Comprehensive Assessment of the Influence of Factors on the Attractiveness of a Country's Tourism Brand - A Model Approach

Nestor Shpak
Lviv Polytechnic National University, Lviv, Ukraine
Oksana Muzychenko-Kozlovska
Lviv Polytechnic National University, Lviv, Ukraine
Maryana Gvozd
Lviv Polytechnic National University, Lviv, Ukraine
Włodzimierz Sroka
WSB University, Dąbrowa Górnicza, Poland & University of Johannesburg, South Africa
Marianna Havryliuk
Lviv Polytechnic National University, Lviv, Ukraine

Abstract
The tourism industry is one of the priorities. Each country in a represented tourism industry reflects its unique natural resources and cultural and historical heritage. These components are used to form a tourism brand. Thus, to assess a tourism brand, it is necessary to use a comprehensive methodology aimed at defining the impact of factors on the attractiveness of the tourism brand, which allows to analyze and identify those factors that positively and negatively affect the level of tourism brand and need strengthening or leveling. The issue is becoming increasingly important in the field of tourism. Given these facts, the article aims to develop a scientific and methodological approach to modeling the assessment of the impact of factors on the attractiveness of a country's tourism brand and formulate recommendations for improving a country's tourism brand management. The construction of the model is based on the analysis and calculation of statistical data using the method of calculating the integrated indicators. Based on the study, the components have been analyzed, and integrated indicators for assessing the impact of factors on the attractiveness of the country's tourism brand have been calculated. The appropriate methodology has been tested in the case of Ukraine.

1. Introduction

The tourism industry is one of the few industries that is characterized by accelerated development and plays a significant role in the national economy of each country. The practice has shown that, due to its rapid growth, world tourism is recognized as an economic phenomenon of the twentieth century (Vnuchko & Tymoshenko, 2020). Tourism and the economy are interrelated and interdependent phenomena because, on the one hand, economic development creates opportunities for tourism development, improving business models based on a common economy in the tourism sector (Navickas et al., 2021), and on the other hand, it is tourism that plays an important role in the development of a

country's economy (Prokopenko et al., 2020b; Cárdenas-García et al., 2015) and is characterized as a long-term factor in a country's economic growth (Balaguer et al., 2002). For example, Oyunchimeg& Gantuya (2021) argue that domestic tourism plays an important role in tourism and contributes to overall economic development, and in this context, their research focuses on understanding the motivation of domestic tourists. It generated 12.5 % of Spain's GDP and created 2.6 million jobs in the country in 2019 (Garcia Machado et al., 2020).

The practical aspects of the tourism industry demonstrate that various challenges, particularly the economic crisis, not only do not destabilize the industry but set new rates and directions for its development. Under such conditions, tourism proves its sustainability and ability for social and economic recovery, revealing its important role in a circular economy (Pongsakornrungsilp & Pongsakornrungsilp, 2021; Nikolaichuk, 2019; Shpak et al., 2021b.) The environmental aspect also plays a significant role in economic development, as an important tourism factor, in particular in the development of green entrepreneurship (Muo & Azeez, 2019). However, it is worth emphasizing that the accelerated development of the tourism industry leads to increased competition between tourism destinations (Gavurova et al., 2021) that are trying to attract foreign investment, as well as the flow of information transport and tourism. Moreover, not only countries with favorable geographical location or natural resources are successful in competition in modern conditions, but also places that can position themselves favorably and correctly are successful, hence the success of a country's tourism brand, which is a guarantee for consumers (Nikolaichuk, 2019). The very concept of "tourism brand" is now becoming a key criterion for success in the tourism industry.

According to UNWTO (World Tourism Organization), a country's tourism brand is a set of emotional and rational ideas that are the result of comparing a country's features and the experience and information that influence the creation of a certain image (World Tourism Organization, 2020). There are also other views. In particular, Anholt (2007) notes that a country's brand implies the perception of the country on such indicators as the efficiency of public administration, rich cultural and historical heritage, investment prospects, quality of exported goods, tourism (tourism attractiveness), population (human capital), as well as the comfort of the country as a place of residence, and thus the tourism brand is part of the national brand. He formulated his own definition of the term, in particular: "tourism brand of the country" is a set of values that reflect the unique original attributes of a country and its community and best represents for tourists the unique tourism, natural, anthropogenic or other resources inherent in this country.Thus, the formation of an attractive brand of a country is influenced by all components of the tourism industry, which reflect the characteristics of each state. The study aims to model a comprehensive assessment of the impact of factors on the attractiveness of a country's tourism brand, as the formation of the tourism brand of individual countries is affected by their various components differently. A country's tourism brand largely depends on the level of use of tourism potential (Shpak et all.,2021 a), as this is based on the integrated use of historical and cultural heritage, its natural resources, enabling the development of new types of tourism (Adamovich et al., 2021) and handicrafts, especially if they are included as a UNESCO World Heritage Site (Škrabić Perić et al., 2021).

Research has shown that the most important factor influencing and, in part, shaping a country's tourism brand is the level of satisfaction of the needs of tourists who have visited the country and their feedback. This depends on the quality and uniqueness of available tourism resources and the opportunities offered to tourists: well-developed infrastructure, high level of service, qualified staff, sufficient awareness, high image of the country, good environment, etc. (Gavurova et al. 2020; Vasanicova et al. 2021). In order to attract more and more tourists to the country, in addition to using the main tourist factors (natural and anthropogenic resources), new ones (infrastructure, artifacts) are being created, and an environment for improving tourism (population, skilled personnel, marketing activities) (Shpak et al., 2020), management system and overall image (Romão et al., 2013) is being formed. Particular attention should be paid to people as the main productive force of tourism (Milovanovic et al., 2017) and the population, which as its main component, shapes the image of the

country, is its consumer in the domestic market, influences a country's image and reflects the state as its representatives abroad.

The issue of assessing the impact of major and minor factors on the attractiveness of a country's tourism brand is becoming increasingly important among scholars and practitioners. This is because in the process of evaluation, we can identify factors that negatively affect the formation of a country's tourism brand, as well as those factors that need to be developed to increase the level of attractiveness of a country's tourism brand and bring the country to a leading competitive position in the global tourism industry. Therefore, the aim of our study is to develop a scientific and methodological approach to modeling the assessment of the impact of factors on the attractiveness of a country's tourism brand and formulate recommendations for improving a country's tourism brand management. It is planned to: i) identify the components and factors of a country's tourism brand formation; ii) determine indicators for assessing the factors that affect the attractiveness of a country's tourism brand; and iii) propose an appropriate methodology and test it for a specific country, in particular, Ukraine.

The article is structured as follows: First, we present the theoretical foundations of the research. The theoretical discussions presented in this section focus on assessing the factors that affect the attractiveness of a country's tourism brand. Secondly, we provide the methodology for assessing the factors influencing the attractiveness of a country's tourism brand and calculate the integrated indicators of the level of influence of factors on the attractiveness of a country's tourism brand, as well as test it on the example of Ukraine. The next part of the article presents the results of the study. Finally, the conclusions of our research are formed.

2. Literature review

A country's tourism brand is a landmark that represents a country's tourism in the global tourism industry. The issue of assessing the factors that affect the attractiveness of a country's tourism brand at the present stage is a relevant subject of research, and a number of researchers are dealing with this topic. Examining professional literature, which reveals the theoretical and practical aspects of assessing the factors that affect the attractiveness of a country's tourism brand, it is worth noting that the authors explore and reveal various aspects of this issue. For example, Matijová et al. (2019) investigated the impact of selected indicators of tourism capacity and efficiency (such as number of accommodation facilities, number of beds, number of visitors in accommodation establishments, number of overnight stays, average accommodation price and housing income) on the socio-economic development of the national economy by the level of registered unemployment. Gavurova et al. (2020) assessed the importance of the structure of customer spending on different types of tourism in the context of global competitiveness. Therefore, we have divided the researched works into certain sets which most completely describe the problem under investigation: the characteristics of the factors influencing the attractiveness of a country's tourism brand, description of tourism brand assessment models, the role of information technology in a country's tourism brand formation, as well as the impact of the COVID-19 pandemic on the formation of s country's tourism brand. It is worth considering in detail the works that represent each of the areas of the research.

2.1. Factors of a country's tourism brand formation

This field includes scientific achievements and practical work, which reveal, analyze and substantiate the components and factors that influence the effectiveness of tourism (Assaf&Josiassen, 2011) and form the tourism brand of a country. In particular, Manhas et al. (2016) describe the relationship between the development of destination and its brand image. They have revealed that the brand image has three components that correspond to the three stages of travelling, namely: before the

trip, during the trip and after the trip. Also, a conceptual model that identifies the different processes and relationships associated with the interdependence between destination development and its brand image was developed. In the model presented in the article, the authors take into account various factors, such as economic, social, cultural, political and psychological, that emphasize the importance of destination development. Considering this aspect, the determinants were revealed, and the indicators that shape the competitiveness of the destination, including the use of marketing tools, were described (Dwyer & Kim, 2003). In turn, Mira et al. (2018) prove that tourism product competitiveness depends on innovation and quality levels, as well as its capacity to reflect the identity of the destinations. This is because innovativeness increases competitiveness (Hudáková et al., 2019; Civelek et al., 2021; Ključnikov et al., 2021).

