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THEORETICAL ASPECTS OF MODELING RESOURCE USE

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ABSTRACT

Today, the concept of "sourcing" is a neologism in economic terminology, and "sourcing economics" is a new direction within the framework of economic sciences, although, for example, scientific articles and monographs are devoted to the problem of identifying such a thing as "outsourcing" It is not surprising because there are no legislative acts regulating this term in the Russian Federation. However, this is only one of the problems of sourcing, which, despite the gaining popularity among entrepreneurs and company executives as a tool to improve the competitiveness of enterprises, as well as among theoretical economists who formulate their own concepts of describing sourcing's relationships and assessing their feasibility and effectiveness, on the one hand has a number of debatable aspects in its specific elements, and on the other, this direction is not formed as a single integral system. This paper discusses the production forms of such sourcing models as outsourcing, insourcing and co sourcing. Developed a number of theoretical positions in order to form the sourcing economy as a single integrated system. The results of this paper may be of interest to theoretical economists as tools for formalizing the fundamentals and basic elements of sourcing economics.

INTRODUCTION

Today, the concept of "sourcing" is a neologism in economic terminology, and "sourcing economics" is a new direction within the framework of economic sciences, although, for example, scientific articles and monographs on legal specialties are also devoted to the problem of identifying such a concept as "outsourcing" [1-3], which is not surprising due to the fact that in the Russian Federation there are no legislative acts regulating this term [4]. However, this is only one of the problems of sourcing, which, despite the gaining popularity among entrepreneurs and company executives as a tool to improve the competitiveness of enterprises, as well as among theoretical economists who formulate their own concepts of describing sourcing's relationships and assessing their feasibility and effectiveness, on the one hand It has a number of debatable aspects in its specific elements, in particular, for example, at the moment, specialists have failed to create generally accepted and universal techniques for the calculation of the economic effect of the application outsourcing [5], and on the other - this direction is not formed as a single integral system. Of course, sourcing economics, being formed as an integral component of economics, may contain opposing points of view, which is natural due to the fact that these views belong to different economical schools, but the generally accepted formalization of fundamentals and basic sourcing elements within the current mainstream is more than appropriate, since, given the increase in sourcing popularity in theory and practice noted above, the results of this work can serve as a basis for I develop innovative and effective instruments of state support of the economy.

The purpose of this paper is to develop a number of theoretical concepts that could be considered by academic and professional communities as resources for the formation of sourcing economics as a single integrated system.

MATERIALS AND METHODS

The concepts found in modern scientific and practical literature, in particular, such as "sourcing" [6], "sourcing models" [7], "sourcing strategy", "sourcing technologies" [8] and others, do not have the status generally accepted academic name of the section of economic theory devoted to the study of sourcing models, therefore, taking into account the current tradition, both in economics and in other areas of human activity, which consists in naming a set of generalized provisions that make up science or section, as a theory, in particular, if we are talking about economics, we can cite such examples as "game theory", "firm theory", "contract theory", "reform theory" and others, as well as continuing the vocabulary prevailing in professional vocabulary, which originates from the acronym "outsourcing", which stands for "use of external resources" [9], we offer the name of the section of economic theory aimed at generalizing and systematizing theoretical, methodical, instrumental and other aspects of sourcing, to the "theory of modeling the use of resources." In this paper, we propose the following author's definition of this concept: the theory of modeling the use of resources is a section of economic theory that considers the principle of creation, movement and use of resources in the context of the specifics of the interaction of economic agents.

It should be noted that, firstly, the proposed name of the section of economic theory is copyright and it only pretends to take place as a generally accepted academic name, and secondly, the elaborated definition is not final, as constant improvements and the search for truth in discussions and disputes are a completely natural scientific process.

KEY WORDS

Out sourcing, multi sourcing, single sourcing, insourcing, co sourcing.

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RESULTS AND DISCUSSION

Sourcing classification

The classification of forms and types of sourcing is an open question in the economic literature [10], and this fact is related to the fact that, firstly, each individual sourcing's relationship is individual and it, in view of the characteristics of modern globalization and constantly changing legislative restrictions of various countries may differ significantly from, at first glance, similar relationships [11], and secondly, new sourcing models and types of these models are announced annually in the scientific and practical literature, which is quite natural, since The theory of resource use modeling is a new section of economic theory that is gaining popularity in both academic and professional societies, for example, relatively new sourcing models are crowdsourcing [12], noosourcing [13] and sourcing maneuvers [14]. However, in the economic literature there are more or less established approaches to the classification of sourcing, for example, economist Kotlyarov I.D. identifies the most common classification criteria such as "attitude to the core business of an enterprise", "activities", "content of functions" [15], "location of business processes", "according to the content of the activity of the sorser" and "according to the completeness of the transfer of the business process" [4]. In this paper we will focus on the criteria of "activities", in particular, sourcing by this criterion is classified into the following models:

1. sourcing in the field of information technology;
2. production sourcing;
3. logistic sourcing;
4. accounting sourcing;
5. staff sourcing, etc.

