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ОБЛІК ЛОГІСТИЧНОГО ОБСЛУГОВУВАННЯ ЧЕРЕЗ КВАНТИФІКАЦІЮ ДАНИХ

Визначено важливість логістичної діяльності підприємств для їхнього загального економічного результату (прибутку). На основі дослідження праць вітчизняних та зарубіжних науковців встановлено недостатню теоретичну та практичну базу щодо логістичного обслуговування підприємства, виявлено необхідність кількісного обліку логістичного обслуговування та відсутність напрацювань щодо обраної тематики. Досліджено можливі цілі та завдання логістичного обслуговування підприємств на прикладі ПАТ "Алмазінструмент" та запропоновано способи обліку логістичного обслуговування через квантифікацію даних уже наявного обслуговування та побудованих планів.

Ключові слова: логістичне обслуговування, квантифікація даних, ефективність та результативність діяльності.

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ACCOUNTING LOGISTIC SERVICE THROUGH DATA QUANTIFICATION

The importance of logistics enterprises was established for their overall economic result (profit). Emphasized that effective management of logistics activities of enterprises allows enterprises to improve the image and increase its competitiveness not only in the current time period, but also in the future. The importance of logistics services to companies was revealed and research papers based on domestic and foreign scientists, found a lack of theoretical and practical framework for the logistics service of company stressed the need for quantifying the logistic service and found free of developments on the chosen topic. Research scientists share Importance possible to identify indicators of services, among which an important place occupied by figures of logistics services, namely receiving orders 4.2 % return of 2.6 % replacement of goods 1.6 %, 1.1 repair products, technical consultancy 2 % et al., particles ranging importance of service companies show that ranks first performance of logistic service companies.

The key objectives of the article include: identification of possible goals and objectives of logistics services and establish ways of quantifying the logistic service company. Why was this study the possible objectives and tasks of logistic service companies on the example of PC "Almazinstrument" and suggested ways of keeping logistic service through an existing quantification data service and built plans. Highlighted two methods of accounting logistics services: first – account already existing services, which includes compliance with these rules – formation table of the existing plan logistics services, the box in front of the customer and the specific item of logistic service put the number "1" after he was executed; If the client does not

need the realization on the part of the enterprise service a particular item, it also put the number "1" (to simplify maintenance of general accounting software logistics services); where there was a need to perform certain maintenance item, but it was not implemented for various reasons, put the number "0"; under "amount" for the period necessary to put down the result of calculating the following formula: the ratio of the value in each cell to the amount of served customers. Second – accounting plans logistics service that requires compliance with the following rules: set time limits specific tasks aimed at achieving the objectives are recorded in the plan; installation planned values controlled rate; strict observance of periods of monitoring and recording actual values, using the scale of logic (Boolean) data type; in case of deviation, which does not fit the defined limits, conduct a detailed study of the problem, followed by the formation of advisory opinion to guide. The results of the study allow to formalizing and concretizing plans logistics service there by improving logistics management services and processes associated with controlling and adjusting plans for logistics services.

Taking into account the results of the research as well as modern advances in information technology, possible to emphasize the need to develop automated accounting software company logistics service.

Key words: logistics services, data quantification, efficiency and effectiveness of operations.

Statement of the problem.. Considering the global economy and the economy of individual enterprise as its important component, it is necessary to focus on individual elements of the current management system to detail the benefits and identify all deficiencies. Doubt that the key objective of the management system is the main (operating) activities of the company. However, do not neglect and other activities that also have a significant impact on the operation of the business. Recently, more attention to logistics processes. This is because, what performance planning and logistics processes, the costs of their organization and ensuring their implementation of customer needs and market requirements directly affect the profitability on the formation of its image as a promising option - and its competitive position in the future. So, you can argue about the importance of the logistics of the company.

Considering the process of direct interaction with the customer can focus on individual logistics processes and company operations – logistic services. The importance of research study on the improvement of logistics service enterprises predetermined: continue first base sufficient theoretical knowledge, and secondly – insufficient terms of practical application. Thus, the need for research and better logistics service for enterprises predetermined key condition for the existence of the enterprise in the market economy – profit, that is by increasing the competitiveness of enterprises and minimize costs.

