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**CONCEPTS OF AUTOMATION AND OPTIMIZATION OF
INTEGRATED MANAGEMENT OF CYBERSPORTS AND TOURISM
CLUB SYSTEMS**

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**КОНЦЕПЦІЇ АВТОМАТИЗАЦІЇ ТА ОПТИМІЗАЦІЇ ІНТЕГРОВАНОГО
УПРАВЛІННЯ КЛУБНИМИ СИСТЕМАМИ КІБЕРСПОРТУ ТА
ТУРИЗМУ**

This research is dedicated to the pressing issue of optimizing integrated management of esports and tourism club systems in the context of fierce global market competition. The aim of the research is to identify the key concepts of automation and optimization in the integrated management of esports and tourism club systems. The research established that integrated management in the context of esports and tourism involves the comprehensive unification of various systems, data, and processes into a single, efficient structure. The research established that integrated management in the context of esports and tourism involves the comprehensive unification of various systems, data, and processes into a single, efficient structure. It has been proven that automation in the context of esports and tourism is a powerful tool that allows routine processes to be transferred to automatic mode, which in turn significantly enhances the efficiency of club systems. It should be noted that the use of various concepts can ensure increased efficiency, improved customer service quality, and the creation of new opportunities. Among these concepts are the personalization of the user experience, data analytics and decision-making, integration with other systems, and the expansion of marketing capabilities. It has been proven that optimization in the context of esports and tourism club systems is a strategically important process that enables the achievement of maximum resource efficiency, increases profitability, and ensures stable business growth. It should be noted that the use of various concepts can help achieve maximum returns from existing resources and increase business profitability, thereby ensuring stable growth, enhanced competitiveness, and rapid adaptation to changes. Among these concepts are the optimization of operational processes, the implementation of unified standards for all service processes, and the optimization of strategic processes. Promising areas for further research, based on your conclusions, include the development of new models of integrated management and the ethical aspects of automation and optimization.

Дослідження присвячено проблемі оптимізації інтегрованого управління клубними системами кіберспорту та туризму в умовах жорсткої конкуренції на глобальному ринку. Мета дослідження спрямована на визначення основних концепцій автоматизації та оптимізації інтегрованого управління клубними системами кіберспорту та туризму. У ході дослідження встановлено, що інтегроване управління в контексті кіберспорту та туризму передбачає комплексне об'єднання різноманітних систем, даних та процесів в єдину, ефективну структуру. При цьому процеси автоматизації та оптимізації, завдяки конкретним концепціям, стають ключовими елементами ефективного управління цією системою. Доведено, що автоматизація у контексті кіберспорту та туризму – це потужний інструмент, який дозволяє перевести рутинні процеси в автоматичний режим, що своєю чергою сприяє значному підвищенню ефективності роботи клубних систем. Зазначимо, що завдяки використанню різноманітних концепцій можна забезпечити підвищення ефективності, покращення якості обслуговування клієнтів і створення нових можливостей. Серед таких концепцій – персоналізація користувацького досвіду, аналітика даних та прийняття рішень, інтеграція з іншими системами, розширення можливостей маркетингу. Доведено, що оптимізація в контексті клубних систем кіберспорту та туризму – це стратегічно важливий процес, який дозволяє досягти максимальної ефективності використання ресурсів, а також підвищити прибутковість і забезпечити стабільне зростання бізнесу. Зазначимо, що завдяки використанню різноманітних концепцій можна досягти максимальної віддачі від наявних ресурсів, підвищити прибутковість бізнесу та, як наслідок, забезпечити стабільне зростання, підвищення конкурентоспроможності й швидку адаптацію до змін. Серед таких концепцій – оптимізація операційних процесів, впровадження єдиних стандартів для всіх сервісних процесів і удосконалення стратегічних процесів. Серед перспективних напрямків для подальших досліджень, які

впливають з ваших висновків, – розробка нових моделей інтегрованого управління та етичні аспекти автоматизації й оптимізації.

