise

№	Subdivisions, structural units	Types of the FRC				Name of the FRC
		IC	PC	RC	CC	
1	Ltd company "CIC "Modernist style engineering systems"	+				"Center of investment" IC
			+			"Center of profit" PC
1.1	Administration				+	CC "Center of expenses". "Management"
1.1.1	Directorate on logistics				+	CC "Logistics"
1.1.2	Directorate of economics and finance				+	CC "Finance"
1.1.3	Directorate on sales			+		Revenue Center" RC "Sales"
					+	CC "Marketing"
1.1.4	Directorate of construction				+	CC "Construction"
1.1.5	Administrative directorate				+	CC "Staff"
					+	CC "AEW" (Administrative-economic work)

LLC CIC Modern engineering systems bears responsibility as the FRC of two types: center of investments and center of profit. The management of the company confers responsibility for two indicators on the enterprise:

- return on the capital invested in the enterprise; (CIC Commercial & Industrial Company)
- the size of profit which the company earns.

After determination of structure of the FRC it is necessary to create financial structure as hierarchy of the centers of financial responsibility. For this purpose, it is necessary to carry out the following actions:

- to designate that FRC which was carried to the Center of Investments type;

- in the above-stated center to designate the FRC carried to the Center of Profit type;
- in them to designate the FRC which were defined as "The center of expenses", "The center of income".

On the basis of the given stages the hierarchical list representing financial structure of the enterprise by analogy with organizational structure is created. The center of financial responsibility in financial structure is a full analog of an organizational link in organizational structure of the company and also has to have the responsible person (head).

The corresponding block diagram is submitted in figure 2.

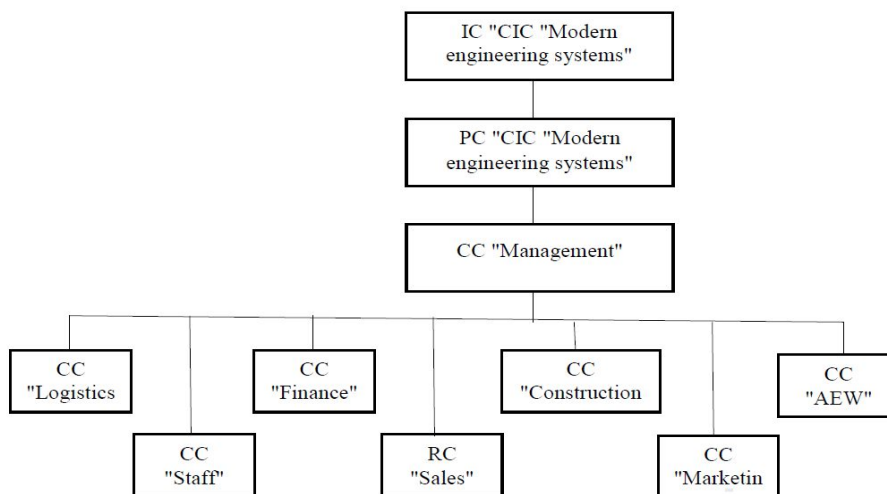


Fig. 2. Financial structure of the enterprise

By means of financial structure the management of the company will be able to delegate further the powers and to define financial responsibility for each FRC [17-20]. Dividing indicators into regulated are also unregulated, there is an opportunity to develop the system of indicators and, thus, to include only those indicators of expenses and revenue which it will be able really to affect in the sphere of responsibility of the manager. The similar mechanism helps to motivate personnel of the company.

The budgetary structure represents the system of functional budgets which will be kept at the enterprise. The purpose of drawing up functional budgets – definition of need for resources for

various spheres of activity. The list of functional budgets of the enterprise was developed, each of which is carried to the corresponding type: a) naturally cost (NC); b) cost and monetary income and expenses (MIE).

At the same time the following was considered:

- there has to be only one budget characterizing a certain sphere of activity of the enterprise;
- all spheres of activity have to be described;
- the enterprise independently chooses what spheres of activity will be reflected in separate budgets.

The full list of functional budgets is presented in table 2

Table 2. List of functional budgets of the enterprise

Nº	Name of the budget	Budget type
1	Budget of sales	NC
2	Budget of marketing	MIE
3	Budget of production	HC
4	Budget of purchases	NC
5	Budget of administrative expenses	MIE
6	Budget for financial activity	MIE

On the following step it is defined what budgets will be kept on each center of financial

responsibility. This stage the projection "is result of the FRC there is a Budget", presented in tablits3

Table 3. Distribution "the FRC is the Budget" the enterprises

Centers of Financial Responsibility	Budgets					
	Investment budget	Sales Budget	Marketing budget	Production budget	AHR budget	Financial activity budget
CC "Management"	+					+
RC "Sales"		+				
CC "Marketing"			+			
CC" Construction"				+		
CC "Logistics"				+		
CC "Administrative Works"					+	
CC "Staff"					+	
CC "Finance"						+

Functional budgets are formed by grouping of articles of operational budgets for sign of functional accessory. Thus, the following development stage of a budgeting system is compliance establishment " FRC-budget-article". Articles are created on the basis of economic operations which are carried out by the company. Results are presented in table 4.

