

OPTIMIZATION OF CONSTANT EXPENSES OF ENTERPRISE BY APPLICATION OF INDUSTRIAL MODELS OF SOURCING

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Abstract: To date, the scientific and practical literature presents a large number of tools and methods to increase flexibility of company's management, however, if all firms use certain tools that logically should provide them with some protection against negative phenomena in the market, which essentially means security from those of their own kind, in this case the actual question "how to improve the competitiveness of a firm?" is evidently transformed into the question "which tool is the more competitive?" In this connection, the present work is aimed at increasing the competitiveness of the sourcing strategy, in particular, the tools proposed in the paper will allow the possibilities of sourcing models in the firm management to expand, and also to increase the importance of the "sourcing economy" direction in economic sciences. The purpose of this work is to elaborate possible ways to optimize the company's constant expenses through the use of production sourcing models. In this paper, we have used such sourcing models as restructuring production outsourcing, production insourcing, co-sourcing, and the sourcing maneuver model. The result of the work is the elaborated ways to optimize the company's constant expenses through the use of production sourcing models. The results of this paper can be useful for economist scholars with the aim of developing the direction of the "sourcing economy" in economic sciences, and also as tools for managers to increase the competitiveness of their firms. The direction of the "sourcing economy" is quite new in economic sciences and is promising from the point of view of developing reliable management tools for a firm, therefore, the ways of optimizing a company's constant expenses through the use of sourcing proposed in this paper may be of interest to both academician and practician economists.

Keywords: constant expenses, outsourcing, co-sourcing, insourcing, sourcing maneuver model.

1 Introduction

The ability of a firm to quickly response to market changes is a sign of its high competitiveness, since if the firm has adapted to the new market conditions in time, it would retain all the necessary resources for its development. To date, the scientific and practical literature presents a large number of tools and methods to increase the flexibility of the company's management. However, if all firms use certain tools that logically should provide them with some protection against negative phenomena in the market, what essentially means security from those of their own kind, in this case the actual question "how to improve the competitiveness of the firm?" is evidently transformed into the question "which tool is the most competitive?" In this connection, the present work is aimed at increasing the competitiveness of the sourcing strategy, in particular, the tools proposed in the paper will allow the possibilities of sourcing models in the management of the firm to expand, and also to increase the importance of the direction "sourcing economy" in economic sciences.

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2 Materials and methods

Expenses are an integral part of business. On the one hand, they demonstrate the necessary amount of resources, the use of which in the economic activity of a firm brings a net profit to it, that is, the very meaning of the existence of each firm and, therefore, the market economy, and on the other, the efficiency degree for the use of these resources. Therefore, touching upon the subject on the classification of expenses for which there is currently no established and generally accepted position on the issue in the scientific and practical literature, we can assume that the issue of the expenses classification will always remain open. The reason is the development of economic science in both theoretical and practical directions, in particular, the development of new tools to improve the competitiveness of firms aimed at more efficient use of resources, and changes in the principles of entrepreneurial

activity and economic structure, in particular, the emergence of new markets and market segments, connected, among other things, with the formation of a new technological mode.

Nevertheless, economic science presents basic approaches to the classification of expenses within which frameworks firms operate, since today they are relatively convenient to use in managing business. Analysis of scientific and practical literature allows us to distinguish the following main approaches to the classification of costs ¹:

- By the method of allocating expenses to the cost of production, such expenses groups are divided to "direct" and "indirect" (Salmina, 2011);
- By the nature of participation in the production process, such groups of expenses are allocated as "operational" and "overhead" (Salmina, 2011);
- In relation to the volume of production, such groups of expenses are allocated as "variable" and "constant" (Drury, 2012);
- By assigning to the cost price or the reporting period, there are allocated such groups of expenses as "production" and "recurring" (Glukhova, 2015);
- By the homogeneity of the composition of expenses, there are allocated such their groups as "individual" and "complex" (Salmina, 2011);
- By the possibility of planning, there are allocated such groups of expenses as "target" and "unscheduled" (Glukhova, 2015);
- By the possibility of control, there are allocated such groups of expenses as "controllable" and "uncontrollable" (Salmina, 2011);
- By the time of emergence, there are allocated such groups of expenses as "operating" and "lumpsum" (Salmina, 2011).

Of course, this is not a complete list of basic approaches to the classification of expenses, especially since different authors meet different names of expenses groups for the same classification criterion. For example, if we take the approach "with respect to the volume of production", which is taken as a basis in this work, then some economists allocate still mixed or discretely increasing expenses, in addition to variable and constant expenses (Voronova, 2007).

