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**DETERMINANTS OF TOURISM DEVELOPMENT
IN THE ASPECT OF THE CHALLENGES
OF THE 21ST CENTURY²**

Key words: tourism, development, determinants, pandemic, war, climate change, digitalisation

ABSTRACT. The paper aims to present the determinants of tourism development in the context of the challenges of today's economy, i.e. the impact of the coronavirus pandemic and the war in Ukraine, the need for the tourism sector to prepare for climate change and the digital transformation of the economy. The study is scoping. To achieve the research objective, a study of domestic and foreign literature, induction, deduction, generalisation and synthesis, and research results of other authors were used. The research used studies from UNWTO, World Travel & Tourism Council, Statista, Travel Trends 2023 (Simon-Kuchner), a European Commission report and other author's research. The research showed that in the third decade of the 21st century, the tourism sector is affected by health (COVID-19 pandemic), military and geopolitical threats, inflation, climate change and digital technologies. These phenomena influence the behaviour and attitudes of tourists worldwide and shape the opportunities for developing the tourism sector in each country at the macro-, meso- and micro levels. The challenges identified have created, and some will continue to create, crisis risks in tourism. It calls for building a more robust, more sustainable and resilient tourism economy for the future. It will require appropriate economic, climate, and energy policies from governments in many countries.

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INTRODUCTION

Using the definition in the documents of the European Parliament and in line with the recommendations of the World Tourism Organisation (WTO), tourism can be defined as the totality of “the activities of visitors who undertake a journey to a main destination outside their usual environment, for less than one year, for any main purpose, including business, leisure, or other personal purpose, apart from employment by an entity local to the place visited” [Regulation 692/2011, Official Journal UE L 192 z 22.07.2011, p. 17]. However, a more precise definition (covering both the demand and supply spheres) was proposed by Wiesław Alejziak [2000]. It interprets the term tourism to refer to “the totality of phenomena associated with the travel and stay of people temporarily and voluntarily outside their daily environment, including in particular the economic and social interaction between tourism organisers, direct service providers, the local population and the tourists themselves, insofar as the main purpose of their trips is not a remunerated activity in the destination visited” [Alejziak 2000, p. 3].

This author points out that tourism in the modern world is a constant and vital element in the structure of human needs; it is an economic field that shows a long-term upward trend on the demand and supply sides. At the same time, its vulnerability to economic volatility (in 2020-2023 caused, for example, by pandemic threats war between Russia and Ukraine) is noticeable. Before the outbreak of the coronavirus pandemic in 2014-2019, the tourism sector (travel and tourism) generated around 10.4% of global GDP (USD 10 trillion) and had a 10.3% share of the global labour market (334 million jobs). By 2022, the travel and tourism economy had already gained only 7.6% of global GDP. This share showed an increase of 22% compared to 2021 and was only 23% lower than in 2019 [WTTC 2023]. It indicates the strong impact of unpredictable factors on tourism and the tourism industry. This type of phenomenon, in addition to the pandemic, has become Russia’s invasion of Ukraine, which has also impacted the global tourism sector directly and indirectly. For some time now, the impact of global warming and the resulting climatic effects on the ability to exploit tourism as a leading economic activity in many countries, including those in Southern Europe, has also become apparent. Tourism buyers’ changing preferences and attitudes towards risks and challenges (e.g. economic and environmental), loss of health, and national security cannot be forgotten either. These are becoming essential determinants of tourism development.

With the increasing digitalisation of the economy, the impact of information and communication technologies on demand and supply in the tourism market is also being recognised. It is leading to new tourism business models, where more personalised offers are provided to customers [Kachniewska 2022, Kindzule-Millere and Zeverte-Rivza 2022].

All this led the authors to identify and analyse the determinants of tourism development in the face of the challenges of the modern economy. The study aims to present the factors that determine the functioning and development of the tourism sector in the third decade

of the 21st century. The study has a review character. A study of domestic and foreign literature, induction, deduction, generalisation, and synthesis was used to achieve the research objective. Data sources included studies by UNWTO, World

Travel & Tourism Council, Statista, Travel Trends 2023 (Simon-Kuchner) and the European Commission's report on the impact of climate change on tourism, as well as research by other authors.

IMPORTANCE OF TOURISM TO THE WORLD ECONOMY

As Małgorzata Bednarczyk [2006] points out, tourism is an essential sector of the global and national economy. Its services are used by 10% of the world's population and employ millions worldwide. According to the World Travel & Tourism Council [WTTC 2023], between 2014 and 2019, tourism will generate 10.4% of global GDP, worth USD 10 trillion, and contribute 10.3% to the global labour market (334 million jobs). There are regional differences in the importance of the global tourism economy, as shown by 2019 data on each region's share of global international tourist arrivals and tourism receipts (Table 1).

