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STRATEGIES FOR IMPLEMENTING BUSINESS ANALYTICS AND ACTIVITY-BASED COSTING TO OPTIMIZE OPERATIONS IN THE TOURISM AND HOSPITALITY INDUSTRY

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СТРАТЕГІЇ ВПРОВАДЖЕННЯ БІЗНЕС-АНАЛІТИКИ ТА ACTIVITY-BASED COSTING ДЛЯ
ОПТИМІЗАЦІЇ ОПЕРАЦІЙ В ТУРИСТИЧНІЙ ТА ГОТЕЛЬНІЙ СФЕРІ

The business analytics and Activity-Based Costing (ABC) implementation in modern conditions is the foundation for success in the business entities of the tourism and hotel industry (as it creates the potential for a significant improvement in operational efficiency in this sector). Therefore, the article's purpose is to identify the content and basic features of strategies for implementing business analytics and Activity-Based Costing to optimize operations in the tourism and hotel sector. Within the scope of the research, attention is drawn to the fact that (considering the absence of unified operation formats in the tourism and hotel sector), the implementation of business analytics and Activity-Based Costing (ABC) can be carried out through various types of strategies, selected based on the needs of optimization and opportunities for improving efficiency. Among the strategies used to implement business analytics and Activity-Based Costing for operational optimization in the tourism and hotel industry, we have identified the following: phased implementation strategy, rapid integration strategy, expansion of implementation scope strategy, and customer service operations focus

strategy. The proof has shown that each of the mentioned strategies has distinctive features that determine the specificity of their application. The phased implementation strategy is oriented towards characteristics that make it ideal for entities seeking to intricately develop and gradually implement business analytics and ABC, ensuring control and assessment of the process at each stage. The fast integration strategy focuses on features that make it ideal for situations where the priority is swift implementation and obtaining results quickly. The expansion of implementation scope strategy is based on characteristics that make it ideal for entities aiming to gradually expand the volume and coverage of implementation. The strategy focusing on customer service operations is based on features that make it ideal for entities wanting to concentrate on effective customer service and enhancing their experience. The prospects for further research lie in conducting a detailed comparative analysis of the effectiveness of each highlighted strategy for implementing business analytics and Activity-Based Costing. It can help determine which strategy is most effective under specific industry conditions.

Впровадження бізнес-аналітики та Activity-Based Costing (ABC) в сучасних умовах є основою успіху суб'єктів господарювання в туристичній та готельній індустрії, оскільки це створює потенціал для відчутного покращення ефективності операцій. Отже, метою статті є ідентифікація змісту та базових ознак стратегій впровадження бізнес-аналітики та Activity-Based Costing для оптимізації операцій в туристичній та готельній сфері. У межах дослідження звернуто увагу на той факт, що з урахуванням відсутності єдиних операційних форматів суб'єктів туристичної та готельної сфери, впровадження бізнес-аналітики та Activity-Based Costing (ABC) може здійснюватися через різні типи стратегій. Ці стратегії обираються враховуючи потреби в оптимізації різних операцій та можливості поліпшення їх ефективності. При цьому зроблено висновок, що серед стратегій, які використовуються для впровадження бізнес-аналітики та Activity-Based Costing з метою оптимізації операцій в туристичній та готельній сфері, можуть бути застосовані такі: стратегія поетапного впровадження, стратегія швидкої інтеграції, стратегія розширення зони впровадження (повзучий наступ), стратегія фокусу на операціях з обслуговування клієнтів. Доведено, що кожна з наведених стратегій має свої характеристики, які визначають специфіку їх застосування. Стратегія поетапного впровадження орієнтована на особливості, які роблять її ідеальною для суб'єктів, які бажають детально розробити та поетапно впровадити бізнес-аналітику та ABC, забезпечуючи контроль і оцінку процесу на кожному етапі. Стратегія швидкої інтеграції орієнтована на ознаки, які роблять її ідеальною для ситуацій, де пріоритетом є швидке впровадження та отримання оперативних результатів. Стратегія розширення зони впровадження базується на характеристиках, які роблять її ідеальною для суб'єктів, що прагнуть поступово розширювати обсяг та охоплення впровадження. Стратегія фокусу на операціях з обслуговування клієнтів базується на характеристиках, які роблять її ідеальною для суб'єктів, що бажають зосередитися на ефективному обслуговуванні клієнтів та покращенні їхнього досвіду. Перспективи подальших досліджень полягають у проведенні порівняльного аналізу ефективності кожної з виділених стратегій для впровадження бізнес-аналітики та Activity-Based Costing. Це може сприяти визначенню того, яка стратегія є найбільш ефективною в конкретних умовах даної індустрії.

