



ISU

INTERNATIONAL SCIENTIFIC UNITY



VII INTERNATIONAL SCIENTIFIC
AND PRACTICAL CONFERENCE
«Scientific Research: Theoretical
Foundations
and Practical Applications»

January 24-26, 2024,
Vienna, Austria

isu-conference.com



INTERNATIONAL SCIENTIFIC UNITY

VII INTERNATIONAL SCIENTIFIC AND
PRACTICAL CONFERENCE

«Scientific Research: Theoretical Foundations
and Practical Applications »

Collection of abstracts

January 24-26, 2024
Vienna,
Austria

VII International scientific and practical conference «Scientific Research: Theoretical Foundations and Practical Applications» (January 24-26, 2024) Vienna, Austria, International Scientific Unity. 2024. 596 p.

The collection of abstracts presents the materials of the participants of the International scientific and practical conference «Scientific Research: Theoretical Foundations and Practical Applications».

The collection of theses contains relevant research that can be useful for scientists, teachers, students and everyone who is interested in the development of science and expanding their knowledge in various fields.

The materials of the collection are presented in the author's edition and printed in the original language. The authors of the published materials bear full responsibility for the authenticity of the given facts, proper names, geographical names, quotations, economic and statistical data, industry terminology, and other information.

The materials of the conference are publicly available under the terms of the CC BY-NC 4.0 International license.

Kiessaiev O., Gontar Yu., Kovalek P., Shabelnyk R. STUDY OF CONDUCTIVE COPPER PROPERTIES FOR THE MANUFACTURE OF POWER CABLES IN PRODUCTION CONDITIONS.....	529
Баласанян Г.А., Крапива Н.В., Семеній А.А. ПЕРСПЕКТИВНІ НАПРЯМКИ ПІДВИЩЕННЯ ЕФЕКТИВНОСТІ АВТОНОМНИХ СИСТЕМ ТЕПЛОЗАБЕЗПЕЧЕННЯ БУДІВЕЛЬ В РЕЖИМІ ПЕРЕРИВЧАСТОГО ОПАЛЕННЯ.....	532
Melnyk L.I., Osheha A.S. DEVELOPMENT AND CHARACTERISTICS OF ANDESITE-FILLED POLYMER COMPOSITE MATERIAL FOR CONSTRUCTION PURPOSES.....	536
Ремаєва О.О., Зеленський І.Б., Стогній Н.П. ДОСЛІДЖЕННЯ ПОХИБОК ВИЗНАЧЕННЯ РЕФРАКЦІЙНИХ ПОПРАВОК ДО РЕЗУЛЬТАТІВ ВИМІРУ КООРДИНАТ, ЩО ЗДІЙСНЮЮТЬСЯ ЗА ДОПОМОГОЮ ЕЛЕКТРОМАГНІТНИХ ХВИЛЬ.....	538
Savchenko A., Shkliarenko A. REDUCING THE IMPACT ON THE ENVIRONMENT DURING THE PRODUCTION OF BUILDING MATERIALS BY IMPLEMENTING ELEMENTS OF GREEN BUILDING.....	542
Корчак М.М. МЕТОДИКА ПРОВЕДЕННЯ ДОСЛІДЖЕНЬ ТА ОБРОБІТКУ ДОСЛІДНИХ ДАНИХ ЗАСМІЧЕНОСТІ ПОЛЯ ЗАЛИШКАМИ КУКУРУДЗИ.....	545
Теслюк Г., Смалій С., Гетьман М. МАШИНА ДЛЯ ВИДІЛЕННЯ ТА ОЧИСТКИ НАСІННЯ БАШТАННИХ КУЛЬТУР.....	550
Хавін В.Л., Киркач Б.М., Шергін С.Ю. УТОЧНЕНА МОДЕЛЬ РОЗРАХУНКУ РАДІАЛЬНОЇ ЖОРСТКОСТІ РОЛИКОВИХ ПІДШИПНИКІВ.....	552
Чернова О.Т. ХАРАКТЕРИСТИКА ЦИКЛІВ СКРАПЛЕННЯ У ВИРОБНИЦТВІ СПГ.....	556

Чернова О.Т., Чернов В.Б. ВПРОВАДЖЕННЯ СУЧАСНИХ ТЕХНОЛОГІЙ ПРИ ВИГОТОВЛЕННІ ФУНДАМЕНТІВ РЕЗЕРВУАРІВ.....	560
---	-----

SECTION: TRANSPORT AND LOGISTICS

Hnidoi R.I. PROBLEMS OF ORGANIZING CONTAINER TRANSPORTATION IN UKRAINE DURING THE WAR.....	565
---	-----

Arefiev O. THE ISSUES OF AUTOMATING THE SOFTWARE COMPONENT OF TRANSPORT LOGISTICS SYSTEMS.....	566
---	-----

Леонова С.В., Басараб Н. Р., Рудник Л. В., Суружіу І. С. ОСНОВНІ АСПЕКТИ ЛОГІСТИКИ МІЖДИСЦИПЛІНАРНИХ ПРОЕКТІВ У БУДІВЕЛЬНІЙ ГАЛУЗІ.....	569
--	-----

