INNOVATIVE APPROACHES TO COST OF CAPITAL MANAGEMENT IN MODERN ENTERPRISES

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ІННОВАЦІЙНІ ПІДХОДИ ДО УПРАВЛІННЯ ВАРТІСТЮ КАПІТАЛУ НА СУЧАСНИХ ПІДПРИЄМСТВАХ
The article is devoted to the study of innovative approaches to managing the cost of capital at modern enterprises with the aim of deepening their comprehensive understanding for the possibilities of practical application. A historical review of existing research on traditional approaches to cost of capital management, such as the capital asset pricing model (CAPM), weighted average cost of capital (WACC), discounted cash flow method (DCF), is given, with an emphasis on theoretical and practical limitations of their application, which is the topic discussion in modern scientific literature.

Innovative approaches to cost of capital management include real options analysis (ROA), socially responsible investing (SRI) and blockchain-based financing. These innovative approaches have the potential to provide more accurate and efficient methods of measuring and managing the cost of capital, leading to better investment decisions and financial results for companies. The ROA approach can be used to obtain a more accurate estimate of the cost of capital by incorporating factors such as flexibility and uncertainty. SRI involves taking environmental, social and governance factors into account when making investment decisions, while blockchain-based financing is a new technology that provides secure and transparent financing and investment operations. Examples of the application of innovative approaches in various industries and contexts, including energy, extractive industry, pharmaceuticals, agriculture, and real estate, are given.

A comparative analysis of the three approaches described above based on defined criteria (complexity, accuracy, flexibility, cost, regulatory and legal features, accessibility, potential for innovation) suggests that each of them has potential advantages and limitations, and that effectiveness is not constant. amount, but may vary depending on the specific context and circumstances of the company. Companies should consider these criteria when choosing an approach to managing the value of capital, and may consider a combination of these approaches to effectively manage their organization's value in a rapidly changing business environment.
Blockchain-based financing can revolutionize the way financial transactions are conducted, providing greater efficiency, security and accessibility. While there are still regulatory and technical challenges to be resolved, the growth and development of blockchain-based financing is likely to continue in the coming years.

The article is devoted to the research of innovative approaches to capital cost management in modern enterprises with the aim to deepen their comprehensive understanding for practical application opportunities. The presented historical overview of existing research on traditional approaches to capital cost management, such as the model of capital asset pricing (CAPM), weighted average cost of capital (WACC), method of discounted cash flows (DCF), with an accent on theoretical and practical limitations of their application, which is the subject of discussion in modern scientific literature.

The innovative approaches to capital cost management are considered: real options analysis (ROA), socially responsible investment (SRI) and financing based on blockchain. These innovative approaches have the potential for providing more accurate and effective methods of measuring and managing capital costs, leading to better investment decisions and financial results for companies.

The approach ROA can be used to achieve a more accurate assessment of capital cost by including such factors as flexibility and uncertainty. SRI foresees the consideration of ecological, social and management factors under the time of investment decisions, while the new technology of blockchain ensures safe and transparent financing and investment operations.

The conducted comparative analysis of the three approaches described above is based on the defined criteria (complexity, accuracy, flexibility, cost), including energy, extractive industry, pharmaceutical, agriculture, real estate. The presented case studies of the use of innovative approaches in different industries and contexts, including energy, extractive industry, healthcare, agriculture, real estate.
регуляторні та правові особливості, доступність, потенціал для інновацій) говорить про те, що кожен із них має потенційні переваги та обмеження, а ефективність не є сталою величиною, а може змінюватися залежно від конкретного контексту та обставин компанії. Компанії повинні враховувати ці критерії при виборі підходу до управління вартістю капіталу, а також можуть розглянути комбінацію цих підходів для ефективного управління цінністю своєї організації в бізнес-середовищі, що швидко змінюється.

Фінансування на основі блокчейну може революціонізувати способ проведення фінансових операцій, забезпечуючи більшу ефективність, безпеку та доступність. Хоча все ще існують нормативні та технічні проблеми, які необхідно вирішити, зростання та розвиток фінансування на основі блокчейну, ймовірно, триватиме в найближчі роки.

Keywords: cost of capital management, capital asset valuation model (CAPM), weighted average cost of capital (WACC), innovative approaches to cost of capital management, discounted cash flow method (DCF), real options analysis (ROA), socially responsible investing (SRI), blockchain-based financing.

