

4. The basic economic problem facing these regions in such locations with similar economic development and of similar size to Lithuania is that their economies can not compete qualitatively and quantitatively neither in the EU market nor the markets of other developed economies and therefore require access to markets with less competition.

5. The comprehension of that fact that without manufacturing, the generated added value of the enterprises there cannot be any growth of well-being of the nation should push the governments and local authorities towards the creation of such conditions, which could be able to adopt the theory of cross-border competitiveness.

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UDC 658

THE STREAMS OF THE SUPPLY CHAINS IN THE CONSTRUCTION SPHERE

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Supply chain management is one of the concepts taken from other industries and interpreted to suit the construction industry in order to bring improvements within the industry. A recent emphasis is laid on the integration of the whole supply chain because of the fragmented nature of the industry, and the large number of participants involved in a project development process.

This paper presents further analysis of economic flows existing in the construction supply chains and having their own specific nature.

The construction industry covers all aspects of building, civil engineering and the process plant industry and encompasses the planning, design, construction and maintenance of building and other physical structures (Cox, Ireland, Townsend, 2006). Besides, the construction field of national economy promotes activation of real sector work stimulating the work of metallurgical, machine-building, agro industrial sector, transport and etc.

But diversified modern hi-tech construction industry cannot anymore be successfully organized by means of traditional management and marketing principles. In postindustrial economy inconsistency of customers, builders and investors' interests leads to considerable social and economic losses. To avoid these losses or at least to minimize them, the supply chain management (SCM) in construction industry is conceived as an essentially new direction in the management organization of economic flow systems.

The supply chain (SC) is the network of organizations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services in the hands of consumer (Christopher. 2005). Each stage in a supply chain is connected through the flow of products, information and funds (Chopra, Meindl, 2010). Universal character of SC toolkit allows receiving effect from all economic resources. Today methodological bases of SCM are used for optimization of cargo transportation, rationalization of products flows, financial cooperation, information coordination and many other things in economy spheres. The SCM should also be used and implemented in construction sphere.

The formation of construction SC within the limits of uniform flow process of materials and information movement between all participants of construction complex according to technology of building manufacture, taking into account mutual relations between suppliers of resources, customers, builders and investors and as much as possible approached to industrial consumption is the main idea of SC activity in construction industry.

The process flows management has particular complexity and variety of commercial communications between customers, general constructors, subcontractors, designers, logistical providers, investors, as well as large quantity of product positions of building materials and completing equipment. The absence of highly-skilled personnel strongly affects the results of the construction industry activity. All the above lead to numerous idle times, failures to meet terms and conditions and poor quality of executed work.

Economics

Theoretical and methodological basis of construction supply chain is flow processes penetrating building field and having various nature. SC application allows displacing accents from management of building manufacture to management of economic streams. The basic object of supply chain management is the material stream which is inseparably linked to financial and information streams.

It is possible to unite the material, financial and information streams penetrating building field and name them *economic ones*, i.e. representing the ordered sequence of the interconnected events proceeding as uniform economic process. Also it is possible to understand a variety of resources and products of economic system as *an economic stream*.

From the point of view of the microsystem *an economic stream* is considered as a set of homogeneous economic elements moving from a source of occurrence (manufacture) to destination within the limits of certain economic system with parameters set to this system.

Further we will consider principal views of economic streams in construction SC more detailed.

We will consider material stream as a product considered in the course of applying various logistical operations to it and executed within a particular time interval. It is characterized by such parameters as nomenclature, assortment, quantity of production; dimensional characteristics (volume, the area, the linear sizes); weight characteristics; physical and chemical features of cargo; the characteristic of container (packing); conditions of contracts of purchase and sale (transfer to the delivery property), transportations and insurance; financial characteristics; conditions of performance of other operations of physical distribution; connected with production moving etc.

The management of material streams in construction is impossible without reception and processing of the timely and qualitative information. The data set of operations is formed by information streams. Information streams are messages (information) used by all members of the supply chain and processed by it for performing operations (including those with raw materials, building materials and an end product).

Thus, each physical stream is connected by information streams. Information streams can be either electronic or paper, and can be characterized as movement: (1) from system to system; (2) from system to person; (3) from person to system; or (4) from person to person. Clearly, there can be the interconnection of these methods of communications.

