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business activity of a construction company (additional contract with a customer for construction and installation work on the project  $N_{2}$  2) break-even graph of a construction company will be changed significantly as revenue and the amount of cover will be increased, respectively.

Consequently, the curve of accumulated amounts of cover earned by building sites for the projects No1 and No 2, cross straight annual fixed costs at the point, reflecting a period of, for example, the 4th month of their work. In this way, sites due to the accumulated amounts of cover by the end of the 4-th month of their work will be reimbursed the amount of annual fixed costs of 1000 mln. rub.

This means that the rate of break-even of a construction company has a strong correlation with its business activities and associated by inverse correlation with the index of time out on the full reimbursement of fixed costs, i.e. with an increase of business activity during the current year (additional new building contract for the construction) the time needed to reach the break-even point of construction companies, is being shrunk. In turn, the deceleration of construction – is being increased accordingly.

Thus, the developed break-even analysis technique will allow to take into account the requirements of investors who wish to have more exact idea of the break-even activity as a single site, and the organization as a whole. In addition, each construction company will be able to estimate reliably the performance indicators of its operations, taking into account such features of functioning as the duration and urgency of the construction process. Therefore, the developed analysis technique will allow to make effective business plan, adapted to the specifics of the construction industry.

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## UDC 339.178

## **PROSPECTS OF INVOLVEMENT OF LOGISTIC PROVIDERS OF THE FOURTH LEVEL TO THE ECONOMICS OF BELARUS**

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In this article the general concept of logistic intermediaries of the fourth level is considered, possibilities of their integration into logistics of the Republic of Belarus, and also prospect of intermediaries of the fourth level in the future in the territory of Belarus are analyzed.

In modern conditions it's getting harder for companies to follow personally processes of purchases, financings, transportations, warehousing and service. Big streams, and also frequent variability of the market puts the companies in certain frameworks, and to solve them it is possible by only two ways: this way is focused by training of the staff which will be able to solve any problem, but rather on prospect, and involvement of logistic intermediaries who are able to help to solve problems now. Therefore it is possible to tell that logistic intermediaries are the main components of logistics, they are providers.

Logistic providers, they are operators of logistic services are the commercial organizations rendering the services in the sphere of logistics which are carrying out separate operations or complex logistic functions (warehousing, transportation, management of orders, physical distribution and so on), and also exercising the integrated control of logistic chains of an enterprise client.

Depending on the carried-out functions, logistic intermediaries are divided into main categories. The Classification and the role of the intermediary in logistic process is presented in Table 1.

Classification	Role			
1PL (First Party Logistics)	autonomous logistics; all operations are carried out by directly cargo owner			
2PL (Second Party Logistics)	the company provides to the client traditional services in transportation and management of warehouse			
3PL (Third Party Logistics)	on this level of logistics the list of services of the operator includes warehousing and the accompanying additional services, and also usage of subcontractors			
4PL (Fourth Party Logistics)	on this level of logistics integration of all involved companies in a chain of deliveries of freights is supposed. Such a provider solves the problems connected with planning, management and control of all logistic processes of the company client taking into account long-term strategic objectives			
5PL (Fifth Party Logistics)	the system which represents Internet logistics is planning, preparation, management and control of all components of the unified chain of transportation of freights by means of electronic media			

Table 1 – The classification of logistic intermediaries	Table 1 – 7	The class	ification of	f logistic	intermediaries
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At the moment there are the most popular intermediaries of the fourth level in Europe, particularly they help the company to save the considerable part of means.

4PL-providers have appeared recently. The term 4PL was for the first time registered in 1996 by "Andersen Consulting" a consulting firm, nowadays it is called "Accenture".

As a result of attraction by 3PL-providers for the solution of problems of big complexity, at first as subcontractors, and then and as partners, consultants-managers and IT and system integrators, the 4PL-companies act as the integrator of a chain of deliveries. Thus, association of the client and 3PL-provider in the structure of 4PL is based on information and administrative technologies. 4PL-process of management of all logistic operations in all chain of deliveries of the client are realized by the unified supplier of service [1, p. 27].

The 4PL-companies can also be divided into two categories taking into account that, they have real physical assets (asset based) or have no work by optimization of logistic systems only as intermediaries (non-asset based).

