

# Economic activity of enterprises: methodical aspects of assessment

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**Abstract.** Sustainable development of entrepreneurial structures requires the reformation of existing tools and the search for new effective tools of their economic activity managing. The aim is substantiation of the methodological provisions for assessing the economic activity of enterprises and developing applied recommendations for its improvement. The methodology of the enterprises' economic activity analysis is developed and the priority vectors of its intensification are identified in the research paper. The results of the research paper show that the determinant of national competitiveness and sustainable development is business decisions and technologies which determine the quantitative and qualitative renewal of individual enterprises potential and the combination of their business strategies with global development priorities. The proposed methodology of enterprises' economic activity assessment and applied recommendations for its strengthening are scientific basis for the development and implementation of schemes for rapid economic growth.

## 1 Introduction

Formation of grounds for increasing level of economic growth is extremely important task in the context of the guidelines implementation under achieving by Ukraine of the sustainable development global goals which are set [1] and approved at the UNO Summit in 2015 [2]. Business decisions and technologies which can provide quantitative and qualitative individual enterprises potential renewal, combining their business strategies with the global development priorities play leading role in achieving the goals of sustainable development. In this research paper we will consider the main methodological and organizational aspects of assessment of economic activity of enterprises as tool for determining the trends of competitiveness increasing and providing the sustainable development of the entrepreneurial structures of the national economy as a whole.

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The purpose of the research paper is substantiating the methodological provisions for assessing the economic activity of enterprises and developing applied recommendations for its increasing in the modern business environment.

## **2 Methodology**

General scientific and special research methods, in particular: analysis and synthesis, systematization and generalization, system-activity approach and graphic methods are used for purpose achieving. The research is based on the assumption that important prerequisites for the transition of Ukrainian economy to inclusive development is improving the quality of the business environment, establishing mutually beneficial cooperation between the state and private business in all spheres and at all levels, and revitalizing the economic activity of entrepreneurial structures. For these purposes the expediency and methodology of analyzing the economic activity of enterprises as determinants of national competitiveness providing are substantiated and the priority vectors of its increasing are identified.

