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THE IMPACT OF CONVERGENT TECHNOLOGIES ON THE BUSINESS PROCESSES MANAGEMENT IN A TOURISM ENTERPRISE

ВПЛИВ КОНВЕРГЕНТНИХ ТЕХНОЛОГІЙ НА УПРАВЛІННЯ БІЗНЕС-ПРОЦЕСАМИ ТУРИСТИЧНОГО ПІДПРИЄМСТВА

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The relevance of the research is determined by the fact that convergent technologies can be a powerful tool for optimizing and improving the management of business processes in a tourism enterprise. It enables it to enhance its competitiveness in the market. Therefore, the article aims to identify the specifics of the impact of convergent technologies on the management of business processes in a tourism enterprise. According to the research findings, the use of convergent technologies allows enterprises to be more flexible, efficient, and competitive in the tourism market, which is reflected in their ability to meet the needs and expectations of modern customers. Further research in this direction could involve a deeper examination of the specific impacts of convergent technologies on various aspects of managing tourism enterprises, developing strategies for implementing such technologies considering the specificity of the tourism industry, as well as analyzing their influence on changes in market dynamics and the competitive environment.

Keywords: efficient resource utilization, personalized services, positive user experience, productivity, development strategies, tourism.

Актуальність дослідження зумовлена тим фактом, що конвергентні технології можуть бути потужним інструментом оптимізації та покращення управління бізнес-процесами туристичного підприємства. Це дозволяє йому підвищити їх конкурентоспроможність на ринку. Стаття спрямована на визначення специфіки впливу конвергентних технологій на управління бізнес-процесами туристичного підприємства. В межах дослідження *звернуто увагу* на той факт, що вплив конвергентних технологій на управління бізнес-процесами туристичного підприємства полягає у створенні цілої низки переваг, які можуть значно покращити його ефективність та конкурентоспроможність. Доведено, що вплив конвергентних технологій на управління бізнес-про-

цесами призводить до синтезу змін у механізмах, які становлять основу контролю за ресурсами та даними, та спрямовують управлінський вплив. Конвергентні технології впливають на ключові аспекти функціонування туристичного підприємства через створення інтегрованих управлінських платформ та систем управління клієнтським досвідом. Вони також сприяють підвищенню продуктивності та ефективності основної діяльності та прийняття рішень на основі даних, а також покращують управління ризиками та безпекою. Зроблено висновок, що конвергентні технології, шляхом створення єдиної інтегрованої системи, об'єднують різні технології, сервіси та дані. Це сприяє покращенню комунікації та взаємодії між різними бізнес-процесами підприємства. Зроблено висновок, що конвергентні технології дозволяють оптимізувати та автоматизувати процеси прийняття рішень шляхом використання аналітичних методів та даних. Це дозволяє підприємству приймати більш обґрунтовані та стратегічні рішення. Зроблено висновок, що конвергентні технології спрощують процеси взаємодії з клієнтами та забезпечують їм зручний доступ до інформації про послуги та продукти підприємства, що сприяє покращенню клієнтського досвіду та збільшенню задоволеності клієнтів. За результатами дослідження доведено, що використання конвергентних технологій дозволяє підприємствам бути більш гнучкими, ефективними та конкурентоспроможними на ринку туризму, що відображається у їх здатності задовольняти потреби та очікування сучасних клієнтів. Враховуючи наведені вище положення, продовження досліджень в цьому напрямку може включати глибше вивчення конкретних впливів конвергентних технологій на різні аспекти управління туристичними підприємствами, розробку стратегій впровадження таких технологій з урахуванням специфіки сфери туризму, а також аналіз їхнього впливу на зміни в ринковій динаміці та конкурентному середовищі.

Ключові слова: ефективне використання ресурсів, персоналізовані послуги, позитивний досвід користувача, продуктивність, стратегії розвитку, туризм.

