

# Features of enterprise competitiveness management

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## **ABSTRACT**

Given the discrepancy between the views of economists on the definition of the concept of competitiveness, competitiveness of the enterprise, its efficiency and stability are identified by a multidirectional influence of a plurality of factors it is determined. The work the factors of influence on the level of competitiveness of the enterprise, namely the factors of the external and internal environment is summarized. Accounting for these factors is necessary in the process of managerial decisions making on competitive advantages managing in order to increase the level of competitiveness. Fundamental stages of the assessment and management of the enterprise competitiveness is considered. With the help of method of analysis of the hierarchy the directions of raising the competitiveness level on the example of the enterprise LLC "Ukragrozapchastyna" is determines. The most priority directions of competitiveness increase according to the research are the introduction of a direction of activity that would overcome the seasonality of the industry, the transition to process management, changes in organizational structure.

## **Keywords:**

competitiveness, enterprise competitiveness, enterprise competitiveness management

## **1. INTRODUCTION**

Modern conditions encourage entrepreneurs to constantly monitor the level of competitiveness of the enterprise. Ability and efficiency of enterprise's adaptation to the competitive environment conditions depends on its level of competitiveness. The high level of enterprise competitiveness is a guarantee of high profit receives. Therefore, the enterprise competitiveness management is important. If we consider competitiveness as an economic category, it is individual entrepreneur ability to outperform his opponent in set goals achieving in a competitive market.

However, modern science does not provide does not give a single generally accepted interpretation of the category "competitiveness" content. Scientists-economists ambiguously interpret of the category "enterprise competitiveness", this diversity determines the complexity and multidimensionality of the competitiveness phenomenon.

The variety of author's positions regarding the definition of the concept of "competitiveness" is connected:

firstly, with the identification of the enterprises competitiveness and products (goods) competitiveness (Ajitabh A., Momaya K., 2004);

secondly, with the scale of the considered competitiveness: in the regional, national or world markets (enterprise, industry, country) (Krugman P., 1996., Porter M.E., 1990);

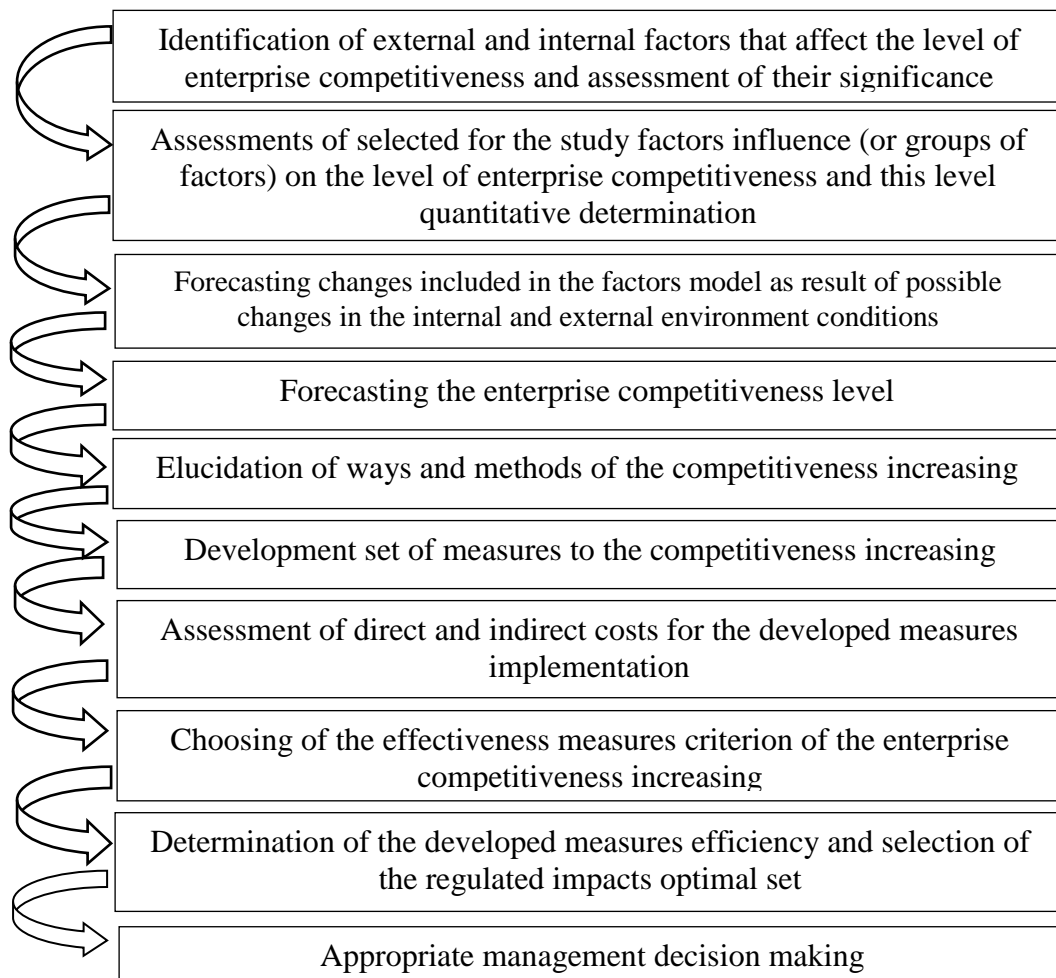
thirdly, with the substitution of one concept to another (competitive status, competitive level) (Altomonte C., Ottaviano G.I.P., 2011, p. 62–89);