Keywords: *esports; tourism; esports clubs; automation; optimization; management; hybrid products.*

Ключові слова: *кіберспорт; туризм; кіберспортивні клуби; автоматизація; оптимізація; управління; гібридні продукти.*

Problem statement. In globalization, esports clubs and tourism companies face intense competition, which demands continuous improvement of core management processes. Therefore, the relevance of this research lies in the need to develop innovative concepts for the automation and optimization of integrated management within esports and tourism club systems. These processes enable increased operational efficiency, meet the growing demand for esports services, and create new hybrid products that combine elements of esports and tourism. For example, this could include esports tours where participants compete and visit tourist destinations or tourism products that incorporate esports elements, such as esports venues within hotels. Given the outlined specificity, the range of concepts for automation and optimization of integrated management within esports and tourism club systems is exceptionally broad and continuously expanding.

The analysis of recent researches and publications. The issue of integrated management of esports and tourism club systems has been studied by prominent practitioners and economists such as V. Proskura, T. Ilto, S. Mikulyanets, Briskin Yu. A., Neroda N. V., and Zaychenko L. I. They have made significant contributions to understanding the general principles and mechanisms of such management. However, existing scientific literature is generally limited to theoretical analysis and does not sufficiently address the practical aspects of automating and optimizing these processes, particularly in the context of modern technologies and intense market competition.

Purpose of the article. The research aims to identify the core concepts of automation and optimization in the integrated management of esports and tourism club systems.

The paper main body with full reasoning of academic results. Within the research, the authors emphasize that integrated management involves unifying all or specific management systems related to esports competitions, hotel bookings, financial management, and so on into a cohesive whole. In the context of esports and tourism, integration can involve:

1. Unifying different software systems (e.g., booking systems, competition management systems, data analytics systems [3]) into a single platform.
2. Consolidating data from various sources (e.g., booking data, participant data, competition results [3]) to obtain a more comprehensive picture.
3. Streamlining different processes (e.g., booking process, participant registration process, competition execution process [4]) into a single, more efficient process.
4. Integrating various sales channels (e.g., website, mobile app, social media [2-3]) to increase audience reach.

The creation of an integrated system inevitably leads to the formation of esports and tourism club systems, which essentially function as organized structures that bring together people interested in esports and tourism, providing them with a platform for communication, training, competitions, and travel. Within these systems, the processes that occur are complex. It should be noted that such structures can include various types of esports clubs (training, competitive, community) and tourism clubs (sports tourism clubs, cultural and educational clubs, and specialized tourism clubs) (see Table 1). These systems organize esports competitions in various parts of the world, host tournaments for tourists, and arrange travel to esports events.

Table 1. Components of esports and tourism club systems

Components of club systems	Types of clubs that are components of club systems	Characteristics of the components that are part of club systems
Esports Clubs	Training clubs	Focused on developing players' skills, conducting training sessions, and preparing for competitions.
	Competitive clubs	Participate in various esports leagues and tournaments.
	Community clubs	Created for communication and sharing experiences among players.
Tourism Clubs	Sports tourism clubs	Organize hikes, cycling tours, rafting, and other active leisure activities.
	Cultural and educational clubs	Conduct excursions, festivals, and other events aimed at introducing different cultures and countries.
	Specialized tourism clubs	Bring together people with specific interests, such as photography, gastronomy, or ecotourism.

Source: formulated by the author based on [2-3; 5]

Therefore, automation and optimization processes, through specific concepts, become core elements of the effective management of such a system. These processes are closely interconnected and aimed at increasing efficiency and productivity by replacing manual operations with automated ones and finding the best solutions to achieve the set goals.

Automation is a process that allows for the replacement of manual labor with machine-based operations, meaning tasks or processes are carried out without direct human involvement. In esports and tourism, automation involves transitioning routine operations (such as booking, payment, and registration of esports players) to an automated mode.

The use of a wide range of tools and technologies allows for the creation of club systems in esports and tourism characterized by a reduction in errors, faster information processing, and improved service levels.