To begin with, we consider some definitions of constant expenses:

- Constant expenses are expenses that remain relatively unchanged during the budget period, regardless of changes in sales volumes (Asaul, 2006).
- Constant expenses are expenses that are not related to the volume of production and sales of products, goods, services, in the process of entrepreneurial activity that change in both quantitative and qualitative terms ².

However, in the authors' opinion, the most successful definition is that "constant expenses are expenses that remain unchanged until a certain volume of production is reached and then increase stepwise"³, since this formulation in a maximum easily-accessible form expounds the main properties of this group of expenses, understanding of which allows us to expand the possibilities of sourcing models in increasing the competitiveness of firms.

Before to turn to the main scenarios for optimizing constant expenses through sourcing, we note the following property of

¹ In this case, we are talking about the classification of production expenses.

² Source: <http://www.pro-biznes.com/organizaciya-i-upravlenie-biznesom/uslovnopostoyannye-i-uslovno-peremennye-zatraty.html>

³ Source: <http://forex.finam.ru/dictionary/wordf02F1A/?page=5>

this group of expenses. In particular, the constant expenses consist of two components: useless and useful expenses that were introduced into the economic science by O. Brecht (Brecht, 1939) and E. Gutenberg (Gutenberg, 1983) respectively. Speaking about manufacturers from Russian industry, those organizations are characterized by worn out, obsolete and unloaded production capacities, for example, according to Rosstat, the level of capacity utilization of enterprises producing capitalized products⁴ is only 40-52% (Zamaraev, 2015), therefore, the share of useless expenses in constant expenses of Russian manufacturers remains relatively high.

Having described the state of Russian industry, we can present a generalized graphic model (see Figure 1) that characterizes the behavior of the constant expenses of Russian manufacturers.

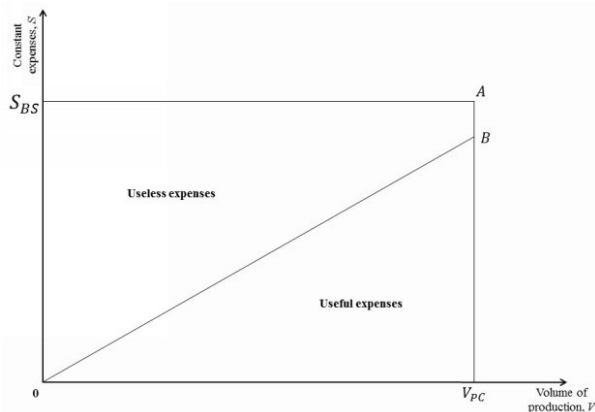


Fig. 1. Behavior model of conditional-constant expenses

Note: S_{BS} - constant expenses of an enterprise before application of sourcing; V_{PC} - production capacity of an enterprise before the application of sourcing.

In Figure 1, it was assumed that the volume of constant expenses during utilization and unloading of production capacities remains unchanged.

3 Results and their discussion

In this paper, we will consider such models of sourcing as production outsourcing, co-sourcing and insourcing, and the sourcing maneuver model "utilization of production spaces by providing outsourcing services" with the purpose to optimize constant expenses of an enterprise (Isavnin, 2013). In particular, we present the following variants of combinations of sourcing models:

1. production outsourcing, and sourcing maneuver model;
2. production outsourcing and co-sourcing, and the sourcing maneuver model;
3. production insourcing and co-sourcing, and the sourcing maneuver model.

Let's consider each sourcing combination separately.

3.1 Production outsourcing and sourcing model

The essence of this sourcing combination is that production outsourcing is used to sell unclaimed production capacities, what leads to a decrease in the volume of constant expenses of an enterprise. The sourcing maneuver model is used for the purpose of higher utilization the production capacities in demand, what leads to a reduction in the share of useless expenses in constant

expenses in the production of core products below the production capacity (see Figure 2).

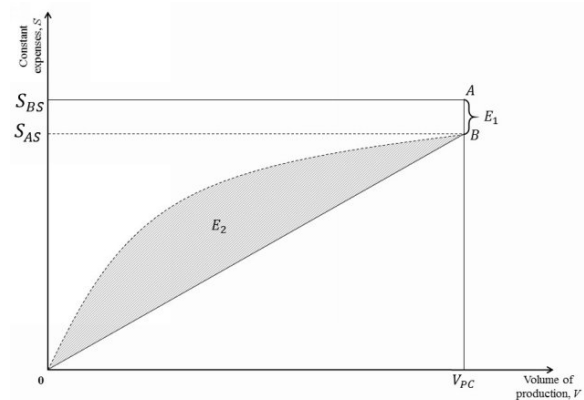


Fig. 2. Change in the behavior of conditional-constant expenses when applying the first sourcing combination

Note: S_{AS} - constant expenses of an enterprise after application of sourcing; E_1 and E_2 and - economic effects from the use of sourcing.