fourthly, with the characteristics of anyone component of the enterprise competitiveness: the productive potential, labor potential, and others (Chao-Hung W., Li-Chang H., 2010, p. 562–577).

Of point of view is very difficult to determine enterprise competitiveness management precise mechanism that will lead to its required performance.

## 2. RESULT / EXPERIMENTAL

In economic literature, as there is no single definition of the term "enterprise competitiveness", there is no unified opinion on the mechanisms for its managing. Scientists opinions though seem similar, but there are still divergent, that's why it would be advisable to consider several opinions on the mechanism of enterprise competitiveness management. General order of research, evaluation and, in general, enterprise competitiveness management covers such principal stages which are shown in Fig. 1.



**Figure 1. Stages of assessment and management of enterprise competitiveness**

The assessment procedure consists of 11 stages, which are interconnected and executed sequentially, it is impossible to move to the next stage without fulfilling the previous one.

Today assessing of the enterprise competitiveness is an essential element in ensuring effective conduct of business and a prerequisite for achieving sustainable competitive advantages in the long run.

The thesis using of the hierarchy analysis method to determine the directions for increasing the competitiveness of an enterprise are proposed. Method of comparative analysis and objects ranking is characterized by a set of quantitative and qualitative criteria and indicators.

Tasks of the method are (Saaty, Thomas L., 2008):  
comparative analysis of the object (multicriteria ranking);  
multi-criteria choice of the best object (alternative)  
allocation of resources between projects;  
design of systems for the quantitative and qualitative characteristics.

## **2. 1. Factors of influence on competitiveness**

Concerning the factors of competitiveness, economists also did not identify the common ones, but it's can be identify the most commonly encountered factors in the economic literature. Therefore, several versions highlight the enterprise competitiveness by various authors it's can be consider.

Ajitabh and Momaya (2004) focus on the main competitiveness sources at a company. Authors suggest that an enterprise's competitiveness depends on the combination of tangible and intangible assets (e.g. human resources, material inputs, industry infrastructure, technology, reputation, trademarks) and processes within organization, which together provide competitive advantage and can be termed as sources of competitiveness.