The role of information streams is considerably increasing in modern economy for the account of:

- occurrences of computer technologies, allowing to synthesize all subsystems in a single whole;
- necessities of self-descriptiveness increase about the order status, goods presence, terms of delivery, shipping documents etc., as necessary element of *logistical service*;
- requirements on increase in flexibility of logistical systems, first of all at the expense of fuller and more qualitative information.

Efficient control of the information streams and material ones connected with them depends on the level of their financial maintenance. It generates a financial stream which is in logistics named as the directed movement of the financial assets circulating in SC, and also between supply chain and an environment, necessary for maintenance of effective movement of a certain stream.

The important question is optimization of economical streams which having summed up it is possible to understand interconnected and correlative processes of movement of resources of construction supply chain participants for achievement of the put business purposes. The basic participants of the construction SC in the building business are suppliers of raw materials, manufacturers of building materials, building organizations (constructors), customers, designers, retailers, investors, intermediaries, the end users and others.

In Figure 1 you can find the set of material and financial flows existing in construction industry.

Describing presented construction SC and flows existing in it we can specify the following points:

1. In the presented picture there are a lot of links of construction SC which interconnect by various forms of material and financial streams. We can see material stream can exist as raw materials, building materials, building objects, construction works and reused building materials. Financial stream has the forms of income and investment sources.

2. In the construction SC the retailers are realtor agencies. But in some construction chains there are no retailers. In this case the end consumers connect with customers presenting state committees or state enterprises which build houses for inhabitants who have privilege of getting house or for own plant employees.

3. In some construction SC there are no intermediaries when manufacturers have opportunity to warehouse existing building materials on their own areas or there is just-in-time system between manufacturers and constructors.

4. Sometimes customers of a building object can get investment sources directly from banks.

One of the major problems of economic streams management forming the supply chain in the building field is coordination of logistical functions, the coordination of the purposes of all participants of the chain and the search of ways of interface of their interests.