Table 1. International tourist arrivals and tourism income by world region in 2019

Region	No of tourists [mln]	The region's contribution in tourist arrivals [%]	Revenue from tourism [mld EUR]
UE-27	539.0	36.9	383.0
Rest of Europe	205.0	14.1	131.9
Asia and Pacific	362.0	24.8	396.0
America	219.0	15.0	305.0
Africa	70.0	4.8	34.3
Middle East	65.0	4.4	72.8

Source: own research [ETO 2021]

Although the contribution of tourism to GDP and employment declined under the impact of the COVID-19 pandemic and the resulting demand and supply shocks, the tourism sector began to regain its position in the global economy once the pandemic subsided. According to experts at the German analytical research institute Statista, the tourism industry's performance in 2023 is expected to improve by 50% compared to 2022, exceeding the performance achieved even before the pandemic in 2019. This positive trend (despite the ongoing war between Russia and Ukraine) is forecast for the coming

years until 2027. In 2023, global tourism industry revenues are forecast to reach USD 854.7 trillion, with an annual growth rate of 19.2% [Statista 2023]. German experts estimate that the compound annual growth rate (CAGR) will reach 4.42% between 2023 and 2027. It translates into a projected tourism market value of USD 1016 trillion in 2027.

All the above information confirms that the state of the tourism sector, known as the travel industry in the nomenclature of the World Travel & Tourism Council (WTTC), influences global and national economic prosperity. At the same time, it recognises its strong dependence on the state of the economy and external factors (e.g. geopolitical situation, health risks, climate, terrorism). Tourism has long influenced the socio-economic development of many countries and represents an alternative development path for less-developed regions [Rasool et al. 2021]. Tourism accounts for over 20% of GDP generation in some countries. For European Union (EU) Member States, the economic importance of the tourism sector as a share of GDP is 4-6% in Ireland, Poland, Belgium and Lithuania, around 15% in Spain, 18% in Portugal, 20% in Greece and almost 25% in Croatia [ECA 2021]. As Naushad Khan and co-authors point out, “the tourism industry has created many jobs that play a major role in reducing poverty and inequality. Tourism improves the country’s trade and boosts the global industrial sector” [Khan et al. 2020, p. 2].

Due to its direct and indirect importance for a country’s economy (contribution to GDP generation, multiplier effect, job creation, impact on the balance of international exchange), the tourism sector is an essential element of economic policy and international cooperation in many countries (including EU Member States). It is identified with the so-called tourism economy (tourism industry), which Aleksander Panasiuk and Karolina Nessel define as an activity that includes “hotels, catering, tourist passenger transport, travel agencies (tour operators and travel agents), the activity of entities facilitating the purchase of so-called related tourism services, the activity of entities providing tourist attractions and tourist information” [Panasiuk and Nessel 2020, p. 59].

DETERMINANTS OF TOURISM DEVELOPMENT IN THE MODERN ECONOMY

Tourism development in the modern world is influenced by numerous factors, the most important of which are mega-factors. They are classified in the literature in several aspects: economic, social, political, technical and environmental. They represent both stimulants and destimulants for developing tourism in a country. Table 2 shows the factors assigned to each group.

The determinants of tourism development are similarly viewed by Michal Roman and his team [Roman et al. 2020]. These authors also emphasise the importance of demographic factors (the number and structure of the population by age, gender, and education) and

Table 2. Classification of factors influencing tourism development

Factor group	Examples of factors and their importance
Economic	<ul style="list-style-type: none"> – real increase in the income of the population, as tourism as a higher-order need is possible once the necessities of life are satisfied at an adequate level, – adequate distribution of income, which allows for rational use of surpluses, – a stable financial situation enhances the stability of the entire region and thus its attractiveness for tourism and investment, – favourable economic and social situation fosters demand for products and services of the tourism sector and influences revenues in the sector, which reacts very flexibly to changes in the economic situation
Social	<ul style="list-style-type: none"> – changes in the needs experienced by people as societies develop, – changes in employment patterns as a result of the normalisation of working time, the establishment of public holidays, the granting of annual leave, – cultural and mental changes taking place in individual societies (e.g. greater openness, widespread cosmopolitanism, globalism, consumerism, environmental attitudes, fear of threats)
Political	<ul style="list-style-type: none"> – Regulatory state policies in specific spheres affect tourism in different ways within their policies: – social: legislation created by state authorities supports or restricts the tourism activities of the country's citizens and foreigners, e.g. through the health or public safety system, affecting the country's stability, – monetary and fiscal: through tax burdens, customs duties, price regulations and the stability of a given currency on world markets, – economic: by influencing the rate of economic growth (consequently increasing the real income of citizens), treasury-supported investments concerning or related to the tourism sector, – foreign: through international agreements and membership of organisations that regulate and in some cases facilitate tourism, – other activities of the state authorities that have a significant impact on the lives of citizens and the perception of the country internationally in terms of tourism and investment attractiveness, – in exceptional cases, e.g. a pandemic or war, the state may restrict or prevent tourism and the activities of tourism businesses in the country in question
Technical	<ul style="list-style-type: none"> – development of technology in the sphere of transport infrastructure as it supports the speed of movement, range and comfort of journeys, – development of tourist and surrounding facilities and improvement of their quality, – development of ICT technologies and digitalisation of the economy leading to changes in business models of tourist enterprises and in the behaviour of purchasers of tourist products and services
Ecological	<ul style="list-style-type: none"> – deterioration of the natural environment by tourism due to its massive scale in the 20th and 21st centuries, – the dependence of tourism and the functioning of tourism operators on the availability and attractiveness of natural resources, – the concept of sustainability and the European Green Deal as determinants of natural resource use in the tourism sector

Source: own elaboration based on [Kaczmarska 2014]

psychological factors (related to human needs and emotions), as well as the prices of tourism services, which change with changes in the wealth of tourists. Differentiated prices create opportunities for tourists to find an offer that suits their needs and financial possibilities.

