Economic analysis based on indicators in the company

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Abstract
The aim of the article is to show suitable and universal methods of economic analysis using the analysis of economic indicators in a combination of research methodology, which focuses on the micro and macro environment of an enterprise embedded in a vibrating, uncertain and constantly changing environment. The article shows the validity of the centrifugal and centripetal environment analysis method, which results in analytical data in the context of primary measurement and analytical data on the basis of which the analysis of financial ratios can begin. The author presented the validity of the financial result based on the economic analysis formulas for which specific values were adopted. As a result of combining the research methodology and economic analysis, a measurement and analytical tool was obtained, which forms the basis for strategic action and can be used in in-depth analysis, in which the research and analysis can be subjected to a more detailed examination and the results narrowed down or expanded to include the aspects most relevant to the company. The result of this analysis is an article that proposes a duality of both methods in terms of analysis and research. Due to the uncertain and oscillating environment, these methods can be assumed to be effective. The validity of the combination of these methods and economic indicators is extremely important and should be analysed in depth, and working with their results will provide a clear analytical picture available at every stage of the company’s development.

Keywords: economic analysis, economic indicators, strategic objectives, micro environment, macro environment, enterprise.

Introduction
The author of this publication has aimed to show the factors that support economic analysis in an enterprise based on ratio analysis. It should be noted that nowadays, in a twitching environment and many variables, subjecting to analysis and checking the expediency of a given investment or enterprise mission is a key role in terms of development, change and stability.

Proper information is necessary for the proper management of economic entities, and its absence, delay or poor quality is one of the main causes of bad decisions by managers and owners (next to the lack of adequate knowledge and experience). Information plays a key role in decision-making, especially in small and medium-sized entities that operate in dynamic markets. The information barrier is one of the main internal barriers to the development of small and medium-sized enterprises. Jaworski points out that overcoming organisational and management barriers, including the ability to acquire and use relevant information, should constitute the basic direction of supporting the development of small enterprises.

Performance is understood as any desired economic category within a company, financial and non-financial measures are used to reflect this.
Performance measurement requires the selection of appropriate measures. They allow for quantitative presentation and analysis of processes and phenomena occurring in the company (J. Jaworski, 2012).

Businesses often focus on measuring only financial metrics1 (also in the form of metrics systems, e.g. ZVEI or RL) for the following reasons:

- aiming to reduce the units of measurement used in measurement and management,
- strong pressure from financial analysts, increasing with the growth of capital markets and the increasing importance of the financial sphere of economies,
- the belief that economic categories outside accounting (non-financial) are not worthy of interest as being of little relevance to the entity. The use of financial measures facilitates communication within the entity and points to common and understandable objectives (in the form of revenue or profit levels).

They are more accessible and also more easily comparable between different entities. The literature also points out the disadvantages of a financial-based view of the performance of economic entities (W. Skoczylas, 2013).

The findings of J.H. Lingle and W.A. Schieman) indicate that managers rated the usefulness of non-financial measures such as employee productivity and customer satisfaction highly, but rated the quality and clarity of these non-financial indicators much lower, compared to financial performance.

Despite numerous advantages, consisting, inter alia, in bridging the above-mentioned disadvantages of the financial view, non-financial measures also have numerous weaknesses: high costs of data collection, the occurrence of the phenomenon of data overload, increased likelihood of the influence of random factors in achieving long-term goals, imperfect measurement methods, greater subjectivity resulting in lower reliability, difficulty in capturing causal relationships between actions taken and results (P. Waśniewski, 2014).

An extremely important aspect is the selection of an economic determinant so that its versatility and cost-effectiveness in use are maximised. The elimination of the issues of incorrect calculations, measurement errors or incorrect use of a method is a very important aspect arising from economics and corporate management.

The phenomenon of centripetal analysis of the environment, both near and far in the organisation, should also receive the highest attention. In these days of free market, the whole essence of analysis is consumed by the fact of centripetal thinking. By the statement of centripetal analysis the author means the conduct of research, economic and indicator analysis, which starts from the macro environment through the micro environment, and its analysis and usefulness ends in the structures of the company.

This analysis is able to provide appropriate strategic planning on many levels, starting with marketing planning, market analysis (supply and demand) and market capacity, economic analysis, profitability, and ending with strategic planning for the development of the company.

**Material and methods**

**Research methodology, acquisition of analytical data**

In order to carry out the data analysis effectively and in-depth using the research methodology, the author created for the purposes of the above article an appropriate, according to the author, selection of research methodology aimed at approximating the data collected as a result of the research and its ease of analysis.

Analytical expediency is rooted in the complexity of the problem, which is the analysis of primary data, so that their identification, analysis and results are identical to the purpose and main thesis of the research carried out.
Using the deskresearch method, the author divided the study into two groups: external, and internal.

- **Internal research** is the best starting point for any organisation. Much information is generated internally during the normal process of an organisation. Internal research incorporates existing organisational resources and organises the collected data in an efficient and useful manner. This research has low cost and high efficiency due to internal resource management.