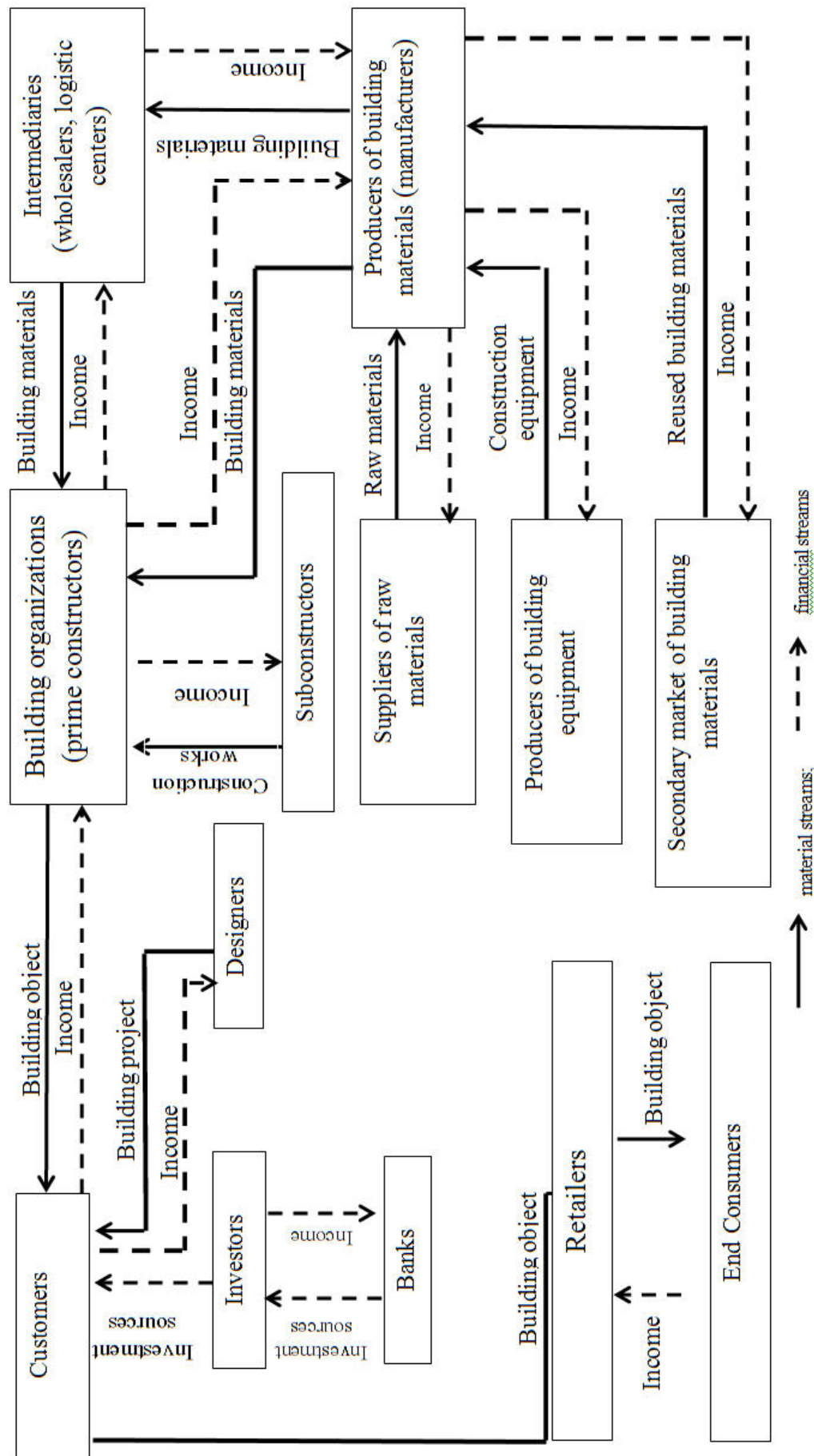


Fig. 1. Material and financial streams in the construction supply chain

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UDC 657

**DETERMINATION OF ECONOMIC ESSENCE
OF MINERAL RESOURCES AS OBJECTS OF ACCOUNTING****OLGA METLA, SVETLANA VEGERA**
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Sustainable development of the Belarusian economy is impossible without balanced reproduction and use of mineral resources. However, the content of accounting and analytical information does not always correspond to the requirements of their effective control due to the lack of integrated development of the field of accounting. An integrated approach to the study of accounting issues of the field development, including the definition of objects of accounting requires, above all, clarifying the scientific terminology. In this regard, the economic substance of the concepts of "minerals", "stocks of minerals", "mineral resources" and "mineral raw materials" is investigated in the article. It is argued that the objects of accounting are mineral resources (stocks of minerals).

The development of the geological industry and the expansion of the mineral resource base of the Republic of Belarus provides for the need for further exploration and preparation for the commercial development of mineral deposits. However, the content of accounting and analytical information does not always correspond to the requirements of their effective control due to the lack of integrated development of the field of accounting.

An integrated approach to the study of accounting issues of the field development, including the definition of objects of accounting requires, above all, clarifying the scientific terminology.

In the legislative and regulatory documents of various countries, IFRS literature on mineral resources are different, sometimes contradictory concepts of "minerals", "stocks of minerals", "mineral resources", "mineral raw materials".

Thus, according to the Code of the Republic of Belarus "On Subsoil" minerals are understood as "... contained in the bowels of natural mineral formations of inorganic or organic origin, which are solids, liquids or in gaseous state, and the chemical composition and physical properties allow their industrial and other economic use in natural form or after pre-treatment (purification, enrichment). Mineral raw materials are minerals extracted from the depths and subjected to primary processing (cleaning, enrichment). Similar treatment of the concepts of "minerals" and "mineral raw materials" is contained in the Code of the Republic of Moldova "On Subsoil", the Law "On Subsoil" of the Republic of Uzbekistan, the Mining Law of Ukraine, in the publications of a number of authors, in particular I.V. Sergeev, G.V. Sekisov, M.M. Yumaev, N.A. Syrodoev.

The opposite view, according to which minerals are treated as products of mining industry contained in mined from the depths of the mineral raw materials, is presented in the Law of the Republic of Kazakhstan "On Subsoil" and the Tax Code of the Russian Federation in the works K.V. Papenovoy.

The third approach to the terms "minerals" and "mineral raw materials" includes the identity of these concepts [1, 2].

In addition to the terms "minerals" and "mineral raw materials" in literature and legal acts of different countries the terms "mineral resources" and "stocks of minerals" are used. There are also differences in the definition of these terms.

One group of authors consider mineral resources narrower than minerals, namely as part of the minerals, that is quantified by geological studies and geological exploration.

In the other sources mineral resources are identified with the term "minerals" or the term "stocks of minerals". In this case categories "minerals" and "stocks of minerals" are not identical in many sources.

Analysis of the definitions of "minerals", "stocks of minerals", "mineral resources", "mineral raw materials" set out in a special economic literature, as well as laws and regulations of different countries made possible to identify the key features of each category.