Consequently, it enhances efficiency, improves customer service quality, and creates new opportunities. Thus, the features of automation impact the integrated management of club systems in esports and tourism (see Table 2).

Table 2 - The impact of automation processes on integrated management of club systems in esports and tourism

Impact of automation	Specifics of the impact	Characteristics of the fundamental principles of the impact of automation on integrated management	Tools and technologies of automation
Increased efficiency	Speed of data processing	Automated systems can process large volumes of data within seconds, allowing for quick participant registration, payment processing, and report generation.	Business Intelligence Systems (Popular systems: Tableau, Power BI, Qlik Sense) Project Management Systems (Popular systems: Asana, Trello, Jira) Marketing Automation Systems (Popular systems: HubSpot, Marketo, Mailchimp) Cloud Technologies (Popular cloud platforms: Amazon Web Services, Microsoft Azure, Google Cloud Platform) Database Management Systems (DBMS)
	Reduction of human error	Automation minimizes the risk of errors associated with manual data handling.	
	Resource optimization	Automated systems enable more efficient use of resources such as personnel, equipment, and finances.	
Improved customer service quality	24/7 Availability	Automated systems allow clients to access information and services at any time of the day.	Marketing Automation Systems (Popular systems: HubSpot, Marketo, Mailchimp) Cloud Technologies (Popular cloud platforms: Amazon Web Services, Microsoft Azure, Google Cloud Platform) Database Management Systems (DBMS)
	Personalization	Through user data analysis, automated systems can provide personalized recommendations and offers.	
	Rapid response to inquiries	Automated chatbots and virtual assistants enable quick responses to customer inquiries.	
Creation of new opportunities	Customized tours	Automation enables the creation of customized travel packages that combine esports competitions with leisure activities.	Database Management Systems (DBMS)
	Virtual events	Automation allows for hosting virtual esports tournaments and conferences, broadening the audience reach.	
	Data analytics	Automated data collection and analysis help identify new trends and develop more effective growth strategies.	

Source: formulated by the author based on [2-3; 5]

The automation impact integrated into the management of club systems in esports and tourism can be identified through concepts such as user experience personalization, data analytics, decision-making, integration with other systems, and enhancement of marketing capabilities. Practical examples include:

1. Automatic Registration for Competitions. In this case, registering participants for esports competitions is fully automated. Players register themselves on an online platform by providing necessary information (nickname, team, contact details, etc. [3-4]). Various web technologies, databases, and content management systems are used to implement automatic registration.

2. Online payment. Participants can pay for competition entry, services, or products related to esports and tourism online using bank cards, e-wallets, or other payment systems.

3. Hosting Virtual Tournaments. It involves organizing and conducting esports competitions in an online format. Participants from various parts of the world can compete against each other without leaving their homes.

It enhances the efficiency of the systems and increases customer satisfaction.

Optimization is the process of finding the best solution among the multitude of possible options. In other words, it's like discovering the most efficient way to reach a goal, complete a task, or configure a system. Thus, in the context of the study, optimization refers to processes aimed at improving the efficiency of resource utilization, event planning, and marketing campaigns [2].

By utilizing a variety of tools and technologies, it is possible to create club systems in esports and tourism that maximize returns from available resources and improve business profitability. This ensures steady growth, increased competitiveness, and rapid adaptation to changes.

The characteristics of the impact of optimization processes on the integrated management of club systems in esports and tourism are presented in Table 3.

Considering the content and focus of the outlined impact, the following concepts of optimization in integrated management of club systems in esports and tourism can be identified: optimization of operational processes (such as inventory management, resource planning, etc. [1; 4]), implementation of unified standards for all service processes, and optimization of strategic processes.

