Essence, approaches to assessment and interrelation of the total economic and financial potential of agro-food sector companies

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Received: July 26, 2022 | Revised: August 02, 2022 | Accepted: September 27, 2022

JEL Classification: Q17, Q18.

DOI: 10.38188/2534-9228.22.3.01

Abstract
The study found that the competitiveness of companies in the agro-food sector is determined by its total economic potential, by which we mean the availability of resources at its disposal that allow organizing the efficient production of goods in order to meet market needs and ensure sustainable development of the company under changing external and internal environment. The total economic potential of companies in the agro-food sector structurally consists of many types, components of the potential, closely interconnected and aimed at achieving the set goals. In the structure of the total economic potential of companies in the agro-food sector, the following structural elements should be distinguished: material, intellectual, information technology, innovative and financial potentials. A systematic study of the total potential of companies or its individual elements is the basis for making effective management decisions and their sustainable development. The author’s definition of the category "total economic potential of the agro-food sector companies" is given and can be explored: as actually achieved (resource, productive), which characterizes the level of use of the company’s capabilities; and as a promising (target) economic potential—these are the potential capabilities of companies at the expense of resources that are not used at a given time due to various circumstances, but which can be achieved by improving management.

Keywords: agro-food sector, economic potential, sustainable development, information technology, financial potential, resource, productive.

Introduction
Currently, there are no unified approaches to the interpretation of the economic essence of the concept of "company’s economic potential", its structure, approaches to evaluation are not defined. In the scientific literature, there are distinguished resource, productive, promising (target) approaches to the interpretation of the company’s economic potential, and they should be used depending on the tasks set. If we evaluate the state of company’s economic potential in the agro-food sector at a particular point in time, then the resource approach should be used. At the same time, potential assessment should be made in terms of available resources (the volume and structure of fixed assets, the number and structure of employees, their professional composition, the availability of information resources, etc.).

If managers are interested in the problem of achieving certain goals for the companies development in the agro-food sector, then it is reasonable to use an effective approach, when not only the amount of available resources is evaluated, but also the results of the efficiency of their use (production volume, gross income,
A promising (targeted) approach to the economic potential of agro-food companies should be used in the strategic planning of their development. In this case, it is necessary to compare the existing economic potential and the one required to achieve strategic goals and develop a set of measures for its development.

The use of other structural elements of the total economic potential of the agro-food sector companies (market, organizational, marketing, logistics, export, etc.) is advisable when solving specific, narrower tasks of analyzing their activities.

The objective is to study the essence, methodological assessment approaches and interrelation of the total economic and financial potential of the agro-food sector companies, creating initiatives for their improvement and development.

**Material and methods**

At the present stage of economic development, the total economic potential of agro-food companies reflects the following aspects of their functioning: the company owns certain resources (industrial, labor, financial, etc.) that are used in the production of goods and services; building the potential of the companies is a complex dynamic process focused on maximum interaction with the external environment; the company, using available resources, is able to satisfy the financial needs of various entities in quality products, to ensure efficient production and marketing of products; the availability of resources and their efficient use for the production of competitive products makes it possible to implement the concept of sustainable development; management has the skills and abilities to effectively use available resources (economic potential) to achieve the goals set, responding in a timely manner to changing market conditions; the economic potential is the subject for management and the results of the efficiency of the company's activities depend on the effectiveness of potential management; management practice takes into account short-term and long-term development goals; the economic potential should be developed under the influence of the conditions of the external and internal environment to ensure the competitiveness and sustainability of companies.

Within the study, general scientific methods of analysis and synthesis, generalization, comparison, abstract-logical analysis, etc. were used.

**Results and discussion**

Application of a systematic approach to the concept of "total economic potential" makes it possible to reflect stable, necessary, objective, significant causal relationships aimed at structural subordination, consistency of the elements of this system, the interaction of development and improvement of technological, economic, social, environmental and functional processes, streamline processes of interaction and interconnection.