The full package of logistic services which must be realized by the company applying for the status of 4PL-provider in developed countries includes the following list of services:

1. Direct transportation, consolidation of sendings, forwarding.

2. Management of warehousing (the specialized equipment for a warehouse, the modern metal furniture, metal racks allowing to increase productivity and efficiency of work), stockpile management, formation of orders.

3. Introduction of industrial control system (An automated control system for technological process) of I ASKUE (The automated system of the commercial accounting of the electric power – provides the commercial accounting of the electric power (power)).

4. Registration of payments for transportations, maintenance of freights, services of the customs broker, management of motor transport, providing with spare parts.

5. Exposition of information support, design and ensuring functioning of information systems, consulting services.

6. Exposition of carriers, negotiations on tariffs, return of goods, supplying with materials, repacking, marking.

7. Management of implementation of orders, contract manufacturing, consolidation of sendings.

Actually, the 4PL-provider assumes functions of a management company.

Striking example is JSC Lidskoye pivo which in the work uses logistic intermediaries, and also the probability that it is intermediaries of the fourth level is great. And to achieve the best possible result it is necessary to satisfy the following three points:

1. These are Logistic centers. The substantial part of a logistician and a provider's work in particular, is occupied by the logistic centers. After all their correct arrangement gives a chance for 4PL-providers to find the greatest number of ways for delivery of goods to various countries. So what is it a logistic center? "The Lidsky brewery" has a logistic center. About \$24 million were allocated for its construction. This logistic center is constructed near the M-6 highway Grodno-Minsk-Moscow. Due to this center storage and shipment of production is realized on a qualitatively new level. In the territory of a modern warehouse it is possible to store at the same time to the 6034 th pallet with a total amount of 3,6 million liters. Introduction of standards of OLVI

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concern on delivery and storage of goods will allow the enterprise to save time for shipment for 30% and to cut down expenses on delivery of one dekaliter of production. This arrangement is very effective as, having reached Minsk, the product can easily will go on all territory of the country. Also Minsk can become a starting point for routes Minsk-Smolensk, Minsk-Vilnius etc. or for the trans-European M1 highway. Such extensive quantity of routes will help to find the most favorable ways for providers and to increase market sales.

2. Intermediaries of the fourth level. Such large enterprise as "Lidsky brewery" requires existence of the providers of the fourth level. 4PL-providers are shadow players who carry out all range of tasks of the enterprise. From storage of production in the center to exposition of the right routes and increasing of the list of clients of production. In many European countries the work of 4PL-providers is constructed in such a way that they deliver various parts of goods to different regions of the country and various countries of the world. "The Lidsky brewery" went on the European model. The central logistic center is constructed near the plant that allows to make temporary outflow of workers from plant on a warehouse and back. Depending on sales volume, to various regions of the country providers deliver various production. Having temporary warehouses for storage of production before selling providers of the company could organize so-called product circulation. As soon as it comes to the end, it is delivered again. I could feel it during two years of life in the city of Grodno. when every morning trucks with the Lidsky Brewery went to various cities of the country. Besides the question of transportation of goods to the European countries with the smallest expenses is still essential. If you aren't the employee of a logistic staff of "Lidsky brewery", it will be difficult to learn how they plan to deliver the goods to Europe with the smallest expenses. Open it, and the company will stop being suddenly unique in its own way. But it is possible to make own assumptions. For transportation of goods to other European country it is necessary to pay duties. Therefore it is favorable to have the logistic center in the territory of the country where are planned to do deliveries and to employ there certain providers of the fourth level. These providers know the territory across which with the smallest expenses it is possible to deliver goods in more detail. Thus duties on a transportation of goods will be minimum. Approximately thus many automobile giants work (Opel, Ford, Audi). A striking example of such goods which can be put forward on the international scene is Warsteiner beer. recently JSC Lidskoye pivo and the world famous leader of brewing of Warsteiner International KG signed the strategic license cooperation agreement. Within this document the German brewery for the first time entrusted the enterprise to make and realize from Belarus beer a premium segment of Warsteiner Premium Verum. At the moment JSC Lidskoye pivo is the 3rd plant in the world which makes Warsteiner beer according to the license. Now 4PL-providers have opportunity to deliver production of JSC Lidskoye pivo worldwide that will give a big push for development of the Belarusian logistics. Therefore if to generalize, "the Lidsky brewery" has an extensive logistic network, skilled intermediaries of all the levels who allow to send goods for export, and also within the country.