Another way of classifying the factors influencing the development of tourism was presented by Renata Seweryn [2000], who divided them into internal (motivational) factors related to tourists' choices and external factors, which she considered to be increasing leisure time, improving the standard of living of society, changes in customs, rapid development of means of transport, intensification of industrialisation and urbanisation processes. On the other hand, in her opinion, an indispensable factor for tourism development is the existence of tourist assets, which become attractive for tourists thanks to the promotional activities of the tourism industry [Chudoba 2010, Kumar 2014, Roman et al. 2020].

Given the globalisation of tourism, it is worth considering the determinants of its development in a global context, in which case the determinants include tourism consumption, tourism production systems, global economic policies and the global socio-cultural environment [Tefler and Sharpley 2008, p. 3]. Of course, among these factors are the earlier determinants concerning each group, as shown in Table 2. They influence global tourism development and the opportunities for tourism development in a country or region. They stimulate tourism development and the tourism market, but occasionally, they also threaten development.

It is also the case in the third decade of the 21st century. Today, the tourism sector worldwide (especially in Europe from February 2022) is subject to strong, unpredictable and negative demand and supply factors. These lead to a reduction in tourism mobility and arrivals to destinations affected by these threats and, in extreme cases, to an almost complete reduction in global tourism mobility (e.g. under COVID-19 conditions). In analysing the current threats to tourism development, the authors identified three threats presented in Table 3.

Between 2020 and 2022, a coronavirus pandemic will become a development threat, with solid and diverse consequences for the global economy and tourism. These include phenomena such as travel bans, air traffic closures, sanitary restrictions, disrupted supply chains, restrictions in the hotel, catering and events industries, declines in production, consumption and investment, recession, increases in unemployment and inflation rates and public debt for all countries [Fotiadis et al. 2020, Abbas et al. 2021, Gössling et al. 2021, Villaće-Molinero et al. 2021].

World Travel & Tourism Council data show that the pandemic strongly impacted the tourism sector [WTTC 2023]. Its contribution to global GDP in 2022 was already only 7.6% (a reduction of almost 3 percentage points). At the same time, there are regional differences in the impact of the health crisis on the global tourism sector. This impact can

Table 3. Risks affecting the dynamic development of the global tourism market

Types of risks	Types and/or characteristics of risks
Exogenous	<ul style="list-style-type: none"> – adverse and unexpected changes in the economic climate, – natural disasters, – climate change, – prolonged adverse weather conditions, mainly in areas with a leisure tourist function, – industrial disasters, including transport disasters, – social (internal) conflicts, not related to overtourism, – military and political conflicts (external – bilateral and multilateral), – terrorist activities, – migration crises, – epidemics and pandemics, – related to the use of information technology
Endogenous	– related to the volume and structure of tourism, known as overtourism
Mixed	<ul style="list-style-type: none"> – excessive transport congestion, making it difficult to move around and reach one’s destination, – the state of the natural environment, including clean air and water, and resulting from the functioning of the transport system and the state of waste management

Source: own elaboration based on [Panasiuk and Nessel 2020, p. 60]

be traced by observing the changes in the share of travel and tourism (tourism sector) in the GDP of an area and the change in the number of jobs in the sector in a given region in 2022 compared to 2019, the period before the COVID-19 pandemic. A summary of these changes is given in Table 4.

The strength of the impact of the COVID-19 pandemic on tourism and global tourist flows during its most intense occurrence can also be seen from UNWTO data from January 2023 on the dynamics of change in international tourist arrivals in the subsequent years of the pandemic compared to 2019 [UNWTO 2023]. In 2020, there was a 72% decrease compared to 2019 (although the most significant decrease of 90% was observed from April to June 2020). In the year following the pandemic, the average annual decrease in the indicator was 62% compared to 2019, and in 2022 it was only 37%. As with the data on the regional variation of the impact of the pandemic on the tourism sector presented in Table 4, UNWTO information confirms that the Asia-Pacific region and Africa were most affected by the reduction in the number of foreign tourists in the years following the pandemic compared to 2019 (Table 5).

Table 4. Changes in the tourism sector's share of GDP and the number of jobs in different parts of the world under the impact of the pandemic

Indicators 2022/2019	Region						
	Europe	North America	Caribbean	Latin America	Africa	Middle East	Asia and Pacific countries
Change in the sector's share of GDP [%]	-7.2	-7.4	-16.3	-4.1	-9.7	-25.3	-49.7
Change in the number of jobs [%]	-8.5	-5.9	-6.8	-3.9	-12.7	-8.7	-15.4

Source: [WTTC 2023]

Table 5. Regional variations in the dynamics of changes in the number of international tourists under the impact of the pandemic in 2019-2022

Years	Change in number of foreign tourists compared to 2019 [%]					
	World	America	Europe	Africa	Middle East	Asia and Pacific countries
2021	-69.0	-63.0	-59.0	72.0	-66.0	-93.0
2022	-35.0	-35.0	-21.0	-35.0	-17.0	-77.0

Source: [UNWTO 2023]

The data presented in the UNWTO study indicates that the number of international tourists worldwide will decrease by 69% in 2021 compared to 2019, while this decrease appears to be smaller the following year. In contrast, the number of international tourists worldwide in 2022 will decrease by only 37% compared to 2019. This indicates that the situation will improve in the following years, but the data in Table 5 shows significant differences in the impact of the pandemic on international tourism in different regions of the world.