Key words: operational formats; operational management; operations optimization; performance monitoring.

Ключові слова: формати операцій; оперативне управління; оптимізація операцій; моніторингу ефективності.

TARGET SETTING

The implementation of business analytics and Activity-Based Costing (ABC) in modern conditions is the foundation of success for entities in the tourism and hotel industry, as it creates the potential for a significant improvement in operational efficiency in this sector. In particular, the use of business analytics serves as a guarantee for the efficient collection, processing, and analysis of significant volumes of data generated by

numerous operations inherent in the activities of hotels and tourism services. This not only contributes to maintaining a high level of service but also opens up opportunities for adapting the services of these entities to consumer trends and market demand, which is crucial for ensuring competitiveness. The application of Activity-Based Costing (ABC) allows for the identification of key business processes and focusing on those that can be optimized to enhance efficiency and streamline costs. The

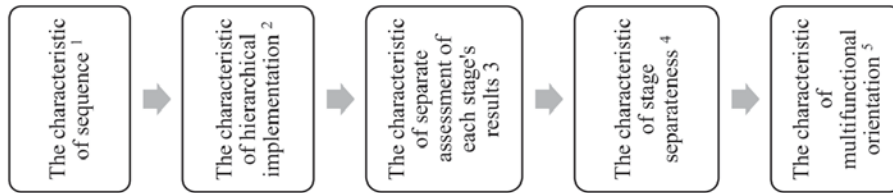


Figure 1. Characteristics of the phased implementation strategy of business analytics and Activity-Based Costing for operational optimization in the tourism and hotel industry

Note:

1. The implementation process is considered a sequential process, divided into clearly defined stages. Each stage has its unique tasks and responsibilities, and their execution occurs sequentially.
 2. The action plan is structured hierarchically, where general tasks are broken down into smaller subtasks and stages. This allows the leadership and executive team to clearly understand the structure and scope of the implementation.
 3. Specific success criteria are defined for each implementation stage. The evaluation of results is conducted separately for each stage, enabling an accurate determination of the achievement of set goals.
 4. Each stage has its own identity and operates independently of other implementation stages. This allows the team to focus on specific tasks.
 5. Each stage has clearly defined tasks, goals, and deadlines. Multifunctional orientation enables the simultaneous achievement of multiple goals, enhancing the efficiency of the implementation.
- Source: formed based on [1; 6—7].

simultaneous use of business analytics and Activity-Based Costing (ABC) forms the basis for the accurate calculation of the cost of each stage in the production of services and customer service. It also paves the way for strategic analysis aimed at identifying the most profitable products and services. Indeed, the identified benefits from business analytics and Activity-Based Costing (ABC) make their implementation a crucial step for business success in the tourism and hotel sectors. This allows for the precise determination of operational optimization strategies, achieving high profitability, and improving customer satisfaction.

ANALYSIS OF RESEARCH AND PUBLICATIONS

The issues of defining the essence of business analytics and Activity-Based Costing, formulating approaches to their implementation, and their combined use for operational optimization in various fields of activity are addressed in the scientific works of many well-known foreign and Ukrainian scholars, including: Y. V. Dergachova, K. O. Fishchuk, Tigaryeva V. A., Stankievich I. V., Piksaikina O. V., Khodeneva E. A. However, the scope and depth of these studies do not provide answers to all pressing questions. This is particularly noticeable in the tourism and hotel industry, where there are no uniform operation formats due to the diversity of services, types

of hotels and tourism companies, business sizes and scales, as well as various regional and cultural characteristics.

THE WORDING OF THE PURPOSES OF ARTICLE (PROBLEM)

The aim of the article is to identify the content and basic characteristics of strategies for implementing business analytics and Activity-Based Costing to optimize operations in the tourism and hotel industry.

THE PAPER'S MAIN BODY WITH FULL REASONING OF ACADEMIC RESULTS

In the tourism and hotel industries, each business entity may have its own unique operational processes and internal standards based on its specificity and strategy. However, these operations can be generalized and detailed into categories such as service booking and customer registration, customer service, operational management of service processes, marketing and advertising, financial management, and budgeting, as well as quality assessment and reporting.