Target setting. Convergent technologies refer to an approach to information technologies that involves combining not only different types of technologies, but also services, devices, or networks into a single integrated system. In terms of managing the business processes of a tourism enterprise, this approach is aimed at ensuring more efficient resource utilization, facilitating interaction between different systems and services (such as client management, reservation reception, processing, finance, and others), and simplifying user experiences. Indeed, convergent technologies can be a powerful tool for optimizing and improving the management of business processes within a tourism enterprise, enabling it to enhance its competitiveness in the market.

Analysis of research and publications.

As of today, the concept of business processes is not new. Therefore, a significant number of scientific works by domestic researchers are dedicated to studying their essence, forming a generalized classification, and improving them.

Among these researchers are Bakalo N., Gryshko V., Yesipova K., Kushniruk V., Velychko O., and Koval O.

In particular, Kushniruk V., Velychko O., and Koval O. In identifying modern approaches to business process management, these researchers have concentrated on how emerging technologies impact their structure and operational features.

Tour O. and Matusevich A., while studying business processes based on their functional purpose, also noted that the impact of convergent

technologies on core, supporting, and management business processes can create a whole range of advantages for the enterprise.

While acknowledging the thorough groundwork laid by these researchers, it's worth noting that the impact of convergent technologies on enterprise business process management requires comprehensive study. It is especially relevant for the tourism industry, considering it's the most active in adopting such technologies across various internal activities of the enterprise, which facilitate the formation and implementation of tourism products.

The wording of the purposes of article (problem). The article aims to explore the specific impact of convergent technologies on the management of business processes in a tourism enterprise.

The paper's main body with full reasoning of academic results. Within the scope of the research, attention is drawn to the fact that the impact of convergent technologies on the management of business processes in a tourism enterprise is multifaceted. This is due to the fact that it manifests in the following aspects [2; 5–6]:

Creation of an integrated management platform. Convergent technologies enable the integration of various systems and services. It facilitates the management of different business processes within the tourism enterprise and ensures greater efficiency in resource utilization.

Creation of an integrated customer experience management system. Integrating customer data from various sources enables the creation of more personalized services and interaction with

customers. It contributes to customer retention and acquisition, enhances their satisfaction, and ensures a positive user experience.

Increasing productivity and efficiency of core activities. Integrating various technologies allows for the automation of many routine processes, reducing the time and effort required for their execution, and enables employees to devote more attention to strategic tasks.

Enhancing decision-making productivity based on data. Convergent technologies enable the collection and analysis of large volumes of data regarding enterprise activities and market trends. It assists managers in making informed decisions regarding development strategies and marketing initiatives [1].

Enhanced risk and security management. Integrating various systems allows for better control and monitoring of risks associated with data misuse, cybercrime, and other security aspects.

Therefore, convergent technologies transform any activity of a tourism enterprise that involves an input product (touristic), adds value to it, and provides an output product for consumers of various types (both internal and external [7]).

These technologies affect not only the format itself (forming the necessary resources and data, and triggers that initiate the process [7]) but also the process of managing the business processes of the tourism enterprise, helping to improve its efficiency, productivity, and speed (see Figure 1).

Clearly, in terms of direction, the impact of convergent technologies on business process management synthesizes changes in the mechanisms that control resources, and data, and guide managerial influence.

The creation of an integrated management platform typically includes various modules and functionalities covering different aspects of enterprise operations, such as finance,