**SECTION: TOURISM AND HOTEL AND
RESTAURANT BUSINESS**

Тумчук S.V. ROLE AND EFFECTIVENESS OF ANALYTICS IN MAKING MANAGEMENT DECISIONS IN THE TOUR OPERATING INDUSTRY.....	573
--	-----

Єпик Л.І. НЕФОРМАЛЬНЕ НАВЧАННЯ ПРИ ПІДГОТОВЦІ СПЕЦІАЛІСТІВ ТУРИСТИЧНОЇ ГАЛУЗІ.....	577
---	-----

Худавердієва В.А., Костирко Ю.В., Шаравін І.В., Кур'янов К.Д. ГЛОБАЛІЗАЦІЯ І ЦИФРОВІЗАЦІЯ ЯК ФАКТОРИ РОЗВИТКУ ІНДУСТРІЇ SMART-ТУРИЗМУ.....	579
---	-----

Чукіна І.В. ПРОБЛЕМИ ТА ПЕРСПЕКТИВИ ПІСЛЯВОЄННОГО РОЗВИТКУ ЗЕЛЕНОГО ТУРИЗМУ В УКРАЇНІ.....	584
---	-----

SECTION: VETERINARY MEDICINE

Попова І.М., Музика А.С., Сідашова С.О. СТРУКТУРА IN VIVO ЕМБРІОЗБОРІВ НЕЛАКТУЮЧИХ КОРІВ – ПОСТІЙНИХ ДОНОРІВ ГОЛШТИНСЬКОЇ ПОРОДИ.....	588
--	-----

Тодоров М.І., Кушнір В.Ю., Бойко В.В. ВПЛИВ СУХОГО ПРОПІЛЕНГЛІКОЛЮ НА ДЕЯКІ ЛАНКИ ОБМІНУ РЕЧОВИН КОРІВ ПІД ЧАС ТРАНЗИТОРНОГО ПЕРІОДУ.....	592
---	-----

**SECTION: TOURISM AND HOTEL
AND RESTAURANT BUSINESS**

**ROLE AND EFFECTIVENESS OF ANALYTICS IN
MAKING MANAGEMENT DECISIONS IN THE TOUR
OPERATING INDUSTRY**

Svitlana Volodymyrivna Tymchuk

Ph.D., Associate Professor

Department of tourism and hotel and restaurant business

Uman national university of horticulture

svtumchyk@gmail.com

In the era of rapid technological advancement and globalization of the tourism market, tour operators face unique challenges and opportunities that require improvement in management methods and decision-making. One of the key factors defining success and competitiveness in the modern tour operating industry is the use of analytics. Analytics, considering the vast amount of data and the utilization of advanced information processing technologies, becomes a crucial tool for effective management and decision-making.

Over the past decade, analytics has transformed from an innovative tool into a necessary condition for competitiveness. From segmentation and demand forecasting to personalized marketing strategies and internal process optimization, analytics has become a defining element of strategic management in tour operating.

In the tour operating sphere, challenges arise due to the changing nature of the tourism business and high levels of competition. One of the significant challenges is the need for effective demand management and forecasting changing trends. Additionally, tour operators often need to optimize pricing, considering competitiveness and economic factors. However, with the use of analytics, it is possible to more accurately forecast and adapt strategies for demand management and pricing, contributing to effective resource management and increased competitiveness.

Additionally, analytics can address tasks related to service personalization, ensuring safety, and risk management. By analyzing customer data and behavior, personalized and convenient offers can be created, enhancing the level of customer satisfaction. At the same time, analytics allows for predicting and managing risks, such as emergencies or changes in geopolitical conditions, providing more effective event management and response to unforeseen circumstances. These capabilities make analytics an integral part of strategic management and decision-making in the tour operating industry.

The implementation of analytical tools in tour operator companies can effectively transform several key management areas, ensuring increased efficiency and

competitiveness. One such area is demand management and forecasting, where analytics enables the analysis of historical data and variable trends for accurate forecasting of demand for various tourist destinations [1]. This allows for the adaptation of marketing strategies and pricing according to market dynamics.

Optimization of pricing and revenue management is another key area where the use of analytical tools leads to improvement. Analyzing competitiveness and market pricing dynamics helps determine optimal prices for different segments and periods.

