

Компанії, які дотримуються цих принципів, мають на меті не тільки покращити репутацію свого бренду, але й покращити довгострокові фінансові показники шляхом зменшення ризиків і використання нових можливостей. Для фінансових аналітиків, які впроваджують сучасні тенденції, розуміння того, як ESG впливає на корпоративну цінність, буде вирішальним в бізнес-середовищі, яке орієнтується на сталий розвиток.

Література:

1. ESG and Financial Performance.
https://www.stern.nyu.edu/sites/default/files/assets/documents/NYU-RAM_ESG-Paper_2021%20Rev_0.pdf
2. Fu T and Li J (2023), An empirical analysis of the impact of ESG on financial performance: the moderating role of digital transformation. *Front. Environ. Sci.* 11:1256052. doi: 10.3389/fenvs.2023.1256052
3. ESG IN EQUITY ANALYSIS AND CREDIT ANALYSIS
<https://www.unpri.org/download?ac=4571>

CLASSIFICATION AND PRINCIPLES OF MONITORING OF IT MARKET FACTORS

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In the context of Industry 4.0 and 5.0, the IT industry plays an important role in ensuring stable economic development at the global level. In Ukraine, the IT industry continues to develop despite Russia's full-scale military invasion. It is important to analyse the approaches to identifying the market-forming factors of the IT market development, which will allow determining the theoretical foundations of its development.

Market-forming factors are divided into groups classified according to the following characteristics: duration, vulnerability to economic cycles, relevance to the object of study and aspects of the market mechanism, regulatory capacity, nature of influence, predictability, homogeneity of dynamics, source of origin, closeness of connection and nature of information. Each factor can be assessed from the perspective of all of the above features, which complement each other without losing their uniqueness. Such a classification makes it possible to study in detail the dynamics of a group of factors, both individually and in their totality, and as a result to assess the level of variation (fluctuation) of market processes.

A full deterministic analysis of market conditions involves studying the impact of market-forming factors on its state, which is reflected through market conditions indicators. The dependence of market conditions indicators on market-forming factors can be determined using a model that reveals the state of market development in response to changes in market-forming factors [1]:

$$Y_j = f(X_i) \quad (1.1)$$

де X_i – market-forming factors,

Y_j – market indicators.

Researching market conditions based on a wide range of indicators is time-consuming, in particular, while theoretically a researcher can cover a large number of indicators to obtain a deep and comprehensive understanding of the market conditions, in practice, he or she is limited in time to systematise and analyse them. However, consideration of a limited number of indicators will not be able to provide a full assessment of the significance of market-forming factors and the development of the market itself. For the most part, studies based on a limited number of indicators

are subjective and are gaining popularity among marketing analytics firms. On the example of the IT market, let us consider the system of indicators of its situation, which has 4 main blocks: supply, demand, prices for goods and directions of development [2].

The main indicator of market conditions that reflects the behaviour of IT-producers is supply. Its components are the volume of manufactured and imported products, as well as inventory reserves [5]. It is worth noting that supply and demand are closely interrelated, and there are several definitions that reveal the relationship between them, in particular: supply is formed on the basis of demand, taking into account the needs of consumers for certain products, producers decide what to produce in order to make a profit and at the same time satisfy the desires of buyers; supply affects demand, as a new unique product on the market can attract the attention of buyers with its attractiveness and thereby affect the behaviour of producers, which will lead to an increase in volumes in the market. When analysing market conditions from the perspective of the supply side, it is important to pay attention to the indicators of industrial production (natural and value criteria of production, indices, growth and growth rates, production and raw material potential, amount of funds raised, export and import volumes, production utilisation), the level of monopolisation and intensity of competition (distribution and type, concentration of producers in the market). Demand is the second indicator in the system of indicators of IT-market conditions. In general, it is the interest of consumers in purchasing a particular product to satisfy their basic needs and/or desires. The main indicators of demand that are considered in the study of market conditions are its volume, structure and dynamics of changes, capacity, segmentation and differentiation, and the level of dependence of demand elasticity on marketing drivers. The formation of market prices for goods is a complex and multifunctional process. The main feature of prices is their constant change, which directly affects the behaviour of buyers and producers in the market. Price and quantitative indicators of the proportionality of market development, which include variational and dynamic price indicators and turnover (changes in the movement of goods are a manifestation of the market mechanism), play an important role in conducting a detailed market analysis [2].