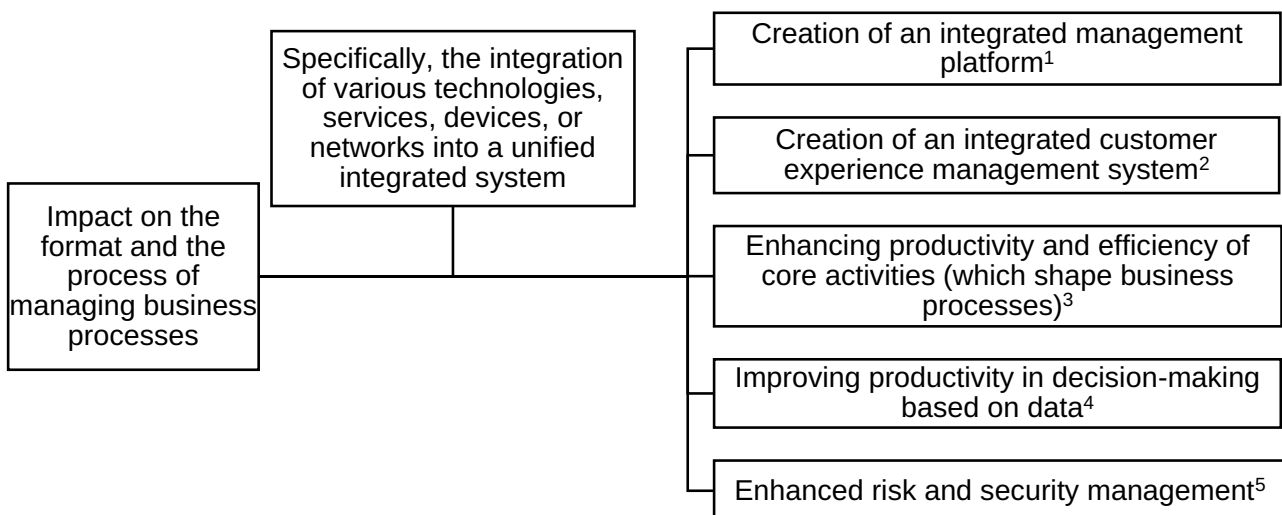


Figure 1. The impact of convergent technologies on the management of business processes within a tourism enterprise

Note:

¹ It is formed through the integration of various technologies, tools, and systems into a unified integrated system for better management of enterprise business processes.

² It is formed through the integration of various aspects and elements of the company's activities to ensure comprehensive and cohesive interaction with customers at all stages of their interaction with the brand or enterprise.

³ It is formed through the optimization of workflow processes and increased effectiveness in the core areas of the enterprise's operations.

⁴ It is formed through the use of analytical methods and tools for efficient collection, analysis, and utilization of data to make informed and strategically considered decisions.

⁵ It is formed through identifying potential threats and determining their impact on the enterprise and its customers.

Source: formed based on [1; 3–4; 6]

customer management, production, logistics, marketing, and more [2]. The creation of an integrated management platform entails that tourism enterprises need to: centralize data, improve operational efficiency, ensure analytics and reporting capabilities, enhance customer service, reduce risks, and increase data security (see Table 1).

Therefore, the creation of an integrated management platform is a complex process that leads to the optimization of both core and managerial business processes of the enterprise by forming more valuable information for their owners through the integration of various technologies, services, and data. It enables the enterprise to maintain stable operations and respond effectively to changes in market conditions and customer demands.

Creating an integrated customer experience management system involves integrating various technologies, services, and data to provide more effective and personalized customer service throughout their interaction with the enterprise [1; 3]. Creating such a system entails tourism enterprises establishing a common platform for collecting, storing, and analyzing customer data; forming an integrated system that consolidates various booking channels; enhancing the system for gathering and analyzing customer experience data; providing customers with convenient access to information about services; establish feedback and customer support systems (see Table 2).

These components enable the enterprise to ensure a high level of customer satisfaction, improve their experience, and increase loyalty, which is a crucial factor in the competitive tourism market.

Increasing the productivity and efficiency of the core activities of a tourism enterprise (which shape business processes [4–5]) is achieved through the implementation of technologies and processes that enable it to achieve better results in less time and with fewer resources. The outlined process entails that tourism enterprises need to ensure business process automation, resource optimization, business process standardization, continuous improvement of business process execution, effective personnel management, and utilization of advanced technologies (see Table 3).

In general, increasing productivity and efficiency in the core activities enhances the enterprise's competitiveness, resulting from the effective use of resources and the improvement in the quality of products or services [2].

Increasing the productivity of decision-making based on data in a tourist enterprise involves optimizing and enhancing the process of making strategic and operational decisions through the use of analytical methods and data [2; 3]. The outlined process entails that tourist enterprises need to: transition to using analytical tools and insights, make data-driven decisions, continuously monitor and evaluate the results of decisions made, and refine the decision-making process (Table 4).

