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Strategic Management and Crises Management as the Main Pillars of Recovery in the International Tourism and Civil Aviation Transport

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Abstract

Tourism and air transport are among the sectors most affected by the covid-19 crisis. The pandemic lasting almost two years has been reflected in short-term effects in both sectors, but there are also serious long-term consequences including the impact on quantitative and qualitative employment change. National authorities will have to set recovery plans in accordance with the relevant policies and in international cooperation with public and private entities. The aim of the paper is to identify a set of strategic and crises measures to recover the international tourism and international civil aviation transport in the context of the long-term human resource management and the optimisation of future quality and quantity of human resources in both mentioned sectors. These strategic recommendations are intended for application in national tourism and transport policies. The methodology of the paper is based on current statistical data and strategic documents at the national and international level represented by the international organisations (esp. UNWTO, WTTC, IATA, ICAO, ECAC). Attention is focused on crises management of the public sector entities in terms of the definition and implementation of reconstruction strategies, on private sector stakeholders, on the interconnection of the tourism and air transport sectors, as well as cooperation in the international environment. Methods and tools for the renewal of both sectors are based on a strategic approach of the public sector, support for the introduction of new business models in the private sector, change in the product and marketing mix, digitization, innovation and education.

Keywords: international tourism, international civil aviation transport, tourism and transportation policy, crisis management, strategic management

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Introduction

Tourism and air transport sectors were among the economic sectors most affected by pandemic of the covid-19. The dramatic drop of the tourism and air transport demand started in spring 2020 and has continued up to these days.

Private companies in both of the mentioned sectors were forced by the specific circumstances to adopt short-term crisis management scenarios and measures to overcome the first month of pandemic. As a result of still worsened situation in 2020 and beginning of 2021 many of private companies decided to stop their activities, to reduce them or to adopt long-term strategic plans based on previously gained experience.

The measures and rules approved and implemented by **the public sector** focused on financial and non-financial field, but very often without using relevant data, launching scenarios and without using principles and methods of strategic planning. The risk of the mentioned procedures consists in spending public money haphazardly without defining the road-map, clear goals and way how to reach them. The decision-makers experts have not always demonstrated the ability to make crisis decisions. A visible deficit in **the setting of crisis and strategic recovery measures** leads to heavy losses on all levels. All-Dabagh draws attention to *"...the role of decision-makers in times of crisis (COVID-19 pandemic as a model) to illustrate how the decision-makers should make positive decisions in crisis, strategies and skills and roles of them in crisis management".* (Al-Dabbagh, 2020)

The basis for the implementation of **the long-term measures** is not only good planning with regard to adequate goal setting, available resources or demand estimation, but especially good planning of **human resources needs** and their future profiles. It can be assumed that the need for employees in the sector of international air transport and international tourism will change not only quantitatively, but especially in terms of profile requirements, quality and skills of potential employees. Employees still working in both of the above sectors have moved to other sectors. It is questionable whether they will return to aviation or tourism industry.

The aim of the paper is **to identify a set of strategic and crises measures needed to recovery the international tourism and international civil aviation transport** in the context of the long-term human resource management and the optimisation of future quality and quantity of human resources in both mentioned sectors. Although the determination of the basic measures and tools is based on the international context, those instruments should be applicable in particular at national level.

The methodology of the paper is based on **current statistical data and strategic documents** at the national and international level represented by the international organisations (esp. UNWTO, WTTC, IATA, ICAO, ECAC).

Methodology

The methodology is based on the content analysis of selected strategic documents and recommendations published by **the leading international organisations** in the field of international tourism and air transport.

- UNWTO (UN World Tourism Organisation)
- WTTC (World Travel and Tourism Council)
- IATA (International Air Transport Association)
- ICAO (International Civil Aviation Organization)
- ECAC (European Civil Aviation Conference)

The set of the analysed documents consists of research studies, strategic recommendations, recovery "protocols" for specific subsectors (e. g. tour operators, attractions), research studies based on expert opinion of influencers and decision makers in both sectors.

