

Formation of System of Logistic Service of the Enterprise in the Conditions of Market Relations

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Abstract: *The development and improvement of business processes in modern market conditions require updating approaches to traditional sales issues. The article considers the reasons, tasks and goals of organising the logistics service of a modern enterprise operating in market conditions.*

The methodology proposed in the article, without claiming to be the only true laurels, nevertheless showed its effectiveness. The prerequisites that are signals for determining the insufficient efficiency of the created system are described. The experience summarised by the authors shows the main possible reasons for the inefficiency of the process of forming a logistics service, as well as ways to overcome them.

The described functionality of the logistics service, as well as the tasks assigned to it, was taken for a unified enterprise involved in the supply of business-to-business supplies. The ways of the possible application of the technology to solve similar problems under other conditions and input data are also indicated.

Keywords: *Enterprise, Logistics, Logistic Service, Market Relations.*

I. INTRODUCTION

The development and improvement of business processes in modern market conditions require a more thorough approach to the formation of such a function of a modern enterprise as a logistics service. Orientation to needs and assessment of consumers, as a key element of the product marketing system, forces successful enterprises to carefully approach the issue of logistics service strategy [1-3].

Considering the logistics service as the basis of market

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interactions, it should be borne in mind that this concept refers to the totality of logistics operations ensuring the satisfaction of consumer needs in the process of managing financial, material, and information flows in the most cost-effective way [4-6].

Asking the question of what is the reason for the importance of the effectiveness of the logistics service and the correct approach to its formation, one should take into account the modern realities of market relations [7-8]. With the intensifying intensification of the concrete struggle for consumers, the traditional paradigm of the struggle for customers has moved to a new level [9-12].

The modern realities of market relations, the complicated characteristics of many goods, as well as the increased needs of end consumers for high-quality after-sales services, have determined the situation in which the buyer directly or indirectly determines the conditions in the field of the composition and quality of services provided to him in the process of supplying goods or services.

II. METHODOLOGY

As mentioned in the introduction, in market conditions, the consumer, when choosing a supplier of the necessary products, takes into account the manufacturer's capabilities in the field of logistics service, that is. The competitiveness of the supplier is affected by both the range and quality of the proposed services.

Logistic service is inextricably linked with the distribution process and represents logistics operations that provide communication between the enterprise and the consumer in the process of the material, financial and information flow in terms of quality, quantity, price, place and time of delivered products following market requirements.

A. Main characteristics and principles of the formation of logistics service.

The list of logistics services and a significant range in which their quality, the impact of services on the competitiveness of the company and the value of costs, as well as several other factors emphasise the need to have a strategy in the field of logistics customer service

Logistic service is intangible and has the following specific characteristics.

- 1) Inseparability from the source of the service (in contrast to the material object, which may exist separately from its source);

- 2) Variability of quality (depending on customer requirements and under the influence of random factors, the quality of the logistics service may change);
- 3) Targeting of the service (services are provided directly to the customer under his unique requirements);
- 4) Uniqueness of the service (each rendered logistics service is unique to the customer, another similar service will differ from the previous one in its parameters);
- 5) High elasticity of demand (as a rule, the demand for logistics services increases very rapidly as their prices decrease and customer incomes increase);
- 6) Efficiency (logistics service gives a greater economic effect, the faster its implementation).

It should be borne in mind that the logistics service, as part of the overall integrated enterprise organisation system, is subject to the influence of factors affecting its effectiveness. The main of these factors are presented in Fig. 1.

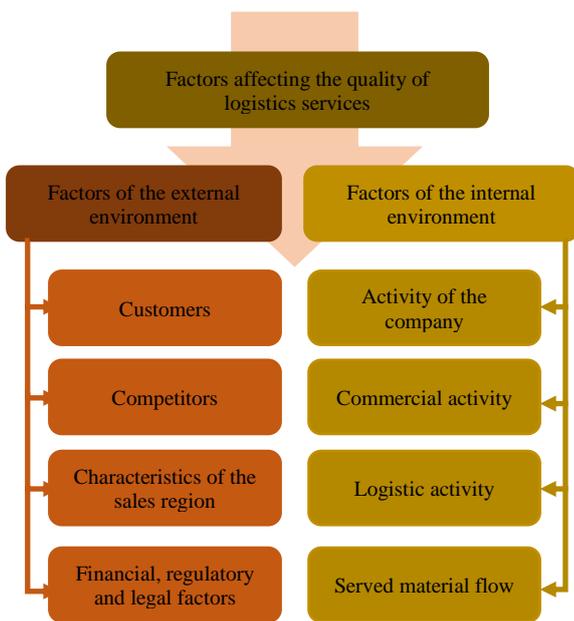


Fig. 1. Factors and reasons affecting the efficiency of a logistics service

The very essence of the logistics service is closely related to the scope of the tasks that it is called upon to solve in the course of its work:

- 1) advising potential buyers before they purchase products, allowing you to make the right choice;
- 2) preparing the buyer for the most efficient and safe operation of the acquired equipment;
- 3) the transfer of the necessary technical documentation, allowing relevant specialists to properly perform service functions;
- 4) pre-sale preparation of the product in order to avoid failure in work during the demonstration to a potential buyer;
- 5) delivery of the product to the place of use in such a way as to minimize the likelihood of damage to it along the way;
- 6) bringing the product into working condition and demonstrating it to the consumer in action;
- 7) ensuring the complete readiness of the product for operation during the entire period of its stay with the

- 8) prompt delivery of spare parts.

All this predetermines the approach to the process of forming the logistics service system of a modern enterprise.

B. The process of formation and control of the functioning of the logistics service system.

It should also determine the algorithm for the formation and regulation of the logistics service system:

- 1) Segmentation of the market for logistics services with details of the requirements for volumes, assortment, quality, consumption characteristics.
- 2) Determining the level and structure of the basic complex of logistics services, as well as the volume of additional services offered to customers.
- 3) Identification of priority services in the logistics service complex.
- 4) Development of projects for the activities of logistics services in standard, non-standard and emergency conditions.
- 5) Assessment of the quality of the logistics service.
- 6) Establishing a relationship between the level of service and the cost of logistics services.
- 7) Standardization of service and development of unified procedures for the provision of services for individual market segments.
- 8) Determination of various levels of service depending on customer requirements.
- 9) Determining the structure of the necessary resources in the field of service.
- 10) Organization of feedback with consumers in order to adapt the logistics services provided to the wishes of consumers.
- 11) Development and control of the relations of the service system with other elements of the logistics system.

For the convenience of its perception, we will present the algorithm in the form of a diagram Fig.2, which also determines its interaction with other elements of the enterprise's operations.

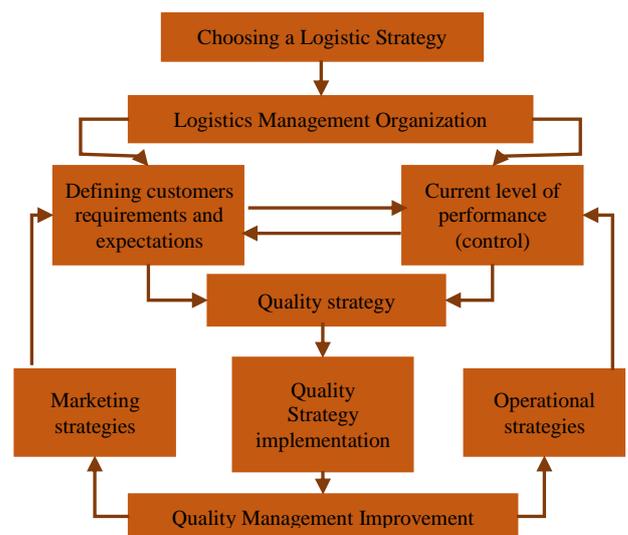


Fig. 2. Schematic algorithm for the formation of logistics service in an enterprise

The latter concept is rather arbitrary, and the volume of logistic services provided by exemplary enterprises of the corresponding industry is usually taken as L. Values I and L can also be considered as the time spent on the corresponding services.

An additional method will be the use of logistic SWOT analysis. It allows you to group the strengths and weaknesses of the system, as well as identify potential opportunities and identify possible threats for the enterprise as a whole, and the logistics service system in particular.

III. EXPERIMENT

The basis for the experimental base for testing the methodology was the process of creating a logistic service in a company engaged in agricultural activities.

The tasks entrusted to the created complex should have been to organise a service for supplying products of the company to agricultural companies.