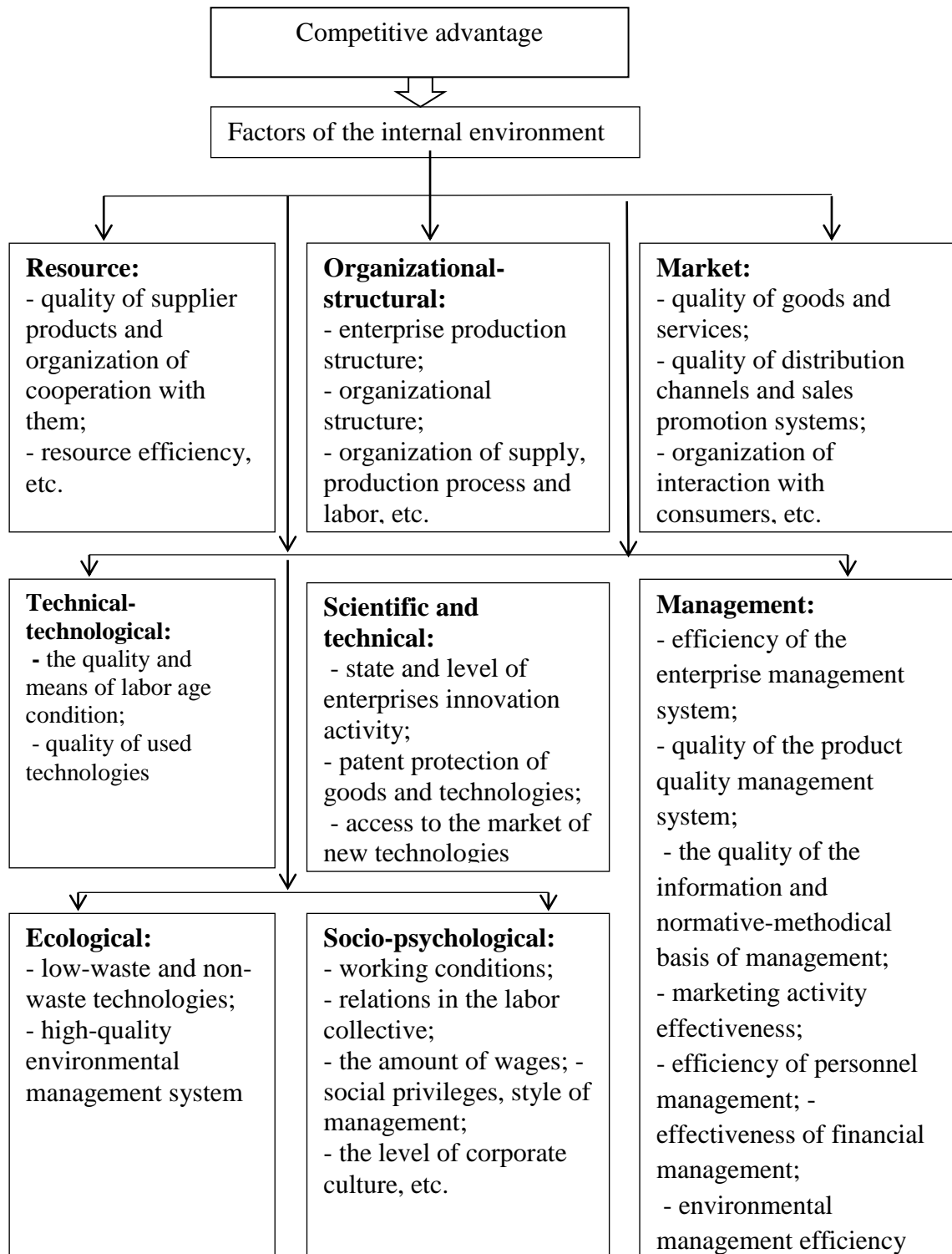
Many scholars believe, that the analysis of the enterprise competitiveness in the market allows for the study of factors affecting the attitude of buyers to the enterprise and products, and as a result, the change in the share of products in the market.

All factors of competitiveness can be divided into internal and external ones.

Factors of external environment – heterogeneous by origin source and have different levels of influence on the enterprise competitive advantages. Strengthening and development existing competitive advantages occur in the process of enterprise adaptation to a new environment state. The adaptation process consists in enterprise internal environment regulating with the aim of enhancing the positive influence and eliminating the negative consequences of changes in external environment factors.

In the external environment should distinguish factors: macrolevel, characterizing international and national conditions for the creation and implementation of enterprises competitive advantages; meso level (factors that determine specific conditions of management in the industry and the region); micro-level (or close environment), which determine the direct interaction of enterprises with the subjects of the external environment. Among the factors of the macro level, the national economy competitiveness has a particular value. Increasing the country competitiveness as a whole is one of the external factors, that promoting the formation of new and strengthening existing competitive advantages (Porter M.E., 1985.). At the same time, the level of competitiveness of our country's economy leaves much to be

desired. Factors of the internal environment that determine the competitive advantages of an enterprise can be combined in groups (рис. 2).