Ключові слова: управління вартістю капіталу, модель оцінки капітальних активів (CAPM), середньозважена вартість капіталу (WACC), інноваційні підходи до управління вартістю капіталу, метод дисконтованих грошових потоків (DCF), аналіз реальних опціонів (ROA), Соціально відповідальне інвестування (SRI), фінансування на основі блокчейну.

Statement of the problem in a general form and its connection with important scientific or practical tasks. The cost of capital is an important factor in determining the financial health and success of a company. It represents the required rate of return that investors demand to provide the necessary financing. Managing the cost of capital is a key process for enterprises as it helps to evaluate
investment opportunities, determine optimal capital structure, and maintain overall financial stability of the company.

There is a significant amount of scientific literature that discusses various approaches to managing a company's cost of capital. These include approaches based on discounted cash flow analysis, the use of CAPM (Capital Asset Pricing Model), and WACC (Weighted Average Cost of Capital). These approaches have a fairly long history, are widely used, and can therefore be referred to as traditional or even classical.

Modern research on traditional approaches is primarily focused on their theoretical and practical limitations. These include the complexity of evaluating and forecasting cash flows, limitations on available data and analytical tools, as well as the fact that traditional approaches do not take into account certain risk factors such as political risk, market risk, environmental risk, social risk, etc., and may inaccurately reflect the true cost of capital. It is argued that traditional approaches do not provide a complete picture of a firm's cost of capital because they only take into account the cost of equity and debt capital.

Due to rapid changes in the business environment and the emergence of new technologies, innovative approaches to managing the cost of capital are becoming increasingly relevant. Therefore, in recent years, more attention has been paid to researching alternative methods of determining the cost of capital and innovative approaches to managing it. In addition, there's a growing interest in using blockchain technology and tokenization to raise capital and manage the value of capital.

*Analysis of recent research and publications.* In scientific works by both domestic and foreign experts, the assessment of a company's capital value is considered one of the fundamental questions of financial management and is widely covered in the works of R.A. Brealey, L. Gapensky, J.R. Graham, C.R. Harvey, A. Damodaran, E.F. Fama, K.R. French, W.F. Sharpe, S.C. Myers, I. Blank, O. Babyi, N. Brezitska, T. Teplova, V. Kovaliov, O. Mendrul, O. Stashchuk, Ye. Stoyanova, O. Tereshchenko, H. Shvydannenko, N. Shevchuk, L.
Kovalenko, L. Remn'ova, and others. Existing research has provided valuable information on the theoretical and practical aspects of this important field of finance.

While traditional approaches have been extensively studied, recent research by scholars such G. Badía, L. Ferruz, M.C.Cortez, M.Swan, D.Yu Shestakov., N.M.Sokolova, L.Trigeorgis, Khmur N.Yu., Rud O.O. and others has emphasized the potential advantages of innovative approaches and the need to continue researching new approaches, methods, and tools.

**Formulation of the article's objectives (task statement).** The aim of the article is to investigate innovative approaches to managing capital value in modern enterprises, which will deepen their comprehensive understanding of the possibilities of practical application.

**Presentation of the main research material.**

A review of existing research on traditional approaches to cost of capital management.

Cost of capital management is a fundamental aspect of financial management for firms. This has been extensively researched in the academic literature, with an emphasis on the development of methods and techniques to accurately measure and manage the cost of capital. There are many scholars and researchers who have contributed to the literature on capital management costs. Modigliani and Miller's (1958) seminal article on capital structure is often cited as the starting point for cost of capital research. Their paper presented the idea that, under certain assumptions, the value of a firm does not depend on its capital structure. Although their research focused on capital structure rather than the cost of capital, they laid the foundation for further research on how firms determine and manage their cost of capital. [1]

One of the early and influential contributions to the field of cost of capital management was the Capital Asset Pricing Model (CAPM), developed by William Sharp in 1964. [2]
The CAPM is a widely used method for estimating the cost of equity capital. Since its inception, SARM has been the subject of intense research and has undergone several modifications to improve its applicability and accuracy.