Marketers began to study the possibility of transferring and contributing marketing tools to marketing and promotion of a destination; however, little attention is paid to the concept of brand orientation. The authors investigate brand evaluation in the context of targeted branding. The results of a sample of executives and directors in 90 destination marketing organizations show that destination brand orientation consists of five dimensions, such as brand culture, agency coordination, brand communication, stakeholder partnerships and brand realities, and has a strong positive impact on brand effectiveness. Furthermore, Kladou et al. (2016) evaluated the contribution of commonly used symbolic elements, such as purpose, logo and slogan, to the creation of a brand. The conceptual model developed in the article, combining suggestions on the role and significance of symbolic elements for destination brands, confirms that the overall impact of symbolic elements on a brand is limited, and thus it is advisable to give priority to other components of the brand. At the same time, researchers take into account various factors of influence, such as economic, social, cultural, political and psychological. Some researchers, such as Seabra et al. (2020), in their empirical study involving 622 domestic tourists, found that the main components that affect the image of the tourism brand are its accessibility, reliability, attractive environment, places to relax and communicate, high quality of infrastructure, as well as attractive historical and cultural monuments. Martín et al. (2016) identified three interrelated components of the image of the destination: perceptual (cognitive), associated with tourists' beliefs about the attributes of the destination; affective, related to tourists' emotional reaction to the destination, and global, which refers to the general impressions that the tourist has about the destination. This proves that the brand as a recognizable image reflects the image of the tourism destination. Sheng-Hshiung Tsaur et al. (2017) identified the following elements of a tourism brand: i) destination image; ii) awareness about the destination; and iii) destination culture. In the study, the authors use a multidimensional scale, which provides an effective way to identify and differentiate the tourism brand from other tourism destinations.) Kim H.Y. & Ji-Hwan Y. 2013) analyzed the image of the Korean tourism brand in the popular guide Lonely Planet Korea and found that the image of a tourism brand is greatly influenced by information about attractions and their accessibility. They considered the value of a brand based on the values offered by researched the process of managing a country's tourism brand, in particular its formation, promotion and implementation in the international tourism market. This short overview of the topic shows how complex and multidimensional the topic being investigated is.

2.2. Tourism brand assessment models

This group includes works that reveal the assessment of a country's tourism brand. In particular, Martín G. & Paredes M. (2017) developed a financial model for brand evaluation and considered the possibility of applying the proposed methodology in the hotel industry. The study proved the importance of the value of a company's brand to improve its management. Rani (2019) analyzed the customer-based brand equity index (CBBE-I) of tourism brand Kurukshetra using structural equation modeling and factor weighting methods. The author uses primary and secondary data on the destination attractiveness of the tourism brand Kurukshetra. However, a holistic approach to brand evaluation hasn't been

proposed. Furthermore, Pınar (2020), in his empirical study, describes the model of university brand evaluation, proving that a university, as the object of study, is a complex system of sub-brands. Therefore, management of these sub-systems requiresanalysis and consideration of all the relevant brand equity dimensions in a brand ecosystem framework, showing their direct and indirect relationships in creating a strong university brand and brand equity.

According to the methodology of the British brand consulting company Brandfinance (2020), the value of a brand is calculated by using the RoyaltyRelief methodology, which determines the value that a company would be willing to pay for licensing its brand, provided it does not own it. Interbrand offers the following stages in the brand assessment methodology: financial analysis, defining the role of the brand and assessing the strength of the brand (Interbrand, 2020). According to a study by the World Tourism Organization (UNWTO, 2020) and the World Travel and Tourism Council (WTTC, 2020), the index of competitiveness of countries in the field of travel and tourism is calculated. This is formed by evaluating a large number of indicators of the 14 components,which are grouped into sub-indices, namely: a favorable environment in the country for tourism development, public policy, tourism infrastructure and available natural and cultural resources. Karyyet al. (2021) argue that the tourist attractiveness of the Ukrainian region is assessed from the standpoint of two groups of tourism entities: i) legal entities; and ii) individual entrepreneurs using the Mathematical Game Theory.Thus, one can state that the brand is a complex system that is formed from the sub-brands of its components (structural units).

2.3. The role of information technology (IT) in a country's tourism brand formation

The era of digitalization has made significant adjustments in the tourism industry. In particular, this relates to the transition from traditional tourism to "smart" tourism, which provides both new challenges and new opportunities (Gretzel & Stankov, 2021). For example, it gives the opportunity to visit various cultural tourism destinations around the world without leaving home. For example, now underground tourism is very popular, it is based on the use of 3D technology as an intellectual journey, which became especially relevant during the pandemic COVID-19 (Popek Biškupec et al., 2022; Biedaetall, 2021). The results showed that virtual access to museums, heritage sites, theaters and performances was in extremely high demand (UNWTO, 2021). The destination brand must be technically integrated with computer information technology and help tourists with disabilities to travel.) Kit Ling Lam et al. (2020) confirmed the impact of technology on improving the accessibility of visually impaired tourists to tourism destinations. Yunpeng Li et al. (2017) studied the impact of information technologies on "smart" tourism on the formation of tourist demand in cities and improving their image. They pay considerable attention to the importance of information technology in the development of various types of tourism (Prokopenko et al., 2020 a).

Digitalization as a process of introduction of information technologies in tourism is a component of the formation of the tourist brand of a country. By modeling structural equations,Dedeoğlu et al. (2020) studied the impact of information exchange on social networks on destination brand awareness and quality. They have revealed that the shared access of participants in social networks has a positive effect on destination brand awareness, destination brand image and quality of service. They also proved that awareness of the destination brand has a positive effect on tourists' perceptions of both the quality of service of the destination and the natural quality of the destination. Using modeling, Chenghu et al. (2021) and Amoah et al. (2021) explored the dynamic relationship between tourism development, technological innovation, urbanization and environmental quality. Furthermore, Labanauskaite et al. (2020) confirm that innovative implementations in the tourism industry contribute to the improvement of tourismand travel-related services. These new developments in the field of tourism may predict the demand for hotels (Wuet al., 2017). Given the deliberations presented, there is no doubt that investing in information and communication technologies helps to improve the image of tourism.

2.4. The impact of the COVID-19 pandemic on the formation of a country's tourism brand

Despite the development of the tourism industry, one cannot ignore the COVID-19 pandemic, which has made and continues to make adjustments in the formation of the tourism brand of each country. Analytical materials prepared by experts from international organizations of the World Tourism Organization (UNWTO), as well as international brand consulting companies, offer recommendations for reforming the tourism industry during various crises in order to establish successful integration into international communities and associations. They also present proposals to support the development of domestic tourism in response to external threats, such as COVID-19 (UNWTO, 2020).

A number of researchers have analyzed the impact of COVID-19 on the tourism brand. For example, Arpita Srivastava et al. (2021) explored key aspects that were changed by COVID-19 in the context of hotel performance and overall customer satisfaction. After all, quarantine measures have created new requirements for destinations that must be met, and customers have changed the focus of the importance of hotel properties.Loehr et al. (2021), in the study "Safer destinations, healthier staff and happier tourists: opportunities for inclusive water, sanitation and hygiene in tourism", noted that sustainable tourism development, including tourism's recovery from COVID-19, requires a holistic view of environmental and community benefits, including access to water, sanitation and hygiene (WASH).Addressing inequitable planning processes, improving stakeholder engagement and creating tools for hotels to improve inclusive WASH can contribute to improving the destination value. Furthermore, Gössling et al. (2021) analyzes the COVID-19 pandemic, which has affected tourism and caused global change. In his research, the author draws a parallel between the COVID-19 pandemic and the current climate crisis. In contrast to the UNWTO, ICAO, CLIA and WTTC, the author describes the need to question the model of tourism growth.

Revealing the problems of determining the components of the factors that affect the attractiveness of a country's tourism brand, we note that in existing publications, most scholars study the impact of several individual factors (economic, social, cultural, political and psychological) (Manhas et al.,(2016) or generalize the external impact of innovation (Labanauskaitė et al., 2020) or information technology (Dedeoğlu et al., 2019) or use the financial approach (Gracia Rubio et al., 2017; Brand Finance, 2020; Interbrand, 2020) or a set of indicators that are grouped into sub-indices, namely: favorable environment in the country for tourism development, public policy, tourism infrastructure and available natural and cultural resources (UNWTO, 2020; WTTC, 2020). In most cases, existing research on brand evaluation is diverse and highly specialized and contains recommendations for the development of certain areas of the tourism of a particular company or country.However, considering the current trends that are associated with various challenges, including the COVID-19 pandemicinthe development of digitalization, there is a need to create unified and harmonized principles and standards of work for tourism authorities on different continents working in a single international space. Otherwise, the tourism activities of individual states may not be able to cope with the existing challenges on their own.

Obviously, the development and implementation of basic recommendations for the development of tourism in different countries can be implemented using only such management methods that are consistent with the characteristics of these countries, their levels of historical and economic development and so on. The tourism industry of each country is unique, which is formed in accordance with the characteristics of that particular country and its own path of development. This is why it is necessary for each state to choose its approach to the development of the tourism industry in general, as well as the formation of its tourism brand in particular.