- UNWTO Global guidelines to restart tourism (UNWTO, 2020e)
- UNWTO: Supporting jobs and economies (UNWTO, 2020g)
- UNWTO: Covid-19 tourism recovery technical assistance package (UNWTO, 2020b)
- UNWTO: Measures to Support Travel and Tourism (UNWTO, 2020c)
- WTTC: To recovery & beyond: The future of travel & tourism in the wake of Covid-19 (WTTC, 2020b)
- ECAC: Europe´s Vision for Aviation Flight path 2050 (European Commission, ECAC, 2021)
- IATA: COVID-19 Outlook for air travel in the next 5 years (Pearce, 2020)
- ICAO: Global Market Forecast (Prevor, 2018)

The research question is **what crisis management methods and what strategic recommendations are proposed by international organizations** for the revitalization of both sectors at the national level.

From the point of view of **the development of educational and vocational programs and trainings** aimed at graduates or employees with the potential for employment in the future sector of international air transport and international tourism and related industries, it is important what professional profiles of graduates / employees will be needed in both sectors.

Selected statistical data (UNWTO, WTTC, Czech Statistical Office, ECAC, IATA) for the past period and scenarios of future development of tourism and air transport are used as supportive analytical sources.

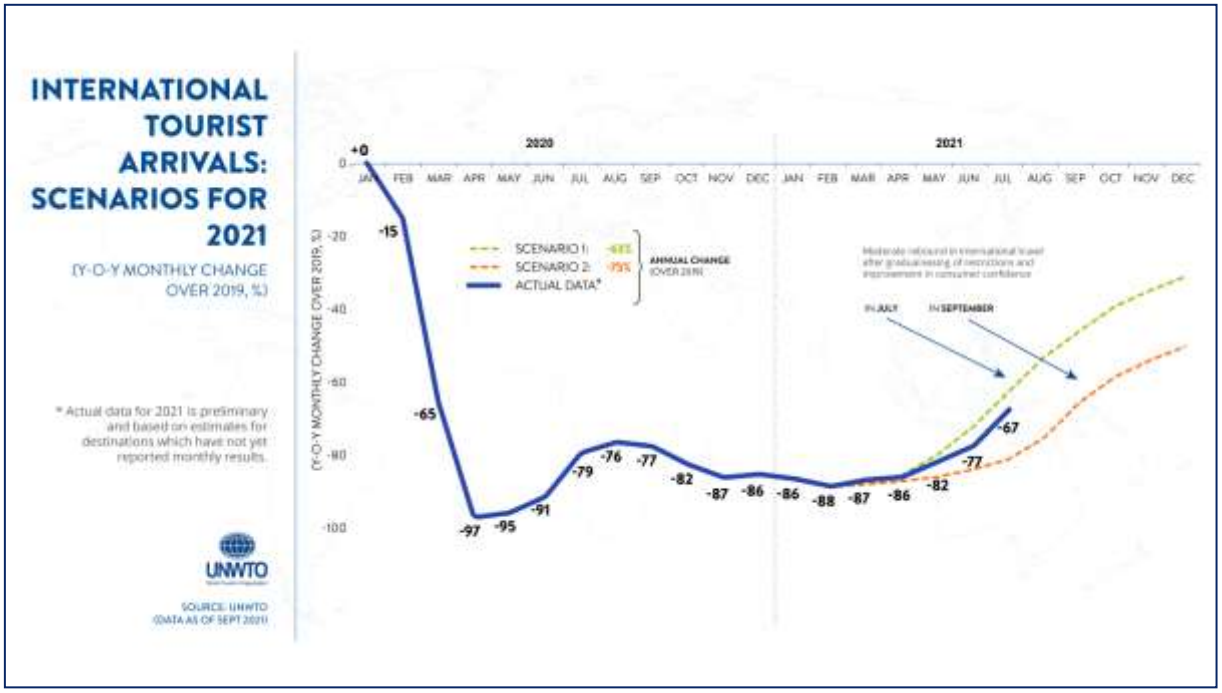
Results

The impact of pandemic on tourism and air transportation market

According to the UNWTO, **tourism** represents a social, cultural and economic phenomenon covering the movement of people to countries or places outside their usual environment for personal or business/professional purposes. The movement and other activities of visitors / tourists / one-day visitors is connected with consumption and tourism expenditure. **The international tourism** is comprised of inbound and outbound tourism that means the activities of resident visitors outside the country of residence, either as part of domestic or outbound tourism trips and the activities of non-resident visitors within the country of reference on inbound tourism trips (UN, UNWTO, 2008)

Figure 1

Scenarios for further development of international arrivals (UNWTO)



Source: UNWTO The first global dashboard for tourism insights (UNWTO, 2022)