Management of the development of the total economic potential of the agro-food sector companies is a response of management to changes in the external environment and is determined by the concept of their development, which sets the objectives, organizational structure, composition and level of development and use of its structural elements. It should be noted that the financial potential is the most important structural element of the total economic potential of the agro-food sector companies. In modern economic literature, there are various definitions of the "financial potential" concept. Various options for determining the financial potential emphasize the versatile nature of this form of company's potential. Most authors refer financial potential to financial resources. L.V.
Davydova, N.N. Sokolova note that this is the maximum possible amount of financial resources that is rationally formed and effectively used to generate income and ensure its sustainable development (Davydova, L.V., Sokolova, N.N., 2022), T.N. Tolstykh, E.M. Ulanova refer it to the availability of financial resources necessary for the normal functioning of the company, expediency of their allocation and the efficiency of use (Tolstykh, T.N., Ulanova, E.M., 2004)., A.G. Kankia refers it to the ability of available resources to generate income for the company at a certain point in time (Kankia, A.G., 2013), V.S. Saltanov considers it as a set of available financial resources of the company, the possibility of attracting additional resources and an effective system for managing them, the use of which will lead to maximization of the financial results of the company (Saltanov, V.S., 2022), I.G. Britchenko states that it is the volume of own, borrowed and raised financial resources of a company, which it can operate for the implementation of current and prospective costs (Britchenko, I.G., 2005), V.O. Kuntsevich defines it as a set of available financial resources, the ability of the system to raise them and effectively manage them to achieve tactical and strategic goals (Kuntsevich, V.O., 2009), I.V. Barsegov thinks that the basis of the financial potential is the total of own and raised financial resources, that is, the funds that are at its disposal (Barsegova, I. V., 2011).

According to the author's approach, financial resources are the used part of the financial potential, that is, cash income and savings received by the company from the use of available resources. The financial potential of the agro-food company reflects the possibility of attracting and using own and borrowed financial resources to ensure the production of goods and services in order to meet market needs and sustainable development.

The financial potential provides an opportunity for development, improvement of the total economic potential in the process of company's operation in the agro-food sector (Figure 1).

**Figure 1. Interrelation between the total economic potential and the financial potential of the agro-food sector company**

Source: suggested by the author

Economic science offers various approaches to the formation of a comprehensive assessment of the companies total economic potential. At the same time, it is necessary to specify its structural elements, taking into account the type of activity, and then draw up a calculation algorithm by evaluating them. The main methods for assessing various structural components of the companies potential are expert and scoring methods, rating comparative analysis, factor analysis, etc.

At this stage, there is no specialized economic analysis aimed at assessing the companies’ potential. In this regard, the expediency of using potential analysis (as a new type) is substantiated, the main concepts of its implementation are determined, based on the process of manifestation of various structural elements of the potential. The technique of potential analysis can use (depending on the subjects, goals and objectives) all methods of economic analysis with a clear distinction according to the
selected modal criteria and directions (Grechina, I.V., 2016).

According to various scientists, the analysis of economic potential should be carried out in the context of production and financial potential (Fomin, P.A., 2006; Tolstykh, T.N., 2004; Davydova, L.V., Chumakova, A.V., 2010). At the same time, the financial potential is assessed using a variety of financial ratios, through possibility to raise additional capital, according to the effectiveness of the financial management system. The analysis is carried out with the assignment of potential levels for each evaluation indicator: high, medium or low. The overall level of economic potential is determined through an expert method by the most significant indicators.

Methods for assessing the level of financial potential of the agro-food sector companies includes a number of stages. The first stage is the determination of the level of companies’ financial potential and its characteristics (Table 1).

