Adaptation Capacity Management of the Passenger Air Carrier as a Participant in the Tourism Product Creation Process

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Abstract. The paper provides a critical analysis of researches related to the definition of different types of business opportunities, general approaches to adaptation management, adaptation potential management of transport and tourism enterprises. The choice of air carriers as the object of study was due to the greatest difficulty in managing their adaptation potential, and their key impact on the tourism product. The prerequisites for the adaptation of air carriers to the global tourism market were determined. It was noted that the adaptation capacity of enterprises has its own characteristics depending on the scope of activity of business entities. The scientific novelty is formed by the defined sequence of the procedure and the stages of air carrier adaptation to the conditions of the world tourism market. For the first time, a set of measures to adapt air carriers to the global tourism market was proposed. Intensification of tourism market participants’ interaction will provide an opportunity for global expansion of the tourism product.

Keywords: adaptation capacity, Management, Passenger Air Carrier, Tourism Product, Creation Process.

1 Introduction

Air carriers are actively applying the principles of comprehensiveness, consistency and innovativeness when creating their products for passengers. It has become clear to them that active involvement of their business in the creation of a systemic travel product allows them to achieve synergies in coordinating efforts with travel agencies, as a comprehensive product sells better, at a higher price and faster. At the same time, certain balancing conditions are implemented, which include harmonising the relationships of the participants in the process of creating a tourism product, and better ensuring the principles of flexibility and customer centricity.

In general, the ability to adapt is one of the key factors in the success of any system, and especially such an unstable system as the network airline system when creating a tourism product.

It should be noted that a network air carrier operates in a highly turbulent environment, this business is usually low-margin, and its successful development requires considerable investment, especially in technological and information support.

The tourism product itself has changed dramatically over the past decades, both in terms of its actual content and the ways and methods of its promotion. The dominant model is that of online travel agencies, which have managed to displace traditional tour operators through innovative product promotion.

This innovation is characterised by the information tools used in the promotion and sale of the product, as well as the characteristic comprehensive content, which includes air transportation, transfer to the airport of departure and arrival, hotel accommodation, leisure activities at the place of stay, with maximum focus on the individual wishes of the client, and his/her religious, cultural, and ethnic characteristics.

2 Literature review and defining the problem

An analysis of the scientific works related to the management of adaptive capacities of enterprises, as well as the peculiarities of tourism product formation and their interconnection was carried out.

Solving the problems of managing the adaptation potential of enterprises is an extremely important, theoretically and practically significant issue. Many scientific studies are devoted to solving its various aspects, in particular there is a wide range of researches to ensure the use of resource potential of companies, opportunities for their adaptive marketing, as well as the integration of enterprises’ resources.

As noted in [1], in order to create synergy effect between tourism industry and air transport, quality regulatory conditions, balanced interstate policies,
appropriate infrastructure provision and comprehensive strategies must be implemented in order to fully seize the opportunities provided by technological progress.

The identification of different types of business opportunities helped to determine the regularities under which they operate [2]. There is also a need to balance growth regimes for each type of business opportunity with the mandatory use of the company’s adaptation potential. There is a certain contradiction between different theories of management about the dominant strategy of enterprise development.

The study done by Hunt and Madhavaram [3] is devoted to resolving some of these disputes, noting that the understanding of contradictions in modern strategy contributes to the competition theory development. The modern globalized world is driven by the fact that the transformation and modernization of mature enterprises using secondary innovations remains attractive. The use of the best theoretical bases and practices in the symbiosis of adaptive marketing and the theory of sustainable innovation indicators is considered by Jian et al [4].

In general, adaptive management is extremely multifaceted and can be implemented in different ways. Simister’s research [5] is designed to critically analyze the best practices that are used and contributed to the development of authorial approaches, namely in assessing the adaptive capacity, balancing of information flows, time and cost compromise. The systematic study by Müller [6] is devoted to the research of innovative business models of SMEs in Industry 4.0, which in turn is based on previous works in this field [7, 8].

The study of Morsche et al [9] was devoted to the use of adaptive transport services, where the dependence of availability, schedule, costs, time for respondents’ choice, as well as priority parameters of public transport choice by different potential customers. The development of adaptive investment to ensure the sustainable development of transport is becoming extremely important in terms of increasing risks [10].

The sustainable development effectiveness in tourism, as shown by Garay et al [11], is directly linked to the implementation of eco-economic practices as well as industry and information sources.