3.2 Production outsourcing and co-sourcing, and sourcing model

The difference of this sourcing combination from the previous one is that when using production outsourcing the achievement of 100% share⁵ of useful expenses in constant expenses in the production of core products in the volume equal to production capacity is not possible, then the use of production co-sourcing makes it possible to remove bottlenecks in production and, therefore, increase the production capacities of an enterprise and achieve 100% share⁶ of useful expenses in constant expenses (see Figure 3).

⁴ Machines, equipment, ships, aircraft and space vehicles and other vehicles.

⁵ $\approx 100\%$.

⁶ $\approx 100\%$.

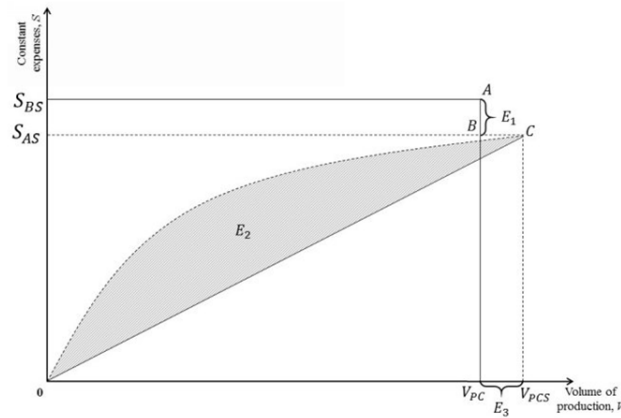


Fig. 3. Change in the behavior of conditional-constant expenses when applying second sourcing combination

Note: V_{PCS} - production capacity of an enterprise after application of sourcing; E_1 , E_2 and E_3 - economic effects from the use of sourcing.

The difference of this sourcing combination from the previous ones is that an enterprise does not dispose of production capacities, but rather expands its own production and resorts to the services of the cosorceurs (see Figure 4).

3.3 Production insourcing and co-sourcing, and sourcing model

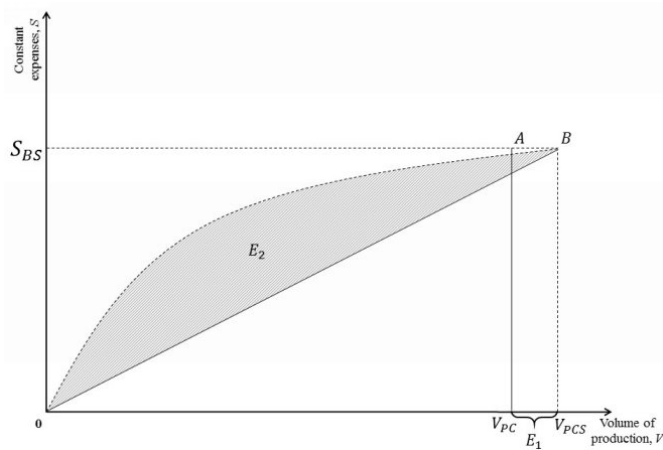


Fig. 4. Change in the behavior of conditional-constant expenses when applying the third sourcing combination

The sourcing models considered were widely used and applied by enterprises of the Russian manufacturing industry. In particular, the sourcing maneuver model "higher utilization of production spaces through the provision of outsourcing services" is an integral part of the diversification program of PJSC "KAMAZ", within the framework of which the production of crankshafts for deliveries to PJSC "AvtoDizel" ⁷ was mastered at the forging plant of the enterprise without the purchase of additional equipment. If to talk about production outsourcing aimed at restructuring production spaces, then this sourcing model is especially relevant and in demand in Russia. In particular, it is actively used by such companies as GAZ Group, PJSC OMZ, United Company RUSAL, Severstal Group, Irbit Motorcycle Plant LLC and other enterprises of Russian industry (Rybina, 2012).

4 Conclusion

The direction "economy of sourcing" is quite new in economic sciences and promising from the point of view of developing reliable tools for company management. Therefore, the possible ways of optimizing the company's constant expenses through the use of production models of sourcing, in particular, production outsourcing, insourcing and co-sourcing, as well as the sourcing

maneuver model proposed in the present paper, may be of interest for both academician economists and economists-practitioners, and for managers of economic, financial and strategic divisions of large industrial enterprises.

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⁷ Source: "KAMAZ" forging plant has mastered crankshafts for YaMZ, URL: https://www.kamaz.ru/press/releases/na_kuznechnom_zavode_kamaz_osaeny_kole_nvaly_dlya_yamz/

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