The initial block of the system of indicators of market conditions is the results of the study of the current state (level of stability and cyclicity), together with further directions of development. Since market conditions are constantly changing under the influence of various factors, it is important to assess their state during spontaneous events by analysing the dynamics of changes in the market over a certain period. The result of such an analysis may be the identification of cyclicity, and the Ukrainian economy uses the seasonal cyclicity indicator [3].

The study of the main indicators of the commodity market conditions system provides a complete picture of the functioning of the market mechanism, which allows determining the main prospects for its further development and current state [2].

The analysis of market conditions also requires a study of the totality of its constituent components, so it is important to review the principles of monitoring market-forming factors. In general, monitoring of market conditions, as well as the analysis itself, is appropriate when it is necessary to investigate the state of the market situation, which concerns the impact of external factors on a business entity in a certain period of time. Therefore, much attention should be paid to the principles of monitoring, which allow assessing the impact of economic, political, and social factors on market conditions.

The principles of monitoring market-forming factors include [1-3]:

- The principle of objectivity, the essence of which is revealed through the importance of taking into account all key indicators of the market conditions under study, as well as refraining from forming specific conclusions until all the information collected is fully analysed.
- The principle of accuracy, which determines how clearly the research task is formulated, and the choice of research methods is justified and will allow to solve the tasks.
- The principle of detail is based on a detailed consideration of the stages of research planning and provides high-quality conditions for its conduct in the future.

- The development of a comprehensive system of goals is ensured by the principle of focus. The main idea is that achieving small, partial goals is important for achieving the overall key goals, in particular, this indicates the hierarchical nature of the system.

- The efficiency principle assesses the level of achievement of the set objectives and the prospects for improving the economic efficiency of enterprises identified in the course of the study.

Before and during the analysis of market conditions, great attention should be paid to the classification and monitoring of its formative factors, since knowledge of the current state of the market situation is not enough to form a complete picture of the market and determine the prospects for its further development.

References:

1. Tsahat, C. and Ndzeli, N. (2023) Assessment of Trends in the Development of the It Market. Open Journal of Applied Sciences, 13, 1111-1118. doi: 10.4236/ojapps.2023.137089.
2. Purchase, S., & Volery, T. (2020). Marketing innovation: a systematic review. Journal of Marketing Management, 36(9–10), 763–793. <https://doi.org/10.1080/0267257X.2020.1774631>.
3. Fuentes-Blasco, M., Moliner-Velázquez, B., Servera-Francés, D. and Gil-Saura, I. (2017), "Role of marketing and technological innovation on store equity, satisfaction and word-of-mouth in retailing", Journal of Product & Brand Management, Vol. 26 No. 6, pp. 650-666. <https://doi.org/10.1108/JPBM-07-2016-1279>

THE ROLE OF BLOCKCHAIN TECHNOLOGIES IN FINANCIAL FLOW MODELING AND RISK MANAGEMENT IN BIOMEDICAL ENGINEERING

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A distributed database known as blockchain guarantees that information is stored in a structured format consisting of interconnected blocks. Each block includes a collection of transactions along with metadata, which features the hash of the preceding block, a timestamp, and a nonce (a number utilized for hash creation). As a decentralized system, blockchain has copies of its database stored across numerous computers (nodes) globally. This structure enhances the system's resistance to failures and attacks, since modifying data necessitates control over a majority of the nodes. To incorporate a new block into the chain, participants in the network must achieve consensus, which can be accomplished through different algorithms like Proof of Work or Proof of Stake. These methods validate legitimate transactions prior to their inclusion in the blockchain [1].

The potential of blockchain technology to revolutionize financial flow modeling is substantial, as it enhances transparency, security, and efficiency in transactions. A significant benefit lies in its decentralized and unchangeable storage, which preserves real-time records of every transaction, thus diminishing the necessity for verification and improving regulatory oversight. This level of transparency enables all participants in financial flows to access common information, thereby reducing discrepancies and the need for reconciliation. Every transaction is linked to earlier ones and timestamped, resulting in a clear audit trail that can be effortlessly monitored [1, 2].

In addition to promoting transparency, blockchain technology boosts security by utilizing cryptographic techniques that safeguard transaction integrity and defend against tampering. A consensus mechanism verifies each transaction, necessitating agreement among network participants