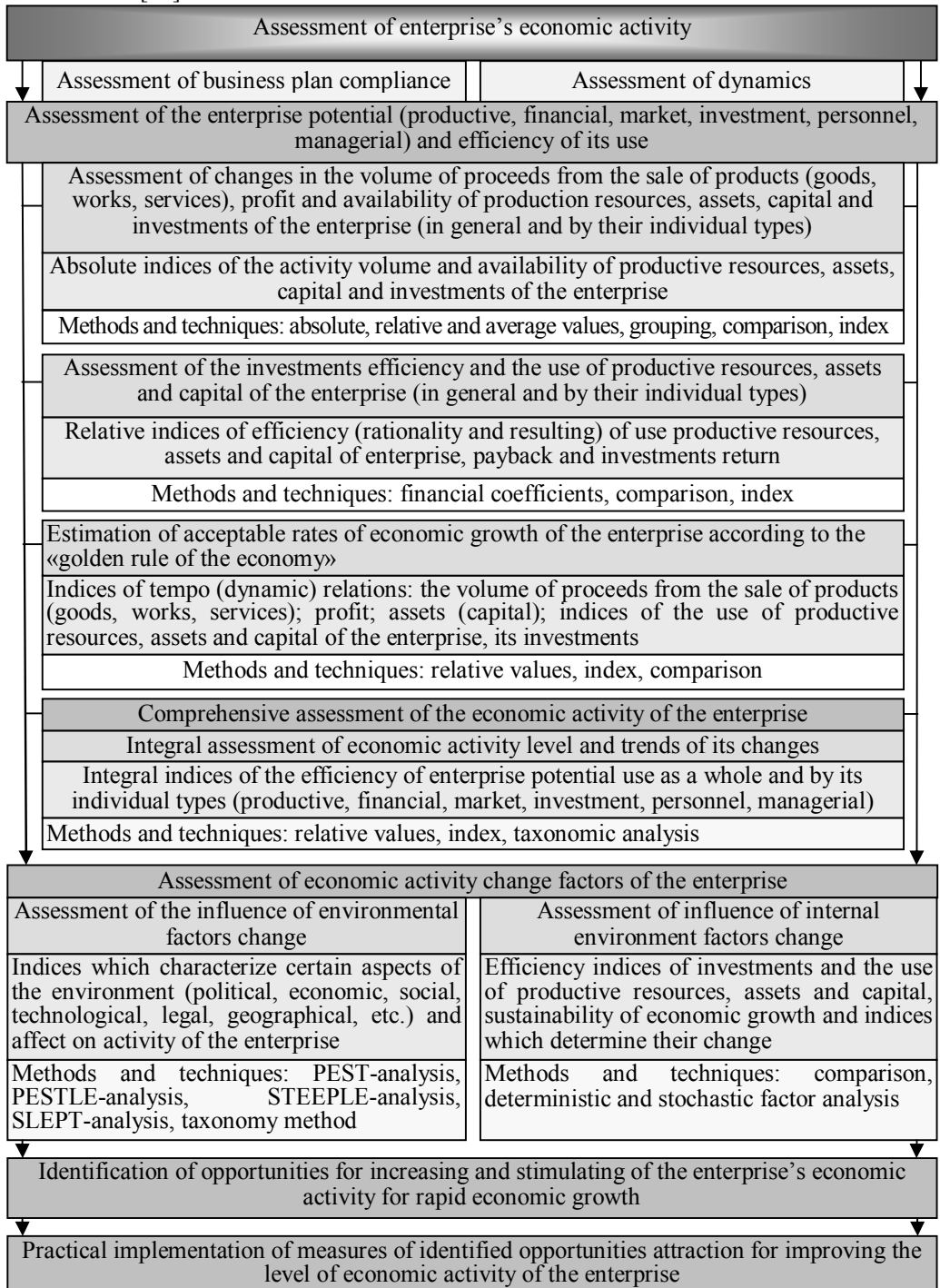
## **3 Literature review**

The scientific literature review shows the active interest of domestic and foreign researchers in providing the economic activity of enterprises, the scientific substantiation of methodological approaches to measuring its level, determination of dependence on institutional and non-institutional uncertainty, influence on social and economic development and elaboration of mechanisms for stimulating economic activity of entities. Theoretical basis of economic activity of enterprises detailed in the works of domestic scientists I.Ya. Kulyniak [3], A.M. Turylo [4] and N.L. Meshkova [5]. Applied aspects of measuring economic expectations and economic activity in globalizing environment are presented in studies of L. Kilian [6], O. Claveria, E. Monte and S. Torra [7], S.V. Smirnov and N.V. Kondrashov [8]. The dependence of economic activity on the uncertainty of fiscal and economic policy of the state is determined by J. Fernández-Villaverde, P. Guerrón-Quintana, K. Kuester and J. Rubio-Ramírez [9], W. Kim [10] and P. Sorić and I. Lolić [11]. Channels of factors which stimulate economic activity in developing countries are presented by J. Caballero, A. Fernández and J. Park [12], and finally, the economic activity forecasting in the context of income receiving is considered by P. Maio and D. Philip [13]. At the same time, the issue of providing formation and sustainable development of competitive environment of the Ukrainian economy by stimulating the economic activity of business structures requires in-depth study.

## **4 Presentation of the main material**

Solving the problems which are associated with providing the desired level of economic activity of enterprises requires strengthening of information management support through the formation of effective mechanism for its assessment. The authors propose the methodology for analyzing the economic activity of enterprise, which, unlike existing ones, determines the sequence of analytical procedures implementation and is based on defined methodological principles and methodical tools (system of indices and methods of analysis) for assessing the results and finding opportunities for increasing and stimulating economic activity of enterprises (Fig. 1).