Myers' (1984) paper on capital structure calculation theory highlights that firms prefer to finance investments with internal funds, followed by debt, and then equity. This theory has implications for the cost of capital management because it suggests that the cost of capital for external financing may be higher than the cost of internal financing. [3]

Pham and French's (1992) three-factor model is widely used to determine the cost of equity capital. Their paper presented a framework for estimating the expected return on equity based on three factors: market risk, size, and the balance sheet-to-market ratio. The model has been widely used in empirical studies of the cost of capital and has been shown to significantly improve upon the CAPM. [4]

Damodaran's Investment Valuation (1994) covers topics such as risk and return, beta estimation, and alternative approaches to equity valuation. This allows you to apply the concept of cost of capital to the evaluation and analysis of investments. [5]

Graham and Harvey's (2001) survey of CFOs on capital budgeting and capital expenditure techniques is often cited in the capital expenditure management literature. The survey provides insight into how firms determine the cost of capital and how they use it to make decisions. It also highlights the challenges and limitations of traditional approaches to the cost of capital. [6]

Briley and Myers' Principles of Corporate Finance covers both traditional and innovative approaches to the cost of capital, as well as the challenges and limitations of each approach. [7]

Another traditional approach to cost of capital management is the discounted cash flow (DCF) method, which involves estimating the present value of the expected cash flows from an investment opportunity. DCF is widely used in corporate finance, and researchers have focused on developing variants and modifications to the method to improve its efficiency. [8]
The current academic literature covers both traditional and innovative approaches to the cost of capital, as well as the challenges and limitations of each approach.

The limitations of traditional approaches to cost of capital management have been a topic of discussion in the academic literature, leading to a need for innovation in this area. For example, researchers have criticized the capital asset pricing model (CAPM) for its reliance on historical data and assumptions about market efficiency that do not always hold true in practice. [9,10]

Similarly, the discounted cash flow (DCF) method has been criticized for its reliance on projections of future cash flows, which are subject to significant uncertainty. [7]

In response to these limitations, researchers have proposed innovative approaches to managing the cost of capital.

**Innovative approaches to capital cost management.**

Recent research describes innovative approaches to managing the cost of capital, including real options analysis (ROA), socially responsible investing (SRI), and blockchain-based financing.

**Real options analysis** is an approach that takes into account the importance of managerial flexibility, that is, the ability to change investment decisions over time, and uncertainty in investment decisions. It is based on the idea that managers can create value by having the flexibility to adjust their investments in response to changing market conditions. Real options analysis includes factors such as investment timing, the possibility of ending or delaying projects, and the possibility of expanding or reducing operations. By considering these factors, real options analysis can provide a more accurate estimate of the cost of capital and help managers make better investment decisions. [10]

Real options analysis has been applied in a variety of industries and contexts, including energy, technology, pharmaceuticals, and real estate. The following examples demonstrate how real options analysis can be used to obtain a
more accurate estimate of the cost of capital by incorporating factors such as flexibility and uncertainty.

Energy

Assessment of investment decisions in the oil and gas industry. Real options analysis has been used in the oil and gas industry to evaluate investment decisions related to exploration and production. One study by Flett and Mander (2004) applied real options analysis to an offshore oil exploration project in New Zealand. The study found that incorporating real options analysis increased the accuracy of investment decisions by recognizing the value of flexibility in uncertain market conditions. [11]

Evaluation of natural gas storages.

Real options analysis was used to evaluate and optimally operate natural gas storage facilities used to balance supply and demand fluctuations in the energy market. The theory of real options is applied to derive nonlinear partial integro-differential equations (PIDEs), the solution of which gives both an estimate and optimal operational strategies for these objects. [12]

Renewable energy sector: evaluation of projects in the field of renewable energy. Real options analysis (ROA) has been used to evaluate renewable energy projects that face significant uncertainty due to factors such as government regulation, technological advances and market conditions.

In particular, the real option approach (ROA) was applied to the case of investing in mini-hydroelectric power plants. Researchers conclude that ROA-based value is higher than NPV-based value because uncertainty is reduced because the investor has the opportunity to delay investment. [13]

Abadie, L. and Chamorro, J. provide a detailed application of ROA to the evaluation of existing UK wind farm and investment options. [14]

Mining industry. Development of mineral deposits. Investments in the mining industry are very capital-intensive and, at the same time, they are highly dependent on the volatility of metal prices on the world market. ROA is used to evaluate the development of mineral deposits, which involve significant
uncertainty and the potential for changes in commodity prices and to increase the return on invested assets or to protect income in case of realization of price and other risks. A review of published research conducted by J. Savolainen stated the prospect of applying real options valuation methods to the analysis of projects in the mining industry, which consists in hedging and increasing expected profits. [15] This is affected by the inclusion of flexibility in the rejection or postponement of the project based on changes in commodity prices.