The position of tourism in the world economy (2019) is given by the impact of tourism on world GDP of 10.3% (total impact) and the impact on employment (330 million jobs). According to the WTTC, every fourth new job in the world economy in the last five years has been created in tourism. The position of tourism in the world

economy before the pandemic (2019) is given by the impact of tourism on employment (330 million jobs). According to the WTTC one in four jobs in the global economy in the decade before the pandemic was created in tourism. Of the total number of 334 million jobs in tourism (2019), over 18 % (62 million jobs) disappeared in one year (2020). (WTTC, 2020a)

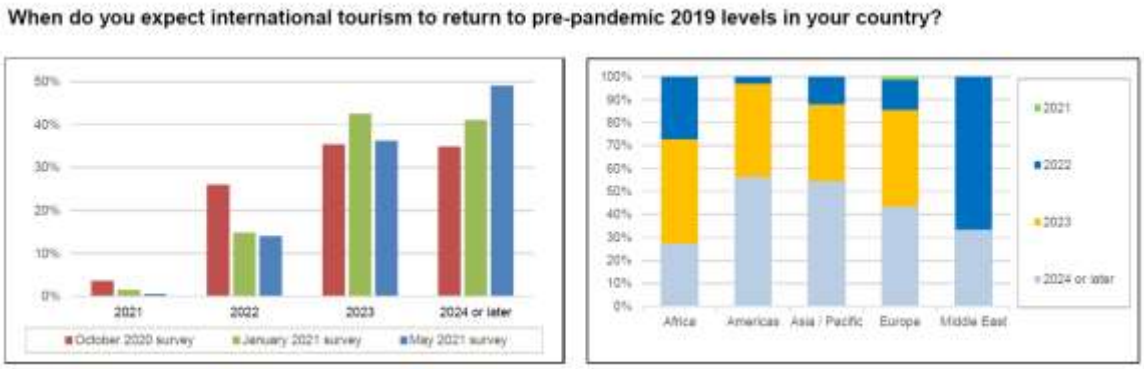
During the post-war period, there was only a few times a decrease in international arrivals in tourism (1982, 2001, 2003, 2009) accompanied mostly by a decrease in income from international tourism, but so far it has never meant a decline in the entire industry. Whether for economic or non-economic reasons, the path of tourism market recovery and the dynamics associated with it have always been very fast in history. The speed of recovery after these declines was given not only by the vitality of direct and indirect sectors, but also by **the coordination of international cooperation.**

The current crisis in world tourism caused by the pandemic means an unprecedented crisis not only in the economic field, but also in the social field. Possible recovery scenarios are depicted in Figure 1.

An analysis of **the UNWTO Tourism Confidence Index (TCI)** indicates the following possible trends based on the opinions of the results of an email survey (Panel of Tourism Experts). Figure 2 shows the expectations of future recovery and shows how expectations have changed over time and what the difference is between regions. It is evident from the graph that the achievement of the level of values in 2019 should occur in 2023 – 2024. The most sceptical scenarios are characteristic of developments in Asia-Pacific and America. (UNWTO 2021c)

Figure 2

Expected rate of recovery of international tourism (UNWTO)



Source: UNWTO 2021c

Experts across the regions consider **the easing of restrictions, slow virus containment, lack of coordinated response among countries or low consumer confidence** to be the main factors weighing on the recovery of international tourism.

Very similarly, these factors are reflected in the potential pace of recovery in international air traffic.

The real situation in air transport after mid-2020

The increasing volume of air transport before 2020 required that the demands on air transport were formulated in a timely and precise manner in order to ensure the efficiency of its operation, reliability, comfort, speed of transport and, in particular, safety. For example, according to the International Air Transport Association (IATA), a total of 7.8 billion air passengers were expected to reach 2036, roughly double the registered 4 billion passengers in 2017. The pandemic will significantly reduce these positive expectations. (IATA, 2021)

In contrast to the risk situations of the previous growth of the volume of air traffic in the relatively short term, the events of the beginning of 2020 have a significantly more serious impact. The declared covid-19 pandemic has significantly dampened air traffic around the world. An example is the year-on-year percentage comparison of weekly scheduled flights worldwide and in three selected countries in the period from January to June 2019 and 2020 indicated in table 1. A significant drop in air traffic volume is marked in red here.