Given the absence of unified operation formats in the tourism and hotel industry, the implementation of business analytics and Activity-Based Costing (ABC) can be carried out through various types of strategies, chosen based on the needs for optimization and opportunities for improving

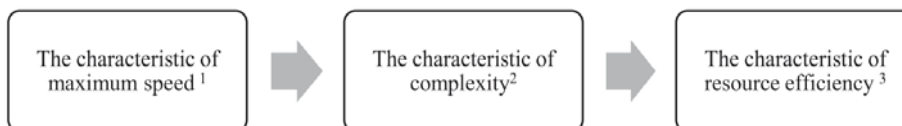


Figure 2. Characteristics of the fast integration strategy of business analytics and Activity-Based Costing for operational optimization in the tourism and hotel industry

Note:

1. The implementation process is fast and efficient, aimed at quickly achieving results and implementing necessary changes in the shortest possible time.
 2. Multiple components or functional parts of the system can be implemented simultaneously. The strategy involves implementing various aspects concurrently for maximum complexity and efficiency.
 3. The strategy is focused on the efficient utilization of resources for maximum impact on operations.
- Source: formed based on [1; 3; 6—7].

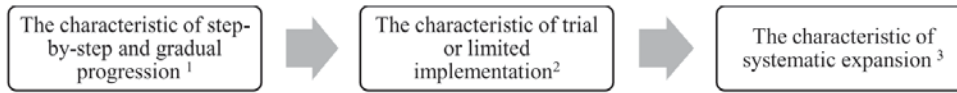


Figure 3. Characteristics of the expansion of implementation zone strategy of business analytics and Activity-Based Costing for operational optimization in the tourism and hotel industry

Note:

1. The implementation process occurs in stages, allowing the organization to adapt to changes gradually. The gradual approach helps avoid sudden and significant changes, ensuring smooth integration of new systems.
 2. It starts with pilot projects or limited implementation of new methodologies or systems. The business entity gains experience and identifies optimal approaches in a limited area or specific departments.
 3. The implementation zone expands systematically, encompassing new functions and departments as previous stages are successfully completed. During each stage, the experience and results are assessed, allowing for strategy refinement and adjustments.
- Source: formed based on [6—7].

efficiency. Among such strategies, the following can be highlighted:

1. Phased implementation strategy, which is based on the characteristics of sequence (the implementation process is considered a sequential process divided into stages), hierarchical implementation (as the action plan is structured hierarchically, where more general tasks are divided into smaller ones), separate assessment of each stage's results (specific success criteria are defined for each implementation stage, used to evaluate results and determine the extent to which goals were achieved), stage separateness (each stage has its own identity and can function independently of others), and multifunctional orientation (each stage has clearly defined tasks, goals, and deadlines). As a result of combining the set of characteristics outlined above (see Figure 1), such a strategy is quite structured and systematic.

2. The fast integration strategy (Blitzkrieg), based on the characteristics of maximum speed (the implementation process must be as fast as possible), complexity (multiple components or functional parts of the system can be implemented simultaneously), and resource efficiency (involves efficient resource utilization for maximum impact on operations). As a result of combining the set of characteristics outlined above (see Figure 2), such a strategy is unique and operationally effective for the rapid implementation of business analytics and Activity-Based Costing (ABC).

3. Expansion of Implementation Zone Strategy (Incremental Approach), based on the characteristics of step-by-step and gradual progression (the implementation process occurs gradually and step by step, allowing the organization to adapt to changes), trial or limited

implementation (starts with pilot projects or limited deployment, during which the business entity gains experience and identifies optimal approaches), systematic expansion (the implementation zone expands systematically, encompassing new functions and departments as previous stages are successfully completed). As a result of combining the set of characteristics outlined above (see Figure 3), such a strategy is most effective in situations where it is important to avoid abrupt changes and maximize the adoption of new systems or methodologies.

4. Strategy focusing on customer service operations, based on the characteristics of locality and concentration on specific aspects of service and interaction with customers, customer satisfaction orientation (emphasis on meeting customer expectations and providing quality service). As a result of combining the set of characteristics outlined above (see Figure 4), such a strategy is focused on those aspects that are most important for the customers of a specific business entity.

Let's consider each of the highlighted strategies for implementing business analytics and Activity-Based Costing to optimize operations in the tourism and hotel industry, and delve more deeply into its effectiveness within its characteristic features.