Table 1

Features of creating an integrated management platform

Integration directions	Integration peculiarities	Result
Centralize data	Combining different systems into a single platform allows for centralizing data from various sources, making information more accessible and improving its quality	Enables the enterprise to maintain stable operations and respond effectively to changes in market conditions and customer requirements
Improve efficiency	An integrated platform provides greater automation and optimization of business processes, helping enterprises reduce time, costs, and errors associated with performing routine tasks	
Analytics and reporting	An integrated platform enables the collection and analysis of data from different sources to obtain valuable information for decision-making.	
Customer service	An integrated management system allows for better tracking and managing customer interactions, contributing to improving their experience and satisfaction	
Reduce risks and enhance data security	A centralized platform allows for better control of data access and ensures its security, reducing the risks of data leakage or loss	

Source: formed based on [2–4; 6]

Table 2

Features of creating an integrated customer experience management system

Integration directions	Integration peculiarities	Result
Shared platform for collecting, storing, and analyzing customer data	Creation of a centralized database containing information about clients, their preferences, interaction history, etc.	Allows customers to conveniently make bookings through any available channel, such as website, mobile application, phone, etc.
Integrated system for consolidating various booking channels	Creating a system that integrates various booking channels (online, phone, in-person) and ensures quick and efficient processing of customer orders	
System for collecting and analyzing customer experience data	Improvement of the system for collecting and analyzing customer experience data, enabling the identification of trends, pinpointing weaknesses, and making strategic decisions to enhance customer service	
Access to information about services	Providing customers with convenient access to information about services, the ability to make bookings and payments, as well as interact with the company anytime and from anywhere	
Feedback and customer support systems	Creating communication channels such as chats, phone support, email, etc., for quick resolution of customer inquiries and issues	

Source: formed based on [1; 3; 6]

Table 3

Features of increasing productivity and efficiency in the core activities of a tourism enterprise

Integration directions	Integration peculiarities	Result
Automation of business processes	Utilization of technologies and software to automate a wide range of tasks and processes, not limited to document movement and processing. This helps reduce the time required for their execution and lowers the likelihood of errors when processing orders, fulfilling customer requests, developing and launching new products, etc. This allows for the complete elimination of the human factor in executing simple, repetitive, and numerical processes.	Allows for more efficient resource utilization and improvement in the quality of products or services
Optimization of input resources for business processes	Effective allocation and utilization of financial, human, and material resources used to achieve maximum results in process execution.	
Standardization of business processes	Establishing standards and procedures that help ensure consistent quality of products or services and reduce the time required for their production (provided they are the output of the business process)	
Continuous improvement of business process execution	Implementation of a continuous improvement system for executing business processes (such as Lean or Six Sigma), which allows for the identification and elimination of redundant actions and the enhancement of their productivity	
Effective personnel management	Development of training and development systems for personnel involved in the business process, as well as the design of motivational programs aimed at increasing productivity and employee engagement	
Utilization of cutting-edge technologies	Implementation of cutting-edge technologies and innovations that enable enterprises to increase productivity and efficiency in the operations of the tourism enterprise and enhance its output products	

Source: formed based on [1; 4–5; 7]

Table 4

Features of data-driven decision-making productivity in a tourism enterprise

Integration directions	Integration peculiarities	Result
Analytical tools	Implementation of analytical tools and methods for data analysis aimed at identifying trends, determining key performance indicators, and developing strategies based on them	Improving the quality and efficiency of the decision-making process based on data
Insights	Turning analyzed data into actionable insights that help understand the situation, identify opportunities and challenges, and make informed conclusions	
Data-driven decision-making	Utilizing the insights gained to make decisions aimed at optimizing business operations, improving processes, and achieving strategic objectives	
Continuous monitoring and evaluation of decision outcomes	Implementation of continuous monitoring, analysis, and evaluation of the impact of decisions on the company's performance to identify their effectiveness and make adjustments to operations	
Improvement of decision-making process	Based on the analysis of results, continuously refining methods and approaches to decision-making to enhance their effectiveness and productivity	

Source: formed based on [2–3; 7]

These steps contribute to improving the quality and effectiveness of the decision-making process based on data, helping the tourism enterprise to be more competitive in the market. An example is the improvement of pricing strategy at Tysa LLC through the use of analytical methods and data, wherein the company management utilizes analytical tools to analyze competitor pricing data, market trends, seasonal fluctuations, and consumer demands [1; 3]. Based on the analysis of this data, patterns, and trends influencing the demand and competitiveness of their services are identified. Accordingly, the management establishes optimal pricing strategies for different market segments and various periods of the year.