**Figure 2. Scheme of internal factors of enterprise competitive advantage**

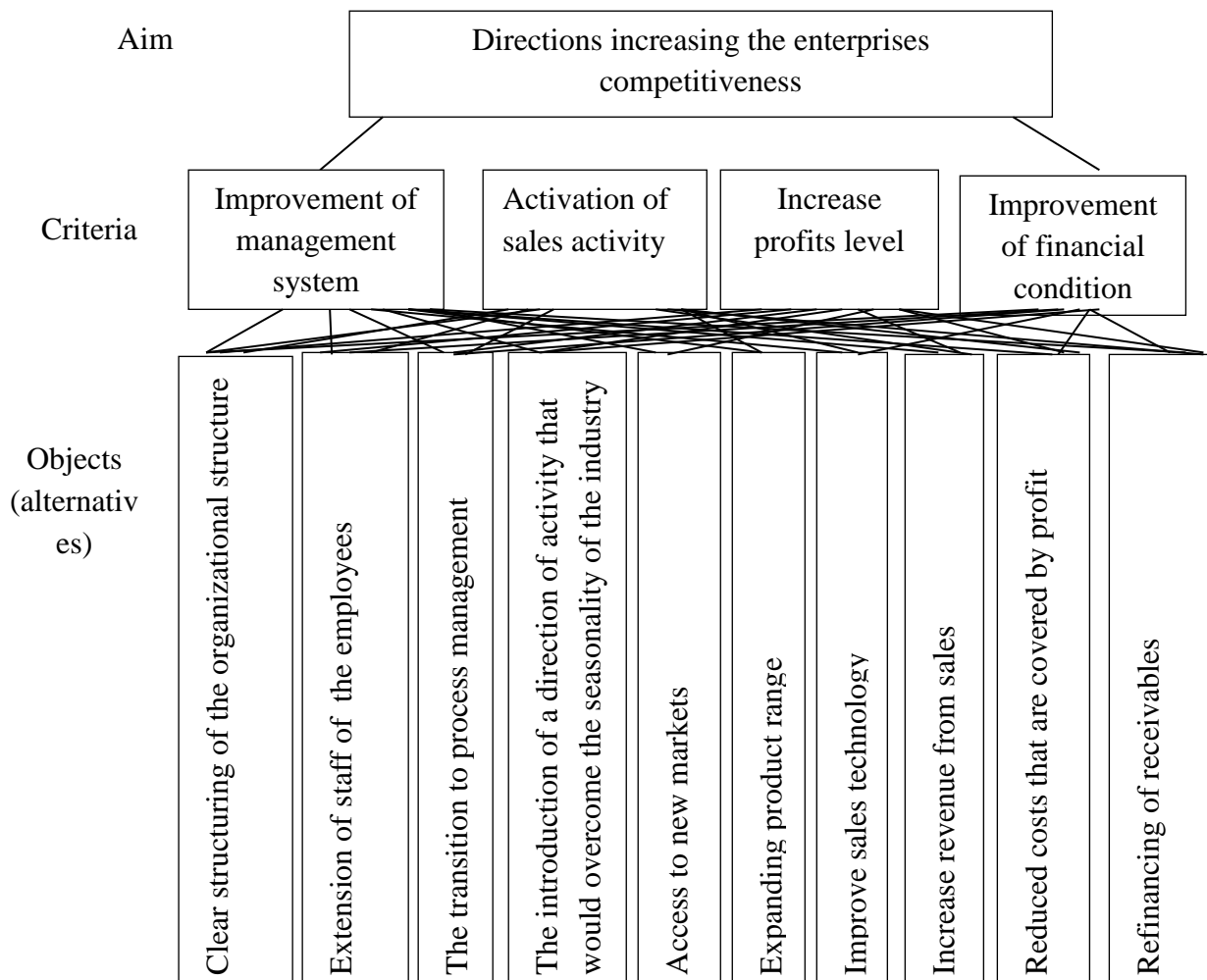
Thus, both the presence and the basic parameters of the enterprise competitive advantages are determined by the systemic influence of a plurality of multi-directional

and active factors with different strengths of the external and internal environment, with what different types of competitive advantages, the set of these factors will be different. Considering these factors is necessary in the process of making managerial decisions in managing the competitive advantages.

