

**В.А. Фалович**  
Тернопільський національний технічний  
університет ім. І. Пулюя

## ОЦІНКА ВАРТОСТІ ЛОГІСТИЧНИХ ОБ'ЄКТІВ НЕРУХОМОСТІ

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**З метою оцінки стратегічних одиниць бізнесу виділено основні види їх вартості: поточна вартість, ринкова вартість, ліквідаційна вартість, вартість заміщення, вартість відтворення, інвестиційна вартість, що дало змогу визначити рівень її корисності для підприємства, зокрема, і ланцюга поставок, для якого пріоритетним є додавання вартості клієнту кожною ланкою.**

**Ключові слова:** ланцюг вартості, стратегічна одиниця бізнесу, промислове підприємство, реструктуризація, ринкова вартість підприємства, аутсорсинг, інсорсинг, витрати, ефективність.

## ESTIMATING THE VALUE OF REAL ESTATE LOGISTICS OBJECTS

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**In order to evaluate strategic business units there were identified the main types of its value: the current value, market value, liquidation value, replacement cost, cost of reproduction, the investment cost, which allowed to determine the level of its usefulness to businesses, particularly, also the supply chain for which priority is adding value to the client by each element.**

**Key words:** value chain, strategic business unit, industrial enterprise, restructuring, the market value of the enterprise, outsourcing, insourcing, costs, effectiveness.

**Problem formulation.** Taking into account the principle of consistency, cost optimization of the supply chain is a priority in the work of most of enterprises that is made possible by its efficiency of each element. If in the company along with profitable strategic business units (SBU) are non-profitable, or the company has a high level of diversification of economic activity, there is a problem of alienation (outsourcing, sale, rent) those activities which do not involve in the supply chain. Logistics concept of industrial restructuring, primarily aimed at the formation of an effective supply chain, where the priority is to add value to the client by each of its element.

**Analysis of current research outputs and publications.** Coverage of the theory of logistics concepts and practice of their implementation in enterprises are made in the works of domestic and foreign

researchers Bakayeva O., E. Krykavskyy, M. Christopher, D. Lambert, B. Nikolaichuk, A. Oklander, J. Stoke, N. Chukhray and others. These authors primarily explore the problems of cooperation in the logistics supply chain and obtain significant benefits both consumers and suppliers, because the integration of functions, assets and processes in the supply chain creates conditions for improving customer services and competitiveness of enterprises – parts of the supply chain. In turn, each company in the supply chain should take care of the profitability of each SBU, to ensure the efficiency of the supply chain as a whole. Research problems of investment as a source of logistics systems conducted by N.B. Savina in [6], whose attention was paid to seek additional investment resources and the supply chain was seen as an object of management development investment. It should be noted that the issue of industrial restructuring, valuation of logistics positions require research related to the identification of the most promising investment targets and concentration of financial resources to ensure the efficiency of the supply chain.

**Article objectives.** In accordance with the above, there is a need for mutual coordination of value costs, structure and elements of the supply chain for the effective functioning of the strategic business units, which is objective of this paper.

**Presentation of main materials.** Regularities of the national economy functioning characterizing by such indicators as GDP, inflation, the value of investments, dynamics of production. In turn, the industry is the core of the production. Index of industrial production in January-May 2014 to the data of January – May 2013 was 95.4 %. For this type of economic activity as engineering, this figure was 82.7 % [1]. These data indicate a decline in industrial production. This negative expression is the reason of population payments crisis, reducing of domestic demand and not enough international competitiveness of Ukrainian goods in the industrial manufacturing [2].

Expectations of the industrial enterprises regarding the development of their activities can be summarized in Table 1.

The conducted research shows that the respondents' expectations about the state of the business activity of the industrial enterprises become more restrained in almost all positions and have a negative trend.

*Table 1*

**Respondents' expectations about the state of business activity of the industrial enterprises**

Indicators	The period of comparison	
	II quarter of 2013	II quarter of 2014
Proposal	The increase in industrial production and a decrease of this index for the seasonally adjusted value	The increase in industrial production and a decrease of this index for the seasonally adjusted value
Demand	Increased demand for industrial products	Reducing the demand for industrial products
Orders availability	An average of 5 months of work	An average of 5 months of work
Capacity utilization	68.1 %	60.2 %
Effect of constraints (high taxes, lack of working capital, high tariffs of natural monopolies, imperfect legislation)	Reducing the impact of factors that restrain production	Increasing the impact of factors that restrain production
Employees	Reducing the number of employees in industrial enterprises	Reducing the number of employees in industrial enterprises
Financial and economic conditions	The lack of positive changes in the financial and economic performance	The worsening financial and economic situation of of the industrial enterprises

*Source: compiled by author on the basis of [3]*

Conducted survey of 1397 industrial enterprises in Ukraine estimated financial and economic condition of enterprises as satisfactory – 61 %, as poor – 34 % and only 5 % of respondents identified financial and economic condition as good. However, their expectations of the financial and economic situation in the third quarter of 2014 were distributed as follows: 19 % think it will improve; 59 % takes the view that it will not change; and 21 % expect worsening financial and economic situation of industrial enterprises.