**Table 1. Characteristics of the levels of companies’ financial potential**

| Levels | Brief Description                                           |
|--------|------------------------------------------------------------|
| High   | Efficient operation of the company, stable financial position |
| Medium | The efficient operation of the company, its financial situation depends on the factors of the internal and external environment |
| Low    | Unstable financial situation                               |

Source: build by the author

The second stage is an assessment of the financial potential of the agro-food sector companies according to the selected indicators. At this stage, an express analysis of the main indicators characterizing the liquidity, solvency and the financial stability of the company is carried out. Taking into account the variety of financial processes, many financial ratios, the difference in their deviations from the actual values, we will perform an integral rating assessment of the financial potential of the agro-food sector companies.

This type of assessment includes preparatory and calculation stages. The preparatory stage involves development of a system of performance indicators, determination of their threshold values in order to determine the level of companies financial potential (Table 2).

**Table 2. Rating assessment of the company’s financial potential**

| Indicators                                           | High level | Medium level | Low level |
|------------------------------------------------------|------------|--------------|-----------|
| Financial Independence Ratio                        | >0.5       | 0.3-0.5      | < 0.3     |
| Liability Coverage Ratio                            | >2.0       | 1.0-2.0      | < 1.0     |
| Ratio of Receivables and Payables                   | >0.8       | 0.4-0.8      | < 0.4     |
| Solvency Ratio on current liabilities, months       | < 4        | 4-6          | >6        |
| Return on Sales, %                                   | >0.1       | 0.05-0.1     | < 0.05    |
| Return on Equity, %                                  | >0.5       | 0.1-0.5      | < 0.1     |
| Share of borrowed funds in the total amount of sources, % | < 0.5       | 0.7-0.5     | >0.7    |
| Share of unobligated assets in current form, %       | >0.26      | 0.1-0.26     | < 0.1     |
| Share of accumulated capital, %                      | >0.1       | 0.05-0.1     | < 0.05    |

Source: build by the author

The calculation stage includes the determination of indicators characterizing the level of the company’s financial potential (Table 3).
Table 3. Initial data for assessing the level of the company’s financial potential

| Indicators                        | 2019   | 2020   | 2021   |
|----------------------------------|--------|--------|--------|
| Financial Independence Ratio     | 0.22   | 0.24   | 0.17   |
| Liability Coverage Ratio         | 0.67   | 0.58   | 0.59   |
| Ratio of Receivables and Payables| 2.26   | 1.93   | 2.12   |
| Solvency Ratio on current liabilities, months | 4.35   | 4.21   | 4.95   |
| Return on Sales, %               | 0.001  | 0.06   | 0.007  |
| Return on Equity, %              | 0.04   | 0.26   | 0.04   |
| Share of borrowed funds in the total amount of sources, % | 0.76   | 0.76   | 0.83   |
| Share of unobligated assets in current form, % | 0.25   | 0.24   | 0.27   |
| Share of accumulated capital, %  | 0.07   | 0.01   | 0.004  |

Source: build by the author

Further the actual values of financial ratios are compared with a scale that characterizes the levels of the company’s financial potential according to these indicators. To assess the level of the company’s financial potential (I), the integral factor is calculated according to the formula:

\[ I = \sqrt[3]{K_1K_2K_3} \]  \hspace{1cm} (1)

where: \( K_1 \) is a Liability Coverage Ratio;
\( K_2 \) is a Return on Sales Ratio;
\( K_3 \) is an Asset Turnover Ratio.

The integral assessment of the level of company’s financial potential is given in Table 4.

Table 4. Integral assessment of the company’s financial potential level

| Indicators                        | 2019 | 2020 | 2021 |
|----------------------------------|------|------|------|
| Financial potential level        | 0.03 | 0.20 | 0.07 |

Source: build by the author

The calculations performed showed that the company’s financial potential in 2017 is 0.03, in 2018 – 0.20, in 2019 – 0.07, which shows its decrease in 2021 compared to 2020.