- **External research** is conducted across organisational boundaries. Data and information is gathered from the internet, reviewed and selected. Often government data is used, of which huge amounts are published. This data is related to economic, social and financial aspects and the websites are usually free and contain reliable information. Another way of external research is the customer survey. This is a very valuable way because direct communication with a customer or potential customer gives valuable feedback.

The author also chose the benchmarking method as a comparative source of companies from different sectors to obtain information on the effectiveness and profitability of using the project method in management.

Benchmarking is divided into:

- **Typical phases of the benchmarking process:**
  - a selection of issues to compare;
  - development of an analysis plan and selection of data collection methods;
  - identifying model companies;
  - data collection;
  - comparison of data, analysis, preparation of recommendations;
  - developing a plan for change;
  - introduction of changes;
  - honouring the works;
  - to repeat this process after taking into account the changes.

- **Typical phases of the process according to Brilman:**
  - selecting the process to be benchmarked;
  - getting to know and detailing the process so far;
  - the creation of a team comprising the staff involved in the process;
  - choosing a partner with whom to make a comparison.

### Types of benchmarking

1. **Internal** - looking for the best in our company and following this (e.g. through departments, subsidiaries);
2. **external**, known as competitive - comparing with competitors in its own industry, placing itself against their background; the disadvantage is the difficult availability of sources;
3. **functional** - looking for a model in other companies carrying out the same function, e.g. logistics department, accounting department, etc., the need to adapt to one's own needs; advantage: many improvements, disadvantage: the need for considerable adaptations in order to apply the conclusions at home;
4. **general** (Americans only).

Considering the research methodology presented in the article above, it should be noted that the matching of the primary data acquisition method is an extremely important aspect. According to the author, the benchmarking method is a universal method, and in combination with a survey questionnaire it constitutes an inseparable whole in the context of obtaining analytical data.

A very important aspect is also the centripetality of the market analysis based on the research methodology. In order to increase the effectiveness of the analytical data, the author also proposes the use of a two-track method of data collection. Using the centripetal method and the method from the middle, and at a later stage of data analysis comparing the results, these methods become an effective analytical tool, a comparative tool and a determinant in making strategic decisions in enterprises developing in a turbulent environment.

### Economic indicators in the analysis

As a result of the analysis of the economic, financial indicators available in the literature, the author has selected those which, according to the author, correspond most to a beneficial analysis of the data, and their use is the core of
strategic planning in the company, and thus allows for development.

The author considers as the most effective those which in their application allow the researcher to obtain a clear and transparent result and, moreover, in the effectiveness of the results, provide a foundation for decisions based on the micro and macro environment, which, depending on the research methodology used, centripetal or centrifugal, or the duality of these methods, are the most effective operational-strategic tools.

Financial result is one of the basic economic parameters, the determination and presentation of which is given much attention and space by accounting. This has its source in the functions this category fulfils in the economy. The result determined on the operational level - in the semantic aspect - is a measure of achievements of the economic entity, determines the effectiveness of management. The emphasis is placed here on the performance of the fiduciary function. In the structural aspect, this figure reflects the effects of economic transactions - internal, occurring within the entity (e.g. consumption of production factors in the process of providing services) and external, occurring in relations with the environment (e.g. purchase of materials, sale of finished goods). Assets/liabilities are valued at historical cost, and any revaluations of resources made at the balance sheet date are charged to equity outside the income statement. The principles of realisation and prudence prevail, and a reliable representation of economic reality is struck from the features of information. The possibilities of manipulating the amount of the result are rather small - since accounting policy is limited to reflecting the rate of consumption of resources (e.g. through depreciation methods and rates or rules for valuing material outgoings). Moreover, we observe here a close connection between balance sheet regulations and tax law, hence the insignificance of deferred tax (E. Hendriksen, M. van Breda, 2002).

Thus, when characterizing the reasonableness of the financial result in the ratio analysis, it should be taken into account that each enterprise in its complexity is a profit-oriented economic entity, and each action taken within the organization is aimed at improving the financial condition of the organization. It should also be noted that the financial result is the last process of evaluation and the final determinant, while the economic analysis made during the analysis of the financial result gives a wide spectrum of knowledge about the validity of the decisions taken at the levels of strategy, mission and purpose.

In order to understand the rationale behind the topic, the author has taken the liberty of describing the rationale of the financial result and has taken into account the key elements used in the analysis. On the basis of the decisions made, the author has adopted a breakdown, which has been presented by means of formulas that give a statistical picture of the results of the economic analysis.

The quality of the financial result determines the severity of its four key characteristics:
1) liquidity,
2) reality,
3) Stability,
4) decisiveness, expressed by means of appropriate indicators.

By liquidity we shall mean the share of the cash element in the total result measured by the ratio:

\[ PWF = \frac{CF}{WC} \]

where: PWF - liquidity of financial result, CF - cash flows from operating, investing and financing activities, WC - total result. This measure illustrates the overall ability of the overall result to generate cash flows.

It will be the higher the less accrual components are in the result, especially revaluations. The reality of the financial result narrows the assessment of liquidity to its most "hard" elements - profit/loss on continuing and non-recurring transactions:

\[ RWF = \frac{CF_{CJ}}{WT_{CJ}} \]
where: RWF - reality of the financial result,
CFCJ - cash flows from continuous and non-recurring transactions,
CCTJ - financial result on continuous and non-recurring transactions.