A study by Sarkar and George [12] explores the dynamics of a sustainable tourism industry driven by social media. Enterprises being regional leaders in the tourism sector are able to influence the organizational climate that ensures autonomy and supports innovation through a range of leadership approaches [13]. There is an urgent need to study innovation in services, particularly in the tourism and hospitality sector, which derives from the rapid and radical technological progress [14]. As J. Pulido-Fernández and M. Pulido-Fernández [15] point out, coordination and cooperation between tourism market actors should be aimed at providing tourism’s multiplier effect on the local market.

A study by Kelly et al [16] explores the role of the development of adaptive capabilities of owner-managers of small tourist units in the search for niche potential of their business. The study by Rodriguez et al [17] confirmed that the dynamic capabilities of absorption, adaptation and innovation affect the operation of the natural tourism cluster formed by small and medium-sized enterprises.

The adaptive methodology for the optimal solution of the transport problem based on the sample by the standard quadratic cost function proposed by Essid et al [18] has significantly reduced data preparation and simplified its practical application. The adaptive approach of strategic planning of the airport can be considered as a component of development of its adaptation potential [19]. Other interesting optimization solutions of transport enterprises were studied in Sgurev and Bo et al [20, 21].

The application of system dynamics modeling for strategic planning and organizational learning in the context of tourism destination management using the concept of learning tourist destinations is the subject of a study by Schianetz et al [22]. Although this study is incomplete, it was one of the first similar ones and formed the methodological basis for the following ones. It is almost the first study in which the authors note the importance of infrastructure provision and diversification of tourism products. The authors noted the actual impossibility of high-quality forecasting of tourism development in complex and dynamic systems at that time. However, due to the revolutionary development of computing systems in recent decades it has become a reality, requiring the development of new, more advanced tools that can assist in resolving these issues.

The study presented by Pappas and Brown [23] provides a qualitative comparative analysis with fuzzy sets in the framework of decision-making in the tourism sector in a crisis, which should be recognized for one of the original examples of the successful use of the given apparatus. Qualitative comparative analysis, used as a method by the authors, allowed to solve many problems in the sector of travel, tourism and hospitality. Qualitative analysis with fuzzy data sets proved to be effective with large samples and sufficient uncertainty. From another point of view, the authors note the need to deepen the research and its non-universal nature.

Interesting scientific problems of the transport, logistics sphere, supply chain management, infrastructure development and urban network planning are studied in [24–30].

Despite a significant number of scientific publications on the development of the adaptive capacity of enterprises, including the aviation sector, aspects related to adaptation capacity management of the passenger air carrier as a participant in the tourism product creation process were not revealed.

3 Research aim and objectives

In terms of managing the adaptive capacity of an air passenger carrier, it largely depends on its type. As mentioned above, a network airline is the most difficult to manage, while the charter airline business and the
Low-cost carriers use simplified models of fare planning, thereby facilitating their work in this aspect. Similarly, charter airlines are based on the economics of a particular charter flight, without balancing their entire network in terms of fares.

The aim of the scientific study is to provide such tools adaptation capacity management of the passenger air carrier as a participant in the tourism product creation process that would allow to take into account the development opportunities for all types of passenger air carriers and tourism operators.

Within the framework of this aim, the following objectives were solved: the sequence of the procedure for adapting an air carrier to the conditions of the global tourism market was determined and characterised; a set of measures for adapting air carriers to the global tourism market was introduced; practical recommendations for realising the adaptation capacity of an airline were proposed.

The solution of the set objectives will make it possible to create a toolkit that should allow to fully realise the airline’s potential on the way to creating an innovative new generation tourism product.

4 Overview key findings

The adaptation potential of enterprises has its own characteristics depending on the field of activity of economic entities. Obviously, the most difficult is to determine the adaptive capacity of service enterprises given the high level of uncertainty, the impossibility of accumulation of service products and creation of appropriate stocks, the difficulty of determining optimal parameters of the service product itself to meet customer needs.

The difficulties also relate to the extreme variability of the target markets in which such enterprises operate, the turbulence of the business environment, and issues related to the constant updating of product offerings in the markets.

The adaptation process implies awareness of threats and opportunities from the external environment. The sequence of the air carrier adaptation procedure to the conditions of the global tourism market is shown in Fig. 1. The aviation business, as noted, has its own specific features, which the authors tried to take into account when developing the scheme and which to some extent affect the development of the air carrier’s adaptation capacity in general.

Fig. 1: The sequence of the air carrier adaptation procedure to the conditions of the global tourism market

As part of the first stage, initially an analysis of threats and opportunities that airline faces when working in the global market of tourist services is carried out with further determining the level of sensitivity to changes in this market.

Obviously, the level of sensitivity will be different for individual sub-regional markets for an air carrier and this should also be taken into account.