The method of analysis of economic activity should be clearly subordinated to its methodological principles, namely: scientific, systemic, complexity, research in dynamics, purpose priority, concreteness and practical utility for providing the relevance of analytical information [14].



**Fig. 1.** Reference model for assessing the economic activity of the enterprise.

Source: Developed by authors.

Compliance with these principles allows both complex and independent realization in space and time of the main functions of analysis (assessment, diagnostic, search) which are interrelated and subordinated to the main objective of the analysis and the solving the analytical research trends which are defined for its achievement.

We determine the aim of enterprise's economic activity analysis as objective assessment of its level, identifying the causes of change and potential enhancements for rapid economic growth providing, value and cost of the enterprise.

According to the developed model, the initial stage of the analysis is the enterprise's potential assessment and the efficiency of its use. It is aimed at:

- preliminary assessment of economic activity on the base of determining the acceptable rates of economic growth in accordance with the “golden rule of the business economics”, which is advanced profit growth rate ( $R_g^P$ ) over the growth rate of net revenues from the sale of products (goods, works, services) ( $R_g^{NRP}$ ) and the value of the enterprise's property ( $R_g^{VE}$ ):  $R_g^P > R_g^{NRP} > R_g^{VE} > 100$ ;

- detailed assessment of the economic activity of the enterprise on the base of absolute and relative changes of indices which determine it, namely, the indices of activity results, availability of investments, production resources, assets and capital of the enterprise (in general and by their individual types) and their turnover (in number of turnovers and days of turnover), profitability (in %) and payback;

- comprehensive assessment of the economic activity of the enterprise on the base of the proposed integrated index of economic activity ( $I_{EA}$ ), which takes into account the dynamics of changes in individual components of the enterprise's potential (financial ( $I_{FP}$ ), productive ( $I_{RP}$ ), personnel ( $I_{PP}$ ), managerial ( $I_{AP}$ ), market ( $I_{MP}$ ), investment ( $I_{IP}$ )), which are formed on the base of indices of turnover and profitability of the enterprise's productive resources, its assets and capital, investments efficiency and business value:

$$I_{EA} = \sqrt[6]{I_{FP} \times I_{RP} \times I_{PP} \times I_{AP} \times I_{MP} \times I_{IP}} . \quad (1)$$

In the process of further analysis, the quantitative assessment of the enterprise's economic activity change under the influence of external and internal environment factors is carried out. The trend and depth of the research of factor interconnections are determined by the aim of analysis and the needs of those who make managerial decisions.

The research proves that significant decrease of enterprises' economic activity is consequence of the negative influence of external factors under uncertainty and dynamism of the modern business environment. We propose to use the PEST-analysis method or taxonomy method for quantitative assessment of their influence strength and determining favorable conditions for enterprises' economic activity improvement.

The PEST analysis method allows comprehensive assessment of the influence of economic, political, social, technological factors and, if it is necessary, legal, geographical, social and demographic, ethnic factors etc. and involves calculating the integral indicator in the following sequence:

- 1) goals determining and tasks' statement for assessment of the influence of enterprise activity external environment factors;
- 2) formation of the assessment components which affect on the favorability of promotion of economic activity and rapid economic growth;
- 3) determination of assessment criteria for the  $i$ -th component of the environment factors of the enterprise's activity;
- 4) criteria assessment ( $P_{ij}$ ) according to the determined indices;
- 5) calculation of the weight ( $\lambda_{ij}$ ) indicator according to  $j$ -th assessment criterion in such

way, that  $\sum_{j=1}^k \lambda_{ij} = 1$ ;