Improving risk and security management processes for a tourism enterprise involves identifying, assessing, and minimizing risks related to safety for both customers and the enterprise itself. It is an important aspect of management that helps ensure the safety and protection of both the business itself and its customers. The outlined process entails that tourism enterprises need to transition to forming customer safety, manage crisis situations, create a cybersecurity system, provide insurance and risk minimization, and ensure legislative compliance and regulatory standards (see Table 5)

All these aspects of risk and safety management help tourism enterprises ensure

safety and protection for themselves and their clients, thereby increasing their trust and responsibility to the public.

The content of these provisions highlights the fact that the impact of convergent technologies on the management of business processes in a tourism enterprise can create a whole range of advantages for it in various aspects by changing the inherent mechanisms (including those that initiate outputs – shaping resources and data, and triggers of activity – and perform actions on the outputs – the results of actions – tourist product, service, or events that trigger other processes within the enterprise [7]).

Conclusions from this study and prospects for further exploration in this area. The study highlights the fact that the impact of convergent technologies on the management of business processes within a tourism enterprise entail creating a host of advantages that can significantly enhance its efficiency and competitiveness. It has been demonstrated that the impact of convergent technologies on business process management synthesizes changes in the mechanisms that control resources, and data, and exert managerial influence. In fact, convergent technologies impact key aspects of the functioning of a tourism enterprise (specifically its core, support, and managerial directions) by creating an integrated management platform, establishing an integrated customer experience

Table 5

Features of improving risk management and security processes of a tourism enterprise

Integration directions	Integration peculiarities	Result
Client safety formation	It encompasses all aspects related to the safety and comfort of tourists during their travels, including the security of their property, physical safety, and medical assistance if needed	Ensuring safety and protection for both themselves and their clients enhances their trust and responsibility to the public
Crisis situation management	It includes developing evacuation plans, responding to emergencies such as natural disasters or terrorist attacks, as well as providing communication channels and support for clients during crisis situations	
Cybersecurity	It involves protection against cyber-attacks, safeguarding the confidentiality of clients' personal data, and preventing information leaks.	
Insurance and risk minimization provision	The enterprise can utilize insurance to cover risks associated with unforeseen events such as trip cancellations, medical expenses, or loss of luggage	
Legislative compliance and regulatory standards	Tourism enterprises must comply with legislation and regulatory requirements regarding safety and consumer rights protection	

Source: formed based on [2; 4; 6]

management system, enhancing productivity and efficiency in core operations, improving data-driven decision-making productivity, and enhancing risk and security management. At the same time, a number of related conclusions have been drawn, including:

1. Convergent technologies, through the creation of a unified integrated system, bring together various technologies, services, and data, thus enhancing communication and interaction among different business processes of the enterprise.

2. Convergent technologies enable the optimization and automation of decision-making processes by utilizing analytical methods and data, allowing the enterprise to make more informed and strategic decisions.

3. Convergent technologies streamline customer interactions and provide convenient access to information about the enterprise's services and products, thereby enhancing the

customer experience and increasing customer satisfaction.

It's worth noting that the transformations mentioned above collectively bring about fundamental changes in how tourism enterprises manage their business processes. The use of convergent technologies enables enterprises to be more flexible, efficient, and competitive in the tourism market, reflected in their ability to meet the needs and expectations of modern customers.

Taking into account the above considerations, further research in this direction may involve a deeper examination of the specific impacts of convergent technologies on various aspects of managing tourism enterprises. It could include developing strategies for implementing such technologies considering the specifics of the tourism industry, as well as analyzing their impact on changes in market dynamics and the competitive environment.