Then again, low-cost and charter carriers tend to operate in more local markets that are not subject to much turbulence, while network carriers have to take into account all the threats of global markets.

The second stage involves the development of adaptation measures to operate in the global tourism market, taking into account all aspects of the air carrier. In this regard, network airlines will face the need to implement more adaptation measures than low-cost and charter carriers. However, the latter two types of airlines are more dependent on crisis processes in specific local markets and, since they are usually smaller than...
The effectiveness of adaptation of global tourism market, providing diagnosis and forecasting of changes in carrier, as well as its aircraft services, take into account changes in demand international markets of air transport and tourist services, a network carriers, cannot compensate for this with economies of scale.

The following active adaptation stage, which includes the implementation of adaptation measures and evaluation of their effectiveness, is completed with the determination of the priority areas of the airline’s development as a result of successful adaptation to the global tourism market conditions.

When assessing the effectiveness of adaptation measures, an air carrier will inevitably face the challenge of determining the adequacy of the relevant methodology and the correctness of the results obtained. In the general case, forecasting measures for air carriers operating in smaller, i.e. local markets, have a higher level of reliability than for air carriers participating in global air transport markets. The level of globalisation of the specific travel markets to which carriers are adapting is also important, and more globalised markets require more accurate forecasts, larger-scale modelling, better quality practical recommendations and significantly more competent people to carry out such assessments.

The set of adaptation measures of air carriers to the conditions of the global tourist market, including measures and results of adaptation, is presented in Fig. 2. In total, this is a general outline of this set of measures and, accordingly, should be supplemented depending on the specifics of a particular air carrier, the established level of globalisation of the aviation and tourism markets, specific adaptability tools, etc.

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<th>AIR CARRIER’S ADAPTATION MEASURES TO THE GLOBAL TOURISM MARKET</th>
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<tr>
<td>1) Formation and implementation of the adaptation mechanism of air carriers to the conditions of global tourism market, providing diagnosis and forecasting of changes in factors of external and internal business environment, reducing the impact of negative factors, providing on-time and sound managerial decisions.</td>
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<td>2) Application of flexible tariff policy by air carriers in tourist destinations.</td>
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<td>3) Determination of an effective aircraft fleet structure in accordance with the existing/expected network of air routes by air carriers, including tourist routes.</td>
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<td>4) Improvement of methods and forms of cooperation between airlines and travel agencies.</td>
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<th>RESULTS OF AIR CARRIER’S ADAPTATION TO THE GLOBAL TOURISM MARKET</th>
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<td>➢ increasing the competitiveness of air carriers in the global tourism market;</td>
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<td>➢ creating conditions for the dynamic development of foreign trade, air transport infrastructure facilities and the tourism sector of the countries participating in the integration of air carriers and travel agencies;</td>
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<tr>
<td>➢ improving the quality of air transport and tourism services for foreign trade in countries-participants of the integration of air carriers and travel agencies;</td>
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<td>➢ increase in the volume of investment in the fields of aviation and tourism;</td>
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<tr>
<td>➢ increase in innovation activity of participants of the global tourism market, mainly air carriers and travel agencies;</td>
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<td>➢ development of new international markets of air transport and tourist services, expansion of tourist product scale.</td>
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Fig. 2: The set of adaptation air carriers’ measures to the global tourism market

As adaptation measures the formation of an appropriate mechanism, the use of a flexible tariff policy, an effective network of airlines including in tourist destinations, improving the methods and forms of cooperation between airlines and travel agencies are outlined.

The adaptation mechanism should become a key tool for adjusting the airline to the changing requirements of the tourism industry. A flexible systemic tariff policy is typical for a network airline model, while charter carriers and low-cost airlines use more standardised approaches within their respective models.

A network airline should build its tariff policy in such a way as to take into account changes in demand for passenger capacity across its own network of airlines, across the networks of partner companies, and taking into account the specifics of travel agency product development. The network of air routes of a network air carrier, as well as its aircraft services, should be balanced accordingly.

While the classical airline model used fixed route schemes based on point-to-point principles, the advanced network model requires the carrier to build its business processes for servicing air routes dynamically,
in a chain, and optimising the use of certain airplanes from the existing fleet. In this respect, low-cost airlines are closer to network airlines than charter carriers.

They also dynamically plan the use of their fleet depending on changes in demand. As for the forms of cooperation between air carriers and travel companies, the usual model of buying out “block seats” or even simply connecting to the air carrier’s general reservation system in real time still dominates.

At the same time, the most interesting and relevant model in modern conditions is an innovative model that ensures the formation of a global travel product that includes air travel, ground transportation, hotel reservations, and other services, with cross-cutting tariff planning between the air carrier and the travel operator.