In February 2022, the global economy, which was recovering from the effects of the COVID-19 pandemic, was hit by Russia's military aggression against Ukraine, which led to a severe energy and economic crisis throughout Europe. As a result of the war and the restrictions imposed on Russia, many countries experienced other negative phenomena for the global and individual economies, such as a drastic increase in energy and gas costs,

a decline in GDP, inflation, an increase in public debt, exchange rate fluctuations, an increase in uncertainty and risk in the economy and corporate bankruptcies. Among the many industries affected by the consequences of the war in Ukraine is tourism [UNWTO 2022].

The war in Ukraine has had the following impact on the global economy and the global tourism sector:

- increased economic risk,
- reduced confidence and sense of security for all economic actors, including tourism buyers,
- weaker economic growth and higher inflation,
- higher fuel prices and interest rates,
- higher travel expenses,
- higher cost of doing business and increased pressure on the tourism sector (especially micro, small and medium enterprises),
- loss of USD 14 billion in global tourism receipts in 2022 as a result of the military conflict, as the source markets of Russia and Ukraine together account for 3% of global international tourism expenditure, odchodzenie od wykorzystywania tradycyjnych, ale ryzykownych lub niedostępnych dla Rosjan kierunków podróży,
- threat to jobs and tourism-related businesses in many countries, and exploitation by tourists of new destinations, especially islands and coastal resorts.

A UNWTO survey of global tourism sector experts in April 2022 revealed the war's anticipated impact on tourist behaviour in Ukraine. Approximately 20% of the experts indicated their fear of travel and confinement in the conflict zone and preference for safe destinations. For 16% of the experts, the potential effects of the war on tourist behaviour were a wait-and-see attitude and their holding back on travel plans. This group of respondents confirmed the predicted trend of opting for domestic tourism, possibly abandoning travel and staying home by tourists. A low degree of trust became a critical determinant of tourism purchasing behaviour for 15% of experts, and 9% of respondents indicated the importance of price in tourists' decision-making [UNWTO 2022]. Based on the observation of demand behaviour in the tourism market, after more than 18 months of war, it can be concluded that experts were good at indicating changes in the behaviour of tourism buyers under the influence of this military conflict.

In addition to factors related to global health problems and the consequences of Russia's war with Ukraine, the adverse global climate changes signalled for more than two decades due to global warming are increasingly impacting the state and prospects of tourism development. These are reflected in the unpredictability of climatic phenomena. For several years now, phenomena such as extreme heat waves, prolonged droughts favourable to fires, hurricanes, tornadoes, floods, melting glaciers, and flooding of beaches as a result

of rising sea levels have harmed the possibilities of tourism services, their efficiency, and the comfort of tourists. Climate change poses a severe threat to tourism [Cevik and Ghazanchyan 2020, Day et al. 2021, Belias et al. 2022, Matei et al. 2023], as indicated by some events of 2023 – unprecedented highest temperatures (close to 50°C) in Southern Europe, prolonged periods of heat above 30°C in temperate countries, fires in Greece, torrential downpours and floods in Italy. The tourism sector is experiencing increasingly severe effects of global warming (reducing tourism attractiveness), which include:

- rising temperatures – increase the risk of natural disasters (extreme heat, downpours, floods, droughts, hurricanes),
- forest fires, hurricanes, and floods in regions attractive to tourists,
- loss of biodiversity, dying coral reefs, melting glaciers,
- rising water levels – many small island and coastal countries need to prepare for the fact that climate change will harm tourism demand and consequently the socio-economic situation [Fauzel et al. 2017],
- climate change and average temperatures in Southern Europe: “the climate of Madrid in 2050 will resemble the North African city of Marrakech, London will be similar to Barcelona today and Stockholm to Budapest” [Nowicki 2023, p. 4].

The consequences of climate change for the tourism sector depend on the geographical location and type of activity. High mountainous regions in Asia, e.g. the Tibetan plateau and the Himalayas, are affected by climatic disasters such as glacial lake outbursts, glacial floods and glacial melt. In the Himalayas, snow and glacial ice caps are decreasing. This phenomenon also impacts glaciers in China. Melting glaciers are causing flooding in low-lying areas. All this influences the decreasing attractiveness of high-altitude areas for tourists. In Taiwan, on the other hand, national parks, which are tourist attractions, are seeing a reduction in tourism due to irregular rainfall. In countries in the Middle and Near East, annual temperatures are steadily increasing, causing problems with water availability and severe heat waves, resulting in decreased tourist inflows [Siddiqui and Imran 2018]. As indicated by the authors of the report “Regional impact of climate change on European tourism demand” [Matei et al. 2023], this is to be expected over the following decades:

- decreasing attractiveness of Southern Europe as a tourist destination (in 2023, there was a 10% decrease in interest in this area) and increasing popularity among tourists of countries such as the Czech Republic, Bulgaria, Ireland, and Denmark (less crowded and less hot countries),
- increasing problems for the current existence of societies and the development of countries dependent on income from tourism, which mainly affects Italy, Greece, Spain, Croatia, Cyprus, countries in North Africa, as well as countries in South-East Asia and Central Africa,

- in the case of a worst-case climate change scenario (a 4°C increase in the Earth’s temperature), changes in tourism demand occur in coastal regions – a reduction in demand of around 9% for the Greek Ionian Islands and an increase of around 16% in West Wales (UK),
- more than 5% decrease in tourism demand in the regions of Cyprus, Greece, Spain, Italy and Portugal,
- more than 5% increase in tourism demand in countries such as Germany, Denmark, Finland, France, Ireland, the Netherlands, Sweden, and the UK (which have lower temperatures now but will be in a warmer climate zone in the future).

A study conducted by the consulting firm Simon-Kucher [Hiotis et al. 2023] in 2023 among residents of seven highly developed countries (France, Germany, Spain, the Netherlands, the UK, the US and the UAE) found that modern tourists are changing their behaviour under the threats and challenges of the 21st century. Experts found that:

- tourists are driven by the desire to spend less in their decisions on destination, duration, and length of travel,
- 41% of tourists book their holiday stays in advance to save and reduce the impact of inflation on their purchasing power,
- tourists fall into three groups: those reducing their spending on tourism by 20%, those reducing their spending on tourism by 6% and those who do not change their spending,
- there are changes in the behaviour of business tourists: some no longer travel as frequently as they did before the pandemic and the war, facilitated employing new remote working and communication technologies by businesses; business travel is becoming shorter and more frequent using other modes of transport with a smaller carbon footprint (e.g. train),
- around 30% of people are willing to spend more to purchase a travel offer that includes sustainable solutions that do not harm the environment (e.g. for food and accommodation).

The results presented here indicate that buyers of tourism services adapt to the challenges of the 21st century economy and the changing conditions in which tourism operates. They expect the same from the providers of tourism offerings. Another factor significantly impacting the development of tourism and the tourism sector globally is the digitisation of the economy [Nur Cudai et al. 2023, Thomas 2024]. Increasing changes in the global economy (accelerated with the outbreak of pandemics) related to the use of technologies such as the Internet of things, artificial intelligence, big data, virtual reality, and cloud technologies are not only observed concerning industrial sectors (so-called “Industry 4.0”). For the tourism sector, these technologies are also finding their way in.

These phenomena were already recognised a few years earlier, as evidenced using the term “Tourism 4.0” for the first time in Portugal in 2016 [Korže 2019] or in 2018 “Smart Tourism” [Adamo 2018, Gjika and Pano 2020]. Since then, research has been conducted on the impact of the digitalisation of the economy on tourism and the companies operating in the sector [Korže 2019]. In the following years, digital transformation processes in the economy led to the implementation of modern solutions into standard travel activities on both the demand and supply side. It refers to selecting destinations and itinerary planning, booking flights and other modes of transport, tourists’ accommodation, and booking local attractions, e.g. museums, concerts, and restaurant seats.

As the authors of the study “Digital transformation initiative aviation, travel, and tourism industry” [WEF 2017] point out, the digitalisation processes in the travel and aviation sector in the current decade (between 2016 and 2025) will reach USD 305 billion and result in a value flow of nearly USD 100 billion from traditionally operating travel businesses to new competitors operating in the digital world. The report discusses four predicted vital trends shaping travel and tourism in the current and subsequent decades. One of these is the so-called live travel experience. It is expected to involve travellers experiencing seamless journeys tailored to their habits and preferences. Aviation and travel companies “will optimise the customer experience by collecting and sharing data and continuously generating insights” [WEF 2017, p. 4]. Over time, travel will become seamless, seamlessly merging with everyday life. The second projected trend is the creation of a digital ecosystem to support travel through digital platforms, where stakeholder roles are blurred, and resources and information are in constant flux. The authors of the study identified the proliferation of the digital enterprise concept as the third trend, where real-time optimisation of resource utilisation and increased labour consumption in the travel sector will occur as a result of innovations such as 3D printing, artificial intelligence, the Internet of Things (IoT), virtual reality (VR) and digital platforms. These technologies enable flexible working and changes in core operational processes. A recent trend of “Tourism 4.0” is the drive to increase the safety and security of tourists and tourism businesses from the threats of digitalisation (cybersecurity). Protecting the privacy of travellers’ data is becoming essential for businesses in this sector, enabling them to maintain customer trust and public safety. This is becoming increasingly important as identity management becomes more digital. Digital technologies (e.g. biometrics, facial recognition, IoT, crowd analysis and video monitoring via artificial intelligence) are already being used to create a secure environment in the tourism sector.

CONCLUSIONS

In the third decade of the 21st century, tourism and the tourism sector operate in a highly turbulent, highly competitive environment characterised by great uncertainty and risk in business. It is influenced by many economic, social, technological, political, geopolitical and health factors. The study presents the contemporary and future challenges facing the tourism sector, which create opportunities and constraints for developing tourism and its sector.