The global impact of aviation on the world economy is 87.7 million jobs and approx. 3 trillion USD total effect on GDP generation (direct, indirect, induced catalytic effect) corresponding to 3.6% of global GDP (pre-covid situation). Close connection of aviation, resp. Air transport with international trade in goods and services is expressed by about a third of air transport in the transport of goods in international trade in goods. The share of international arrivals made by air was more than 55 % before the pandemic. (ACI, 2021), (IATA 2021), (ICAO 2022)

According to the ACI (Airport Council International) the drop of the aviation-supported jobs is more than 50 %. Similarly the number of direct aviation jobs (airlines, airports, manufacturers, air traffic management) fell by almost half from 11 mil. jobs to approx. 5 mil. jobs compared to the pre-pandemic period. (ACI, 2021)

Table 1

Year-on-year percentage difference of weekly scheduled flights (% annual change 2020/2021)

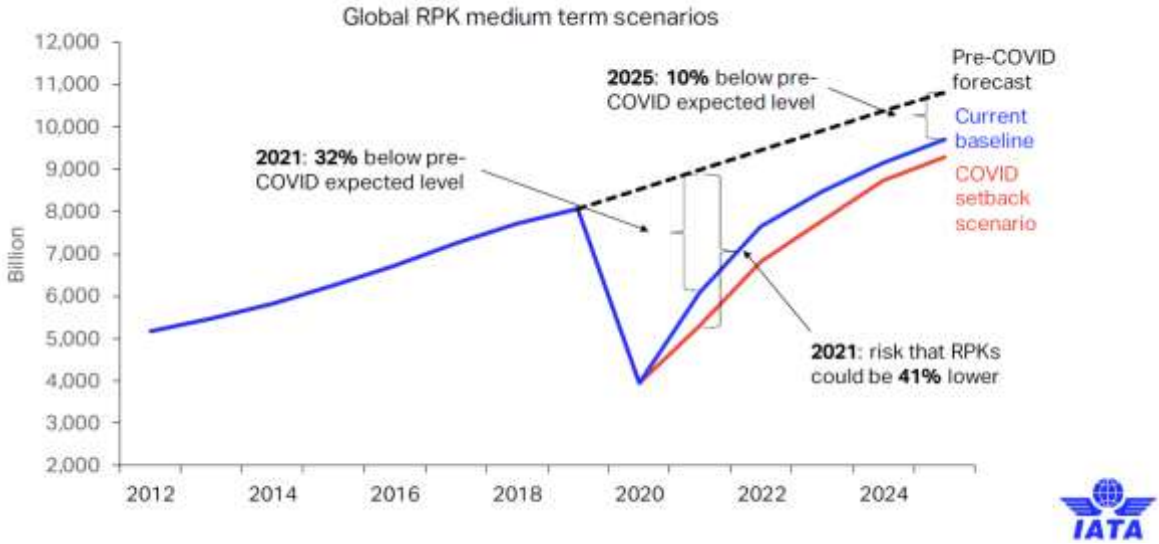
Territory	Jan.	Febr.	Mar.	April	May	June 1st	June 8th	June 15th	June 22nd	June 28th
World	0,8	-8,6	-14,8	-64,5	-68,6	-65,1	-64,8	-62,6	-62,9	-56,9
Germany	-8,5	-6,9	-30,7	-92,9	-91,3	-91,4	-88,8	-84,9	-83,8	-76,2
USA	1,7	1,2	-2,2	-56,9	-74,2	-71,8	-67,9	-66,6	-65,1	-57,4
China	4,3	-55,1	-40,2	-42,6	-28,8	-19,8	-21.2	-17,9	-23,9	-21,2

Source: Outlook for Air Travel in Next 5 Years IATA (Pearce, 2020)

According to IATA, which brings together 220 airlines, **the indicated drop in air traffic volume was a drop in the revenue to $ 419 billion, 50% less than in 2019.** In 2020, IATA member airlines lost an average of $ 230 million every day as the number of passengers dropped to 2.25 billion. According to the head of the IATA financial group, this decrease in the volume of air traffic meant a loss, which corresponds to one decade of the previous increase in the volume of air traffic. Although passenger interest in air transport is gradually returning, the IATA financial group expects AT to continue to make losses in 2021, but airline damage could fall to $ 15.8 billion. (Pearce, 2020), (IATA, 2021), (Eurocontrol, 2013)

Figure 3

Scenario of Post Covid Growth (Global RPK)



Source: IATA Outlook for Air Travel in Next 5 Years (Pearce, 2020)

The scenario of a recovery in air transport in the upcoming years is shown in Figure 3. According to Pearce (Pearce 2020), air transport is likely to recover more slowly than in other sectors of the economy. For example, the level of the Global RPK (revenue passenger kilometres) from 2019 may be restored in 2023 - 2024, 3-4 years after the GDP recovery. Thus, with a lower forecast of the Global RPK level, it can be expected that the return to growth after covid-19 in 2021 will be about 32% - 41% below the expected level (Figure 3).

