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EVALUATION OF DEVELOPMENT OF BAKERIES OF CRIMEA

In the article the development of bakeries in two methods is evaluated.

Keywords: Bread-making branch, gold rule of economy, method by Petukhov, methods of non-parametric statistics.

Bakeries of enterprise of the Crimea are provided by the populations of peninsula by bread, by a bakery, by pastry shops and pastas. As any enterprises, they are the difficult open systems what aspire to establishment wheels within wheels between the participants of public production, characterized by the increased dynamism and complication of foresight of influence of factors on forming of end-point. In this connection importance is acquired by the estimation of existent tendencies, development on their basis of complex of measures in relation to aspiration of further development of enterprise in necessary direction.

The task of receipt of synonymous conclusion about an improvement or worsening of work of enterprise carries multivariable character foresees a calculation and analytical interpretation of values of a few indexes and not always allows forming a clear idea about direction and depth of display of existent tendencies. Efficiency of their activity is fixed in basis of methodologies of analysis and estimation of development of enterprises.

One most famous valuation techniques Development Analysis enterprises should considered work R. Petukhov. Essence of methodology consists in that the changes of general efficiency of activity of enterprises confess the aim of development that is there is a between's by the got results and charges born for this purpose, and results of intensification of activity of enterprise are intermediate indexes. The basic criteria of analysis and determination of development on the marked methodology are indexes: profit yields from realization of products (Iv);

realized unit (I_s) costs; level of efficiency (I_{ef}) - it is determined on the basis of comparison of the attained results and charges on their achievement, and also correlation of I_{ef} / I_s (d_{ef}). By virtue of that there are a few combinations of orientation and speed of change of the marked indexes the author of methodology is distinguish the basic types of intensive and extensive development. A dynamics of indexes of performance of bakeries indicators is Crimea for determination of development presented in a table 1.

Table 1. Dynamics of indexes of performance of bakeries enterprises indicators is ARE Crimea for 2003-2009 for determination as development by Petukhov

Index	Conditional denotation	2004/ 2003	2005/ 2004	2006/ 2005	2007/ 2006	2008/ 2007	2009/ 2008	Mean value 2003- 2009
Index of profit yield is from realization of products	I_v	1,104	1,172	1,325	1,055	1,375	1,835	1,288
Index of realized unit cost	I_s	0,868	1,553	0,903	0,912	1,561	1,595	1,184
Index of level of efficiency	I_{ef}	1,272	0,754	1,468	1,157	0,881	1,151	1,087
Index of correlation of change of efficiency is to the change of realized unit cost	d_{ef}	1,466	0,486	1,625	1,269	0,565	0,722	0,918

On the basis of the conducted calculations it is possible to do the estimation of development of bakeries Crimea for 2003-2009: $I_v > 1$, $I_s > 1$, $I_{ef} > 1$, $d_{ef} < 1$. Such set of inequalities shows mainly extensive small progressive development of bakeries enterprises of region. The average annual increase of volumes of realization presents 28,8 % at the simultaneous increase of realized unit cost on 18,4 %. Enterprises increase a profit yield greater rates, than their charges grow, that stipulated the value of index of efficiency in 1,087. However efficiency of activity of enterprises grows slower than their charges (0,918). Progress of

enterprises trends are negative, as only providing of intensive development is able to provide them effective functioning and competitiveness.

Application of integral estimations allows expressing one number motion of the system and on this basis to draw conclusion in relation to direction of this motion. There are a few approaches to measuring of integral index of development of enterprise. Wide application was got by the models of rating estimation of development of enterprise that the sums of places, expert estimations based on methods, taxonomical method. Known is a "gold rule of economy" what expresses the condition of standard dynamics of development of enterprise and is basis of him further activity. The degree of approaching of actual dynamics to standard characterizes a management level on an enterprise and presence of strategic direction of development. The considered rule looks like:

$$1 < h(N) < h(V) < h(P'') < h(P) < h(Kv),$$

$h(a)$ – rate of height of indexes; N - middling registration quantity of regular workers, persons; V – a profit yield is from realization of products, thousand a hrn.; P'' – gross receipt, thousand a hrn.; P - net income, thousand a hrn.; Kv - property asset, thousand a hrn.