The survey of industrial enterprises of Ukraine made it possible to give a forecast of key indicators for the third quarter of 2014 which are grouped in Table 2.

*Table 2*

**Main indicators of industrial enterprises activity, %**

Indicators	expectations in the third quarter of 2014 compared to the second quarter of 2014			
	over	without changes	less	did not answered
production output	29	44	25	2
the demand for products	24	48	25	3
selling price of primary products	36	54	6	4
stocks capacity of finished products	13	62	17	8
number of employees	8	72	19	1
labor productivity	17	70	11	2

*Source: compiled by the author in accordance with [1].*

As you can see, the majority believes that the basic performance indicators of the industrial enterprises remain to be unchanged. For such parameters as the volume of production, the demand for products, stocks of finished goods, productivity expectations in the direction of increasing and decreasing are almost the same. A significant difference in expectations is observed in terms of "selling price of primary products" on which 36 % of respondents believe that prices will increase and only 6 % expects that they will reduce. Concerns causing the decreasing in the number of workers in this sector by 19 %.

The above demonstrates the deterioration of the strategic business units that require technical, economic, organizational and institutional changes.

Given that the restructuring process is the systematic changes in assets, organizational, economic, financial and technical resources for effective implementation of the set objectives of the enterprise, an important task is the assessment of such assets and resources to ensure effective supply chain. In its turn the assessment should be based on authentic records.

Regarding SBU, the built or purchased warehouse complex to implement core business is estimated as fixed assets, but the same warehouse, held on to earn rentals and not for use in the main activity is regarded as investment property. The same applies to buildings acquired for their own use: office, warehouse, production workshop, social infrastructure and more.

In the case if a participant of supply chain decides to sale the objects that are used for its intended purpose, these objects are accounted for as non-current assets held for sale. The reasons for such decision may be a lot, especially in the financial crisis.

Evaluation of SBU is closely related to the identification of assets. Herewith, distinguish the initial estimate, according to which the object is recognized in the account and subsequent measurement at which an object appears in the balance sheet. However, over time the cost of logistics facilities may vary. This is primarily due to the life cycle of SBU.

The life cycle of any object in a specific logistics company has three main stages:

- Receipt (with or without admission to the balance);
- Maintenance (storage and operation);
- Disposals (planned or force majeure, temporary or permanent).

Characteristics of value that are used at different stages of the life cycle logistics facilities is shown in Table 3.

Table 3

**Estimation of logistics objects by types of cost**

Objects of logistics	Type of cost	Characteristics of the value	The purpose of assessment
Land; buildings, structures and transmission devices; machinery and equipment; vehicles; tools, supplies and equipment; other fixed assets	Initial	Historical (actual) cost of fixed assets in the amount of cash or the fair value of assets paid (transferred) spent to purchase (creation) of fixed assets	Used to assess the turns of logistics in their admission to the enterprise
	Residual (balance)	Historical cost of net depreciation where depreciation – is the loss of objects consumer qualities, and consequently the value	Used for displaying in the balance
	The fair	The amount by which can be exchanged asset or liability in a payment transaction between knowledgeable, interested and independent parties	It is used in determining the initial value of the object that received free of charge and included in the authorized capital
	Revalued	The cost of the asset after revaluation	Reflected in the account and reports as the the initial value after revaluation
	The liquidation	The amount of money or value of other assets, which the company expects to realize from the sale (liquidation) of the object at the end of its useful life (life), less the costs of sale (liquidation)	It is used in calculating the annual and monthly amortization

Source: [6, p. 174]

The mechanism of revaluation of the property is used if this value is depreciated as a result in order to reach a balance (residual) value of the object, that is is the fair value, it is necessary to use complex calculations. The mechanism of valuation at fair value quite simple. It is used only to properties that firms consider an investment property and the value does not cushion. The carrying value of the property to be measured at fair value, without any calculations directly reflected in the balance sheet. Valuation of real estate object at fair value as well as revaluation also must be conducted on the date of balance.

Therefore, we can say that today the issue of evaluation is very important in creating an effective supply chain.

In order to assess SBU can be identified such basic kinds.

Present value – the value given in accordance with the prices on the valuation date by discounting or use actual price on the valuation date

Market value – the price at which possible the alienation of the assessment of such property on the market on the measurement date under an agreement made between the buyer and the seller, after proper marketing on the condition that either party acted with skill, prudence and without compulsion.