3. Material resources. JSC Lidskoye pivo is one of the largest enterprises of the Republic of Belarus which has investment from numerous sources. These conditions give to the enterprise a chance to open the international scene.

They say that the general automation logistic operators and logistic intermediaries by 2020–2030 will be useless at all.

In the future because of increasing of the competition in the market, and also feature of the market, many logistic companies will be to expand number of the corporate and private clients due to extensive investments into researches and development. The Chains of deliveries will be extended; the companies will try to assume additional tasks. Due to the increasing needs of consumers a security link will be included to the chain of deliveries that practices in large companies. The logistic companies will have to assume more tasks of consulting. In the future the great value will be given to an offshoring, and also outsourcing, intermediaries of the fourth level who will be integrated over time directly into the enterprise at all will be attracted often. All this will have huge impact on a vector of development of logistics.

Due to the expansion of a chain of deliveries, the logistic companies will be obliged to trace in more detail the arising threats and risks. At load of the market it will be extremely important and paramount. 4pl-providers will also successfully be suitable for this task.

For minimization of threats and risks providers of the fourth level will have to look for alternative routes of delivery, develop plans for a case of unpredictable situations and other.

Therefore it is logical to assume that logistic intermediaries of the fourth level at the moment are an important link between work of the company and satisfaction of needs of clients. And next few years their importance and need will only increase, they will start being integrated into activity of the company therefore large international companies now reflect on creation of own such division. In the territory of Belarus importance of 4pl-providers also increases. For example, on actions of JSC Lidskoye pivo in the market, it is

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possible to make the assumption that they in their work have already actively attracted intermediaries of the fourth level. At necessary financing and some other companies, plants, RB enterprises can start attracting in work of 4pl-providers and to enter to the international market.

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## DEVELOPMENT OF ACCOUNTING AS AN INFORMATION SUPPORT OF EFFICIENCY ANALYSIS USING REAL INVESTMENT

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This article highlights the need for an accurate assessment of the effectiveness of real investment. To do this, the author under accounting offers investment cycle decomposed into new stage. On this basis the author develops a new method of accounting of investment activity, which reflects their development and use in separate subaccounts.

Investment activity plays a key role in the fundamental economic processes taking place at the level of the entire economy, and at the level of individual organizations. Many organizations in the implementation of its investment activities in most of the focus on real investment, so it becomes relevant issues such as the problem of assessing the effectiveness of real investment and the problem of increasing the economic efficiency of real investments.

Evaluating the effectiveness of real investment is the most important stage in the decision on the appropriateness of the investment project. Matter how objectively and comprehensively carried out this evaluation depends terms of return on invested capital, its profitability and the rate of development of the organization [1, p. 119-120]. In the reliability evaluation plays an important role providing information and all the information to analyze the efficiency of real investment provides accounting.

In accounting, real investments are accounted for as investments in non-current assets. Investments in non-current assets are financial and real. Real investments in long-term assets represent investments in fixed assets and intangible assets [2, p. 63-64]. In accordance with the laws and regulations of the Republic of Belarus accounting of real investments are on a separate account 08 "Investments in non-current assets". This account is intended to summarize the information about the costs of the organization to the objects that will later be accepted for accounting as long-term [3].

The essence of the problem of increasing the economic efficiency of real investment is that for every unit costs - labor, material and financial – to achieve a substantial increase in production, services and profits in national income.

As an incentive to invest organizations is their desire to obtain a significant profit, ceteris paribus the realization of these aspirations will depend on the size of the resulting income. There is a direct relationship: the higher the income, the more opportunities for investment [4, p. 61-62].

At this point in the analysis of accounting and no methodology that would allow to determine how much income is received from each specific investment project. There is a problem, how to compare costs and result. In accounting, revenues are recognized on activities. Account 90 "Gains and losses from continuing operations" is intended to summarize the information on revenues and expenditures associated with the ongoing activities of the organization, as well as to determine the financial result on it. Account 91 "Other income and expenses" is intended to summarize information on other income and expenses of the reporting period, according to investing