Another important aspect is personalized marketing and customer service. With analytics, customer data, preferences, and behavior can be analyzed to create personalized offers and improve service quality [2]. Analytics also finds application in inventory management and service provision, helping optimize the allocation of resources for more efficient management of hotels, transportation, and other services. Risk management and safety are yet another area where analytics can assist in more effectively identifying, assessing, and managing risks, as well as improving safety systems and responding to unforeseen circumstances.

In the tour operating industry, various types of data and analytical tools are employed for effective management and decision-making (Table 1).

Table 1. Key types of data and analytical tools for effective management and decision-making in the tour operating industry

Data Type	Primary Information	Analytical Tools
Demand and booking data	Information on booking quantity, demand, and services	Demand forecasting, analysis of dependencies, booking dynamics
Customer data	Demographic data, travel history, preferences, reviews	Personalized marketing, segmentation, satisfaction analysis
Pricing and competition data	Competitors' price information, promotions, discounts	Competitiveness analysis, pricing strategies, price optimization
Operational data	Resource data, efficiency, tourist movement	Inventory management, planning, logistics process optimization
geographical data	Location information, geographical features of destinations	Analysis of region popularity, geographically targeted marketing strategies
Social media and reviews data	Social media reviews, comments, travel impressions	Social monitoring, sentiment analysis, reputation management
Big data from sensors and IoT devices	Data from sensors in hotels, transportation vehicles	Service optimization, improvement based on real-time data

These data types and analytical tools play a crucial role in enhancing the efficiency and competitiveness of tour operator companies by enabling strategic decision-making across various management domains.

In general, the use of analytical tools in various management areas of a tour operator company contributes to balanced and strategic decision-making, leading to increased efficiency and success in the competitive tourism market.

Various types of data and analytical tools are employed in the tour operating industry for management and decision-making. Specifically, information about

demand and bookings is utilized to forecast and analyze booking dynamics. Customer data, including demographic information and travel details, allows for the development of personalized marketing strategies and forecasting customer behavior.

Data on prices and competition are used for competitiveness analysis, determining pricing strategies, and optimizing price offers. Operational data, such as resource utilization and service efficiency, serve inventory management, service planning, and optimization of logistical processes. Geographical data are employed for analyzing the popularity of regions and developing geographically targeted marketing strategies. Social media and reviews are utilized for social monitoring, analyzing customer sentiments, and managing the company's reputation. Big data from sensors and IoT devices are used for optimizing service delivery and improving service quality based on real-time data.

The utilization of technologies such as Artificial Intelligence (AI) and Machine Learning (ML) can significantly enhance the analytical capabilities of tour operators. Artificial Intelligence enables the automation of processing large volumes of data, making accurate forecasts, and identifying complex dependencies between various factors. Machine Learning assists systems in learning autonomously from data, refining their analytical abilities over time.

These technologies empower tour operators to effectively analyze extensive data on demand, bookings, and customer preferences. They can recognize trends, predict changes in demand, and provide personalized recommendations for clients. In the realm of geographical data and marketing, AI and ML technologies aid in analyzing the popularity of regions and developing precise geographically targeted strategies [3].

The application of these technologies in social media and reviews allows tour operators to monitor customer impressions effectively, analyze their preferences, and respond promptly to changes in consumer sentiments. Considering these aspects, the use of Artificial Intelligence and Machine Learning becomes a key element in optimizing analytical processes in the tour operating industry.

Some of the major tour operators and companies investing in the development of analytical technologies include Expedia Group, Booking Holdings, Sabre Corporation, Amadeus IT Group, and TUI Group. Expedia employs analytical tools to study demand, adapt marketing strategies, and optimize pricing offers. The company that owns Booking.com, Priceline, Kayak, and other platforms also actively uses analytics to adapt its services and offerings [4]. Sabre is one of the leading companies in tourism and hospitality technologies, implementing analytical solutions to support travel agencies and operators. Amadeus provides technological solutions for the global tourism industry, including optimization management and analytics solutions. One of the world's largest tour operators, TUI, also actively uses analytical tools to enhance its services and manage various aspects of its business.

These companies and tour operators actively use analytics for demand forecasting, pricing optimization, personalized marketing, and overall business management improvement. It's important to note that this list may change, and new companies may join those successfully using analytics in the tourism industry.

To ensure the ethical use of analytics in tour operating, it is important to adhere to several key principles. Firstly, it is necessary to guarantee the confidentiality of personal data of clients and partners, applying secure methods for storing and transmitting information. Clarity and transparency in the terms of data usage are crucial, explaining exactly what data is collected and how it will be used.