- 6) calculation of the integral index for the  $i$ -th component of the influence assessment level of the environment factors of the enterprise's activity:

$$I_i = \sum_{j=1}^k \lambda_{ij} \times P_{ij} \quad (2)$$

- 7) calculation of the weight coefficients ( $\beta_i$ ) of  $i$ -th integral index of the total integral index component in such way that  $\sum_{i=1}^n \beta_i = 1$ ;

- 8) calculation of the total integral index of the influence strength of external environment factors and its qualitative assessment:

$$\bar{I} = \sum_{i=1}^n \beta_i \times I_i \quad (3)$$

The degree of experts' coordination is assessed with use of Kendall concordation coefficient. Harrington's five-point scale is used for interpretation the influence strength of external environment factors on the enterprise's economic activity level.

Algorithms for calculating of coefficients of productive resources rates of return, investment returns, turnover and profitability of assets and capital (in general and by their individual types) and sustainability of economic growth are usually used as factor models of dependence under the study of the influence of the internal environment factors on economic activity level of enterprise. They can be expanded depending on the depth of research and management needs.

We propose to carry out factor analysis of the economic growth sustainability coefficient ( $C^{gs}$ ) for identifying the possibilities of rapid and stable economic growth on the base of the following factor model:

$$C^{gs} = C^{ec} \times NRS \times D^{rpp}, \quad (4) \text{ or } \frac{NR^{reinv}}{EC} = \frac{NRP}{EC} \times \frac{NP}{NRP} \times \frac{NR^{reinv}}{NP} \times 100, (5)$$

where  $C^{ec}$  – turnover coefficient of equity capital, turns;

$NRS$  – net profitability of sales, %;

$D^{rpp}$  – share of reinvested profits in the net profit of the enterprise, coef.;

$NR^{reinv}$  – sum of reinvested net profit, UAH;

$EC$  – the average size of the enterprise's equity capital, thousand UAH;

$NRP$  – net income from sales of goods, UAH;

$NP$  – net profit of the enterprise, thousand UAH.

We propose realization of practical aspects of the procedural side of the analytical process with use of analytical and statistical methods, namely: sampling observations, groups, averages, series of dynamics, comparative and integral analysis, methods of elimination (complete chain substitutions, absolute and relative differences, integral, longitudinal participation, etc.), expert assessments and stochastic factor analysis (correlation analysis, regression analysis, etc.).

The enterprise's economic activity analysis is completed by the search and practical implementation of measures of identified opportunities attraction for improving and stimulating its economic activity for sustainable economic growth providing. The base of the search for internal opportunities is factor analysis results, and the measures for their practical implementation are conditioned by the general management policy which corresponds to the chosen strategy of enterprise development, and form priority vectors for strengthening its economic activity. External opportunities for increasing of enterprises' economic activity level which is aimed at updating of the domestic economy competitiveness and improving living standard of the population, are determined by the state policy of social and economic development. We defined improvement of state policy in the financial and innovation and investment spheres, creation of special territories with preferential terms, land market formation, abolition of income tax and introduction of the withdrawn capital tax, creation of favorable conditions of doing business, support of small and medium entrepreneurship, development of measures complex for cooperation between authorities and business for achieving priorities of smart, sustainable and inclusive growth as the main vectors of state provision of the desired level of enterprises' economic activity.

## 5 Conclusions

During this research work we obtain scientifically substantiated results, which prove that creation of favorable business environment for increasing of enterprises' economic activity is priority task of the present at all levels of state administration. It is proved that the achievement of the desired level of economic activity of enterprises determines the necessity of developing an effective mechanism for its assessment.

The authors propose the methodology for analyzing the economic activity of the enterprise on the base of certain methodological principles and methodical tools for assessment the results of enterprises' economic activity, which specifies the analytical procedures implementation sequence and allows identifying internal possibilities of its activation. The developed scientific and practical recommendations for assessing the economic activity of enterprises will increase of this process organization efficiency; improve its methodological support and provide scientific substantiation of options for management decisions for sustainable economic growth providing, value and cost of the enterprise.

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