The primary process of segmenting a potential market made it possible to form a list of companies interested in these services. At the same time, several companies have already worked on the market, but nature and working conditions (increased to sanitary norms of transportation, changes in legal standards, changes in environmental standards) led to a situation where only three companies were considered major competitors in the local market segment as competitors.

The company based the organisation of the logistics service based on the existing logistics division whose tasks were to ensure the operational activities of the company. This unit received new functionality, and its staff and structure were expanded, units, marketing, sales were added, and the staff of the legal department of the company was expanded.

The new functionality was distributed among the structural units as follows Fig. 6.

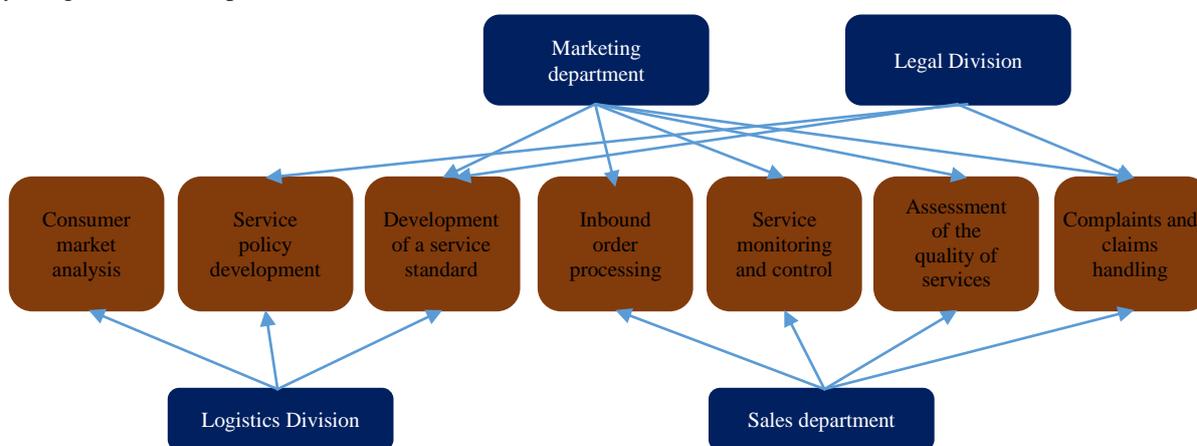


Fig. 6. Distribution of functional responsibilities of the logistics service

At the same time, in their work, each of the divisions of the logistics service should be guided by five key principles of the Always On Time system: Reliability, Flexibility, Speed, Availability in stock, Deferred payment.

These principles were aimed at creating specific advantages over other companies operating in the market.

The process of creating a logistics service was started in 2017, it was finally formed in 9 months (staff was finally staffed, work methods and standards for assessing the quality of work were finalized). By 2018, all divisions of the logistics service were operating normally, already from the moment of creation, service employees began to actively increase their customer base.

The general performance of the company for less than three years is presented in Table 1.

Table- I: Indicators of the company, before and after the implementation of the logistics service

| Indicators | 2017 | 2018 | 2019 (9 months) | Growth |
|-------------------------------------|-------|-------|-----------------|--------|
| Revenues from sales, k USD | 15037 | 33128 | 35437 | 2,36 |
| Cost of sales, k USD | 12053 | 28356 | 28663 | 2,38 |
| Net profit, k USD | 2733 | 4528 | 6574 | 2,41 |
| Average annual number of employees, | 98 | 152 | 178 | 1,82 |

| | | | | |
|--|-----|-----|-----|------|
| people | | | | |
| Number of employees of the logistics service, people | 15 | 47 | 54 | 3,60 |
| Logistic service costs, K USD | 516 | 767 | 808 | 1,57 |
| Number of client companies | 9 | 23 | 34 | 3,78 |

It should be clarified that the data in the table for 2017 indicators of the logistics service, mainly to the performance indicators of the logistics division, and in particular costs and headcount.

Also, as data for analysis, we present the indicators of the supply of goods to logistics services, consumer companies Table 2.

The economic performance of the company after the introduction of a new logistics service according to the Always On Time method showed a clear growth. The process of introducing a new service itself was fraught with a lot of difficulties. As an analysis of the effectiveness of the service, we calculated 17 indicators of the level of logistics service of both the company itself and its main competitors. The calculations were made based on publicly available data, customer reviews, as well as internal audit data; the results are presented in Table 3.