Compliance with all relevant laws and regulations is another important component of the ethical use of analytics. It is crucial to minimize the impact on individuals by collecting only necessary information and restricting the processing of personal data. The use of anonymization or pseudonymization of personal data can also reduce risks.

Special attention should be given to the ethical use of algorithms and artificial intelligence. Checking for biases and determining responsibility for decision-making are key stages in this context [5]. It is also important to regularly control access and use of data, preventing possible unlawful actions.

Training staff on the ethical aspects of analytics and establishing mechanisms for interaction and consultations with stakeholders help create an ethical culture within the organization. All these measures are aimed at ensuring that analytics in tour operating is used effectively and responsibly, taking into account the interests of all parties.

The acquisition and analysis of diverse data allow tour operators to effectively respond to changes in market conditions and optimize their processes and services. The role of analytics is to provide reasoned information for making strategic and tactical decisions aimed at improving competitiveness, increasing customer satisfaction, and optimizing operational efficiency.

Based on the conducted research, it can be determined that the effective use of analytics in tour operating is determined not only by technical capabilities but also by considering ethical aspects and ensuring data confidentiality. The application of various types of analytical tools, from demand and booking analysis to the use of artificial intelligence, enables tour operators to improve marketing strategies, price management, and customer service.

In conclusion, it can be argued that analytics in the tour operating industry is a key tool for achieving competitive advantages and building a sustainable business in a rapidly changing market with growing consumer expectations.

References

1. Skochylas, S. M. (2019). Analytical support as a source of information for decision-making. *Scientific Bulletin of Uzhhorod National University*. Issue 25, Part 2, 123-127.
2. Rudkivskyi, O. A., Rudkivska, A. Yu. (2018). Information systems in the management of tourist enterprises and a creative approach. *Economics and society*. Issue №. 17, 347-353.
3. Tymchuk, S. V. (2023). Tour operating innovations in the field of excursion tourism: challenges and prospects. *Market infrastructure*. Issue 73, 107-111. DOI: <https://doi.org/10.32782/infrastructure73-19>

4. Grabar, M. V., Kashka, M. Yu. (2020). Booking Holdings – Leading Marketplace in the international online tourism market. Problems of a systematic approach in economics. Issue №. 1(75), 13-18.
5. Osmak, A., Karpenko, Yu., Semenenko, I. (2022). The use of artificial intelligence tools in network management: advantages, risks, and development. Aspects of public administration, 11(3), 38-42.

НЕФОРМАЛЬНЕ НАВЧАННЯ ПРИ ПІДГОТОВЦІ СПЕЦІАЛІСТІВ ТУРИСТИЧНОЇ ГАЛУЗІ

Єпик Лариса Іванівна

кандидат історичних наук, доцент

Кафедра туризму

Сумський національний аграрний університет

larusyabarabash2017@gmail.com

Постановка проблеми. Неформальне навчання представляє собою важливий аспект освіти, який відбувається поза традиційними класами та офіційними установами. Цей вид навчання може бути різноманітним і включати такі форми, як самоосвіта, майстер-класи, тренінги, семінари, воркшопи, волонтерська робота, екскурсії, та інші неструктуровані форми здобуття знань та навичок.

Однією з ключових особливостей неформального навчання є його гнучкість та адаптивність до індивідуальних потреб та інтересів учня.

Воно може відбуватися в будь-якому місці та в будь-який час, що робить процес навчання більш доступним та персоналізованим.

Основною метою неформальної освіти в туризмі є розширення горизонтів фахівців, ознайомлення з сучасними трендами та інноваціями у сфері подорожей та гостинності.

Семінари та майстер-класи, проведені висококваліфікованими експертами галузі, надають можливість обмінюватися досвідом, вивчати передові практики та створювати мережу професійних контактів.

Ефективність неформальної освіти в туризмі полягає в її практичному спрямуванні, де учасники можуть відразу застосовувати отримані знання у своїй роботі. Воркшопи та екскурсії надають можливість практичного взаємодії з реальними ситуаціями та об'єктами туристичної індустрії.

Неформальна освіта в туризмі є важливим чинником створення конкурентоспроможних та компетентних фахівців, здатних ефективно впроваджувати новаторські підходи та розвивати галузь. Цей підхід сприяє постійному професійному зростанню учасників туристичного ринку та підвищенню рівня обслуговування для подорожуючих [1].

Аналіз останніх досліджень та публікацій. Дослідженням різних аспектів неформального навчання таких як методи, напрями, засоби і результати

Collection of abstracts

VII International scientific and practical conference
«Scientific Research: Theoretical Foundations
and Practical Applications »

January 24-26, 2024
Vienna, Austria



INTERNATIONAL SCIENTIFIC UNITY