Analysis of the literature on the topic allowed us to formulate the following hypothesis:

Hypothesis: Changes in the composition and quality of the factors that affect tourism brand attractiveness change its value for tourists.

This actualizes the study of the choice of factors and indicators to assess the impact of factors on the attractiveness of a country's tourism brand, sets the algorithm for achieving the research goal and explains the aspect of decision-making to increase the attractiveness of the tourism brand.

3. Methods

3.1 Basic assumptions of the model

The brand as a complex intangible asset is difficult to analyze. Therefore, there are many different methodological approaches to its evaluation. The object of research is the tourism brand of a country, which attracts tourists. Proper and high-quality assessment makes it possible to obtain the maximum social and economic effects from the development of tourism within it. A country's tourism brand is a visual image (logo) and slogan that a tourist or investor associates with a particular destination as attractive based on the country's available tourism resources, national traditions, etc., as well as information about them. The formation of the advantages (tourist attractiveness) of countries' tourism destinations is carried out through tourism branding in the process of managing the image of the state and the promotion of tourism.

To assess the tourism brand, it is necessary to determine which methodological approaches are most appropriate to implement. This is determined based on the goal and the desired results. In the course of the research, the practical aspects of assessing the tourism brand of a country according to the methods of various scientists and practitioners were analyzed. Thus, according to the British brand consulting company Brandfinance (2020), the value of the brand is calculated by using the Royalty Relief methodology, which determines the value that the company would be willing to pay for licensing its brand, provided it does not own it. This approach involves estimating the future revenue that can be obtained from owning a brand and calculating the royalty rate that must be paid for using the brand. According to this method, the value of the brand involves the following stages: i) market segmentation; ii) financial and marketing forecasts and based on them, estimation of future cash flows, calculation of Economic Value Added (EVA) – the amount of future EVA should theoretically be equal to the market value of the company; iii) determination of Value Added Monthly Index (VAMI)- coefficient that allows us to separate part of the cash flows from EVA generated by the brand); and iv) brand risk assessment to determine the discount rate.

In turn, using its methodology, the Interbrand agency offers the following key components to all valuations: an analysis of the financial performance of the branded products or services, of the role a brand plays in the purchase decision and of the brand's competitive strength (Interbrand, 2020). Financial analysis measures the total amount of profit for the last 3 years, a probable 2% increase is added, 8% of the returned invested capital is subtracted, and 35% of tax from the profit from the brand is then deducted. The brand strength is analyzed according to the following criteria (in points, amounting to 100 points): leadership - 25; stability - 15; market - 10; internationality - 25; fashion - 10; support - 10; protection - 5. The level of risk associated with this brand is also taken into account. This figure is multiplied by the amount of total brand profit, and the value of the brand is calculated.

Financial analysis measures the overall financial return to an organization's investors or its economic profit. Economic profit is the after-tax operating profit of the brand, minus a charge for the capital used to generate the brand's revenue and margins. Role of Brand measures the portion of the purchase decision attributable to the brand as opposed to other factors (for example, purchase drivers such as price, convenience or product features). The Role of Brand Index (RBI) quantifies this as a percentage. RBI determinations for Best Global Brands are derived, depending on the brand, from one of three methods: commissioned market research, benchmarking against Role of Brand scores from client projects with brands in the same industry or expert panel assessment. Brand Strength measures the ability

of the brand to create loyalty and, therefore, sustainable demand and profit in the future. Thus, effective brand management increases competitive advantage and sustainability of organizations (Urbancová et al., 2020). Brand Strength analysis is based on an evaluation across 10 factors that Interbrand believes constitute a strong brand. Performance in these areas is judged relative to other brands in the industry and relative to other world-class brands. Brand Strength analysis delivers an insightful snapshot of the strengths and weaknesses of a brand and is used to generate a road map of activities to grow a brand's strength and value in the future.

The relevance of the application of integrated assessment to valuation of the impact of factors on the attractiveness of a country's tourism brand is evidenced by the works of scholars who have used a comprehensive approach and the data provided by international organizations. For example, Cossío-Silva et al. (2019) proposed a synthetic indicator that allows simple measurement of tourist loyalty, and four profiles of tourists have been identified, for which marketing strategies of differentiated relations can be put into practice and which contribute to the improvement of a destination's results. In turn, Beerli and Martín (2004) developed a model that explains the various factors influencing the post-visit image of a destination based on an analysis of the relationship between the different components of the perceived image and the factors which influence its formation. These include sources of information (primary and secondary) and stimuli influencing the forming of perceptions and evaluations of destinations pre-andpost-visit, respectively, as well as motivation, accumulated touristic experiences and socio-demographic characteristics. Furthermore, according to the World Economic Forum, image as a component of a brand is assessed by the Travel and Tourism Competitiveness Index, which is calculated by certain indicators grouped into four sud-indexes: Enabling Environment, Travel and Tourism Policy and Enabling Conditions, Infrastructure, Natural and Cultural resources (Weforum, 2021).

Given the deliberations presented, an important task is to develop a methodology that would be easily applied and could be used for practical application, regardless of who implements it and for what purposes. This necessitates the development of a unified model for assessing the impact of factors on the attractiveness of the tourism brand.To objectively assess the factors that affect the attractiveness of the tourism brand of a country, it is advisable to use such a scientific and methodological approach which aims to identify the components of this complex phenomenon as a system. Based on an integrated approach, it is possible to explore the area with tourism resources and infrastructure for the presence of unique artifacts that shape the image and are part of the brand. The advantage of a systematic approach to assessing the factors that affect a country's tourism brand attractiveness is the ability to provide the authorities with all the necessary information for consistency of various decisions in the field of production, finance or marketing, as well as on different levels, such as strategic, tactical or operational, and promote the continuity of management decisions.

3.2. Model construction

To substantiate the proposed hypothesis and achieve the goal, the research methodology used in this article includes the following steps:

Stage 1 - Identification of factors influencing the attractiveness of a country's tourism brand. This takes into account their functional purpose and impact on the overall integrated assessment.

Stage 2 - Forming a list of indicators to assess the impact of factors on the attractiveness of the tourism brand of a country, which analyzes the availability of unique natural, historical and cultural tourist resources,as well asthe material and technical base of the tourism industry, marketing support of the environmental quality, national imageand labor resources.

Stage 3 - Estimation of the natural and anthropogenic tourism resources of a country, determining the area of a country's nature reserve fund and the number of UNESCO World Heritage Sites.

Figure 1. **Scheme of the sequence of a country's tourism brand evaluation**
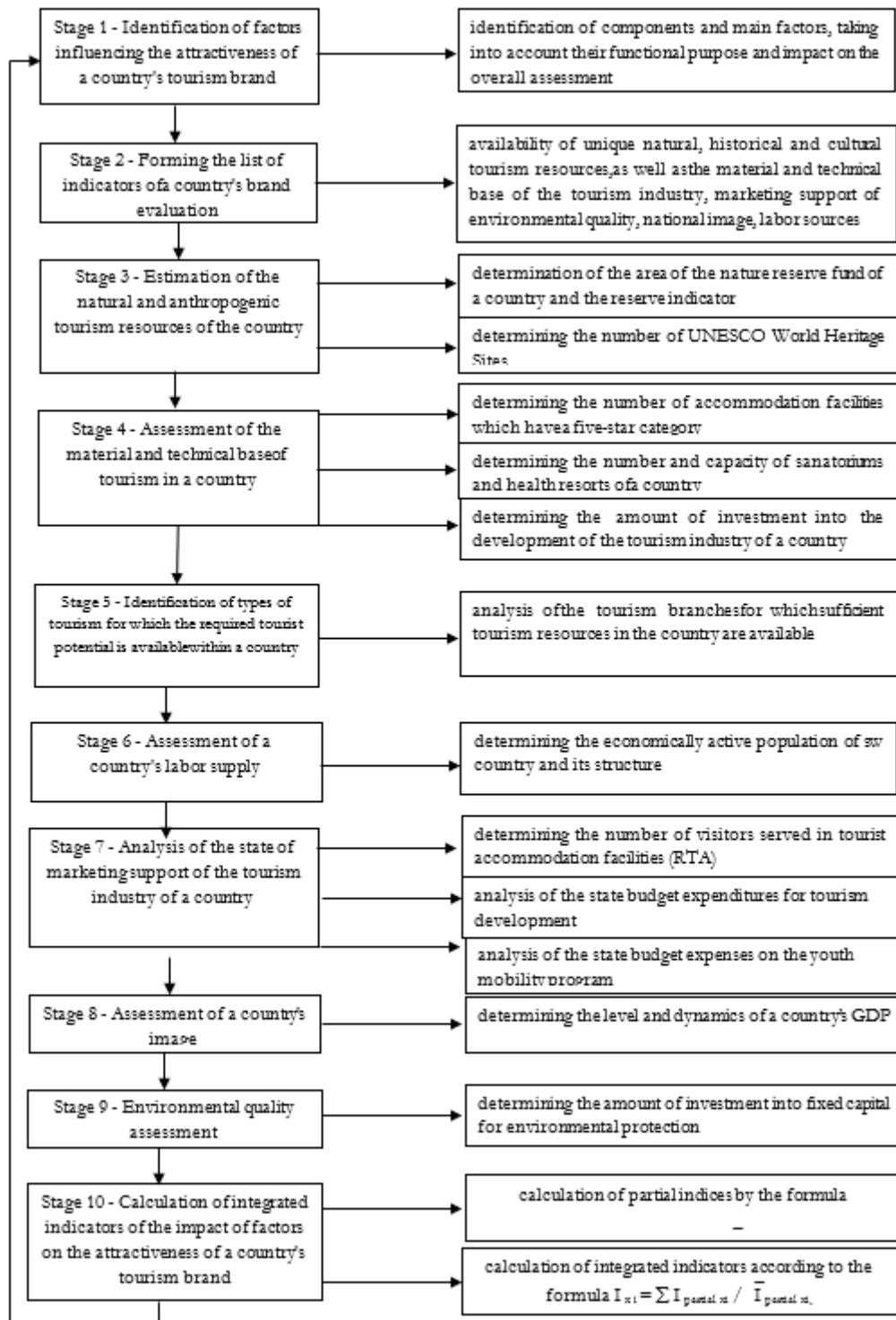
Source: own elaboration

Stage 4 - Assessment of the material and technical base of tourism in a country. This aims to determine the number of accommodation facilities which have a five-star category, the number of sanatoriums and health resorts of a country, the capacity of sanatoriums and health resorts of a country and the amount of investment into the development of the tourism industry.