Table- II: Indicators of the company, before and after the implementation of the logistics service

| Product groups | 2017 | | 2018 | | 2019 (9 months) | | Growth |
|-----------------|--------|----------|--------|----------|-----------------|----------|--------|
| | k, USD | Share, % | k, USD | Share, % | k, USD | Share, % | |
| Product Group A | 2570 | 29,24% | 4760 | 30,56% | 6532 | 34,60% | 2,54 |
| Product Group B | 2062 | 23,46% | 4293 | 27,56% | 5348 | 28,33% | 2,59 |
| Product Group C | 1547 | 17,60% | 1876 | 12,04% | 1860 | 9,85% | 1,20 |
| Product Group D | 814 | 9,26% | 1430 | 9,18% | 1320 | 6,99% | 1,62 |
| Product Group E | 1176 | 13,38% | 2376 | 15,25% | 2579 | 13,66% | 2,19 |
| Product Group F | 621 | 7,06% | 843 | 5,41% | 1240 | 6,57% | 2,00 |
| Total | 8790 | 100% | 15578 | 100% | 18879 | 100% | 2,15 |

Table- III: Indicators of the company, before and after the implementation of the logistics service

| Criteria for evaluation | Always on time | Company A | Company B | Company C |
|--|----------------|------------|------------|------------|
| Financial conditions | 91% | 67% | 83% | 72% |
| price level in relation to competitors | 92% | 76% | 95% | 78% |
| terms of payment | 84% | 91% | 78% | 81% |
| price discounts | 96% | 34% | 76% | 58% |
| Quality | 83% | 80% | 66% | 62% |
| quality level | 86% | 76% | 90% | 67% |
| stability | 75% | 92% | 48% | 61% |
| reliability | 87% | 73% | 61% | 59% |
| Reliability of delivery | 88% | 87% | 53% | 64% |
| completeness of delivery | 84% | 92% | 78% | 67% |
| meeting deadlines | 95% | 85% | 45% | 73% |
| door-to-door delivery | 86% | 83% | 36% | 52% |
| Additional services | 65% | 42% | 64% | 62% |
| own transport | 43% | 56% | 90% | 78% |
| stock holding | 87% | 28% | 37% | 46% |
| Company supplier | 85% | 76% | 81% | 75% |
| management level | 80% | 64% | 68% | 72% |
| supplier reputation | 90% | 88% | 93% | 78% |
| Logistics service | 93% | 79% | 74% | 79% |
| clearance speed | 93% | 75% | 51% | 65% |
| acceptance of claims | 92% | 83% | 81% | 76% |
| delivery support | 90% | 82% | 76% | 82% |
| order processing | 96% | 77% | 88% | 92% |

IV. RESULT AND DISCUSSION

The process of formation of the company's logistics service was completely predetermined event since, in the conditions of market relations, traditional methods of selling products in this market segment would lead to a decrease in profits and loss of market share.

The results show that using the methodology, the company was able to confidently expand its market share (Fig. 7).

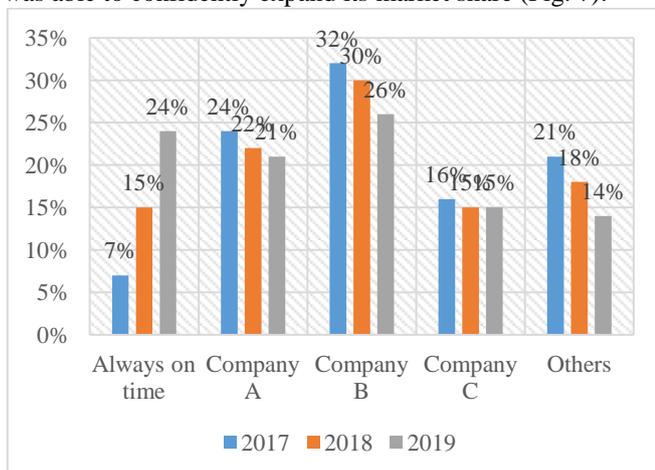


Fig. 7. Change in market shares over three years of operation

You can see how the formation of its own logistics service allowed the company to win one of the leading positions in the market of agricultural suppliers. Over the three years, the company has managed to increase its market share from 7% to 24%.