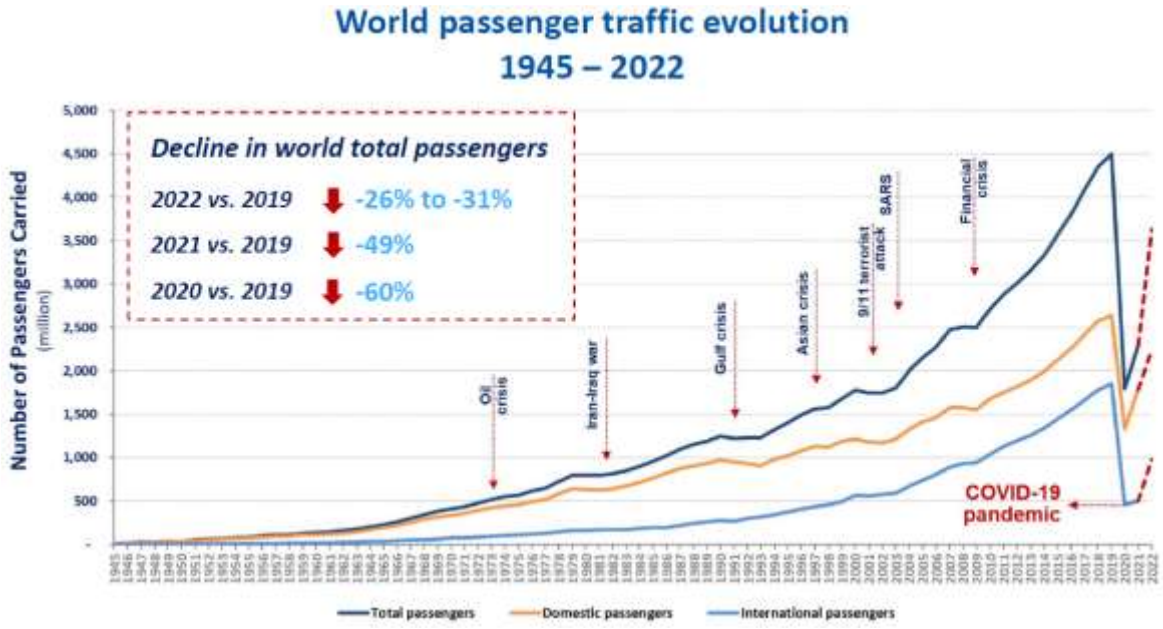
The development of the total number of passengers (Figure 4) shows a slight recovery after a steep drop in 2020. According to ICAO all indicators comparing situation 2021 and 2019 still show a double-digit depth of decline – reduction of 40 % of seats offered by airlines, reduction of 60 % of number of passengers (-2,2 mil.), approx. 320 billion USD loss of gross passenger operating revenues of airlines. However, the year-on-year decline in indicators 2021/2020 remains more modest than the decline in 2020/2019. (ICAO, 2022), (Prevor, 2018)

The tourism and air transportation market crisis can be described on the basis of general definitions of the crisis as a serious disruption of the tourism and aviation market with potential adverse effects on the real economy. This is a situation of significant deterioration of key indicators of the tourism market, which is reflected in insufficient liquidity, extensive insolvency and a significant decline in the value of financial and non-financial assets, as well as a significant reduction in the allocation of savings in the tourism sector.

Crisis management implemented by companies or industries focuses on addressing the effects of the crisis in the area of financial losses, loss of reputation and threats to public health and safety. **The role of the public sector** in crisis management and reviving the sector lies primarily in the responsible setting of the framework of tourism policy and transport policy.