REFERENCES:

- Yesipova K. A. (2012) Upravlinnya biznes-protsesamy turystychnykh pidpryemstv [Management of business processes of tourist enterprises]. *Ekonomichni nauky. Ser.: Ekonomika ta menedzhment – Economic sciences. Ser.: Economics and management*, no. 9(1.1), pp. 111–120.
- Bakalo N., Hryshko V. (2020) Osoblyvosti upravlinnya ta modelyuvannya biznes-protsesiv turystychnykh pidpryemstv [Peculiarities of management and modeling of business processes of tourist enterprises]. *Ekonomika i rehion – Economy and the region*, no. 4(79), pp. 54–61.
- Kushniruk V., Velychko O., Koval' O. (2023) Upravlinnya biznes-protsesamy v hotel'no-restorannomu biznesi [Management of business processes in the hotel and restaurant business]. *Ekonomika ta suspil'stvo – Economy and society*, no. 47. DOI: <https://doi.org/10.32782/2524-0072/2023-47-65> (accessed: 14.12.2023)

4. Kunayev A. Yu. (2017) Otsinka efektyvnosti biznes-protseviv pid chas diahnostuvannya efektyvnosti menedzhmentu mashynobudivnoho pidpryyemstva [Evaluation of the efficiency of business processes during the diagnosis of the management efficiency of a machine-building enterprise]. *Ekonomichnyy visnyk Zaporiz'koyi derzhavnoyi inzhenernoyi akademiyi – Economic Bulletin of the Zaporizhzhya State Engineering Academy*, no. 2(1), pp. 117–125.
5. Chang H-F., Wu S-H., Chen J., Ke C-H. (2021) Evaluating Business Model for Hotel Industry by Grey-TOPSIS. *Journal of Risk and Financial Management*, no. 14(12), pp. 606.
6. Senkiv M., Tserklevych V. (2021) Prerequisites of development of an accessible tourism for everyone in the European Union, *Journal of Geology, Geography and Geoecology*, no. 30(3), pp. 562–570.
7. Tur O.V., Matusevych A.S. (2018) Upravlinnya biznes-protseivamy na pidpryyemstvi [Management of business processes at the enterprise]. *Efektivna ekonomika – Efficient economy*, no. 6. Available at: <http://www.economy.nayka.com.ua/?op=1&z=6415> (accessed: 17.05.2024).

СПИСОК ВИКОРИСТАНИХ ДЖЕРЕЛ:

1. Єсіпова К. А. Управління бізнес-процесами туристичних підприємств. *Економічні науки. Сер.: Економіка та менеджмент*. 2012. № 9(1.1). С. 111–120.
2. Бакало Н., Гришко В. Особливості управління та моделювання бізнес-процесів туристичних підприємств. *Економіка і регіон*. 2020. № 4(79). С. 54–61.
3. Кушнірук В., Величко О., Коваль О. Управління бізнес-процесами в готельно-ресторанному бізнесі. *Економіка та суспільство*, 2023. № 47. DOI: <https://doi.org/10.32782/2524-0072/2023-47-65> (дата звернення: 14.12.2023)
4. Кунаєв А. Ю. Оцінка ефективності бізнес-процесів під час діагностування ефективності менеджменту машинобудівного підприємства. *Економічний вісник Запорізької державної інженерної академії*. 2017. № 2(1). С. 117–125.
5. Chang H-F., Wu S-H., Chen J., Ke C-H. Evaluating Business Model for Hotel Industry by Grey-TOPSIS. *Journal of Risk and Financial Management*. 2021. No. 14(12). P. 606.
6. Senkiv M., Tserklevych V. Prerequisites of development of an accessible tourism for everyone in the European Union. *Journal of Geology, Geography and Geoecology*. 2021. № 30(3). P. 562–570.
7. Тур О. В., Матусевич А. С. Управління бізнес-процесами на підприємстві. *Ефективна економіка*. 2018. № 6. URL: <http://www.economy.nayka.com.ua/?op=1&z=6415> (дата звернення: 17.05.2024).



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