

economic restructuring such jobs should be eliminated. Their retention significantly increases the social efficiency of employment as it protects employees from layoffs, but leads to low economic efficiency of employment and slows down structural transformation of the economy.

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FACTOR ANALYSIS OF ECONOMIC INFORMATION

*Stud. Y. Vishnevskaya, senior lecturer A. Vardomatskaja, PhD ass.
prof. U. Sharstniou*

Vitebsk State Technological University, Vitebsk, Republic of Belarus

In the transition to work in market conditions Belarusian enterprises were in the hard conditions of internal and external competition, which required active measures aimed at optimizing processes and economic strategy. Subsequent optimization of the company achieved the adoption of correct management decisions that require a comprehensive analysis of the results of the enterprise. Each productive indicator depends on many different factors. The more detailed studies the influence of factors on the effective index, the better the results of the analysis and evaluation of the performance of enterprises. Hence an important methodological issue in the analysis of economic activity is a deep and comprehensive study and measurement of the impact of factors on the study of economic indicators. Without such an analysis can not make informed conclusions on performance, identify production reserves to justify plans and management decisions.

The purpose of research - to construct factor model and predict the main activities of one of their light industry enterprises of Vitebsk.

The object of study - indicators of economic activity of the enterprise.

Research methods - grouping, modeling of economic indicators, the principal component analysis, factor analysis.

Research tools - Integrated System (IS) Statistica.

Relevance of the work lies in the fact that the solution of the problem is the nature of the application.

The economic activity of the company was assessed by indicators such as cost (X7), revenue from sales of products (X11), net income (X5), sales volume (X13), the value of fixed assets (X2), the cost of working capital (X10), payable (X6), price per unit (X1), non-production costs (X3), the shift index of equipment (X4), return on assets (X8). During the research task was to identify the relationship and the direct and indirect effects of these parameters on the profitability of the enterprise (Y).

Used during the factor analysis, principal component will reduce the dimension of the space of independent variables 14 to 6 indicators, moving from a one-parameter correlated to the independent factors. Means of factor analysis were identified such factors determining the level of the analyzed indicators, as the cost (X7), revenue from sales of products (X11), net income (X5), sales volume (X13), the value of fixed assets (X2), the cost of working capital (X10) and the functional dependence between the profitability of production (Y) and highlighted factors estimated impact of changes in each factor on the change of the analyzed indicators - profitability.

Rotated loading matrix is shown in Figure 1.

		Factor Loadings (Varimax normalized) Extraction: Principal components (Marked loadings are >.700000)	
Variable	Factor 1	Factor 2	
x2	0.195191	0.260983	
x5	0.926508	-0.008777	
x7	-0.061367	0.897641	
x10	0.590724	0.030854	
x11	0.294689	-0.841305	
x13	-0.744454	0.182278	
y	0.683640	0.630940	
Expl. Var	2.357654	2.014007	
Prp. Totl	0.336808	0.287715	

Figure 1 – Turn the matrix of loadings

These factor loadings should be understood as the correlation coefficients between the variables and factors. Thus, the variables X13 (revenues from sales) and X5 (net profit) most strongly correlated with factor 1, namely the value of the correlation is -0.74 and 0.926, respectively, variables X11 (sales volume) and X7 (cost) correlated with the factor 2 (-0.841, 0.897). In most cases, the inclusion of a separate variable in one factor, carried out on the basis of the correlation coefficients is straightforward. May also be variables that can not be loaded from any selected factors.

Thus, the first main factor (2.36 or 33.68 in terms of% of the total variance), directly related to the X5 and back with X13, can be defined as the net profit and sales revenue.

The second factor (2,014 in the level or 28.77% of the total variance), and directly related to the X7 and back with X11, can be defined as cost and volume of sales.

On the basis of the factor matrix (Figure 1) can be constructed in a number of models of normalized values.

For example, depending on the profitability of production model (Y) of the main factors f1 and f2 is:

$$Y_{norm} = 0,6836 * f1 + 0,6309 * f2.$$

Natural value Y_{nat} profitability can be calculated by the formula

$$Y_{nat} = Y_{sr} + Y_{norm} * S \{Y\}, \text{ where}$$

Y_{sr} - average profitability of production;

$S \{Y\}$ - standard deviation of profitability.

In use, certainly more convenient regression models in the natural values of the signs, but factor analysis allows to define more precisely the closeness of the relationship between the factors and their influence on the main index.

Thus, factor analysis allows you to organize data to describe the relationship, to obtain additional material for testing intuitive considerations of manager or researcher.

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TEMPORARY EMPLOYMENT: MAIN DEFINITIONS AND SCALES IN BELARUS

Olga Zaitseva, assistant of Management Department

Vitebsk State Technological University, Vitebsk, Republic of Belarus

Globalization, intense competition, technological and structural changes, new work processes have led to profound changes in the organization of work, particularly in the labour market, giving rise to an increasing variety of non-standard work arrangements.

The main characteristics of traditional employment are the following: employment for an indefinite duration, fixed number of working hours (per month, week, or day), definite job with definite remuneration.

Non-standard employment differs in one or more aspects, i.e: based on a fixed-term labour contract; part-time instead of full-time; outside of labour relations and based on civil law; based on new ideas such as working at home, outwork and teleworking; based on a distribution of working hours that is adopted to the needs of the employer [1].