Stage 5 - Identification of types of tourism for which the required tourism potential is available within the country, as well as analysis of the tourism branches for which sufficient tourism resources in the country are available.

Stage 6 - Assessment of a country's labor supply, determining the economically active population of a country and its structure.

Stage 7 - Analysis of the state of marketing support of the tourism industry of a country, determining the number of visitors served in tourist accommodation facilities and the state budget expenditures for tourism development, as well as the state budget expenses on the youth mobility program (for the purpose of forecasting the demand for services provided by tourism enterprises (in particular, among foreigners).

Stage 8 - Assessment of a country's image, determining the level and dynamics of a country's GDP.

Stage 9 - Environmental quality assessment, determining the amount of investment into fixed capital for environmental protection.

Stage 10 - Calculation of the integrated indicators of the impact of factors on the attractiveness of a country's tourism brand.

A schematic representation of the sequence of a country's tourism brand evaluation is presented in Figure 1.

A country's tourism brand is a complex system that is influenced by a large number of factors, both major and minor, in relation to a country's tourism industry. The main factors include those that have the most significant impact on the formation and evaluation of a country's tourism brand, namely: i) natural tourism resources (nature reserve fund, mineral waters, parks, beaches), which are located in a particular country; ii) anthropogenic tourism resources (historical and architectural monuments, artifacts, places associated with famous people, cultural and religious values, decorative arts, traditional products, etc.), especially unique resources, which allow the country to form its own, unique image, as this is connected with the historical and ethnographic base; iii) material and technical base of tourism (tourism infrastructure, investment support of the industry); the developed tourism infrastructure in a country ensures the formation of an attractive image and tourism brand of the country; and iv) labor resources (economically active population; its structure). Thus, the above factors are decisive in the process of forming and evaluating the tourism brand of a country.

Having analyzed the feasibility of including all the component into the model, the formation of a set of factors for assessing their impact on a country's tourism brandattractivenesshas beencarried out. When choosing the factors that affect the attractiveness of a country's tourism brand, we take into account their functional purpose.

(economically active population; its structure).Thus, the above factors are decisive in the process of forming and evaluating the tourism brand of a country.

Having analyzed the feasibility of including all the component into the model, the formation of a set of factors for assessing their impact on a country's tourism brandattractivenesshas beencarried out. When choosing the factors that affect the attractiveness of a country's tourism brand, we take into account their functional purpose.

4. Results

The authors tested the method of assessing the impact of factors on the attractiveness of a country's tourism brand, in particular for Ukraine.

Stage 1 - Identification of factors influencing the attractiveness of the country's tourism brand. Factors (constituent elements) that affect the attractiveness of the country's tourism brand are summarized in Table 1.

Table 1. **Factors influencing the attractiveness of the country's tourism brand**

Components	Factors
Major	Natural tourism resources: nature reserve fund; mineral waters; beaches; etc.
	Tourism resources of anthropogenic origin: historical and architectural monuments; artifacts; places associated with famous people; cultural and religious values; decorative arts, traditional products; etc.
	Material and technical base of tourism: tourism infrastructure; investment support of the industry, etc.
	Labor resources: economically active population; its structure; etc.
Minor	Marketing support: information support; regional brands; city brands; product brands; advertising support; promotion; state budget expenditures onthe country's tourism; pricing policy; etc.
	External infrastructure: geopolitical location of the region; condition of roads and transport; provision of airports, railway stations, cultural, entertainment, communications, tourist information centers; etc.
	Tourism management system: availability of travel agents and tour operators; local authorities; associations and unions of tourism enterprises (e.g. clusters)
	Country image: political situation; economic attractiveness; security
	Environmental quality: ecological condition; the presence of areas with anthropogenic pollution; dangerous areas, etc.
	Local population: patriotism; loyalty to foreign tourists

Source: own elaboration

Stage 2 - Indicators of the evaluation of the country's tourism brand are given in Table 2.

Table 2. **Indicators for assessing the impact of factors on the attractiveness of the country's tourism brand**

No.	Factors	Indicators and their designations

1.	Natural tourism resources	Area of the nature reserve fund, x_1 Indicator of "reserve" of the country, x_2
2.	Tourism resources of anthropogenic origin	Number of UNESCO World Heritage Sites, x_3
3.	Material and technical base of tourism	Number of hotels in the country which have a five-star category, x_4 Number of sanatoriums and health facilities in the country, x_5 Capacity of sanatoriums and health resorts of the country, x_6 Amount of capital investments in the country's hotels, x_7
4.	Labor resources	Number of economically active population in the country aged 15-70 years, x_8 Number of women aged 15-70, x_9
5.	Marketing support	Number of visitors served in tourist accommodation facilities, x_{10} State budget expenditures on tourism development, x_{11} State budget expenses on the youth mobility program, x_{12}
6.	Country image	Gross domestic product of the country, x_{13}
7.	Environmental quality	Capital investments into environmental protection, x_{14} Capital investment in protection of ambient air and climate, x_{15} Capital investment into waste management, x_{16} Current costs of environmental protection, x_{17}

Source: own elaboration

Stage 3 - Estimation of the natural and anthropogenic tourism resources of the country and their impact on the attractiveness of the country's tourism brand. To do this, the area of the country's nature reserve fund, the country's nature reserve and the number of UNESCO World Heritage sites were determined, and the results are summarized in Table 3.

Table3. **Dynamics of the natural and anthropogenic tourist resources of Ukraine**

No.	Indexes	Periods		Absolute deviation, 2019-2020
		2019	2020	
1.	Area of the nature reserve fund of the country, x_1, thousand hectares	4 458.967	4 485.00	+ 26.033
2.	Indicator of the country's reserves, x_2, %	6.77	6.80	+ 0.03
3.	Number of UNESCO World Heritage Sites, x_3, units	7	7	-

Source: Ministry of Environmental Protection and Natural Resources of Ukraine, PZF (2020), and UNESCO (2020)

The results of the research showed that Ukraine has the potential to form a high image of the tourism brand; it is rich in natural, historical and cultural tourism resources, including uniqueresources, in particular, expanding the nature reserve fund of the country (Table 3).

Stage 4 - Assessment of the material and technical base in the country. At this stage, the number of accommodation facilities which have a five-star category is determined, i.e.those whichhave the opportunity to receive wealthy foreign tourists, the number of spas and health facilities, as well as the

amount of investment into the development of the tourism industry of the country. The results are summarized in Table 4.

Table 4. **Dynamics of the state of the material and technical base of Ukraine**

No.	Indexes	Periods		
		2019	2020	Absolute deviation, (+/-,%) 2019-2020
1.	Number of hotels in the country which have a five-star category, x_4, units	36	37	+ 1
2.	Number of sanatoriums and health facilities, x_5, units	11 386	12 381	- 5
3.	Capacity of sanatoriums and health facilities, x_6, thousand beds	332	331.5	- 0.5
4.	Amount of capital investment into the country's hotels, x_7, thousand dollars)	30326,76	35 259,83	+ 4933,07

Source: State Agency for Tourism Development of Ukraine and State Statistics Service of Ukraine (Ukrstat, 2021)

Thus, Ukraine is sufficiently provided with hotels, including those which have a five-star category, for the reception of foreign tourists and with sanatoriums and health facilities (see Table 4). Of course, the difficulties caused by the COVID-19 pandemic and other crises have led to a reduction in the number of sanatoriums, but tourism has the ability to recover quickly.

Stage 5 - Identification of types of tourism for which the required tourism potential is available within the country. The Law of Ukraine "On Tourism" specifies the following types of tourism: children; youth; family; for the elderly; for people with disabilities; cultural and informative; medical and health; sports; religious; ecotourism (green); rural; underwater; mountain; adventure; hunting; automobile; amateur; etc. (State Statistics Service of Ukraine, 2020), (Law of Ukraine "On Tourism", 2020). To some extent, in Ukraine,there are the conditions for all these types of tourism; however, cultural and informative, medical and health may be given high priority. In order to improve the image of Ukraine andthe value of its tourism brand, as well as to increase the number of tourist arrivals in Ukraine, especially foreign arrivals, it is necessary to create appropriate conditions and offer on the Ukrainian market a high-quality tourism product that may satisfy the most demanding consumer needs, thus increasing its competitiveness.