The results of adaptation should be an increase in the effectiveness of air carriers’ activity in the global tourism market, development, improvement of service quality, investment attractiveness of infrastructure and the tourism sector, which should ensure the global expansion of the tourist product scope.

The overall increase in the effectiveness of air carriers’ operation in the tourism sector will enable them to generate additional net profit, as the additional cost component of this process is minimal.

Furthermore, cooperation with travel operators will enable the airline to create a better product by diversifying it and creating a range of services for a particular customer that will satisfy them to the fullest extent possible. This will, among other things, significantly increase the overall level of customer loyalty.

A major challenge currently is the investment attractiveness of the aviation business for customers. The creation of a more innovative, technologically advanced and economically attractive product by an airline can significantly increase not only its financial stability, but also its investment attractiveness in the borrowing markets, which is the key to sustainable development. The same is true for the travel industry.

The global expansion of the tourism product can significantly boost the development of the entire industry, as well as related sectors of the economy, such as the infrastructure provision.

Among the enterprises in the service sector, the most difficult task is to determine the adaptation potential of air carriers. In addition to the features described above, which are typical for the services markets, there are additional difficulties associated with both the transport nature of services provided and the unique features of air transportation.

The transport nature of air travel services also determines a number of difficulties in forming the overall product of a tourism service. It is impossible to create a stock for this service, it is impossible to stop its provision if there are positive decisions regarding other segments, etc.

The complexity of the global tourism product also lies in the combination of transport, tourism and other types of services.

The activation of interaction between regular passenger network air carriers and travel companies, especially those implementing innovative approaches, can contribute to the global expansion of the tourist product.

Overall, from our point of view, if this process is global in nature, it will be possible to consider a unique precedent of transformational combination of the aviation and travel market segments. The most advanced and innovative models of travel companies include, first of all, online travel agencies, which initially managed to find their own unique niche in the travel market and later overtook traditional travel agencies in most of the world’s markets.

If considering the relevance for domestic carriers to adapt to the conditions of the global tourism market, it can be noted that this task is significant, but at present there are significant obstacles in the formation of such an innovative product and even in the understanding of the importance of its key elements by the top management of air carriers. In our opinion, there is a significant gap between the level of innovation of the leading domestic travel operator Tickets.ua and the products of the leading domestic network air carriers - Ukraine International Airlines, Windrose, etc.

This makes it currently impossible to create a comprehensive global tourism product of these airlines and a tourism operator that would meet modern global requirements. Obviously, these problems are now combined with the problems associated with military operations on the territory of Ukraine, the suspension of flights, and a significant reduction in demand for travel and aviation services. Therefore, it is difficult to conclude that such a product could be created in Ukraine.

However, analysing the examples of a number of countries, including Turkey, it is possible to point to the theoretical possibility and significant hidden potential that can be unlocked by properly restructuring the operation of domestic air carriers in the absence of traffic, when the implementation of various projects to reengineer certain business processes is possible and even desirable.

5 Conclusions

Having defined the study's objectives, it was identified that solving the problem of managing the adaptation potential of enterprises is an extremely urgent problem that requires a comprehensive solution.

Based on this, the broadest possible analysis of scientific researches on entrepreneurial opportunities, adaptive management, adaptation of transport and tourist services, the use of adaptive methodology for optimal solutions to the transport problem was made.

In addition, it was revealed that the hardest to difficult is to determine the adaptation potential of air carriers as participants of extremely dynamic markets of transport services. The sequence of the procedure of adapting an air carrier to the conditions of the global tourism market has been determined, theoretically substantiated, and practical recommendations for it have been provided.
A two-stage set of measures to adapt air carriers to the global tourism market has been introduced, which will allow for the most effective implementation of this process, a systematic approach to the toolkit, and the best practices in tariff planning, balancing the network of air routes, using the fleet, building commercial interaction, and adequate evaluation.

Emphasis is placed on the possibility of obtaining additional profit from the formation of an innovative global tourism product with the participation of air carriers and travel agencies, in cooperation with other participants in the tourism market.

An opportunity for a significant increase in customer loyalty when offering such a product on the market, an increase in the investment attractiveness of companies offering it to potential investors, and opportunities for infrastructure development for the transport and tourism industry were noted.

To summarise the scientific study, it can be argued that the relevance for carriers of adapting to the global tourism market conditions will become one of the priority tasks in the near future.

For domestic air carriers, this is a task of a more distant perspective, but it will also certainly face them due to the global nature of aviation markets and the inability to exist in isolation from key globalisation processes.

References