So, the phased implementation strategy involves gradually introducing business analytics and ABC tools into the operations of the business entity. The distinctive feature of the outlined phased implementation strategy is its focus on steps such as: identifying priority operational areas or processes (requiring the most attention and amenable to optimization); gradual implementation of business analytics (for collecting and analyzing data

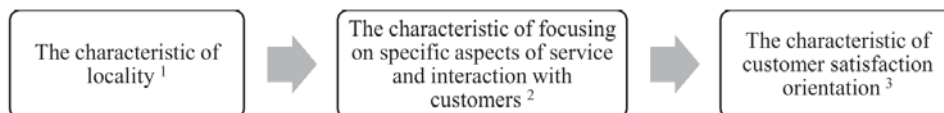


Figure 4. Characteristics of the focus strategy implementation of business analytics and Activity-Based Costing on customer service operations in the tourism and hotel industry

Note:

1. The strategy is focused on specific aspects of customer service and interaction, concentrating on local business aspects. The business entity focuses on unique aspects of its service, which may include personalized services, an individual approach, and local service differences.
 2. Oriented towards specific elements of service and customer interaction, such as service quality, speed of service, and other key parameters. This strategy can allow businesses to stand out by concentrating on specific aspects of service that are important to their customers.
 3. The strategy is aimed at meeting customer expectations and providing them with quality service. A focus on individual needs and customer expectations can lead to a high level of satisfaction and loyalty
- Source: formed based on [1—2: 7]

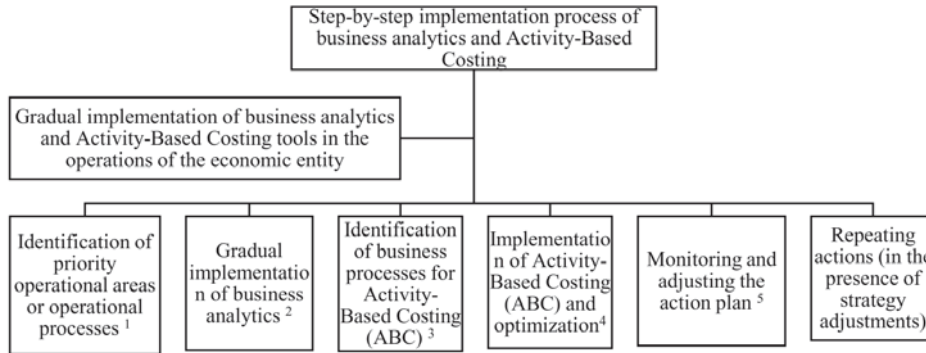


Figure 5. Steps in implementing a strategy for the phased introduction of business analytics and Activity-Based Costing to optimize operations in the tourism and hotel industry

Note:

1. Implementation begins with identifying specific areas or processes that require the most attention and can be optimized through business analytics and ABC.
 2. Business analytics is introduced to collect and analyze data related to the chosen area. This may involve gathering information on costs, production volumes, customer service, etc.
 3. Key business processes subject to modeling using Activity-Based Costing are identified. Costs for each activity and their impact on the cost of production or service provision are established.
 4. Application of ABC for detailed analysis of the cost of each business process. This allows identification of elements that can be optimized to reduce costs and increase efficiency.
 5. Monitoring results and adjusting the strategy according to identified opportunities and challenges.
- Source: formed based on [1; 4–5].

related to the selected operational area or processes); defining business processes for ABC (identifying key business processes subject to modeling using Activity-Based Costing); implementing ABC and optimization (identifying elements that can be optimized to reduce costs and enhance efficiency); monitoring and adjusting the action plan; repeating actions (with adjustments to the strategy if necessary) [1; 4–5]. The step-by-step implementation scheme of the outlined strategy is presented in Figure 5.

Note that the outlined strategy for implementing business analytics and Activity-Based Costing allows the economic entity to avoid sudden and significant operational changes, providing the opportunity for the staff to adapt to new systems and optimize their efficiency over time.

A strategy of fast integration involves the implementation of business analytics and Activity-Based Costing

in a short period (due to the use of ready-made solutions and integration with existing systems). The distinctive feature of this strategy is its focus on steps such as: conducting a quick analysis of business needs and requirements for business analytics and ABC; selecting ready-made business analytics and ABC solutions; preparing the infrastructure; rapid integration (implementing the integration of ready-made solutions with existing systems using standard interfaces and APIs); training and adaptation (conducting training for staff and users on new technologies and tools); continuous improvement (ensuring mechanisms for continuous improvement and monitoring the effectiveness of implemented systems); support and optimization (providing ongoing technical support and optimization of systems to ensure their high efficiency). The step-by-step implementation scheme of this outlined strategy is shown in Figure 6.