Stage 6 - Assessment of the country's labor supply. The number and dynamics of the economically active population of the country and its structure in Ukraine are determined, and the results are summarized in Table 5.

Table 5. **The state and dynamics of the labor resources of Ukraine**

No.	Indexes	2019	2020	Absolute deviation,2019-2020

1.	Permanent population, thousand people	41 732.779	41 418.717	- 314.062
2.	Economically active population aged 15-70, x_8, thousand people	18 066,0	17589,5	- 350
3.	In % to the population of the corresponding age, %	39.72	38.43	- 1.29
4.	Women aged 15-70, x_9, thousand people	7 923.1	7 605.8	- 317.3
5.	Women in% of the total female population of the corresponding age, %	18.99	18.36	- 0.63

Source: State Statistics Service of Ukraine (Ukrstat, 2021)

According to Table 5, the economically active population has slightly decreased, as well as the number of females. However, for the development of the tourism industry, which is a labor-intensive sector of the economy, Ukraine is sufficiently provided with labor resources, which contributes to the improvement of its tourism brand.

Stage 7. The number of visitors served (including foreigners) in Ukrainian hosting facilities and its dynamics are presented in Table 6.

Table 6. **Marketing support of tourism activity**

No.	Indexes	Figures, 2019	Figures, 2020	Absolute deviation, (+/-), 2019-2020
1.	Number of visitors served in hotels, thousand people	5494.21	2682.98	-2811.23
2.	Including foreign visitors, thousand people	896.17	247,71	-648.46
3.	Number of visitors served in other tourist accommodation facilities, thousand people	1466.74	696.49	-770.25
4.	Including foreign visitors, thousand people	63.25	6.69	-56.56
5.	Total: the number of visitors served in accommodation facilities for tourists, x_{10}, thousand people	6960.9	3379.48	-3581.42
6.	Including foreign visitors, thousand people	959.4	254.41	-704.99
7.	State budget expenditures on the development of tourism potential, x_{11}, thousand dollars[*].	-	8692.503	+ 8692.503
8.	State budget expenditures on the youth mobility program, x_{12}, thousand dollars	-	18109.381	+18109.381

Note: The value of the indicator from the national currency is converted into US dollars at the NBU Exchange Rate for January 10, 2022 (1 USD = 27.61 UAH)

Source: State Statistics Service of Ukraine (Ukrstat, 2021)

The results of the calculation presented in Table 6 indicate a decrease in the number of visitors to hotels and other RTAs, which demonstrates a decrease in demand for tourism services, as well as decreased demand among foreigners. These figures are obviously caused by the introduction of quarantine regulations due to the COVID-19 pandemic.

Stage 8 - Assessment of the country's image. For this purpose, the level and dynamics of the gross domestic product of Ukraine are analyzed. Calculations are presented in Table 7.

Table 7. **State and dynamics of gross domestic product of Ukraine**

SSr. nno	Categories	2019	2020	Absolute deviation 2019 - 2020
1.	Gross Domestic Product, x_{13}, (MM USD)	153781	155582	+1801
2.	By types of economic activity: gross domestic product of temporary accommodation and catering, (MM USD)	46320.923	364.493	-45956.43

Source: State Statistics Service of Ukraine (Ukrstat, 2021)

The results of the calculations (Table 7) show that the GDP of Ukraine has increased.However, the contribution of temporary accommodations and catering establishments as part of the tourism industry to the country's GDP decreased due to the COVID-19 pandemic. Thus, the economic situation in the country has improved; however, the performance of the tourism industry has deteriorated. To restart the travel and tourism industry, budget expenditures were planned to support entrepreneurs in this sector of the economy.

Stage 9 - Environmental quality assessment. Indicators of the state and dynamics of expenditures on environmental protection in Ukraine are summarized in Table 8.

Table 8. **State and dynamics of expenditures on environmental protection in Ukraine**

Sr. no.	Categories	Figures, 2019, (thousand USD)	Figures, 2020, (thousand USD)	Absolute deviation 2019 -2020, (thousand USD)
1.	Capital investments in environmental protection, x_{14}	1 311376	1 855374	+544014
2.	Capital investment inprotection of ambient air and climate, x_{15}	52021	581814	+529793
3.	Waste management, x_{16}	466157	261438	-204719

Source: State Statistics Service of Ukraine (Ukrstat, 2021)

Thecalculations (Table 8) show that expenditures on environmental protection and conservation of biodiversity and habitats in Ukraine are increasing every year. Only in terms of "waste management" have investmentsbeen reduced. Consequently, the state of the environment is improving.

Stage 10 -. To calculate the integrated indicator of the influence of factors on the attractiveness of the tourism brand of the country, we use statistical indicators (Table 9).

Table 9. **Statistical indicators for assessing the impact of factors on attractiveness of the tourism brand of Ukraine**

Categories	2019	2020	Average value
1. Area of the nature reserve fund of the country, x_1, thousand hectares	4 458.967	4 485.00	4 471.98
2. Indicator of the country's reserves, x_2, %	6.77	6.80	6.785
3. Number of UNESCO World Heritage Sites, x_3, units	7	7	7
4. Number of hotels in the country which have a five-star category, x_4, units	36	37	36.5
5. Number of sanatoriums and health facilities, x_5, units	11 386	12 381	11 884
6. Capacity of sanatoriums and health facilities, x_6, thousand beds	332	331,5	331,75
7. Amount of capital investment into the country's hotels, x_7,) Thousand dollars	30326,76	35 259,83	32 793,295
8. Economically active population aged 15-70, x_8, thousand people	18 066,0	17 589.5	17 827,75
9. Women aged 15-70, x_9, thousand people	8602.9	8369.0	8485.95
10. Total: the number of visitors served in accommodation facilities for tourists, x_{10}, thousand people	6960.9	3379.48	5 170.19
Including foreign visitors, thousand people	63.25	6.69	34.97
11. State budget expenditures on the development of tourism potential, x_{11}, thousand dollars	-	8 692.503	8 692.503
12. State budget expenditures on the youth mobility program, x_{12}, thousand dollars	-	18109,381	18109,381
13. Gross Domestic Product, x_{13}, (MM USD)	153781	155582	154 681.5
14. Capital investments in environmental protection, x_{14}	1311.376	1855.374	1583.375
15. Capital investment in protection of ambient air and climate, x_{15}	52.021	581.814	316.9175
16. Waste management, x_{16}	466.157	261.438	4 471.98

However, the statistical indicators by which we will assess the impact of factors on the attractiveness of the country's tourism brand have different units of measurement. In order to be able to use them for interpretation into an integrated indicator, it is necessary to change each actual indicator into a standardized indicator, which will be a relative dimensionless value and will eliminate the difference in units of measurement.

In the proposed study, we will take the average value of each indicator as a comparison element. Therefore, standardized indicators are defined as the ratio of the value of the actual indicator to its average value. In particular, the partial index of x_i is calculated by the formula:

$$I_{partial\,x\,i} = x_i / \overline{x_i} \qquad (1)$$

where: x_i- the value of the actual indicator

$\overline{x_i}$– the average value of the actual indicator

Integrated indicators for assessing the impact of factors on the attractiveness of the country's tourism brand are defined as the ratio of the sum of individual partial indices of indicators to the average value of these indices.

$$I_{x\,i} = \sum I_{partialxi} / \overline{I}_{partialxi} \qquad (2)$$

where: $\sum I_{partialxi}$– the sum of partial indices of indicators

$\overline{I}_{partialxi}$– the average value of partial indices of indicators

The results of calculations of integrated indicators of the level of tourist attractiveness of the territory are summarized in Table 10.

Table 10. **Partial indices and integrated indicators for assessing the impact of factors on the attractiveness of the tourism brand of Ukraine**

Indicators	Partial index, 2019	Partial index, 2020	Average value of partial indices of indicators	Total value of partial indices of indicators	Integrated indicator
1. The area of the nature reserve fund of the country, x_1, thousand hectares	0.99	1.003	0.997	1.993	0.550
2. Indicator of the country's reserves, x_2, %	0.997	1.001	0.999	1.998	0.551
3. Number of UNESCO World Heritage Sites, x_3, units	1	1	1	2	0.552
4. Number of hotels in the country which have a five-star category, x_4, units	0.986	1.014	1	2	0.552