Figure 4

Scenario of world passenger traffic as of January 2022



Source: Effects of Novel Coronavirus (COVID-19) on Civil Aviation: Economic Impact Analysis, Economic Development – Air Transport Bureau 01/2022 (ICAO) (ICAO, 2022)

In the literature the concept of crisis management can take various forms from crisis management as an administrative approach to deal with crisis conditions and to prepare plan of confrontation (Al-Helou, 2011) to more complex approach covering economy, sociology, psychology and other sciences. Quarantelli (Quarantelli, 1988), Voogd (Voogd, 2004) and other deal with the concept of decision-makers, control, coordination as relevant procedures for anticipating and preparing for the unknown. The way how to overcome crisis using behavioural approach, reducing chaos by collecting information about threats without being subject to excessive and false optimism is analysed by Mirvis (Mirvis,1996) or Muffet-Wilett and Kruse (Muffet-Wilett

et. al, 2009). Landau and Chisholm (Landau et. al, 1995) recommend institutions to establish and promote disappointment based on strategic approach and reality evaluation rather than biased self-deception and vigilance when confronting crises.

Theoretical approaches agree on the need for **prepared and professional information-based crisis management,** clearly defined **procedures and strategies,** including **sectoral policies** (transport policy, tourism policy and related) typical of the public sector.

The basic content of **transport policy** (in civil aviation) is, in addition to the growth of air traffic, its support by promoting the process of liberalization in the field of air transport and the growing economic power of the population in many parts of the world. Together with the consideration of a number of possible negative economic, environmental, health and safety effects, there is a need to predict future situations.

Tourism policy sets the direction for destination tourism and creates a framework for destination management. Tourism policy in the international environment is a set of rules, documents, legislative and other instruments that serve to achieve goals set at the national and international level. Mundt defines tourism policy as *"... a set of measures of public institutions at all levels of political action, which directly or indirectly, consciously or unconsciously, determine the formation and form of tourism."* (Mundt, 2004, p. 12)

Tourism destination management in the sense of destination governance means a complete set of internal and external mechanisms of power, rules, processes and control with the aim of developing public sector policies as well as private sector business strategies leading to the achievement of set goals. (Beritelli et. al, 2007) The concept of destination governance is characterized by three characteristics - complexity, interconnection of the private and public sectors and interdependence on resources. (Zhang et al, 2014)

Strategic management of tourism and air transport companies or public sector entities means the implementation of strategic and tactical steps. Strategic management refers to the setting objectives, research, analyzing the internal organisation and external environment, evaluation strategies with regard to resources available to the company, with the aim of setting long-term goals and objectives.

The impact of pandemic on tourism and air transportation market

A closer look at the demand in international tourism and air transport not only shows a quantitative market collapse, but also indicates the trends and challenges that are most likely to accompany the further development of the sector.

When monitoring the dynamic of international arrivals and the international receipts in last five year period, following conclusions can be drawn: (UNWTO, 2021a), (UNWTO, 2022), (UNWTO, 2021c), (WTTC, 2021a)

- Compared to the previous continuous growth of international arrivals, international tourism recorded a dramatic annual decline of almost 73% in 2020. Estimates of the decline in the first five months of 2021/2020 are close to 65% and estimates January – May 2021/2019 to 85 %.
- A similar trend is followed by revenues from international tourism, when their year-on-year decline in 2020 reached 64% worldwide.
- A more detailed view of the **individual regions** (Europe, Americas, Asia-Pacific, Middle East and Africa) shows the different dynamics of the decline and recovery depending on the measures and restrictions introduced in the tourism sectors as well as in the international air transport sector in the countries concerned.
- **The decline in international (and domestic) demand** was logically reflected in the decline in tourism economic impact on the world economy. According to recent estimates, world GDP in tourism has decreased by 3,7 % in 2020, suffered a loss of almost 4,5 trillion USD to reach 4,7 trillion USD. (WTTC, 2021a) The total impact of tourism on global GDP has decreased from 10,4 % in 2019 to 5,5 % in 2020 due to strict rules for access to destinations, international air transport and groundhandling services provided at the destination.
- Demand in international tourism has partially shifted to **domestic tourism,** although domestic tourism is also negatively affected by the pandemic. Spending of domestic visitors declined by 45 % globally, compared to almost 70 % drop in international visitor spending.