This study aimed to present the determinants of global tourism development under the impact of the numerous challenges of the modern economy. Research has shown that in the third decade of the 21st century, the development of the global tourism sector is affected by health (COVID-19 pandemic), military and geopolitical threats, inflation, climate change and digital technologies. These phenomena determine the behaviour and attitudes of global tourists and shape the opportunities for developing the tourism sector in each country on a macro-, meso- and microscale. The challenges identified have caused, and some will continue to cause, crisis risks in tourism. At the same time, they create new development opportunities in the global tourism sector. The research has led to the following conclusions:

1. Today, tourism and the global tourism sector are highly vulnerable to economic volatility caused by the COVID-19 pandemic and the military conflict between Russia and Ukraine.
2. There has been regional variation in the impact of the health crisis caused by the COVID-19 pandemic between 2020 and 2023, as indicated by changes in the tourism sector's share of GDP and changes in the number of jobs in the tourism sector and the number of foreign tourists in different regions of the world, with Asia-Pacific, the Middle East and Africa experiencing the most severe impact in this regard.
3. The tourism sector shows a high elasticity of demand and supply when affected by unpredictable factors (health and military threats).
4. There has been an upward trend in the revenue of the global tourism sector since 2023, and experts forecast it to continue until 2027 – this indicates the sector's ability to adapt to the challenges of the modern economy in the face of an increasing number of threats to the global market and to seize new opportunities for the development of the sector.
5. The war between Russia and Ukraine is causing many negative consequences in the tourism sector, including a change in tourist behaviour due to a sense of insecurity and inflation; this manifests itself in the abandonment of foreign trips to places of conflict or so-called “frontline” countries, the cancellation of trips or shorter stays by tourists, but also a change in tourist destinations.

6. Climate change caused by global warming leads to a reduction in the attractiveness of tourism in Southern Europe and an increase in the attractiveness of tourism in central and northern European countries.
7. The digitalisation of the economy creates new opportunities for the tourism industry and forces tourism companies to introduce innovative business models [Kindzule-Millere and Zeverte-Rivza 2022].

The study prepared illuminates, in a general but comprehensive manner, the impact on the global tourism sector of random factors relevant in the third decade of the 21st century (the health and economic crisis caused by the pandemic and the Russia-Ukraine war) and the changes in the global economy caused by climate change and the increasing digitalisation of manufacturing processes. It could be the basis for further extended research in this area. Future research could aim to determine the extent to which tourism economies in different regions are prepared for climate challenges and changes in their attractiveness. Another interesting direction for future research is to analyse the impact of the development of the digital economy in different countries on tourism and the implementation of Industry 4.0 solutions into tourism businesses and to assess the results of this phenomenon. Research in these areas would make it possible to develop appropriate recommendations for various countries' economic, climate, and energy policies to ensure favourable conditions for developing the tourism sector in the 21st century.

BIBLIOGRAFIA

- Abbas Jaffar, Riaga Mubeen, Paul T. Iorember, Saqlain Raza, Gulnara Mamirkulova. 2021. Exploring the impact of COVID-19 on tourism: transformational potential and implications for a sustainable recovery of the travel and leisure industry. *Current Research in Behavioral Sciences* 2: 100033. DOI: 10.1016/j.crbeha.2021.100033, access: 12.08.2023.
- Adamo Francesco. 2018. Per un Turismo "Smart" in Epoca 4.0: Ricerca, formazione e pianificazione (For "Smart" tourism in the 4.0 Era: Research, training and planning). *Annali del Turismo* VII: 11-19.
- Alejsiak Wiesław. 2000. Przemysł turystyczny – przyczynek do dyskusji na temat zasadności używania, definicji oraz zakresu znaczeniowego pojęcia. [W] *Przemysł turystyczny* (Tourism industry – a contribution to the discussion on the validity of the use, definition and scope of the concept. [In] Tourism industry), eds. A. Schwichtenberg, E. Dziegieć, 13-58. Koszalin: Politechnika Koszalińska.
- Bednarczyk Małgorzata. 2006. *Przedsiębiorczość w gospodarce turystycznej opartej na wiedzy* (Entrepreneurship in the knowledge-based tourism economy). Kraków: Fundacja dla Uniwersytetu Jagiellońskiego.