## 2.2. The management of increasing competitiveness on the example of the enterprise LLC "Ukragrozapchastyna"

In this paper, the idea of increasing the competitiveness of the enterprise by the example of LLC "Ukragrozapchastyna", on Kharkiv is considered. An analysis of the enterprise with the help of SWOT-analysis was carried out gives grounds to assert about a great variety of directions of development of the enterprise, then in order to choose the direction of increasing competitiveness for the research enterprise the method of hierarchy analysis (the Saati method) was use.

So, the first step is to perform the decomposition and representation of the problem in a hierarchical form (Saaty, Thomas L., 2008). The dominant hierarchies that are built from the top (the goal is from the point of view of management) through intermediate levels (the criteria on which the subsequent levels depend) to the lowest level, which is, as a rule, a list of alternatives is considered. The hierarchy of determining the direction of the enterprise development is presented in Fig.3.



**Figure 3. Hierarchical representation of the aim of determining the directions of increasing the competitiveness of LLC "Ukragrozapchastyna"**

The hierarchy from the SWOT analysis of the enterprise conducted previously, using its strengths and weaknesses was build before.

Given that the competitiveness of enterprises determines the indicators that characterize: product competitiveness (Gregory G.D. et al, 2005); financial condition of the enterprise (Bruno, 1965; Dangelico R.M., Pujari D., 2010); sales efficiency and product promotion (Swann, Taghavi, 1992); production efficiency (Siggel, Cockburn, 1995); the image of the company (Siudek et al., 2013), etc., the criteria was formed.

Thus, from the presented hierarchy it follows that the choice direction for increasing the competitiveness of the enterprise is based on such criteria as improving the financial state, activating sales activities, increasing sales and improving the management system.

The second step of the method is to construct matrices of pair comparisons for each of the lower levels. Elements of any level are compared with each other in relation to their action on the guide element, and, according to the rule, when comparing the matrices, the relative importance of the left elements of the matrix with the elements at the top is compared. That is, if the element on the left is more important than the element at the top, then a positive integer is entered into the cell, if, on the contrary, it is a fractional one. The relative importance of any element that is compared with itself is equal to one (Saaty, Thomas L., 2008). The calculation of priority vectors for responsible persons, criteria and alternatives involves filling matrices of pairwise comparisons, calculating the components of the own vector of matrices, the normalized matrix vector, the index of consistency, and the relation of consistency to the presented formulas. 1 - 4:

$$W_{norm} = \frac{W_i}{\sum_{i=1}^n W_i} \quad (1)$$

where  $W_{norm}$  – normalized vector of pairwise comparisons matrix.

$$\lambda_{max} = \sum_{j=1}^n a_{ij} \times W_{norm,j} = \sum_{i=1}^n \left( \sum_{l=1}^n E_{ij} \times W_l \right), \quad (2)$$

where  $\lambda_{max}$  – maximum actual value of the matrix.

$$I_c = \frac{(\lambda_{max} - n)}{(n - 1)} \leq 0,2 \quad (3)$$

where  $I_c$  – coherence index.

$$CR = \frac{I_c}{I_{ac}}, \quad (4)$$

where  $CR$  – coherence ratio;

$I_{ac}$  – average value of the index consistency.

Relative importance of the criteria when choosing an alternative is presented in Tab. 1.

**Table 1. The value of the criteria priority**

	<b>Improve ment of financial conditio n</b>	<b>Activation of sales activity</b>	<b>Increase profit level</b>	<b>Improvem ent of managem ent system</b>	<b>W<sub>norm</sub></b>
<b>Improvement of financial condition</b>	1	½	3	1/3	0,16
<b>Activation of sales activity</b>	2	1	5	1/2	0,29
<b>Increase profit level</b>	1/3	1/5	1	1/7	0,06
<b>Improvement of management system</b>	3	2	7	1	0,49
$\Sigma$	6,33	3,70	16,00	1,98	5,19
				IC	0,01
				CR	0,01

Thus, from the table below it is clear that when selecting the direction of increasing the competitiveness of the enterprise, a criterion for improving the management system and activating marketing activities, whose values are respectively 0.49 and 0.29, is played. The value of the coherence index, less than 0,2, and the relative coherence, which does not exceed 0,1, indicates a narrowing of expert opinions (Saaty, Thomas L., 2008).