**Pharmaceutical industry**

Real options analysis has also been used in the pharmaceutical industry to evaluate investment projects related to drug development, which are usually very expensive and high-risk. An empirical study conducted as part of a research project by Nihon Schering Kabushiki Kaisha (Nihon Schering), Japan, (2002), confirmed that ROA compensates for the shortcomings of net present value analysis because it takes into account the value of managerial flexibility. When evaluating the project using the traditional NPV method, it had a negative value, which means that the project should have been rejected. However, when evaluated using the real options approach, the project showed a slight positive value. The study found that the application of real options analysis increased the accuracy of investment decisions by considering the value of delaying or abandoning projects based on changing market conditions. The authors of the study are convinced that the evaluation of real options is an appropriate and reliable means of evaluating the company's internal initiatives.[16]

A study by Danzon et al. (2005) used real options analysis to evaluate the value of different strategies for developing a new drug. They found that incorporating flexibility to terminate or delay a project based on clinical trial results increased value by up to 50%.[17]

**Technologies**

Real options analysis is used in the technology industry to evaluate investment decisions related to research and development. As technology companies struggle to capitalize on new opportunities amid market uncertainty,
One study applied real options analysis to a technological innovation project (biochip research and development). A structure for planning scientific research works has been developed based on the analysis of real options for the identification, development and assessment of technological opportunities. The study found that incorporating real options analysis increased the accuracy of investment decisions by recognizing the value of project flexibility based on changing market conditions. [18]

**Real estate industry.**

*Development of commercial real estate.* Real options analysis was used to evaluate commercial real estate developments (RED), which involve significant uncertainty and the potential for changing market conditions. Timothy O. Ayodele and Abel Olaleye (2018) compare the results of applying real options analysis and the traditional NPV model to RED in the African market. The results showed that the use of the traditional NPV model is appropriate only in a stable market with optimistic trends. In conditions of unpredictability, investments in real estate are exposed to greater risks. Real options models guarantee a better valuation of RED investments even during periods of unexpected market price fluctuations. [19]

The article by N.M. Sokolova and N.Y. Khmur talks about the application of this approach to the implementation of road projects that require significant irreversible investments and are carried out for many years under conditions of risk and uncertainty. According to the authors, the value of real options that implement management flexibility is an additional source of growth in the value of an investment project. [20]

**Socially Responsible Investing (SRI)** is another innovative approach to managing the cost of capital that, in addition to financial returns, considers environmental, social and governance factors in investment decisions. SRI includes factors such as environmental impact, labor practices and corporate governance. By taking these factors into account, SRI can provide a more holistic view of the
cost of capital and help investors make informed decisions that align with their values and can potentially lead to better financial outcomes. [21,22]

Socially responsible investing has been used to invest in a range of companies and industries that contribute to sustainable development, environmental protection and social welfare.

SRI is used to invest in companies that promote sustainable agricultural practices. This can be organic farming, non-harmful agricultural technologies, fair trade and conservation of biodiversity, investments in real estate (agricultural land and forests) used in ecologically clean conditions, investments in farms, cooperatives and food enterprises, healthy food companies, etc. By type, it can be direct investments in equity capital or debt instruments, financial derivatives. Research has shown that SRI can improve the financial performance of companies that promote sustainable agriculture, as well as have a positive impact on the environment and social well-being. [23]

SRI has also been used to invest in companies that produce renewable energy such as wind, solar and hydropower. SRI is practiced to invest in companies that strive for gender diversity and equality, such as companies with a high percentage of women on their boards of directors or companies with family-oriented policies.

A study by Guillermo Badía, Luis Ferruz, and Maria Céu Cortez (2021) compares the performance of socially responsible investment (SRI) portfolios with conventional investments at global and regional levels. The authors argue that the performance of SRI investment portfolios is higher than conventional investments. [24]

Thus, socially responsible investing has been used to invest in a range of companies and industries that contribute to sustainable development, environmental protection and social welfare.

Blockchain-based financing refers to the use of blockchain technology to facilitate and secure financial transactions, including fundraising, lending and investment. Blockchain is essentially a decentralized and transparent ledger that
guarantees a safe and efficient way to track and verify financial transactions without the need for intermediaries such as banks or payment systems.

Over the past 10 years, interest in blockchain-based financing has been growing steadily. Many startups and well-known companies are exploring the potential of this technology. The following examples illustrate how blockchain technology is being used to create new and innovative capital financing models that can displace traditional models and enable more flexible and efficient management of a company's cost of capital.