5. Number of sanatoriums and health facilities, x_5, units	0.958	1.042	1	2	0.552
6. Capacity of sanatoriums and health facilities, x_6, thousand beds	1.001	0.999	1	2	0.552
7. Amount of capital investment into the country's hotels, x_7, (MM UAH)	0.925	1.075	1	2	0.552
8. Economically active population aged 15-70, x_8, thousand people	1.013	0.987	1	2	0.552
9. Women aged 15-70, x_9, thousand people	1.014	0.986	1	2	0.552
10. Total: the number of visitors served in accommodation facilities for tourists, x_{10}, thousand people	1.346	0.654	1	2	0.552
Including foreign visitors, thousand people	1.807	0.191	0.999	1.998	0.551
11. State budget expenditures on the development of tourism potential, x_{11}, thousand dollars	-	1	0,5	1,5	0,276
12. State budget expenditures on the youth mobility program, x_{12}, thousand dollars	-	1	0.5	1,5	0.276
13. Gross Domestic Product, x_{13}, (MM USD)	0.994	1.006	1	2	0.552
14. Capital investments into environmental protection, x_{14}	0.828	1.172	1	2	0.552
15. Capital investment into protection of ambient air and climate, x_{15}	0.164	1.836	1	2	0.552
16. Waste management, x_{16}	0.104	0.058	1,00	0.162	0.552
Total value	14.222	16.767	15.498	28.989	-
Average value	0.889	1.048	0.969	1.812	1

Source: own elaboration

Assessment of the level of influence of factors on the attractiveness of the tourist brand of Ukraine will be carried out using the following scale of intervals:

< 0.4 – unsatisfactory level

0.41 – 0.6 – satisfactory level

0.61 – 0.8 – high level

0.81 – 1.0 – very high level

The scale of intervals makes it possible not only to rank objects according to the studied features but to also set intervals between levels of this scale. In this scale, there is a conditional unit of

measurement which can be used to establish quantitative differences between objects in relation to the measured feature. The same differences in numbers on this scale will mean equal differences in the quantities of the measured property in different objects or in the same object at different intervals. However, the fact that one number is several times greater than another does not necessarily indicate the same relationship in the number of measured properties. The measurement matches the properties of the object to the properties of the numbers it matches. The scaling assessment process consists in constructing a scale according to certain rules and includes two main stages. In the first stage, the data is collected, and in the second, their processing and analysis, based on the results of which an evaluation scale is built, are done.

We define the generalized integrated indicators. For example, for the factor "area of the nature reserve fund of the country, x_1", the weighted average integrated indicator will be:

$$I_{x\,1} = \sum I_{partial\,x1} \,/\, \overline{I}_{partial\,x1} = 0.997/(28.989/16) = 0.550$$

therefore, the level of influence of this factor is satisfactory.

Thus, the level of influence of each factor on the attractiveness of the country's tourism brand is determined separately (the results of calculations are presented in Table 11). For Ukraine, according to the results of the calculations, all factors have a satisfactory level of influence, and only "state budget expenditures on the youth mobility program, x_{12}" has an unsatisfactory level (integrated indicator is 0.276). This means that the impact of this factor is insignificant and can be ignored in further studies.

5. Discussion

Our analysis shows that the development of tourism is important for the economy of each country, especially in developing countries. However, the effective management of a country's tourism business is directly related to the attractiveness of its tourism brand, which is shaped by various factors. Measures to improve a country's tourism brand, appropriate to the level of influence of factors, are presented in Table 11.

Table 11. **Measures to improve a country's tourism brand, appropriate to the level of influence offactorson its formation**[a]

The level of influence of factors on the formation of the tourism brand of a country	Measures to improve the tourism brand of a country
Unsatisfactory level	- adoption and implementation of a state program to improve the image of the country, particularly as a tourist state; - participation in international exhibitions to promote the national tourism product
Satisfactory level	- increasing state budget expenditures on the development of tourism potential, including the promotion of a country's tourism brand; - attracting investors to improve the environment in the country, in particular, for effective waste management, especially in the tourism sector of a country; - increasing state budget expenditures on the development of a country's infrastructure, including transport

High level	- attracting foreign investors to expand the network of five-star hotels and resorts and health facilities in a country; - advanced training of labor resources of the tourism sector and related industries of a country
Very high level	- improving state policy to promote the uniqueness of a country's natural and historical tourism and cultural resources, in particular, UNESCO World Heritage Sites; - increasing the level of "protected" territories of a country; - attracting foreign investors to improve a country's tourism and entertainment infrastructure

Source: own elaboration

The measures to improve a country's tourism brand proposed in Table 11, corresponding to the level of influence of the factor on its formation, will serve as a guide for tourism business structuring at both micro and macro levels in terms of improving the efficiency of tourism management.In general, the results of our study confirm that the attractiveness of a country's tourism brand increasesdue to the changes of composition and the quality of factors, which suggests that improving the use of tourism resources and other factors directly affect the attractiveness of a country's tourism brand.

As a result of testing the proposed scientific and methodological approach to modeling the assessment of the impact of factors on the attractiveness of the tourism brand of a country, it was determined that all the factors except "state budget expenditures on youth mobility program" have a satisfactory level of influence on Ukraine's tourism brand. The conducted modeling made it possible to highlight the strengths and opportunities of the tourism industry in Ukraine, in particular, to note that Ukraine has: a) the potential of unique tourism resources; b) a high-quality material and technical base, in particular, five-star hotels; c) conditions for cultural-informative and medical-health tourism; d) labor potential; demand among foreign tourists; e) a high general image of the country; good state of the environment.

It is worth noting that unlike other studies, our article offers a specific, well-founded list of major and minor factors, as well as an appropriate set of indicators to assess the impact of these factors on the attractiveness of a country'stourism brand.

6. Conclusion

Our study analyzed the major and minor factors influencing the formation of a country's tourism brand, as well as the proposed scientific and methodological approach to modeling the impact of factors on the attractiveness of a country's tourism brand. It revealed the impact of various factors on the level of attractiveness of a country's tourism brand, as well as describes measures to increase the value of a country's tourism brand.It was found that the components of the formation of a country's tourism brand can be classified as major and minor. The factors that affect the attractiveness of a country's tourism brand, namely, natural tourism resources, anthropogenic tourism resources, the material and technical base of tourism, external infrastructure, labor resources, marketing support, tourism management system, environmental quality and the general image of a country have been identified. The results of the study allowed us to confirm the hypothesis and develop recommendations for improving the use of tourism resources and other components and factors that affect the attractiveness of the tourism brand.

Unlike other studies, the article offers a specific, well-founded list of major and minor factors, as well as an appropriate set of indicators to assess these factors' impact on the attractiveness of the country's tourist brand. In particular, the following factors, such as: economic, social, cultural, political, and psychological, are taken into account to assess the brand image (Assaf, Josiassen 2011). Research

(Hankinson 2012) shows that targeting a brand consists of five dimensions - brand culture, agency coordination, brand communication, stakeholder partnerships, and brand realities, and has a strong positive impact on brand effectiveness. In turn, (Kladouetal. 2016), the contribution to brand creation of commonly used symbolic elements, such as the name of the destination, logo, and slogan, has been evaluated. The authors (Seabraetal. 2020) found that the main components that affect the image of the tourism brand are simplicity of perception, authenticity, attractive environment, places to relax, and socialize, quality infrastructure, and attractive historical and cultural monuments. Researchers (Martínetal. 2016) have identified three interrelated components of destination image: perceptual, affective, and global. This proves that the brand as a recognizable image reflects the image of the tourism destination. Sheng-HshiungTsauretal. (2017) identified the following elements of a tourism brand: destination image, awareness about the destination, and destination culture. HeeYounKimandJiHwanYoon (2013) investigated that the image of a tourism brand is greatly influenced by information about attractions and its accessibility.

The model we developed constitutes our contribution to the science on the investigated topic. In turn, the practical application of the proposed methodology has shown that Ukraine has the required potential to form a high image of a tourism brand. The methodology proposed in the article and tested on the example of Ukraine can be used to form programs for tourism development in different countries and plan investment activities to improve a country's tourism brand. The proposed methodology will be of practical value for managers of relevant departments, both at the local and state levels, as well as for practitioners in the tourism industry and related tourism sectors, as a country's image depends significantly on an attractive tourism brand.

However, the methodology used in the study has some limitations in use, as it is difficult to determine the lowest level of factors' influence on the country's tourism brand formation (quot; unsatisfactory level quot;) and the highest level (quot; very high level quot;), as it is very hard to assess such differences objectively. In such a situation, it is necessary to take measures (or take into account this aspect of the assessment) to achieve a higher level.

Areas of future research include the study which takes into account changes in the political situation (in particular, the Russian Federations' aggression against Ukraine, destruction of infrastructure, deteriorating economic situation in the country, humanitarian crisis, etc.), which affect the countries image as a tourist destination in the international tourism market.

References

1. Adamovich, V., Nadda, V., Kot, M., Haque, A.U. (2021).Camping Vs. Glamping Tourism: Providers' Perspective.*Journal of Environmental Management and Tourism*, 6(54), 1431-1441. DOI: https://doi.org/10.14505//jemt.v12.6(54).01
2. Amoah, J., Jibril, A.B., Luki, B.N., Odei, M.A. & Yawson, C. (2021). Barriers of SMEs' sustainability in sub-saharan Africa: a pls-sem approach. *International Journal of Entrepreneurial Knowledge*, 9(1), 10-24. DOI: https://doi.org/10.37335/ijek.v9i1.129
3. Anholt, S. (2007).*Competitive Identity: The New Brand Management for Nations, Cities and Regions*. – Basingstoke, New York: Palgrave Macmillan.
4. Assaf, A.G.,Josiassen, A. (2011). Identifying and Ranking the Determinants of Tourism Performance: A Global Investigation. *Journal of Travel Research,*51, 388–399.
5. Balaguer, J.,Cantavella-Jordá, M. (2002).Tourism as a Long-Run Economic Growth Factor: The Spanish Case. *Applied Economics*, 34, 877–884.
6. UNWTO: https://www.unwto.org/taxonomy/term/347 (asof 25.11.20).