We are making an assessment of the company’s financial potential level according to the criterion of the possibility to attract investments. The financial activity of the company is characterized by the allocation and use of funds and sources of their formation: own and borrowed capital. The basis of companies’ capital management is the management of its financial resources buildup. In order to ensure the effectiveness of managing this process, companies develop a financial policy aimed at attracting investments from various sources in accordance with the needs of its development. The possibility of ensuring the implementation of the most effective forms of capital investment aimed at increasing the financial potential depends on the investment attractiveness of the agro-food sector companies.

The company’s financial potential level, according to the criterion of attracting investments possibility, will be determined by the degree of their attractiveness to investors. Rating scale of the company’s financial potential level according to the criterion of the possibility to attract investments is given in Table 5.
Table 5. Rating scale of the company’s financial potential level according to the criterion of the possibility to attract investments

| Investments attraction possibility value in points | Level of financial potential | High financial potential level indicates the possibility of attracting investments for the implementation of investment projects | Medium financial potential level indicates the possibility of attracting investments to replenish working capital | Low financial potential level indicates the lack of opportunities to attract additional investments |
|----------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 7.5-9                                              | High                        | *                                                                                                                             |                                                                                                                                 |                                                                                                                                 |
| 7.5-9                                              | Medium                      | *                                                                                                                             |                                                                                                                                 |                                                                                                                                 |
| 7.5-9                                              | Low                         | *                                                                                                                             |                                                                                                                                 |                                                                                                                                 |
| 5-7.5                                              | High                        | *                                                                                                                             |                                                                                                                                 |                                                                                                                                 |
| 5-7.5                                              | Medium                      | *                                                                                                                             |                                                                                                                                 |                                                                                                                                 |
| 5-7.5                                              | Low                         | *                                                                                                                             |                                                                                                                                 |                                                                                                                                 |
| 0-5                                                | High                        | *                                                                                                                             |                                                                                                                                 |                                                                                                                                 |
| 0-5                                                | Medium                      | *                                                                                                                             |                                                                                                                                 |                                                                                                                                 |
| 0-5                                                | Low                         | *                                                                                                                             |                                                                                                                                 |                                                                                                                                 |

Source: build by the author

Thus, the agro-food sector companies have a high financial potential level according to the assessment criterion of the ability to attract investment.

The assessment of the financial potential according to the criterion of the effective financial management requires availability of a business plan for the companies’ development, operational and tactical management for the timely solution of problems and the achievement of goals (growth in production volumes, profits, investments). This type of assessment is carried out by an expert method and involves determining the financial potential level: high – availability of a budget planning system in the companies; medium – the availability of scheduling reports and low - the availability of a planning system through the ratio method.

Calculations have shown that the agro-food sector companies have an average level of financial potential according to the criterion of “the availability of effective financial management”, which is confirmed by the availability of scheduling reports.

A comprehensive assessment of the companies’ financial potential was carried out through an expert method based on the significance of each indicator (Table 6.).

Table 6. Matrix for identification of the company’s financial potential level

| Indicators                                    | Quantitative (rating) assessment |
|-----------------------------------------------|----------------------------------|
|                                               | C – 0.25 | B – 0.5 | A – 0.75 |
| Financial Independence Ratio                  | Low  | Medium | High |
|                                               | < 0.3 | 0.3-0.5 | > 0.5 |
| Liability Coverage Ratio                      | <1.0 | 1.0-2.0 | >2.0 |
| Ratio of Receivables and Payables             | <0.4 | 0.4-0.8 | >0.8 |
| Solvency Ratio on current liabilities, months | >6  | 4-6   | < 4  |
| Return on Sales, %                            | < 0.05 | 0.05-0.1 | >0.1 |
| Return on Equity, %                           | < 0.1 | 0.1-0.5 | >0.5 |
| Share of borrowed funds in the total amount of sources, % | >0.7 | 0.7-0.5 | < 0.5 |
Rating assessment of the company’s financial potential level (L), we use the following formula:

$$Y = \frac{\sum_{i=1}^{n} \text{points}}{n},$$

(2)

where:

- \( n \) is the number of variables (components).

The results of the company’s financial potential level rating assessment are given in Table 7.