An analysis of the performance indicators of the logistics service presented in Fig. 8 also indicates an increase in the competitive advantages of the company thanks to the Always On Time system, it can be seen that the assessment of the logistics service is at the level of 93%, including indicators of the speed of ordering, support deliveries, and order processing, which is higher than that of competitors.

Similar images show that the emphasis on the principles of the Always On Time system made it possible to surpass competitors in such indicators as stability of supplies (86%), reliability of work (87%), completeness of delivery (84%), meeting deadlines (95%)

It is also important to generalise work experience and point to those points of work of the logistics service that require increased attention. It should be noted that a number of these points were initially under special control, but several others appeared during the service:

The level of satisfaction of demand is an important point reflecting the ability of a company to satisfy consumer needs in terms of the quantity and range of products ordered in a given period. This item allows you to control the process of working with each client.

Delivery by the appointed time is the most obvious moment; failure to comply with the deadlines can be especially acute in customer satisfaction with the service.

The duration of the order execution cycle - expresses in the period from the time the customer places the order to the time the order is delivered to the customer. It is important to reduce possible bureaucratic delays, as well as to ensure the principle of the availability of any product in stock.

Mistakes in deliveries - errors can occur for several reasons, while standardising the work of employees, having clear instructions, and also a plan of action in crises can reduce both the proportion of errors and the negative effect of their occurrence.

Response time to customer complaints - the time between the receipt of a complaint from a customer before a decision is made on this complaint should be minimal.

Satisfying customer complaints - although the logistics service is closely tied to satisfaction from his work, experience has shown that reckless satisfaction of all customer complaints often does not improve the perception of the quality of work. On the contrary, careful study of claims and the adoption of a balanced and informed decision give a much better effect, increasing customer loyalty.

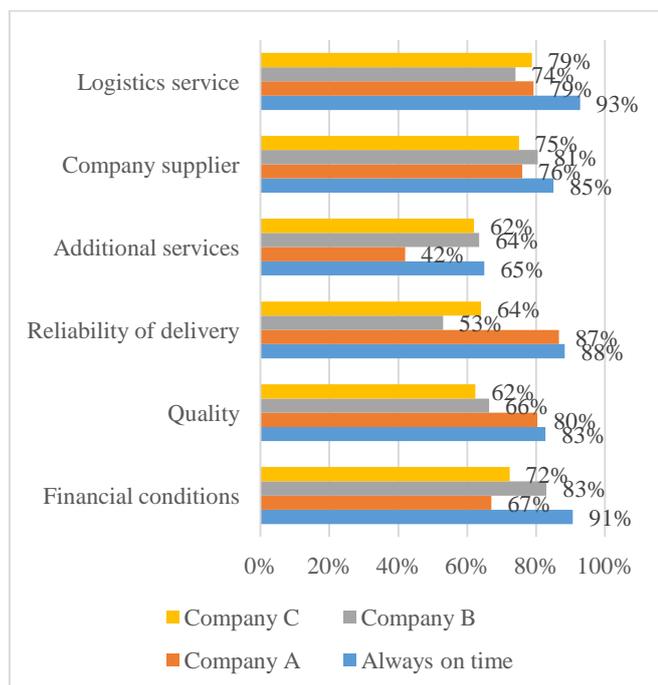


Fig. 8. Summary indicators for evaluating the effectiveness of the logistics service system

V. CONCLUSION

The formation of the enterprise’s logistics service system should pursue clear goals based on the strategic goals of the enterprise, the tasks and direction of the business, the nature of information and material flows.

Before the formation process, it is necessary to analyze the organizational structure of the enterprise, to identify the

strengths and weaknesses of its functioning. Determine the basis for the formation of logistics service; perhaps in some situations, the service system will be based on reorganised existing structural units, in other situations the logistics service will be formed as a completely new structural unit of the company.

It is critically important to work out the principles of the functioning of the logistics service system, develop and implement quality standards, and action instructions for non-standard situations.

To formulate technology for the strategic management of logistics supply chains, a system of financial planning, control and analysis.

Subject to these rules, the logistics service will become what provides the company with an effective competitive struggle for consumers in market conditions.

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