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METHODOLOGY FOR ESTIMATING THE ADAPTATION LEVEL OF THE ENTERPRISE TO CHANGING EXTERNAL ENVIRONMENTAL CONDITIONS

The main characteristics of a modern enterprise are its flexibility and ability to adapt to changing environmental conditions. The process of adaptation of the enterprise becomes ineffective without diagnosis, analysis of weaknesses and clarification of the reasons for the inefficiency of the measures taken. The search, analysis and identification of such causes cannot be started without assessing the level of adaptation of the enterprise at the moment. It is the actual level of adaptation of the enterprise that is the prerequisite for making management decisions to develop a set of measures aimed at maintaining or increasing the level of adaptation, establishing adaptation criteria and forming a system of assessment indicators. Therefore, questions of methodological approaches to assessing the level of adaptation of the enterprise are becoming especially relevant in modern conditions.

The aim of the study is to develop a methodology for assessing the level of adaptation of an enterprise to changing environmental conditions.

The article substantiates the need to assess the level of adaptation of the enterprise to changing environmental conditions. The analysis of factors of the external and internal environment that affect the level of adaptation of the enterprise (production, technological, organizational, financial, social, market and marketing), they determined the main directions of adaptation. To assess the level of adaptation of activity, a system of indicators has been formed, and assessment tools have been proposed. A methodology has been developed for assessing the level of adaptation of the enterprise to changing environmental conditions. The levels of adaptation and procedures for identifying indicators of the results of the assessment and the corresponding management decisions are presented.

Keywords: adaptation, adaptive management, adaptation of the enterprise, environmental factors, criteria, scorecard, methodology, sequence, identification.

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[2, . 70–71].

[4, . 13–14]:

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» [1, .255].

[8, .89].

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[3, .144]:

[4, .15]:

[6, .348].

[9, .127] , :

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$$a_{ji} = \frac{1}{a_{ij}}$$

[7, . 36]:

$$Z_i = \sqrt[n]{\prod_{j=1}^n a_{ij}}, \tag{1}$$

$$Z_i = \dots ; a_j = \dots ; n = \dots$$

$$W_i = \frac{Z_i}{\sum_{i=1}^n Z_i}, \tag{2}$$

$$W_i = \dots i = \dots$$

« »

(λ_{max}):

$$\lambda_{max} = \sum_{j=1}^n S_j \times W_i, \tag{3}$$

$$S_j = \dots i = \dots j = i.$$

$$= \frac{\lambda_{max} - n}{n - 1}, \tag{4}$$

$$= \dots / \dots, \tag{5}$$

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$$= V_1 + V_2 + V_3 + V_4 + V_5 + V_6 + V_7, \quad (6)$$

1.

$$K_j = \sqrt{V_1(1-z_{ij})^2 + V_2(1-z_{ij})^2 + \dots + V_n(1-z_{ij})^2}, \quad (7)$$

$$= \frac{x_{\min}}{x_{ij}}, \quad \frac{x_{\max}}{x_{\min}} \quad (z_{ij} = x_{ij} / x_{\max}, \quad -z_{ij} = \dots)$$

5

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3:

$$\lambda_{\max} = 1,033 + 1,192 + 0,968 + 1,017 + 1,166 + 1,073 + 1,137 = 7,587.$$

$$= 0,1 / 1,32 = 0,074, \quad = (7,587 - 7) / (7 - 1) = 0,098,$$

$$= 0,267 + 0,093 + 0,046 + 0,122 + 0,143 + 0,174 + 0,155, \quad (8)$$

I.

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()	(Y ₁)	• (X ₁); • (X ₂)	-
	(Y ₂)	• (X ₃); • (X ₄)	
()	(Y ₃)	• (X ₅)	-
	(Y ₄)	• (X ₆); • (X ₇)	
()	(Y ₅)	• (X ₈)	-
	(Y ₆)	• (X ₉)	-
	(Y ₇)	• (X ₁₀)	
()	(Y ₈)	• (X ₁₁)	-
	(Y ₉)	• (X ₁₂); • (X ₁₃)	-
	(Y ₁₀)	• (X ₁₄)	
()	(Y ₁₁)	• (X ₁₅); • (X ₁₆)	-
	(Y ₁₂)	• (X ₁₇); • (X ₁₈)	
()	(Y ₁₃)	• (X ₁₉); • (X ₂₀)	-
	(Y ₁₄)	• Customer Retention Rate () (X ₂₁)	-
()	(Y ₁₅)	• (X ₂₂); • (X ₂₃); • (X ₂₄)	

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2.

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							Z	W	
	1	3	5	1	2	2	3	2,100	0,267
	1/3	1	3	2	1/3	1/3	1/2	0,731	0,093
	1/5	1/3	1	1/3	1/3	1/3	1/3	0,363	0,046
	1	3	3	1	1/2	1	1	0,960	0,122
	1/2	3	3	2	1	1/2	1/2	1,123	0,143
	1/2	3	3	1	2	1	1	1,369	0,174
	1/3	3	3	1	2	1	1	1,219	0,155
S	3,867	12,833	21,000	8,333	8,167	6,167	7,333	—	—
S × W	1,033	1,192	0,968	1,017	1,166	1,073	1,137	—	—

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$$K = \sqrt{0,288(1-z_1)^2 + 0,500(1-z_2)^2 + 0,147(1-z_3)^2 + 0,066(1-z_4)^2} \quad (9)$$

$$K = \sqrt{0,785(1-z_5)^2 + 0,149(1-z_6)^2 + 0,066(1-z_7)^2} \quad (10)$$

$$K = \sqrt{0,081(1-z_8)^2 + 0,188(1-z_9)^2 + 0,731(1-z_{10})^2} \quad (11)$$

$$K = \sqrt{0,414(1-z_{11})^2 + 0,414(1-z_{12})^2 + 0,063(1-z_{13})^2 + 0,109(1-z_{14})^2} \quad (12)$$

$$K = \sqrt{0,181(1-z_{15})^2 + 0,128(1-z_{16})^2 + 0,061(1-z_{17})^2 + 0,629(1-z_{18})^2} \quad (13)$$

$$K = \sqrt{0,258(1-z_{19})^2 + 0,105(1-z_{20})^2 + 0,637(1-z_{21})^2} \quad (14)$$

$$K = \sqrt{0,333(1-z_{22})^2 + 0,140(1-z_{23})^2 + 0,528(1-z_{24})^2} \quad (15)$$

$z_{ij} = x_{ij} / x_{max}$, $z_{ij} = x_{min} / x_{ij}$;
 $z = 0,01 - 1$, $z = 1 - 0,01$;
 $(z_{ij} = 1)$

0, 0, 1, 0,5, 3, 3, *

$0,0 \leq K_A \leq 0,2$	
$0,2 < K_A \leq 0,4$	
$0,4 < K_A \leq 0,6$	
$0,6 < K_A \leq 0,8$	
$0,8 < K_A < 1,0$	

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