Having determined the relative importance of the criteria when choosing an alternative, the definition of the alternatives priorities for each of the criteria was turned. In order that it would be easier to submit alternatives in the table, the symbols that are presented in Tab. 2 was note, and the results of determining the priority according to the criteria are given in Tab. 3-6.

**Table 2. Conditional designation of alternatives for improving the competitiveness of the enterprise**

<b>Conditional designation</b>	<b>Alternative</b>
<b>1</b>	<b>2</b>
№1	Clear structuring of the organizational structure
№2	Extension of staff of the employees
№3	The transition to process management
№4	The introduction of a direction of activity that would overcome the seasonality of the industry

Continue tab.2

1	2
№5	Access to new market
№6	Expanding product range
№7	Improve sales technology
№8	Increase revenue from sales
№9	Reduced costs that are covered by profit
№10	Refinancing of receivables

**Table 3. The value of the priority criterion alternatives for improving management system**

	№1	№2	№3	№4	№5	№6	№7	№8	№9	№10	W <sub>norm</sub>
1	2	3	4	5	6	7	8	9	10	11	12
№1	1	¼	3	1/3	½	2	4	5	6	7	0,11
№2	4	1	6	2	3	5	7	8	9	9	0,29
№3	1/3	1/6	1	1/5	¼	½	2	3	4	5	0,05
№4	3	½	5	1	2	4	6	7	8	9	0,22
№5	2	1/3	4	½	1	3	5	6	7	8	0,16
№6	½	1/5	2	¼	1/3	1	3	4	5	6	0,08
№7	¼	1/7	1/2	1/6	1/5	1/3	1	2	3	4	0,04
№8	1/5	1/8	1/3	1/7	1/6	¼	½	1	2	3	0,03
№9	1/6	1/9	¼	1/8	1/7	1/5	1/3	½	1	2	0,02
№10	1/7	1/9	1/5	1/9	1/8	1/6	1/4	1/3	1/2	1	0,01
										∑	1,00
										IC	0,06
										CR	0,04

**Table 4. Value of priority alternatives by criterion activation of marketing activities**

	№1	№2	№3	№4	№5	№6	№7	№8	№9	№10	W <sub>норм</sub>
№1	1	1/2	4	3	7	8	6	6	8	8	0,24
№2	2	1	5	4	8	9	7	7	9	9	0,31
№3	1/4	1/5	1	1/3	4	5	3	3	5	5	0,09
№4	1/3	1/4	3	1	6	7	5	5	7	7	0,16
№5	1/7	1/8	1/4	1/6	1	3	1/3	1/3	3	3	0,03
№6	1/8	1/9	1/5	1/7	1/3	1	1/4	¼	2	2	0,02
№7	1/6	1/7	1/3	1/5	3	4	1	2	4	4	0,06
№8	1/6	1/7	1/3	1/5	3	4	1/2	1	4	4	0,05
№9	1/8	1/9	1/5	1/7	1/3	1/2	1/4	¼	1	2	0,02
№10	1/8	1/9	1/5	1/7	1/3	1/2	1/4	¼	1/2	1	0,02
										∑	1,00
										IC	0,11
										CR	0,07



**Table 5. Value of priority alternatives by criterion increase profit level**

	№1	№2	№3	№4	№5	№6	№7	№8	№9	№10	W <sub>норм</sub>
№1	1	1/2	1/3	3	2	5	6	4	8	7	0,16
№2	2	1	1/2	4	3	6	7	5	9	8	0,22
№3	3	2	1	5	4	7	8	6	9	9	0,29
№4	1/3	1/4	1/5	1	1/2	3	4	2	6	5	0,08
№5	1/2	1/3	1/4	2	1	4	5	3	7	6	0,11
№6	1/5	1/6	1/7	1/3	1/4	1	2	1/2	4	3	0,04
№7	1/6	1/7	1/8	1/4	1/5	1/2	1	1/3	3	2	0,03
№8	1/4	1/5	1/6	1/2	1/3	2	3	1	5	4	0,05
№9	1/8	1/9	1/9	1/6	1/7	1/4	1/3	1/5	1	1/3	0,01
№10	1/7	1/8	1/9	1/6	1/7	1/4	1/3	1/5	1	1/3	0,02
										∑	1,00
										IC	0,07
										CR	0,04