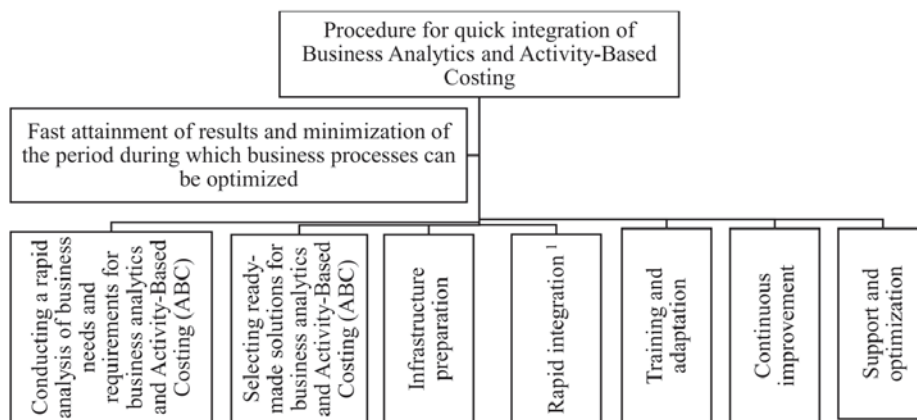


Figure 6. Steps in implementing the strategy of fast integration of business analytics and Activity-Based Costing for optimizing operations in the tourism and hotel industry

Note:

1. Implementation of integration of ready-made solutions with existing systems using standard interfaces and APIs
- Source: formed based on [1; 3].

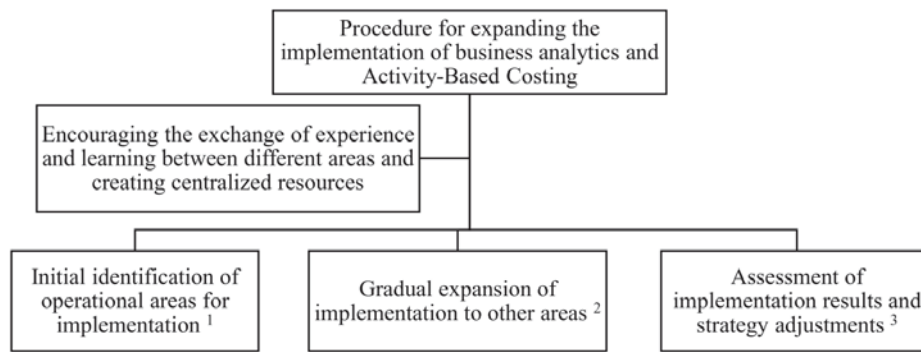


Figure 7. Steps of the expansion of implementation zone strategy of business analytics and Activity-Based Costing for optimizing operations in the tourism and hotel industry

Note:

1. Specific areas or business functions where business analytics and ABC will be implemented are selected.
2. After the successful implementation of business analytics and ABC in initial operational areas, expansion to other business segments begins.
3. During expansion, the results of implementation are systematically evaluated in each new area.

Source: formed based on [1; 5—6].

Note that the outlined strategy for implementing business analytics and Activity-Based Costing allows the economic entity to achieve rapid results and minimize the period during which business processes may not be optimized.

The strategy of expansion implementation involves starting with the introduction into limited operational areas but gradually expanding to cover all operational aspects of the business (reservation, service, finance, etc.). The distinctive feature of the outlined strategy is its focus on steps such as initial identification of operational areas for implementation (specific areas or business functions where business analytics and ABC will be implemented are selected, and areas with the most potential for optimization and efficiency improvement are chosen); gradual expansion to other areas (the expansion process can be conducted step by step or in parallel, depending on the strategic goals and capabilities of the economic entity); assessment of implementation results and adjustments

(corrections and revisions, if necessary, based on lessons learned and experience accumulated in previous stages) [1; 5—6]. For these steps of implementation, the exchange of experience and training between different areas is encouraged, along with the creation of centralized resources. The step-by-step implementation scheme of the outlined strategy is provided in Figure 7.