*Initial Coin Offerings (ICOs).* An ICO is a form of blockchain-based funding in which companies or projects issue digital tokens to investors in exchange for funding. ICOs gained popularity in 2017 and 2018, raising billions of dollars for startups and established companies. However, ICOs have also been associated with fraud and regulatory issues. [25]

*Security Token Offerings (STOs).* STOs are a more regulated form of blockchain-based financing where companies issue digital tokens backed by assets or securities. STOs are designed to comply with existing securities regulations, providing investors with greater transparency and protection. STOs have gained popularity in recent years, and some experts predict that they may replace traditional fundraising methods in the future. [26]

*Decentralized Finance (DeFi).* DeFi is a new form of blockchain-based finance that enables decentralized and automated financial services, including lending, borrowing and trading. DeFi platforms are built on blockchain technology and operate without intermediaries, providing users with greater transparency, accessibility and control over their financial activities. [27]

*Blockchain-based crowdfunding.* Blockchain-based crowdfunding is a new form of fundraising that allows entrepreneurs and innovators to raise capital from a large number of investors in a decentralized and transparent manner. Blockchain-based crowdfunding platforms use smart contracts to automate the fundraising process, allowing investors to invest in new projects using digital tokens or cryptocurrencies. [28]
**Blockchain-based trade finance.** Blockchain-based trade finance is a new form of finance that uses blockchain technology to streamline and secure the trade finance process. Using blockchain, trade finance transactions can be processed faster and more efficiently, reducing the time and costs associated with traditional trade finance methods. [29]

While there are still challenges and risks associated with blockchain-based financing, the potential benefits are significant and the field is growing rapidly.

**Comparative analysis of innovative approaches to capital cost management from the perspective of their practical application.**

It is difficult to determine which approach is most promising, as each has its own strengths and limitations, and effectiveness may vary depending on the specific context and circumstances of the company. Consider the potential advantages and limitations of each approach described above.

**Real options analysis** provides a framework for evaluating investments that have uncertain outcomes and flexibility in decision making. This can help companies make more informed decisions by considering the value of future opportunities and potential risks. However, its application can be complex and time-consuming, and also requires accurate estimation of input parameters. [10]

**Socially responsible investing (SRI)** considers not only financial returns, but also the social and environmental impact of investments. This can provide companies with a competitive advantage by attracting socially conscious investors and customers. However, there are challenges with accurately measuring the social and environmental impact of investments, and the criteria for socially responsible investing can vary greatly. [21]

**Financing based on blockchain technology** can provide greater transparency, security and efficiency of financial and investment processes. It can also create new opportunities for fundraising and investment by lowering barriers to entry and providing greater access to capital. However, there are concerns about regulation, scalability, and the potential for fraud and cyberattacks. [30]
We will conduct a comparative analysis of the three approaches described above based on the defined criteria, namely: complexity, accuracy, flexibility, cost, regulatory and legal features, accessibility, potential for innovation (Table 1).

**Table 1. Comparative analysis of innovative approaches to managing the company's capital cost**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Real Options Analysis (ROA)</th>
<th>Socially Responsible Investing (SRI)</th>
<th>Blockchain-Based Financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complexity</td>
<td>Most complex</td>
<td>Less complex</td>
<td>Less complex</td>
</tr>
<tr>
<td>Accuracy</td>
<td>Requires accuracy</td>
<td>Requires accuracy</td>
<td>Can provide greater accuracy</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Highly flexible</td>
<td>Flexible</td>
<td>Flexible</td>
</tr>
<tr>
<td>Cost</td>
<td>Most expensive</td>
<td>Can incur additional costs</td>
<td>Can incur additional costs</td>
</tr>
<tr>
<td>Regulatory and Legal features</td>
<td>Varying levels of regulatory oversight</td>
<td>Subject to additional standards and guidelines</td>
<td>Subject to emerging regulations and legal considerations</td>
</tr>
<tr>
<td>Accessibility</td>
<td>Primarily for larger companies</td>
<td>Can be implemented by companies of different sizes</td>
<td>Can be implemented by companies of different sizes</td>
</tr>
<tr>
<td>Potential for Innovation</td>
<td>Can provide a framework for evaluating new and innovative investment opportunities</td>
<td>Can help companies differentiate themselves and attract new customers and investors</td>
<td>Can create new opportunities for fundraising and investment by reducing barriers to entry</td>
</tr>
</tbody>
</table>

*Compiled by the author based on [10, 21,30]*
Complexity. The analysis of real options is the most difficult approach, as it requires special knowledge in the field of financial modeling and valuation. Socially responsible investing and blockchain-based financing require a certain level of expertise, but are generally less complex and can be implemented with less technical expertise.