**Table 6. Value of priority alternatives by criterion improvement of financial condition**

	№1	№2	№3	№4	№5	№6	№7	№8	№9	№10	W <sub>норм</sub>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
№1	1	1/2	1/6	1/5	5	2	2	5	3	4	0,08
№2	2	1	1/5	1/4	6	3	3	6	4	5	0,12
№3	6	5	1	2	9	7	7	9	8	9	0,33
№4	5	4	1/2	1	8	6	6	8	7	8	0,25
№5	1/5	1/6	1/9	1/8	1	1/5	1/5	2	1/4	1/3	0,02
№6	1/2	1/3	1/7	1/6	5	1	2	5	3	4	0,07
№7	1/2	1/3	1/7	1/6	5	1/2	1	5	3	4	0,06
№8	1/5	1/6	1/9	1/8	1/2	1/5	1/5	1	1/4	1/3	0,02
№9	1/3	1/4	1/8	1/7	4	1/3	1/3	4	1	3	0,04
№10	1/4	1/5	1/9	1/8	3	1/4	1/4	3	1/3	1	0,03
										∑	1,00
										IC	0,11
										CR	0,07

The final step of the method is to compile generalized prioritization evaluations as the sum of the products on the lines of estimates for each criterion obtained from Tab. 3 - 6, by weight of each criterion obtained from Tab. 1. The results of calculations of generalized estimates of priorities are summarized in Tab. 7

**Table 7. The results of calculations of generalized assessments of the priority of the direction of increasing competitiveness**

	Improvement of management system	Activation of sales activity	Increase profit level	Improvement of financial condition	Overall grade
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
№1	0,11	0,24	0,16	0,08	0,14

**Continue tab.7**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>№2</b>	0,29	0,31	0,22	0,12	0,21
<b>№3</b>	0,05	0,09	0,29	0,33	0,21
<b>№4</b>	0,22	0,16	0,08	0,25	0,21
<b>№5</b>	0,16	0,03	0,11	0,02	0,05
<b>№6</b>	0,08	0,02	0,04	0,07	0,05
<b>№7</b>	0,04	0,06	0,03	0,06	0,05
<b>№8</b>	0,03	0,05	0,05	0,02	0,03
<b>№9</b>	0,02	0,02	0,01	0,04	0,03
<b>№10</b>	0,01	0,02	0,02	0,03	0,02
<b>W</b>	<b>0,16</b>	<b>0,29</b>	<b>0,06</b>	<b>0,49</b>	<b>-</b>

It is important to note that the hierarchy analysis method, as well as other analytical procedures, may be misused in those cases where claims are based on biased expert opinions. Therefore, there is a need for independent experts.

The presence of independent experts and the adequacy, reliability of the results are confirmed by the expert consistency index (Tab. 1, Tab. 3 -6), which does not exceed its permissible norm, that is less than 0.2.

Thus, from the analysis made it is possible to draw the following conclusions that to improve the competitiveness of LLC "Ukragrozapchastyna" it is necessary, first of all, in such areas as improving the management system and activating the marketing activities of the enterprise.

The improvement of the management system means the expansion of the staff (alternative No. 2, weighting - 0.21), the transition to the process of non-management (alternative No. 3, weighting - 0.21).

As for the activation of the sales system, for the enterprise in this sector, it was expedient to introduce a direction of activity that would overcome the seasonality of the industry served by the company (alternative No. 4, weight rating - 0.21), as well as the exit of the enterprise into new markets (alternative No. 5, weight estimation - 0.05).

### **3. CONCLUSIONS**

Based on the analysis, it is possible to identify the factors affecting the competitiveness of enterprises that need to be improved. Since in this case the influence on external factors does not have an enterprise, internal factors is actual.

Consequently, the main factors of influence that need improvement, for this enterprise are:

managerial (efficiency of enterprise management system and marketing activity);

market (quality of services);

resource (quality of supplier selection and organization of cooperation with them).

So further research is aimed at developing measures to improve the enterprise competitiveness.

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