Analysis of recent research and publications. Effective management of logistics processes has an important role in shaping the competitiveness of enterprises, creating a positive image among customers and increase profitability. Although logistical processes and reach the source of raw materials to the final consumer, however, direct contact with the customer is at the stage of logistics customer service. It is this and argues the importance of continuous development and improvement of logistics customer service. The main domestic and foreign scientists, who studied logistics services include: N. Chukhrai [9] O. Sokolov [6] V. Kopytko [3], E. Krykavsky, T. Nakonechna [4], M. Oklander [5], M. Ustenko [8], N. Konischeva, N. Trushkina [2], M. Cockroach [7] T. Butko, D. Lomotko E. Susharin [1] and others, who made a significant contribution to the development of theoretical and practical knowledge of logistics service companies. In particular, M. Oklander leads Importance share indices of services, among which an important place occupied by figures of logistics services, namely receiving orders 4,2 % 2,6 % return, replacement goods 1,6 % 1,1 repair products, technical advice and others 2 %. [5, p. 252] T. Nakonechna and E. Krykavsky in their joint work "Features servicing industrial enterprises" hold shares ranking the importance of service companies, which ranks first performance of logistic service companies [4, p. 43]. V. Kopytko notes that "the scope of logistics services covering all possible, including fast and accurate transportation, warehousing, service orders, immediate delivery of outsize cargo, coordination and safety electronic communications service facilities (sports facilities, hotels, restaurants, etc.), international media

center" [3, p. 255].The study authors mentioned above allow argue the importance of logistic service companies and talk about the need for effective management.

However, scientists work on logistics suggests that there is no single approach to evaluation of logistics company service. Also, there is a lack of information related to the quantitative evaluation of qualitative characteristics of logistics company service that determines the relevance of the chosen topic.

Goals of the article. The main objectives of the article are:
– identify possible targets and tasks of logistics services;
– establishing ways of quantifying the logistic service company.

The main material of research. According to M. Hryhorak "logistics customer service – is an important part of the service process, which enables to provide the necessary level of customer satisfaction provided effective support in costs in supply chain" [10, p. 21]. To establish the possible targets of logistic services and the formation of its service quantifying consider the example of the company. To research the chosen theme was chosen PC "Almazinstrument".

Logistics service is divided into pre-, in time- and after-sales service. The main elements of logistics service are traced to PC "Almazinstrumnet" given in tab. 1.

Table 1

Indicators of the existing level of logistic service of PC "Almazinstrument"

Name of item	Name of client				
Before sales service:	*Client A*	*Client B*	*Client ...*	*Client N*	*Sum*
Development estimates	1	1	…	0	0,67
Setting the terms of the order	0	1	…	1	0,67
Unfocused	1	1	…	1	1
During sales service:					
100 % of realized orders	0	1	…	1	0,67
Products make only for order	1	1	…	1	1
Organization of product delivery to the customer	1	0	…	1	0,67
Standard order form formation	0	0	…	0	0
After-sales service:					
Equipment installation	0	0	…	0	0
Guaranteed product quality	1	1	…	1	1
Prompt response to complaints	0	0	…	1	0,33
Rapid replacement of defective goods	0	0	…	0	0

Source: author's own development.
Note: The table is filled for demonstration based on research results.

Tab. 1 shows an example of accounting calculation results of logistic service that is based on compliance with the following rules:
– the box in front of the customer and the specific item of logistic service put the number "1" after he was executed;
– if the client does not need the realization on the part of the enterprise service a particular item, it also put the number "1" (to simplify maintenance of general accounting software logistics services);
– there where was the need for implementation of certain elements of service, but it was not implemented for various reasons, put the number "0";
– under "amount" for the period necessary to put down the result of calculating the following formula (1):

$$Total = \frac{\Sigma\,value\ in\ each\ cell}{\Sigma\,served\ customers}. \tag{1}$$

Thus, the results will be seen tab. 1, in which the column is "1" (the level of logistics services remained at the proper level) if a column value of "<1" there should be analysis.

To simplify the number of items that need to analyze can set acceptable standards of non-compliance with existing logistic service. For example, providing logistic service available is at 90%. Then, the average rate deviation of individual indicators should be within "0.9 – 1".The total value for the column "sum" to be within "89.98 – 1".

For planned logistic service elements, those that have not yet implemented, it is necessary to develop detailed tasks aimed at implementation of the goals.

To control the veracity of tables filled by employees, the same table must complete the client. Of course, not all customers are willing to take a survey, but the work of employees can check on separate forms, which will consult with the answers clients.

First, the planned logistics service elements should be considered as a whole, which sets the company. To achieve the objectives necessary to develop a list of tasks (tab. 2).