The brought indexes over allow to define direction of development of enterprise, their change shows ability of enterprise to adapt oneself to the changes of external environment, represent major financial descriptions for their proprietors. On the basis of the presented indexes it is possible to get conclusions in relation to activity of enterprise, presence of strategic direction of their development through comparison of rates of changes of certain descriptions.

Aggregate of indexes, that well-organized after rates increases so that maintenance of this order in the real activity of enterprise provides the achievement of efficiency of activity of enterprise and his development, name a dynamic norm the sequence of construction of which following: exposures of indexes, which a dynamic norm will be formed on the basis of; economic interpretation of correlation of rates of increase of indexes; the normative and actual ranging of indexes is on the basis of correlation of rates of increase. The

greatest grade (property asset) is appropriated an index which has a most rate of increase, and farther - after diminishing of indexes (the least grade has a caliber which equals after inequality 1). Under a grade understand the sequence number of value of index in the order of increase or diminishing. Grades of actual rates of increase of bakeries enterprises are Crimea resulted in a table 2.

Table 2. Dynamics of grades of actual rates of increase of indexes of bakeries enterprises is Crimea for 2003-2009

Index	Conditional denotation	2004/2003	2005/2004	2006/2005	2007/2006	2008/2007	2009/2008
Rate of increase of property asset	h (Kv)	5	2	1	5	5	2
Rate of increase of net income	h (P)	1	5	5	1	6	6
Rate of increase of gross receipt	h (P'')	6	6	6	2	4	1
Rate of increase of profit yield is from realization	h (V)	2	1	3	3	1	3
Rate of increase of average quantity of regular workers	h (N)	4	4	2	6	3	4
Maximum value of inequality	Caliber	3	3	4	4	2	5

Measuring the degree of approaching to the normative order is possible by means of methods of non-parametric statistics, a most value which the grade coefficients of Spirman (r) and Kendall (τ) have from. They are widely used for the decision of tasks of intercommunication of variables. Than more near value to the coefficient to 1 that in greater measure administrative decisions answer interests of proprietors in direction of implementation of tasks and strategic development of enterprise. A standard order will be realized, if the value of coefficient equals 1, and if a coefficient is negative, there is reverse standard dynamics. Coefficient of correlation of Spirman (r) represents by volume deviation of actual row from normative and determined after a formula:

$$r = 1 - \frac{6}{n^3 - n} \sum_{i=1}^N (R_i - S_i)^2,$$

R_i – normative grade; S_i – actual grade; n – volume of aggregate.

The coefficient of Kendall (τ) represents structural deviation of normative row from actual and settles accounts after a formula:

$$\tau = \frac{\sum(a_{ij} b_{ij})}{\sqrt{\sum a_{ij}^2 \sum b_{ij}^2}},$$

a_{ij} , b_{ij} – square matrices of sizes.

Than nearer grade rows, the higher value of coefficients of correlation and enterprise adhere to strategic direction of development.

The integral coefficient of development of enterprise (κ) takes into account the value of coefficients of Kendall and Spirman:

$$\kappa = \frac{(1 + r)(1 + \tau)}{4}$$

On results the calculation of coefficients of Spirman and Kendall the integral coefficient of development of bakeries enterprises is expected Crimea (table 3).

The dynamics of coefficients shows absence to development of bakeries enterprises. The greatest value (0,354) an integral index acquired in 2007 and 2009. However, it almost in three times less potential. Undulating character of changes of the expected coefficient testifies to absence of strategy of development enterprises or his pointlessness, as activity of bakeries enterprises is ineffective.

Table 3. Dynamics of integral to the coefficient development of bakeries enterprises in Crimea for 2003-2009

Index	Years					
	2004	2005	2006	2007	2008	2009
Coefficient of correlation of Spirman	-0,082	-0,049	0,049	0,181	-0,445	0,181
Coefficient of Kendall	0,200	0,200	0,333	0,200	0,200	0,200
Integral coefficient of development of enterprise	0,275	0,285	0,350	0,354	0,166	0,354

An estimation of development of bakeries enterprises is ARE Crimea after two methodologies showed, that they developed extensively, that is due to the quantitative increase of resources, time of their use. However it does not result in the increase of efficiency of activity of such enterprises and they do not use all potential. For intensive development to the enterprises it is necessary application of new technologies and equipment for baking of bread acceleration of circulating of floating assets, perfection of organization of production and management.