Varieties of production sourcing

In this section of the article, an attempt is made to eliminate some of the misunderstandings found today in scientific discussions regarding the identification of the production form of sourcing and expressed in a somewhat dogmatic understanding of this model, resulting in part of the approaches to assessing the effectiveness and feasibility of business restructuring based on sourcing is either subjected to criticism and does not continue its development, or does not receive proper testing in specific enterprises. This state of affairs, in our opinion, is one of the main limitations of the development of the theory of modeling the use of resources. In this regard, based on the results of sourcing in both domestic and foreign companies, published in the scientific and practical literature, it is proposed to decompose production sourcing into such models as "component sourcing", "process sourcing" and "factor sourcing".

The essence of each model is as follows:

1. In component sourcing, the subject of the transfer to outsourcing, or insourcing, or sourcing is an integral part of the final product, that is, the entire component production is transferred to sourcing, for example, the classification of outsourcing based on the IDEFO approach allows you to select the so-called outsourcing process input (output) [16], which is essentially component outsourcing. An example of the use of component sourcing is the experience of the automotive enterprise PJSC KAMAZ, as a result of which the company outsourced the production of gearboxes, completely abandoning the production of its own [11].
2. In process sourcing, the subject of the transfer is a business process, for example, a technological process or industrial services. An example of the use of process sourcing is the experience of the PJSC United Machine-Building Plants enterprise, as a result of which equipment servicing was outsourced [17].
3. Factor sourcing implies resource sharing, that is, a resource belonging to a production factor is transferred to sourcing, for example, specialized tools or equipment are rented [18]. An example of the use of factor sourcing is the organization of production in the Kama industrial park "Master", which leases production and office premises with a developed infrastructure support.

Sourcing's relationships and their members

Beginning the reasoning regarding sourcing's relations and their participants it should be noted about two provisions that have been fixed in scientific literature today:

1. Participants are mentioned only when considering such a sourcing model as outsourcing, and here a customer company, called an out source [19], and a supplier or a company, called an outsourcer provider, are contrasted;
2. The situation with sourcing's relations is similar, in particular, single sourcing and multi sourcing relations [20, 21], which relate exclusively to outsourcing, are singled out, and the single sourcer and multi source are the types of outsourcer.

These provisions, in our opinion, severely limit the development of the theoretical and methodological aspects of the theory of modeling the use of resources, and therefore it is proposed to develop the concepts of “sourcing’s relationships” and “participants of sourcing’s relationships” towards insourcing and co sourcing, where, of course, visual interpretation will be required and the introduction of new concepts. First, consider production outsourcing.

Production out sourcing

In this paper, we propose to rename the concepts of “single sourcing” and “multi sourcing” to “single-outsourcing” and “multi-outsourcing”, respectively, therefore, speaking of participants in sourcing’s relationships, when applying single-outsourcing, the performer is referred to as “single-outsourcer”, when using multi-outsourcing - “multi-outsourcer”.

Production in sourcing

The main difference between insourcing from outsourcing is that the interaction between in source and in sourcer (insourcers) is carried out inside the firm, that is, in other words, the outsourcing of the interaction takes place in the framework of the signed contract, and with insourcing – in the framework established in the company business processes, so the development of the concepts of "sourcing’s relations" and "members of the sourcing’s relationship" in the direction of insourcing is similar with the outsourcing principle, where in source and in sourcer are certain divisions of the company. In this paper we propose to introduce the concepts of "single-insourcing "and" multi-insourcing".

Production co sourcing

Of all the models of sourcing considered in this paper, co sourcing is the most unusual model in terms of the fact that it consists of outsourcing and insourcing, that is, in other words, when co sourcing, the company combines its own resources with the resources of third-party organizations, therefore, speaking about the sourcing’s relations and members of the sourcing’s relationship, the "single-co sourcing" model. This interaction with co sourcee one external and one internal co sourcer, and if in the model appears at least one more co sourcer (internal or external), then this model will be called multi-co sourcing.

The above proposed decomposition of single- and multi-form sourcing models considered in this paper [Fig-1] significantly expands the possibilities of sourcing’s relationships and sourcing participants, and therefore it is logical to suggest the following sourcing classification approach.

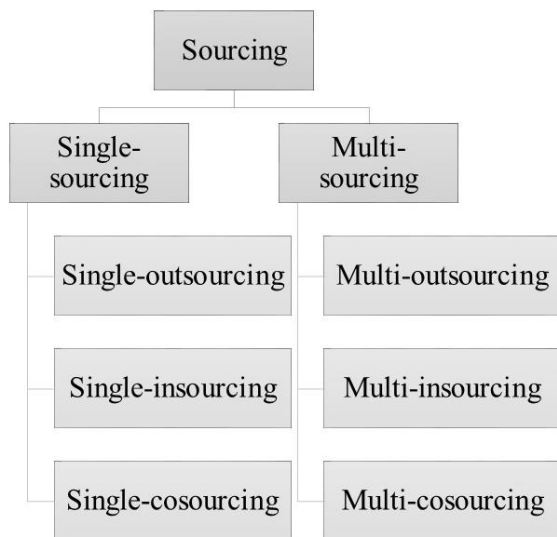


Fig. 1: Classification of sourcing.

CONCLUSIONS

The developed number of theoretical provisions is an element of the author's concept of the formation of the economy of sourcing as a single integrated system, however, the proposed approaches to the classification of sourcing and the developed terms and definitions may be of interest to the academic community as tools for the development of this scientific field, and for economists-practitioners in order to form methodological approaches to assessing the effectiveness of restructuring of large industrial enterprises through the use of sourcing models.

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CONFLICT OF INTEREST

There is no conflict of interest.

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