Table 4. Distribution " FRC-budget-article" of LLC CIC Modern engineering systems

FRC	Budget	Clause
CC "Management"	Budget for financial activity	Wages
		Executive documents of employees
		Taxes and contributions from the wage fund
		Settlements with the budget
	Investment budget	Acquisition of fixed assets
		Acquisition of intangible assets
RC "Sales"	Sales budget	Income from implementation
CC "Marketing"	Budget of marketing	Advertising expenses
CC "Construction"	Budget of production	Production costs
CC "Logistics"	Budget of production	Transportation costs
CC "AEW"	AEW budget	Rent of rooms
		Expense accounts
		Purchase of a computer hardware
		Communication services, Internet
		Software
		Consulting expenses
		Legal services
		Utility costs
		Household expenses
		Service and repair of transport
		Ensuring performance of contracts
		Depreciation
		Insurance payments
CC "Staff"	AEW budget	Staff recruitment
		Training of personnel
		Labor protection
		Travel expenses
		Overalls
CC "Finance"	Budget for financial activity	Services of bank
		Interest receivable
		Payment of the main part of the credits and loans
		Percent to payment
		Payment of the main part of the credits and loans

The resultant stage of complex statement of budgeting at small enterprise assumes development of the general budget. In figure 2 3 the plan of the

general budget for the studied enterprise is schematically presented.

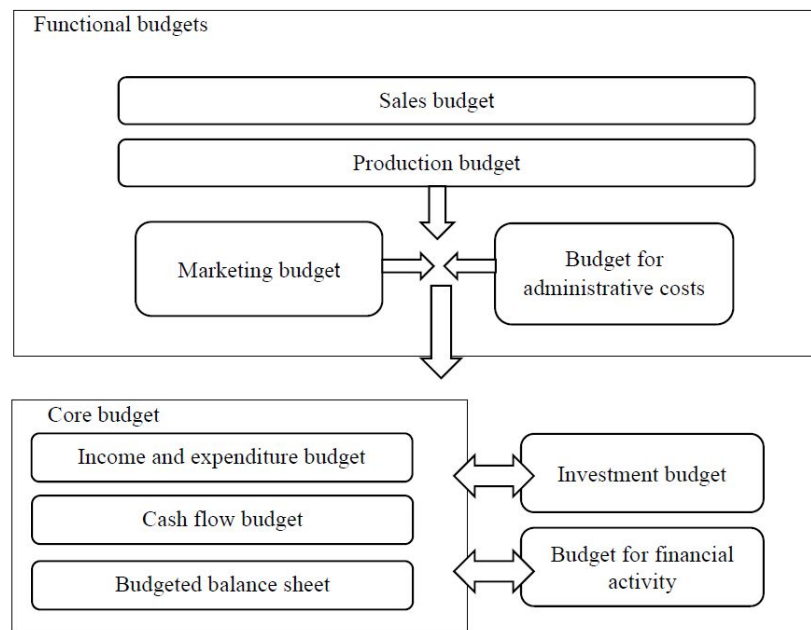


Fig. 3. Structure of the general budget of the enterprise

3. Discussion

The organizations cannot effectively function if process of planning is not synchronized with dynamics of development of business. There is a need of improvement of all subsystems for the purpose of ensuring uniformity of the applied methods, receptions, and ways of assessment. Therefore, development of the process focused budgeting and its procedures are relevant for small enterprises. In the course of discussion of distinctions of process of budgeting and the process focused budgeting, it is possible to claim that the purpose of the process focused budgeting is the organization of a uniform system of planning, control and analysis of information on types of activity, business processes, and tasks of the centers of responsibility for adoption of effective management decisions. While the purpose of budgeting is the organization of a uniform system of planning, control and analysis of indicators of financial and economic activity of the organization and information base of adoption of management decisions. Thus, the process focused budgeting allows besides ensuring with the expected financial information necessary for decision-making, ensuring realization of strategic objectives of activity of the organization, detection of requirements of the organization for money and optimization of financial flows, to provide efficiency of activity of the centers of responsibility for the account of delegation of the rights to heads and also determination of responsibility and the system of motivation; the strategy choice by the form activity (improvement or transfer on outsourcing) and to an object of expenses.

Comparison of characteristics shows essential differences in budgeting systems [21-29].

The author's budgeting system for small enterprise consists in application of the process focused approach, allocation of business processes and types of activity, definition of the centers of responsibility and also a regulation of procedures of budgeting [30-32].

4. Conclusion

At creation of a control system at small enterprises importance of statement of an integration of supply chain and budgeting system is obvious. The main problems of small business have financial character. In this situation the role of flexible and multiscenario budgeting of activity raises. Business process automation of the enterprise acquires relevance. The choice of the best instruments of the multiscenario budgeting based on management accounting will allow to adapt to changes in economy in due time.

In a research the algorithm of development of the project of formation of a budgeting system of small enterprise is presented. As a result of its introduction the management will have an opportunity to delegate a part of the powers to managers of the second level and to include in the sphere of their responsibility only those indicators of expenses and revenue on which it can have an impact. Accurately built and debugged budgeting system gives the chance to track all financial contour of operations. Having developed the system of indicators for each center of financial responsibility and having coordinated it to the system of stimulation to responsibility for implementation of this operation, it is possible to

raise indicators of efficiency of activity of each division and all enterprise in general.

The budgetary management will allow realizing the long-term strategy of the enterprise. Using this system, as the instrument of planning, the management of the enterprise will have an opportunity to carry out full financial diagnostics, to manage profit and profitability, to synchronize cash flows on types of activity. The presented mechanism promotes timely identification of deviations from the planned indicators. It will allow carrying out timely adjustment in need of the current and strategic objectives. Optimum use of opportunities, effective distribution of resources at continuous monitoring of indicators will allow to coordinate strategic actions with tactical actions.

The author offered the technique of complex statement of budgeting of small enterprises differing in disclosure of maintenance of each stage of process of budgeting, formation of data on execution on administrative accounts. The model differs from earlier offered possibility of universal use in respect of small business enterprises. With its help it is possible to modify a set of estimated indicators as a part of subsystems depending on the data provided in the reporting of the company. The received results can be used when forming strategy of the enterprise for increase in efficiency of administrative impacts on economic processes.

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