- Belias Dimitrios, Ioannis Rossidis, Maeco Valeri. 2022. Tourism in crisis: the impact of climate change on the tourism industry. [In] *Tourism risk*, ed. M. Valeri, 163-179. Emerald Publishing Limited, Leeds, <https://www.emerald.com/insight/content/doi/10.1108/978-1-80117-708-520221012/full/html>, access: 30.08.2023.
- Cevik Serhan, Manuk Ghazanchyan. 2020. *Perfect storm: climate change and tourism*. IMF, WP/20/243, <https://www.imf.org/en/Publications/WP/Issues/2020/11/13/Perfect-Storm-Climate-Change-and-Tourism-49828>, access: 14.08.2023.
- Chudoba Tadeusz. 2010. *Marketing w turystyce* (Marketing in tourism). Warszawa: CeDeWu.
- Day Jonathon, Natalie Chin, Sandra Sydnor, Melissa Widhalm, Kalim U. Shah, Leslie Dorworth. 2021. Implications of climate change for tourism and outdoor recreation: an Indiana, USA, case study. *Climatic Change* 169 (3-4): 29. DOI: 10.1007/s10584-021-03284-w.
- ETO (Europejski Trybunał Obrachunkowy, European Court of Auditors). 2021. *Wsparcie UE na rzecz turystyki – potrzeba nowej orientacji strategicznej i lepszego podejścia do finansowania* (EU support for tourism – the need for a new strategic orientation and a better approach to financing), https://www.eca.europa.eu/lists/ecadocuments/sr21_27/sr_eu-invest-tourism_pl.pdf, access: 1.09.2023.
- Fauzel Sheereen Banon, Boopen Seetana, Robin Sannasse, Robin Nunkoo. 2017. *Investigating the impact of climate change on the tourism sector of SIDS*. [In] BEST EN Think Tank XVII “Innovation and progress in sustainable tourism”, https://www.wto.org/english/tratop_e/envir_e/climate_change_mauritius.pdf, access: 8.03.2024.
- Fotiadis Anastis, Stathis Polyzos, Tzung-Cheng Huan. 2020. The good, the bad and the ugly on COVID-19 tourism recovery. *Annals of Tourism Research* 87: 103117. DOI: 10.1016/j.annals.2020.103117.
- Gjika Ira, Nicollaq Pano. 2020. Effects of ICT in Albanian tourism business. *Academic Journal of Interdisciplinary Studies* 9 (6): 252-263. DOI: 10.36941/ajis-2020-0129.
- Gössling Stefan, Daniel Scott, Michael C. Hall. 2021. Pandemics, tourism and global change: a rapid assessment of COVID-19. *Journal of Sustainable Tourism* 29 (1): 1-20. DOI: 10.1080/09669582.2020.1758708.
- Hiotis Dimitris, Sébastien Vincent, Alexander Frank. 2023. *Global Travel Trends Study. 2023 Report*. Simon-Kucher, <https://www.simon-kucher.com/en/insights/global-travel-trends-study-2023-report>, access: 27.08.2023.
- Kachniewska Magdalena. 2022. Otoczenie cyfrowe jako determinanta kształtowania nowych modeli biznesowych na rynku turystycznym. [W] *Teoretyczne i praktyczne aspekty w naukach ekonomicznych* (Digital environment as a determinant of shaping new business models on the tourism market. [In] Theoretical and practical aspects in economic sciences), eds. J. Wielgórska-Leszczyńska, M. Matusewicz, 157-176. Warszawa: Oficyna Wydawnicza SGH.
- Kaczmarek Anna. 2014. Wybrane czynniki rozwoju turystyki (Selected factors of tourism development). *Studia Ekonomiczne* 176: 202-215.

- Khan Naushad, Absar Ul Hassan, Shah Fahad, M. Mahnoor Naushad. 2020. *Factors affecting tourism industry and its impacts on global economy of the world*. DOI: 10.2139/ssrn.3559353.
- Korže Saša Zupan. 2019. From Industry 4.0 to Tourism 4.0. *Innovative Issues and Approaches in Social Sciences* 12 (3): 29-52. DOI: 10.12959/issn.1855-0541.IIASS-2019-no3-art3.
- Kumar Praveen S. 2014. Role of media in the promotion of tourism industry in India. *Global Review of Research of Tourism, Hospitality and Leisure Management* 1 (3): 118.
- Kindzule-Millere Inita, Sandija Zeverte-Rivza. 2022. Digital transformation in tourism: Opportunities and challenges. [In] Proceedings of the 2022 International Conference "Economic science for rural development" 56: 476-486. Jelgava, LLU ESAF, 11-13 May 2022. DOI: 10.22616/ESRD.2022.56.047.
- Matei Anca, N., David García-León, Alessandro Dosio, Filipe Batista e Silva, Ricardo Barranco, Juan Carlos Ciscar Martínez. 2023. *Regional impact of climate change on European tourism demand*. Publications Office of the European Union. Luxembourg, JRC131508. DOI: 10.2760/899611.
- Nowicki Maciej. 2023. *Wakacje w piekle* (Holidays in hell). *Newsweek* 31/2023.
- Nur Cudai Andi, Haedar Akib, Risma Niswaty. 2023. The digitalization of tourism allows local governments to reach international tourists. *Journal of Public Policy and Administration* 7 (4): 147-155. DOI: 10.11648/j.jpaa.20230704.11.
- Panasiuk Aleksander, Karolina Nessel. 2020. Przyczynek do badań nad wpływem pandemii na stan gospodarki turystycznej. [W] *Turystyka w Naukach Społecznych*. Tom 3. (The contribution to research on the impact of a pandemic on the state of the tourism economy. [In] *Tourism in social sciences*. Volume 3), ed. K. Nessel, 55-70. Kraków: Instytut Przedsiębiorczości Uniwersytetu Jagiellońskiego.
- Rasool Haroon, Maqbool Shafat, Md. Tarique. 2021. The relationship between tourism and economic growth among BRICS countries: a panel cointegration analysis. *Future Business Journal* 7: 1 DOI: 10.1186/s43093-020-00048-3.
- Roman Michał. Kinga Lisiewicz, Michał Wielechowski, Monika Roman. 2020. Determinanty rozwoju turystyki w gminie Lutowiska położonej na obszarze Bieszczadzkiego Parku Narodowego. [W] *Obszary przyrodniczo cenne w rozwoju turystyki* (Determinants of tourism development in the Lutowiska municipality located in the area of the Bieszczady National Park. [In] *Natural areas valuable for the development of tourism*), eds. M. Jalinik, S. Bakier, 43-54. Białystok: Oficyna Wydawnicza Politechniki Białostockiej.
- Rozporządzenie Parlamentu Europejskiego i Rady (UE) nr 692/2011 z dnia 6 lipca 2011 r. w sprawie europejskiej statystyki w dziedzinie turystyki i uchylające dyrektywę Rady 95/57/WE*. Dz.Urz. UE L 192 z 22.07.2011, z późn. zm. (Regulation (EU) No 692/2011 of the European Parliament and of the Council of 6 July 2011 on European tourism statistics and repealing Council Directive 95/57/EC). *Journal of Laws UE L 192 of 22/07/2011*, as amended.