The residual value – the value that could be obtained under the condition of sale of the assessment in a period that is much shorter than the period of exposure of such property, for which it can be sold at a price equal to the market value.

Replacement cost – determined on the the measurement date present value of costs of establishing (purchase) a new object similar to the object of evaluation, which may be tantamount to replacing it.

The cost of reproduction – is determined on the measurement date present value of the costs of creation (acquisition) in the present conditions of the new facility, which is identical to the object of evaluation.

Investment value – the value determined under specific conditions, requirements and purpose of investing in the facility assessment.

In order to determine the usefulness in the assessment:

- Examined the utility of a particular property as part of the assessment as part of the utility of the assessment in general and the utility of the property as a separate object of evaluation;
- Take into account the current state of assessment use, which may did not correspond to its most effective use, as well as cases where the individual assessment items are temporarily redundant, used for another purpose or is not used;
- Predicted the possible impact of socio-economic and other factors on changes in the utility of the assessment;
- Estimated the costs of object assessment improvement taking into account the effects of these costs to increasing its market value.

Assessment is performed using the database that corresponds to the market value or non-market value types. The choice of base assessment prior the contract conclusion on the evaluation of the property. In the case when normative legal acts of real estate assessment, the contract for the evaluation of the property or court decree did not indicate the type of the value that should be determined in result of evaluation shall be determined market value.

1. Investment value of the assessment is used to take into account the terms of agreement in relation with its signing the assessment conducting, regarding the need for additional investment or other requirements that require additional investments. The investment value of the assessment in the form of integral property complex financial interests is determined primarily using the income approach using the discounted cash flow method, and object evaluation in material form – by combining several methodological approaches. In determining the investment value in the assessment report analyzes the conditions of sale of the property (investment) and their difference from the standard conditions of sale of such property on the market, the impact of these conditions on the formation of its value, including proceeding from the principle of most efficient its use [4].

Information sources that allow to take into account the specified conditions can be a business plan, project estimated documentation and documents confirming the fulfillment of certain operations, the results of analysis of the impact of additional investment conditions in the sale of the assessment and so on.

2. To assess the property applicable following main methodological approaches: cost (property); Profitable; comparative. In the case of the income approach gross income expected to be received from the most effective use of the estimates can be calculated based on the assumption of the assessment provision in the lease, or information about other uses of this property. Based on this assumption, prediction of gross income shall be based on relevant information about the market of this property [5].

It should be noted that the practical application of the income approach to property valuation, including SBU, requires consideration of the following nuances.

Necessary expenses related to bringing the consumer characteristics of the assessment in line with consumer characteristics of such property, the income from which is taken into account when prediction of net operating income of the assessment may be included in the application:

- Income capitalization method – reducing project cost estimation on the the size of the present value of the costs required for such reduction;
- Indirect income capitalization method (discounted cash flow) – adding them to operating expenses in the respective period within the forecast period.

In determining the amount of necessary expenses taken into account the technical possibility and economic feasibility of eliminating signs of physical and (or) functional wear, unless otherwise specified by law regarding compensatory costs to the user of the assessment. Thus to calculate the cost of the assessment is attached calculation of necessary expenses taken into account during the assessment [5].

With regard to determining the value of reversion, for the objects of estimation the time is unlimited for useful forecast life period – the calculation of the market value of the assessment carried out at the beginning of the period that follows the forecasted. For the objects of valuation useful lives of which exhausted at the end of the forecast period – calculation provided on the end of the forecast period.

Regarding the restructuring of assets, taking into account the organizational change and the need to expand core business, radically changing the demand for land and fixed assets that are required for the core activities of the company. Thus, in the initial discussions with investors who wish to participate in the restructuring of ownership may be necessary to discuss the ownership of land and property so as to identify the surplus that can be sold or rent. In order to reduce maintenance costs, it is advisable to make a decision that you should not lay undue amount of necessary facilities and land because of business income must cover their services. This conclusion can be drawn on the core activities of the company that why enterprise after the reorganization changes significantly reduces demand for land and property.

Also, it is important for the enterprise solutions for optimizing the number of equipment units that requires calculation what better to sell what is more useful for the company to maintain equipment or rent it.

**Conclusions and further research prospects.** To ensure the efficiency and competitiveness of the supply chain should be carried accounting logistics facilities and assessment of their value, which has a direct impact on the dynamics and structure of investment resources, not only the company, but supply chain. In the future, analysis of types of logistics facilities value will develop the concept of logistics investments that have a positive impact on the formation and restructuring of the supply chain. For the final decision on the prospects for the company and the importance this or that SBU necessary to have more information on the supply chain. It should be noted that the recommendations for restructuring should be taken only after the analysis of sales, which should provide at least 20 % return. The main threats for the success of companies restructuring process are: depreciation of fixed assets, internal competition, the lack of adaptation of administrative staff to new situations.

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