7. Beerli A., Martín J.D. (2004), Factors influencing destination image.*Annals of Tourism Research*, 31(3), 657 – 681. https://doi.org/10.1016/j.annals.2004.01.010

8. Bieda, A., Balawejder, M., Warchoł, A., Bydłosz, J., Kolodiy, P. andPukanská, K. (2021). Useof 3D technologyinundergroundtourism: exampleofRzeszow (Poland) andLviv (Ukraine). ActaMontanisticaSlovaca. Volume 26 (2) 205-221 DOI: https://doi.org/10.46544/AMS.v26i2.03

9. Brandfinance. https://brandirectory.com/methodology. (asof 23.11.20).

10. Cárdenas-García, P.J.,Sánchez-Rivero, M.,Pulido-Fernández, J.I. (2015).Does Tourism Growth Influence Economic Development? *Journal of Travel Research*, 54, 206–221.

11. Chenghu, Z.,Arif, M., Shehzad, K., Ahmad, M.,Oláh, J. (2021).Modeling the Dynamic Linkage between Tourism Development, Technological Innovation, Urbanization and Environmental Quality: Provincial Data Analysis of China.*International Journal of Environmental Research and Public Health*, 18, 8456. https://doi.org/10.3390/ ijerph18168456

12. Civelek, M., Ključnikov, A., Fialova, V., Folvarčná, A., & Stoch, M. (2021). How innovativeness of family-owned SMEs differ depending on their characteristics? *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 16(2), 413–428. https://doi.org/10.24136/eq.2021.015

13. Cossío-Silva, F.J., Revilla-Camacho, M.-A., Vega-Vázquez, M. (2019). The tourist loyalty index: A new indicator for measuring tourism destination loyalty?*Journal of Innovation & Knowledge,*4(2), 71-77. https://doi.org/10.1016/j.jik.2017.10.003.

14. Dedeoğlu, B. B., van Niekerk, M., Küçükergin, K. G., De Martino, M., Okumuş, F. (2020). Effect of social media sharing on destination brand awareness and destination quality. *Journal of Vacation Marketing*, 26(1), 33–56. https://doi.org/10.1177/1356766719858644

15. Dwyer, L., Chulwon, K. (2003). Destination Competitiveness: Determinants and Indicators. *Current Issues in Tourism*, 6(5), 369-414, DOI: 10.1080/13683500308667962

16. García-Machado, J.J., Barbadilla Martín, E., Gutiérrez Rengel, C. (2020).PLS multigroup analysis of the role of businesswomen in the tourism sector in Andalusia.*Forum Scientiae Oeconomia*, 8(2), 37-57. https://doi.org/10.23762/FSO_VOL8_NO2_3

17. Gavurova, B., Privara, A., Janikova, J., & Kovac, V. (2021). Quantification of Tourism Sector Parameters Related to Competitiveness of Countries According to Macroeconomic Indicators. *Journal of Competitiveness*, 13(3), 56–72. https://doi.org/10.7441/joc.2021.03.04

18. Gössling, S., Scott, D., Hall, C. (2021).Pandemics, Tourism ,and Global Change: A Rapid Assessment of COVID-19.*Journal of Sustainable Tourism,* 29(1), 1–20.

19. Gracia Rubio, M.,Rodríguez Paredes, M. (2017). Valoración de marcas a través de modelosfinancieros. Una aplicación a Melia Hotels International. *Cuadernos de EstudiosEmpresariale,* 26. https://doi:10.5209/cese.54164.

20. Gretzel, U., Stankov, U. (2021). ICTs and well-being: challenges and opportunities for tourism. *Information Technology and Tourism*, 23, 1–4. https://doi.org/10.1007/s40558-021-00198-2

21. Gavurova, B., Ivankova, V., Rigelsky, M., Přívarová, M. (2020). Relations Between Tourism Spending and Global Competitiveness –an Empirical Study in Developed OECD Countries. *Journal of Tourism and Services*, 21(11), 38-54. doi: 10.29036/jots.v11i21.175

22. Gavurova, B., Suhanyi, L., & Rigelsky, M. (2020). Tourist Spending and Productivity of Economy in OECD Countries – Research on Perspectives of Sustainable Tourism. *Entrepreneurship and Sustainability Issues*, 8(1), 983-1000. doi: 10.9770/jesi.2020.8.1(66).

23. HeeYoun, K. Ji-Hwan, Y. (2013).Examining national tourism brand image: Content analysis of Lonely Planet Korea.*Tourism Review*, 68(2), 56-71. https://doi.org/10.1108/TR-10-2012-0016.

24. Hudáková, M., Urbancova, H., & Vnoučková, L. (2019). Key Criteria and Competences Defining the Sustainability of Start-Up Teams and Projects in the Incubation and Acceleration Phase. *Sustainability,* 11(23), 6720. https://doi.org/10.3390/su11236720

25. Interbrand: https://www.interbrand.com/best-brands/best-global-brands/methodology (asof 25.11.20).

26. Karyy, O., Kulyniak, I., Struchok, N., Halkiv, L., Ohinok, S. (2021). *Evaluation of the Tourist Attractiveness of Ukraine's Regions in the Conditions of Uncertainty Using Game Theory.* In: Proceedings of the 11th International Conference on Advanced Computer Information Technologies, ACIT 2021, Deggendorf, Germany (pp. 351-355). DOI: 10.1109/ACIT52158.2021.9548360.

27. Kit Ling Lam, Chung-Shing Chan, Mike Peters (2020).Understanding technological contributions to accessible tourism from the perspective of destination design for visually impaired visitors in Hong Kong.*Journal of Destination Marketing and Management,* 17.https://doi.org/10.1016/j.jdmm.2020.100434

28. Kladou, S., Kavaratzis, M., Rigopoulou, I., Salonika, E. (2016). The role of brand elements in destination branding, *Journal of Destination Marketing and Management,* 6(4), 426-435.https://doi.org/10.1016/j.jdmm.2016.06.011.

29. Ključnikov, A., Civelek, M., Fialova, V., & Folvarčná, A. (2021). Organizational, local, and global innovativeness of family-owned SMEs depending on firm-individual level characteristics: evidence from the Czech Republic. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 16(1), 169–184. https://doi.org/10.24136/eq.2021.006

30. Labanauskaitė, D. Fiore, M.Stašys, R. (2020). Use of E-marketing tools as communication management in the tourism industry.*Tourism Management Perspectives*, 34. DOI: :https://doi.org/10.1016/j.tmp.2020.100652.

31. Law of Ukraine "On Tourism": https://zakon.rada.gov.ua/laws/show/324/95-вр (asof 07.10.20).

32. Loehr, J., Dwipayanti, N.M.U., Nastiti, A., Powell, B., Hadwen, W., Johnson, H. (2020). Safer destinations, healthier staff and happier tourists: Opportunities for inclusive water, sanitation and hygiene in tourism. *Tourism Management Perspectives*, 40, 100883. https://doi.org/10.1016/j.tmp.2021.100883.

33. Martín, J.D., Beerli, A., Nazareno, P. (2016). Los efectos del cambio de imagen de un destino turístico antes y después de la visita en la satisfacción y lealtad del turista, *Revista de Análisis Turístico*, 21, 22 – 31.

34. Manhas Parikshat Singh, Manrai Lalita A, Manrai Ajay K. (2016). Role of Tourism destination Development in Building its Brand Image: A Conceptual Model. *Journal of Economics Finance and Administrative Science*, 21, 25-29

35. Matijová, M., Onuferová, E., Rigelský, E., Stanko, V. (2019). Impact of Selected Indicators of Tourism Capacity and Performance in the Context of the Unemployment Rate in Slovakia.*Journal of Tourism and Services*, 10(19), 1-23. https://doi.org/10.29036/jots.v10i19.95

36. Milovanovic, V. (2017).The Impact of Human Capital on Tourism Development.*Tourism International Scientific Conference Vrnjačka Banja 2017*, 2, 54–72.

37. Mira, M. R. C., Moura, A.F.A., Mónico, L.D.S. (2018). A New Measure of the Quality of Tourism Product.*Journal of Tourism and Services,* 9(17), 1-22. https://doi.org/10.29036/jots.v9i17.54

38. Ministry of Environmental Protection and Natural Resources of Ukraine, PZF (2020) URL: http://pzf.menr.gov.ua. (Asof 26.11.20).

39. Muo, I., Azeez, A. (2019). Green Entrepreneurship: Literature Review and Agenda for Future Research. *International Journal of Entrepreneurial Knowledge*, 7(2), 17-29. doi:10.12345-0007

40. Navickas, V., Petroke, I., Baciuliene, V., Kljucnikov, A. (2021).Development of Sharing Economy-Based Business Models in the Tourism Sector.*Marketing and Management of Innovations,* 3, 43-52. http://doi.org/10.21272/mmi.2021.3-04

41. Nikolaichuk, O. (2019). Justification of the tourism brand management mechanism. *Economics and management of the national economy,* 48(1), 123-128. https://doi.org/10.32843/bses.48-20

42. Oyunchimeg, L. &Gantuya, N. (2021).Understanding of Travel Motivations of Domestic Tourists.*Journal of Tourism and Services*, 22(12), 1-22. doi:10.29036/jots.v12i22.253

43. Parikshat Singh Manhas, Lalita A. Manrai, Ajay K. Manrai (2016).Role of Tourism destination Development in Building its Brand Image: A Conceptual Model.*Journal of Economics Finance and Administrative Science*, 21, 25-29

44. Pınar, M. (2020). University Branding and Measuring Brand Equity: Conceptual Framework and Empirical Studies.*The Journal of International Scientific Researches,* 5, 1-5, https://doi:10.23834/isrjournal.839937.