Table 2

The challenge to secure the objectives of the logistics service

Goal	Task
Before sales service:	
Develop promotional information about the possibilities of using the goods	1. Distribute customers according to the products they consume. 2. Distribute products of PC "Almazinstrument" into groups according to customer needs. 3. Develop a brochure for each product group. 4. Develop a list of existing and potential customers. 5. Calculate the required number of promotional leaflets. 6. Print booklets. 7. Send, distribute brochures to potential customers.
Arrange training future users tools	1. A method of teaching. 2. Make curriculum. 3. Select the most important issues to be explored. 4. Select features worn diamond tools. 5. Develop a system of gradual setting machine.
Execution of custom orders	1. Provide enterprise necessary materials for the manufacture of forms for individual orders. 2. Conduct training on production + press forms for non-standard products.
Formation list ready options of behavior in unusual, crisis situations	1. Make a list of possible non-standard situations. 2. Develop for each optimal behaviors. 3. Conduct training for staff on behavior in various unusual situations.
Develop a service that allows you to calculate the optimal size of the order to the customer and the size of its minimum stock, ordering time	1. Determine the formula for calculating the optimum size of the order. 2. Determine the formula for calculating the minimum reserves. 3. Determine the formula to calculate the optimal timing of booking. 4. Make formula in digital form that is put into the program to calculations performed automatically.
During sales service:	
Providing the average level of stock "selling hits"	1. Formulate a list of "hits sales". 2. Determine the average production during the party ordering these products to calculate the size of the stock of this product. 3. Produce products needed to create stocks of finished products.
Improve the delivery of products	1. Determine the best carrier which must consider singing while shipping, the execution time and reliability of delivery, free storage in the warehouse. 2. Develop a list of actions aimed at developing relations with the selected carrier. 3. Notify the carrier of the lot size, destination and others.is formed at the time of order. 4. Establish a relationship with the carrier using its own storage space as a resource that will help reduce the cost of transportation.
Improve the assembly order	1. Determine the employee who will be responsible for updating the information on the site. 2. Develop advanced features of the site where you can in the "online" order form and automatically calculate the cost of the order, the performance and the cost and time of delivery.
After-sales service:	
Provide tracking system output	1. To ensure constant quality control of manufactured products. 2. Conduct a continuous record of the customers with the fixation of the client, product that he purchased quantity and time of the order.

Source: author's own development.

Having developed a list of tasks aimed at securing the planned logistic service, you must set deadlines tasks. Based deadlines draw conclusions about the performance or non-performance plans. Estimates also need to affix a "1" if the task is made and from "0" to "1" when the job is done not fully (depending on the volume of executed tasks). During the reporting period are summarized all tasks on a specific element of logistic service and ultimately value calculated by the formula (1).

For to determine whether the level of actual performance meets routinely necessary in accordance with the terms to calculate the indicator values in the column "sum" for a specific period of time. This may be based on the following table (tab. 3). When all targets are realized then controlling the level of performance of logistic service will be held following the example tab. 3.

Table 3

Accounting system implementation plans logistics service

Name of goals and objectives	Execution time, the results of the execution			Amount tasks	Amount goals
	June 2016	…	December 2016		
	1–7	…	25–31		
The goal – maintaining a size of the order to the customer and the size of its minimum stock, termination of the order:					
1. Adoption of model for calculating the optimal size of the order.					
2. Adoption of model for calculating the minimum reserves.					
3. Adoption of model for calculating optimal timing of booking.					
4. Automate usage patterns.					
The goal – providing midrange stock its most lucrative:					
1. Formation of the list of most profitable products.					
2. Providing calculated the average level of stocks of finished products.					
The goal – improvement of the delivery of raw materials, components, semi-finished and finished products:					
1. Optimizing the number of carriers.					
2. The development targets aimed at the development of relations with a specific carrier.					
3. Providing advance notice of changes in conditions of the carrier delivery.					
The goal – to improve the system of placing orders:					
1. Implement the functional duties of workers associated with updating an existing website business.					
2. Increased functional website in order to realize "online" –The order, automatically calculate the cost of the order, execution time, cost and delivery period.					

Source: author's own development.

Conclusions and recommendations for further research. Formation of accounting implementation of plans of logistic service requires compliance with the following rules:

− setting time limits specific tasks aimed at achieving the objectives that are fixed in the plan;

− installation planned values controlled rate;

− exact compliance periods of monitoring and recording actual values, using the scale of logic (Boolean) data type;

− in case of deviation, which does not fit the defined boundaries, to conduct a detailed study of the problem, followed by the formation of advisory opinion to guide. Conclusions and perspectives of further

researches. Research scientific papers devoted to logistics service companies revealed the importance of logistics services for effective management. However, scientific developments also showed no quantitative assessment of qualitative characteristics of logistics services.

During the studies, the example of PC "Almazinstrument" was asked to record logistic service through quantification data. Reproduced results service approach allows enterprises to reduce to a single parameter, which simplifies logistics planning services, as a result of regulation and control.

However, to ensure efficient accounting, control and logistics services of company advisable to automate the process, which can be a subject for further researches.

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