Table 3. Impact of optimization processes on integrated management of club systems in esports and tourism

Impact of automation	Specifics of the impact	Characteristics of the fundamental principles of the impact of automation on integrated management	Tools and technologies of automation
Stable growth	Constant increase in sales volumes, profits, and market share.	Effective resource utilization, cost minimization, and continuous adaptation to market changes	Conducting Simulation Modeling to Assess the Effectiveness of Different Solutions. Comparing the Effectiveness of Various Design Options, Marketing Campaigns, etc. (A/B Testing). Creating Mathematical Models for Forecasting and Optimizing Processes. Identifying Patterns and Trends in Data to Make Informed Decisions.
Increased competitive ness	Ability to successfully compete in the market by offering more attractive conditions for clients.	High service quality, low prices, and innovative solutions	
Rapid adaptation to hange	Ability to quickly respond to changes in market conditions and client needs.	Flexible processes and an efficient change management system	

Source: formulated by the author based on [4-5]

According to the outlined concepts, examples of optimization in esports and tourism include [4-5]:

1. Creating a centralized repository that contains detailed descriptions of all processes occurring within the organization. It can include core processes (such as participant registration and event management) and support processes (such as equipment maintenance and accounting). A system can be developed to document the process of organizing esports tournaments.
2. Developing unified standards for all processes, from customer service to event organization. These can include customer service standards, event organization standards, documentation standards, and safety standards.
3. Developing long-term development strategies for club systems, considering Market changes and the competitive environment. It may involve planning expansion into new markets (such as opening new clubs in other cities or

countries, organizing international competitions, or even creating a proprietary league).

Based on the points above, it is evident that automation and optimization in integrated management are powerful tools that significantly enhance the efficiency of enterprises and organizations. Through their implementation, the following advantages can be achieved: increased productivity, cost reduction, improved quality of hybrid products and services, accelerated decision-making, and enhanced competitiveness. The detailed content of the outlined advantages is presented in Table 4.

Table 4. Advantages of integrated management systems for club systems in esports and tourism from integration and automation processes

Specific advantages	Overall content of the advantage
Increased productivity	Automation of routine tasks frees employees to perform more complex and creative tasks, ultimately increasing overall productivity.
Reduced costs	Process optimization and automation help reduce costs associated with production, service, and management.
Improved quality of hybrid products and services	Automation enables greater accuracy and stability in production processes, positively impacting the quality of the final product or service
Accelerated Decision-Making	Analyzing large volumes of data and automating information collection processes allow for more informed decision-making in a shorter time frame.
Enhanced competitiveness	By implementing innovative technologies and optimizing the businesses become more competitive in the market.

Source: formulated by the author based on [1;3-4]

The concepts of automation and optimization in integrated management open up broad opportunities for the development of club systems in esports and tourism.

Their implementation can lead to significant improvements in efficiency, cost reduction, enhanced quality of products and services, and a range of other benefits.

Conclusions from this study and prospects for further exploration in this direction. The research has shown that integrating management in esports and tourism involves the comprehensive fusion of various systems, data, and processes

into a unified and efficient structure. In this context, automation and optimization processes, through specific concepts, become core elements of the effective management of such a system. In this context, the following conclusions have been drawn:

1. Automation in the context of esports and tourism is a powerful tool that enables the transition of routine processes to an automated mode, which, in turn, significantly enhances the efficiency of club systems. It should be noted that utilizing various concepts can ensure increased efficiency, improved customer service quality, and the creation of new opportunities. Among these concepts are user experience personalization, data analytics and decision-making, integration with other systems, and expansion of marketing capabilities.

2. Optimization in the context of club systems in esports and tourism is a strategically important process that enables achieving maximum efficiency in resource utilization, enhancing profitability, and ensuring stable business growth. It should be noted that utilizing various concepts can achieve maximum returns from existing resources and enhance business profitability, thereby ensuring stable growth, increased competitiveness, and rapid adaptation to changes. Among these concepts are optimization of operational processes, implementation of unified standards for all service processes, and optimization of strategic processes.

Among the promising areas for further research that arise from these conclusions are the development of new models of integrated management and the ethical aspects of automation and optimization,

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