### Conclusions

The main part of the economy is a company that manufactures products for sale on the market in order to make a profit. The agro-food sector companies must respond flexibly to changes in market conditions that occur under the influence of various external factors. The total economic potential is created and used by the company for the most complete and comprehensive development and satisfaction of needs, harmonization of the interests of all members of society.

The total economic potential of the agro-food sector companies should respond to changes in the external environment, timely modifying the structure, composition, and quality of the elements of the total potential. It must ensure a dynamic balance of the main parameters, elements of the structure based on their balanced growth and develop using the competitive advantages of companies.

The assessment of the total economic potential is a complex characteristic of the results of production activities, as it is formed under the influence of many internal and external factors, defines the state and use of resources of the agro-food sector companies. It makes it possible to determine the level and efficiency of the use of economic potential, competitiveness, identify reserves and promptly make appropriate management decisions.

The financial potential has a complex multi-level structure and the main feature for its structuring is the main directions of the operations analysis and financial reporting. The financial potential category of agro-food companies reflects two aspects: the achieved level of accumulation and use of financial resources, by which it is customary to understand the characteristics of its financial condition, financial stability, solvency,

### Table 7. Rating assessment of the company’s financial potential level, points

| Indicators                  | 2019 | 2020 | 2021 |
|-----------------------------|------|------|------|
| Financial potential level   | 0.43 | 0.44 | 0.43 |

Source: build by the author
accounting liquidity; perspective level, which includes the following components: a) reserves and hidden opportunities that will improve the current financial condition, increase its stability and financial independence; b) the maximum amount of financial resources that company can attract from the external environment to finance investment projects.

Thus, the financial potential is a complex concept and is characterized by a system of assessment indicators that reflect the availability and use of financial resources, the real and potential financial capabilities of the agro-food sector companies.

References

Davydova, L.V., Sokolova, N.N. (2022). Financial strategy and approaches to determining the company’s potential [Electronic resource]. – Access mode: http://www.1-fin.ru/?id=168. – Access date: 25.02.2022.

Tolstykh, T.N., Ulanova, E.M. (2004). Problems of assessing the economic potential of a company: financial potential // Issues of assessment. No. 4. pp. 18-22.

Kankia, A.G. (2013). Financial potential of companies’ operation [Electronic resource] // Economics and management of innovative technologies. – No. 3. – Access mode: http://ekonomika.snauka.ru/2013/03/1677. – Access date: 10.05.2022.

Saltanov, V.S. (2022). Financial competitiveness of the company / V.S. Saltanov [Electronic source]. – Access mode: http://mfpa.ru/r/about/scientific/research_centers/competition/materials. – Access date: 11.05.2022.

Brytchenko, I.G. (2005). Company’s potential management: abstract of lectures. – Donetsk: Donetsk National University of Economics and Trade, 112 p.

Kuntsevich, V.O. (2009). Concepts of financial potential // Current problems of economics.

No. 7. pp. 123-130.

Barsegova, I. V. (2011). Financial potential for the commercial sector // Journal of Economics. – Moscow: politova Publishing House, pp. 51-57.

Grechina, I.V. (2016). Theoretical and methodological foundations for the development of analysis of the economic systems potential: dissertation of the Doctor of Economics with a specialization in 08.00.05.Donetsk National University of Economics and Trade named after M. Tuhan-Baranovskyi,394 p.

Fomin, P.A. (2006). Features of assessing the economic potential of industrial enterprises // Anti-crisis and external management. No. 2. pp. 27–41.

Tolstykh, T.N. (2004). Problems of assessing the economic potential of a company: financial potential // Issues of assessment. No. 4. pp. 17–22.

Davydova, L.V., Chumakova, A.V. (2010). Methodological approaches to assessing the financial and production potential of an industrial enterprise // Scientific Bulletin. Series History, political science, economics, informatics. No.13 (84). Issue 15/1. pp. 64–71.