- Seweryn Renata. 2000. Determinanty rozwoju turystyki międzynarodowej (International tourism development determinants). *Folia Touristica/Akademia Wychowania Fizycznego im. B. Czecha w Krakowie* 9: 39-68.
- Siddiqui Samreen, Muhammad Imran. 2018. Impact of climate change on tourism. [In] *Environmental impacts of tourism in developing nations*, eds. R. Sharma, P. Rao, 68-83. Hershey: IGI Global.
- Statista. 2023. *Travel & tourism – worldwide*, <https://www.statista.com/outlook/mmo/travel-tourism/worldwide>, access: 1.09.2023.
- Tefler David J., Richard Sharpley. 2008. *Tourism and development*. London: Routledge.
- Thomas Gkiliyas. 2024. Challenges and trends of digital innovation in the tourism sector: Contemporary literature review. *Open Journal of Business and Management* 12 (1): 179-190. DOI: 10.4236/ojbm.2024.121013.
- UNWTO (UN Tourism). 2022. *Impact of the Russian offensive in Ukraine on international tourism*. UNWTO, Tourism Market Intelligence and Competitiveness Department, Issue 4, 16 May 2022, https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2022-05/16-05-22-impact-russia-ukraine.pdf?q7kCpUZsLi4Su_Zlo1d2b08bH0_L0Pln, access: 12.08.2023.
- UNWTO (UN Tourism). 2023. *Impact assessment of Covid-19 outbreak on international tourism*, <https://www.unwto.org/impact-assessment-of-the-covid-19-outbreak-on-international-tourism>, access: 20.08.2023.
- Villaće-Molinero Teresa, Juan J. Fernández-Muñoz, Alicia Orea-Giner, Laura Fuentes-Moraleda. 2021. Understanding the new post-COVID-19 risk scenario: Outlooks and challenges for a new era of tourism. *Tourism Management* 86:104324. DOI: 10.1016/j.tourman.2021.104324.
- WEF (World Economic Forum). 2017. *Digital transformation initiative aviation, travel and tourism industry*. World Economic Forum. White Paper, Geneva, https://www3.weforum.org/docs/IP/2017/MO/WEF_ATT_DigitalTransformation_WhitePaper.pdf, access: 19.08.2023.
- WTTC (World Travel & Tourism Council). 2023. *Economic impact research*, <https://wttc.org/research/economic-impact>, access: 31.08.2023.

UWARUNKOWANIA ROZWOJU TURYSTYKI W ASPEKCIE
WYZWAŃ XXI WIEKU

Słowa kluczowe: turystyka, rozwój, determinanty, pandemia, wojna,
zmiany klimatyczne, cyfryzacja

ABSTRAKT. Celem artykułu jest przedstawienie uwarunkowań rozwoju turystyki w kontekście wyzwań współczesnej gospodarki, tzn. wpływu pandemii koronawirusa i wojny w Ukrainie oraz konieczności przygotowania sektora turystycznego do działania w obliczu zmian klimatycznych, a także do zmian cyfrowych w gospodarce. Opracowanie ma charakter przeglądowy. Dla realizacji celu badawczego zastosowano studium literatury krajowej i zagranicznej, indukcję, dedukcję, uogólnianie i syntezę oraz wyniki badań innych autorów. Na potrzeby badań wykorzystano m.in. opracowania UNWTO, World Travel & Tourism Council, Statista, Travel Trends 2023 (Simon-Kuchner), raport Komisji Europejskiej i wyniki badań innych autorów. Z badań wynika, że w trzeciej dekadzie XXI wieku na sektor turystyczny oddziałują zagrożenia zdrowotne (pandemia COVID-19), militarne i geopolityczne, inflacja, zmiany klimatyczne i technologie cyfrowe. Zjawiska te oddziałują na zachowania i postawy turystów na świecie oraz kształtują możliwości rozwoju sektora turystycznego w każdym kraju w makro-, mezo- i mikroskali. Wskazane wyzwania wywołały, a część z nich będzie nadal wywoływać, zagrożenia kryzysowe w turystyce. Wymusza to zbudowanie silniejszej, bardziej zrównoważonej i odpornej gospodarki turystycznej na przyszłość. Niezbędna w tym jest właściwa polityka gospodarcza, klimatyczna i energetyczna rządów wielu krajów.

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