This strategy of implementing business analytics and Activity-Based Costing allows the economic entity to systematically and gradually introduce business analytics and ABC into different parts of the business for overall operational optimization (through support and coordination of the implementation process).

The strategy focusing on customer service operations is aimed at improving service through the analysis of customer feedback using business analytics and Activity-Based Costing. In this case, the outlined components are implemented only in operations that impact demand and customer satisfaction. The distinctive

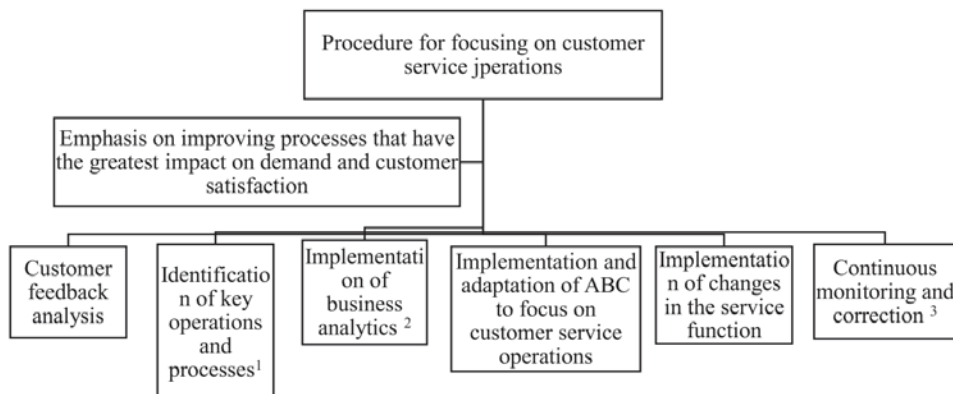


Figure 8. Steps in implementing the strategy of focusing on customer service operations in the tourism and hotel industry through the business analytics and Activity-Based Costing

Note:

1. Operations and processes that most significantly influence customers' perception of service quality and their satisfaction are identified.
2. Business analytics is applied to collect and analyze data related to customer service operations to identify opportunities for improvement.
3. The identified improvements are systematically monitored, and corrections and optimizations are made based on changes in feedback and business analytics data.

Source: formed based on [1; 4—6].

feature of the outlined strategy is its focus on steps such as: customer feedback analysis (careful examination of feedback content from customers, allowing identification of key aspects influencing their satisfaction); identification of key operations and processes (determining operations and processes that are part of customer service); implementation of business analytics for data collection and analysis of operations; implementation and adaptation of ABC to focus on customer service operations; implementation of changes in the service function (involving changes in operational processes that will lead to improved customer service); continuous monitoring and correction. The step-by-step implementation scheme of the outlined strategy is presented in Figure 8.

This strategy of implementing business analytics and Activity-Based Costing allows the economic entity to focus its efforts on operations that have a direct impact on customer satisfaction and loyalty, ensuring improved service and alignment with their needs.

CONCLUSIONS FROM THIS STUDY AND PROSPECTS FOR FURTHER EXPLORATION IN THIS AREA

Within the study, attention is drawn to the fact that due to the absence of uniform operational formats in the tourism and hotel industry, the implementation of business analytics and Activity-Based Costing (ABC) can be carried out through various types of strategies, selected based on the needs of optimization and opportunities for efficiency improvement. The following conclusions have been drawn:

1. Among the strategies used for implementing business analytics and Activity-Based Costing to optimize operations in the tourism and hotel industry, we have identified strategies such as phased implementation, blitzkrieg integration strategy, expansion implementation strategy (creeping deployment), and the strategy focusing on customer service operation.

2. Each of the mentioned strategies has distinctive features that define the specificity of its application. The phased implementation strategy is oriented towards features that make it ideal for entities wishing to thoroughly develop and gradually implement business analytics and ABC, ensuring control and evaluation of the process at each stage. The fast integration strategy is oriented towards features that make it ideal for situations where the priority is rapid implementation and obtaining results. The expansion implementation strategy is based on features that make it ideal for entities seeking to gradually expand the scope and coverage of implementation. The strategy focusing on customer service operations is based on features that make it ideal for entities wanting to concentrate on effective customer service and enhancing their experience.

The prospects for further research involve conducting a detailed comparative analysis of the effectiveness of each of the highlighted strategies for implementing business analytics and Activity-Based Costing. This can help determine which strategy is most effective in specific industry conditions.

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