Precision. Both real options analysis and socially responsible investing require accurate estimation of input parameters, but there can be significant uncertainties and challenges in measuring the social and environmental impact of investments. Blockchain-based finance can provide greater accuracy and transparency in financial transactions, but there are risks and limitations to the technology's ability to accurately track and verify data.

Flexibility. Real options analysis is very flexible because it allows you to consider future possibilities and uncertainties when making decisions. Socially responsible investing and blockchain-based financing are also flexible in their ability to adapt to changing circumstances and needs.

Cost. Real options analysis is generally the most expensive approach due to the need for specialized expertise and advanced modeling techniques. Blockchain-based socially responsible investing and financing may also incur additional costs, such as regulatory compliance and regulatory fees.

Regulatory and legal features. All three approaches have different levels of regulatory and legal oversight. Analysis of real options is governed by general financial regulations and accounting standards. Socially responsible investing is governed by additional standards and guidelines related to environmental, social and governance (ESG) considerations. Blockchain-based financing is governed by new regulations and legal considerations related to the use of cryptocurrencies and digital assets.

Accessibility. Real options analysis is available primarily to large companies that have the resources and experience to implement it. Blockchain-based socially responsible investing and financing can be implemented by companies of all sizes and industries, although there may be some regulatory and legal barriers to entry.
Potential for innovation. All three approaches have the potential to stimulate innovation and create new opportunities for growth and development. Analysis of real options can become the basis for evaluating new and innovative investment opportunities. Socially responsible investing can help companies stand out and attract new customers and investors. Blockchain-based financing can create new opportunities for fundraising and investment by lowering barriers to entry and increasing access to capital.

In general, each approach has its strengths and limitations and may be suitable for different companies and circumstances. Companies should consider these criteria and their specific needs and goals when choosing an approach to managing their cost.

Conclusions and prospects of further investigations in this direction. Summarizing the above review, the following conclusions can be drawn.

There has been much influential research on cost of capital management, including seminal articles, textbooks, and surveys. The works of Modigliani and Miller, Fama and French, Myers, Briley and Myers, Damodaran, Graham and Harvey are among the most cited and widely used in the field.

Modern studies of traditional approaches such as CAPM, WACC, DCF indicate the presence of theoretical and practical limitations of their application. Changes in the business environment, the social sphere, and the development of technologies require changes in the approaches to managing the company's capital value.

Innovative approaches to cost of capital management include real options analysis (ROA), socially responsible investing (SRI) and blockchain-based financing. These innovative approaches have the potential to provide more accurate and efficient methods of measuring and managing the cost of capital, leading to better investment decisions and financial results for companies. They have already been applied in a variety of industries and contexts, including energy, mining, pharmaceuticals, agriculture and real estate.
The ROA approach can be used to obtain a more accurate estimate of the cost of capital by incorporating factors such as flexibility and uncertainty.

SRI involves taking environmental, social and governance factors into account when making investment decisions, while blockchain-based financing is a new technology that provides secure and transparent financing and investment operations.

A comparative analysis of the three approaches described above based on the defined criteria (complexity, accuracy, flexibility, cost, regulatory and legal features, accessibility, potential for innovation) suggests that each of the innovative approaches considered has potential advantages and limitations, and the calculated effectiveness is not a constant value, but can change depending on the specific context and circumstances of the company. Companies should consider these criteria and their specific needs when choosing an approach to managing their cost of capital.

Companies may need to consider a combination of these approaches to effectively manage their organization's value in a rapidly changing business environment.

Blockchain-based financing can revolutionize the way financial transactions are conducted, providing greater efficiency, security and accessibility. While there are still regulatory and technical challenges to be resolved, the growth and development of blockchain-based financing is likely to continue in the coming years.

Overall, the research conducted on innovative approaches to cost of capital management has greatly contributed to our understanding of this concept and its importance in corporate finance. However, there is still room for further research to develop more accurate and efficient methods of measuring and managing the cost of capital.

**Identifying key trends and emerging practices in cost of capital management that require further research.**
In general, key trends and new practices in cost of capital management focus on increasing the accuracy and completeness of cost of capital calculations. By using alternative data sources (satellite imagery, social media data, web scraping), sustainability factors (environmental, social and governance factors) and advanced technologies (using real-time data and machine learning algorithms), firms can make better investment decisions and achieve better financial results.

The relationship between the cost of capital and various aspects of firm decision-making and performance is also an important area of research.

**Literature**


https://www.researchgate.net/publication/354541376_Security_token_offerings (дата звернення: 12.05.2023)


References


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