45. Pongsakornrungsilp, P.,Pongsakornrungsilp, S. (2021). Mindful tourism: nothing left behind – creating a circular economy society for the tourism industry of Krabi, Thailand. *Journal of Tourism Futures.*doi:10.1108/JTF-01-2021-0001

46. Popek Biškupec, P., Herman, S., & Ružić, I. (2022). The macroprudential measures for mitigating the effects of the pandemic crisis in tourism economies. *Business, Management and Economics Engineering,* 20(1), 79–95. https://doi.org/10.3846/bmee.2022.15738

47. Prokopenko, O. Larina, Y., Chetveryk, O., Kravtsov, S., Rozhko, N.,LorviI.(2020 a). Digital-Toolkit for Sports Tourism Promoting. *International Journal of Advanced Research in Engineering and Technology*, 11(5), 84-96. DOI: 10.34218/IJARET.11.5.2020.010

48. Prokopenko, O., Mishenin, Y., Mura, L., Yarova, I. (2020 b). Environmental and economic regulation of sustainable spatial agroforestry.*International Journal of Global Environmental Issues*, 19(1-3), 109-128. http://doi.org/10.1504/IJGENVI.2020.114868

49. Rani, P. (2019).Customer-based brand equity index of Kurukshetra.*Journal of Tourism Analysis: Revista de Análisis Turístico*, 26, 1, 48-61. https:// doi.org/ 10.1108/JTA-11-2018-0034.

50. Romão, J., Guerreiro, J., Rodrigues, P. (2013). Regional Tourism Development: Culture, Nature, Life Cycle and Attractiveness. *Current Issues in Tourism*, 16, 517–534.

51. Seabra,C.,Pereir, A., Silva, C., Abrantes, J. L., Reis, M., Paiva, O. (2020). Destination image perceived by domestic tourists: The influence of Generation Gap.*European Journal of Tourism Research,* 25.https://ejtr.vumk.eu/index.php/about/article/view/421.

52. Sheng-Hshiung Tsaur, Chang-Hua Yen and Yu-Ting Yan (2016).Destination brand identity: scale development and validation.*Journal Asia Pacific of Tourism Research,* 21(12), 1310-1323. https://doi.org/10.1080/10941665.2016.1156003

53. Shpak, N. Kulyniak, I., Gvozd, M., Malynovska, Y., Sroka, W. (2020). Estimation of the Marketing Activity of Banking Structures.*ActaUniversitatisAgriculturaeetSilviculturaeMendelianaeBrunensis*, 68(1), 229-242. DOI.org/10.11118/actaun202068010229

54. Shpak, N. Melnyk, O. Horbal, N. Ruda, M., Sroka, W. (2021b).Assessing the implementation of the circular economy in the EUcountries.*Forum Scientiae Oeconomia,* 9(1), 25-39. https://doi.org/10.23762/FSO_VOL9_NO1_2

55. Shpak, N. Muzychenko-Kozlovska, O. Gvozd, M., Sroka, W. (2021a). Simulation of the Influence of External Factors on the Level of Use of the Regional Tourism Potential: A Practical Aspect. *Administrative Sciences,* 11, 3: 85. https://doi.org/10.3390/admsci11030085.

56. Škrabic Peric,B., Šimundic, B.,Muštra, V.,Vugdelija, M. (2021).The Role of UNESCO Cultural Heritage and Cultural Sector in Tourism Development: The Case of EU Countries. *Sustainability*, 13, 5473.https://doi.org/10.3390/ su13105473

57. Srivastava, A., Kumar, V. (2021). Hotel attributes and overall customer satisfaction: What did COVID-19 change?.*Tourism Management Perspectives*, 40, 100867.https://doi.org/10.1016/j.tmp.2021.100867.

58. State Agency for Tourism Development of Ukraine. https://www.tourism.gov.ua.(Asof 6.12.21).

59. State Statistics Service of Ukraine: http://www.ukrstat.gov.ua.(Asof 25.11.20).

60. United Nations Educational, Scientific and Cultural Organization (UNESCO).https://whc.unesco.org/en/list/ (asof 07.10.20 p).
61. Urbancová, H., Hudáková, M., & Fajčíková, A. (2020). Diversity management as a tool of sustainability of competitive advantage. *Sustainability*, 12(12), 5020. https://doi.org/10.3390/su12125020
62. Vasanicova, P., Jencova, S., Gavurova, B., & Bacik, R. (2021). Cultural and natural resources as determinants of travel and tourism competitiveness. *Transformation in Business & Economics*, 20(3), 300-316.
63. Vnuchko, C. Tymoshenko, T. (2020).COVID-19 and social dialogue in the tourism industry: EU practice and Ukrainian realities. Electronic resource / Access mode: http://eap-csf.org.ua/wp-content/uploads/2020/12/COVID-19
64. World Economic Forum.https://www.weforum.org. (asof 10.12.21).
65. World Tourism Organization.UNWTO (2021).Inclusive Recovery Guide-Sociocultural Impacts of Covid-19.*Cultural Tourism*, 2.https://www.unwto.org/cultural-tourism-covid-19.
66. World Travel and Tourism Council.https://wttc.org. (asof 15.12.21).
67. World Tourism Organization: http://www.unwto.org (asof 4.01.20).
68. Wu, D.C., Song, H., Shen, S. (2017). New Developments in Tourism and Hotel Demand Modeling and Forecasting.*International Journal of Contemporary Hospitality Management*, 29, 507–529.
69. Yunpeng, Li, Clark, Hu, Chao Huang, Liqiong Duan (2017). The concept of smart tourism in the context of tourism information services.*Tourism Management*, 58, 293-300. https://doi.org/10.1016/j.tourman.2016.03.014.

Brief description of Authors:

Nestor Shpak
ORCID ID: https://orcid.org/0000-0003-0620-2458
Affiliation: Doctor of Economic Sciences, Professor
Professor of the Department of Management and International Business,
Institute of Economics and Management,
Lviv Polytechnic National University 12, Stepan Bandera str., Lviv, 79013, Ukraine
web page: https://lpnu.ua/mmp
E-mail: nestor.o.shpak@lpnu.ua
Areas of research interests:
- tourism economics,
- simulation of the business process,
- strategic management,
- estimation of the marketing activity,
- IT- technology, international digitalization,
- economic systems development management,
- the Strategies of Innovative Projects.

Oksana Muzychenko-Kozlovska
ORCID ID: https://orcid.org/0000-0002-3519-5448
Affiliation: Associate Professor
Associate Professor of the Department of Business Economics and Investment,
Institute of Economics and Management,
Lviv Polytechnic National University 12, Stepan Bandera str., Lviv, 79013, Ukraine
web page: http://wiki.lp.edu.ua

E-mail: Oksana.V.Muzychenko-Kozlovska@lpnu.ua
Areas of research interests:
- tourism economics,
- regional economy,
- sustainability,
- quality of the environment,
- resource conservation,
- location of productive forces.

Maryana Gvozd
ORCID ID: https://orcid.org/0000-0001-7842-694X
Associate Professor of the Department of Management of Organizations,
Institute of Economics and Management,
Lviv Polytechnic National University 12, Stepan Bandera str., Lviv, 79013, Ukraine
web page: https://lpnu.ua/mo
Email: mariana.y.hvozd@lpnu.ua
Areas of research interests:
- business process reengineering,
- tourism economics,
- simulation of the business process,
- strategic management,
- estimation of the marketing activity
- risk evaluation

Włodzimierz Sroka
ORCID ID: https://orcid.org/0000-0002-8701-0716
Affiliation: Dr hab. (Assoc. prof.)
Professor of the Department of Management,
Faculty of Applied Sciences, WSB University, Dąbrowa Górnicza, Poland
and North-West University, South Africa
web page: https://www.wsb.pl/english
Email: wsroka@wsb.edu.pl
Areas of research interests:
- tourism economics,
- economic systems development management,
- social entrepreneurship,
- financial Regulation of Public-Private Partnerships,
- Human Resources Management
- Brand Management

Marianna Havryliuk
ORCID ID: https://orcid.org/0000-0002-2347-2188
Affiliation: Associate Professor, CSc. (Education)
Associate Professor of the Department of Foreign Languages
Institute of the Humanities and Social Sciences
Lviv Polytechnic National University 12, Stepan Bandera str., Lviv, 79013, Ukraine
web page: https://lpnu.ua/im
Email: marianna.v.havryliuk@lpnu.ua
Areas of research interests:

- history of pedagogy;
- comparative pedagogy;
- professional development of teachers;
- problems of teaching foreign languages in higher technical educational institutions.