The ratio depends mainly on changes in receivables and the depreciation policy. A value close to unity means that the entity minimises the share of non-revaluation accruals in the financial result. The third characteristic of the financial result - stability is the ability to reproduce it in subsequent reporting periods. This is expressed by the formula:

$$SWF = \frac{WTC}{WC}$$

where: SWF - stability of the financial result,
JTC - result on continuous trading,
WC - total score, as in formula (1).

The entity’s performance objective should be a SWF value close to unity. This is because it means that the result comes mainly from the core operating activities and is therefore distinguished by its predictability (predictability). The decision-making ratio of the financial result informs about that part of the result which arose in the current year and the company’s management had a direct influence on its amount:

$$DWF = \frac{WC - K}{WC}$$

where: DWF - financial result decision-making,
K - corrections of prior years' errors, effects of changes in accounting policies, accrual components including revaluations over which management had no influence (including the effects of changes in foreign exchange rates at the balance sheet date),
WC - total score, as in formula (1).

The data used for the calculation of the aforementioned indicators - the financial result established at various levels and cash flows - may take both positive and negative values. Hence, a full interpretation of the obtained results is only possible in conjunction with source information indicating which of the underlying parameters has a negative value (J. Gierusz, J. Gawrońska, 2012).

Results and discussion

As a result of the combination of the research methodology presented by the author and the analysis of economic indicators, the duality of the analytical method included in the article provides opportunities that are characterised by decision-making speed, effectiveness and efficiency in intra-organisational decisions.

Recognising the duality of the centripetal and centrifugal methods, using the economic indicators presented, the analytical data is reliable and the analytical results are objective and present the current situation of the micro and macro environment of the company performing the analysis and research.

A company’s strategy is not complete if it is not translated into a list of concrete projects and undertakings. Each strategic goal (e.g. increasing market share, reducing costs, improving profitability) requires specific and well-thought-out actions (E. Sonat-Drączkowska, 2012). Unfortunately, many variables must also be taken into account in the development planning process. Very often, these are variables that the entrepreneur has no real influence on and are caused by changes in the global economy.

As a result of the analysis of secondary data and empirical research, the author analysed the total sold production in the Polish economy,
which resulted in a significant decrease in sales and production in industry and trade. This is due to the outbreak of a pandemic which has significantly affected the economy of the whole world. An uncertain, oscillating and turbulent environment does not create an easy environment for economic development and growth. However, in the midst of all the ongoing changes, in the author’s opinion, there is an opportunity for growth for a company that conducts analysis and focuses on development in a sustainable manner.

The diversification of sources of income, supported by a number of planning and analytical activities, which, in their complexity, have repeatedly proved to be very important activities for the economic development of the organisation, has proved to be a very important fact.

Market research, i.e. a set of activities consisting of collecting information on phenomena and processes on the market, their causes, current state and development trends (G. Churchill, 2002), allow for continuous self-improvement of enterprises.

The greater the knowledge of the micro and macro environment in the enterprise, the greater the awareness of the organisation of the changes taking place and the need to adapt to them, the easier, faster and more efficient will be its adaptation and development.

Multi-faceted activities of organisations also require appropriate management of a portfolio of already started projects or studies. Analysing the situation of contemporary organisations, it should be stated that an increasing number of them operate in a multi-project environment, which means that they usually implement not one project, but a programme or a portfolio of projects. The difference between a portfolio and a programme boils down to the fact that a programme according to the PMI Standard is formed by a group of related projects, coordinated and controlled in such a way as to achieve benefits that would not be possible if each project was managed individually (Third Edition PMI, 2008).

The purpose of a programme is more comprehensive than that of a single project and is concerned with overall changes in the organisation, so programmes generally follow decisions that initiate undertakings of high strategic importance” (P. Martinsuo, P. Lehtonen, 2007).

**Conclusions**

As a result of combining the research methods presented in the above article together with the indicators of economic analysis, a tool was obtained that allows for an accurate and effective analysis of the company’s environment. Using the combination indicated in the above article, an enterprise subjecting to analysis of primary data or secondary data coming from the closer or further environment with the application of duality of the centrifugal and centripetal method, according to the author, the organization has a better chance to make its development properly directed and effective.

As a result of the analysis of the available methods, data and metadata, the author
selected the methods and economic indicators that, in his opinion, are most suitable for a vibrating environment, which, due to its turbulence and constant change, is considered an uncertain environment.

The application of these methods allows for the sustainable development of the company and the diversification of its sources of income and profit, while at the same time the multifaceted analysis provides a collection of data and its analysis in many market aspects. Thus contributing to improving, securing and increasing the efficiency of intra- and extra-organisational operations.

In this environment, speed, ease and efficiency in adapting to the changing economic market and thus increasing adaptability to all kinds of economic change are proving to be extremely important.

Using methods, data and economic indicators, the author can clearly state that organisational changes dictated by market volatility will be more readily accepted and implemented in companies focused on efficiency, profit and economic development.

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