Table 2

International arrivals and tourism receipts 2018 – 2020

Territory	Intnl arrivals (million, % annual changes)					Intnl tourism receipts (billion USD, local currencies, constant prices)				
	2018	2019	19/18	2020	20/19	2018	2019	19/18	2020	20/19
World	**1 413**	**1 466**	*3,8 %*	**398**	*-73 %*	**1 460**	**1 446**	*2,9 %*	**536**	*-64 %*
AE	761	777	*2,1 %*	212	*-73 %*	948	922	*1,3 %*	357	*-62 %*
EE	651	689	*5,7 %*	186	*-73 %*	512	544	*6,0 %*	179	*-67 %*
Europe	716	743	*4,2 %*	235	*-63 %*	485	572	*4,3 %*	234	*-60 %*
Americas	216	218	*1,5 %*	70	*-68 %*	370	323	*-0,6%*	127	*-60 %*
Asia-Pacific	346	360	*4,0 %*	57	*-84 %*	286	441	*1,0 %*	133	*-70 %*
Africa	69	70	*4,6 %*	18	*-74 %*	33	39	*2,1 %*	14	*-64%*
Middle East	66	70	*4,6 %*	18	*-74 %*	63	91	*20 %*	29	*-67 %*

Note: AE – advanced economies, EE – emerging economies

Source: UNWTO World Tourism Barometer, Vol. 19, Issue 3, May 2021 (UNWTO, 2021c)

Research into the effects of the pandemic on global tourism employment shows that the number of jobs has decreased annually by 62 million in 2020 (-18,5 %) leaving 272 million jobs worldwide. Nevertheless, a further decline in jobs in tourism can be expected, given the supportive measures and retention schemes applied by national governments in 2020 and also at the beginning of 2021. The decline in spending on business tourism (2020) outpaced the decline in spending on leisure tourism, falling by 61 % compared to a 49 % drop in the leisure tourism segment. (WTTC, 2021a)

Regarding **the tourism development in the Czech Republic** the depth of the drop of the main indicators is similar to that in the world economy (Table 3).

Table 3

Incoming and domestic tourism in the Czech Republic 2017 – 2021 (mil. arrivals/overnights, % annual change)

Indicator (CAE)	2017	17/16	2018	18/17	2019	19/18	2020	20/19	2021 (1. H)	21/20 (1.H)
Intnl arrivals	10,2	9,0 %	10,6	4,4 %	10,9	2,6 %	2,8	-74,4%	0,286	-82,5%
Intnl overnights	26,3	8,2 %	26,8	1,9 %	27,2	1,6 %	7,4	-72,8%	0,731	-83,8%
Dom. arrivals	9,8	8,5 %	10,6	8,1 %	11,1	4,4 %	8,1	-27,5%	1,6	-39,2%
Dom. overnights	27,0	6,0 %	28,8	6.6 %	29,8	3,8 %	24,0	-19,6%	4,6	-37,2%

Note: CAE – collective accommodation establishments,

Source: own processing using data of the Czech Statistical Office (Czech Statistical Office, 2022)

According to data on the number of persons accommodated in collective accommodation establishments (Czech Statistical Office), **the number of international arrivals and overnights annually decreased by 74,4 % and 72,8 % in 2020.** The drop in the number of domestic arrivals and overnight stays was slightly lower and reached 28% and 20 % respectively. (Czech Statistical Office, 2022)

Analysis of strategic documents

Strategic documents´ content analysis and comparison aims to answer the question what crisis management methods and what recommendations are proposed by international organizations for the revitalization of both international and air transportation sectors.

In 2020, the UNWTO identified **several priorities for revitalizing the tourism market:** (UNWTO 2020b), (UNWTO 2020c), (UNWTO 2020d), (UNWTO 2020e), (UNWTO 2020f), (UNWTO 2020g)

1. Ensuring liquidity for companies and protection of jobs.
2. Restoring demand confidence through safety and hygiene measures.

3. Public-private cooperation to support tourism renewal.
4. Border opening based on due diligence and responsibility.
5. Harmonization and coordination of protocols and procedures.
6. Use of new technologies for maintaining and creating qualitatively new jobs.
7. Innovation and sustainability as a new normal state.

These priorities have been developed into themes, draft measures and solutions including safe traffic management and border crossings (airports, sea, land borders), setting rules and measures (protocols) across sectors, safe air transport and other tourism sectors, including destination management.

In its recommendations, the WTTC emphasizes **four main methods and tools,** which provide guidance not only for the current solution of the situation, but especially for the reconfiguration of tourism and related policies in the long term. (WTTC, 2020a), (WTTC, 2020b), (WTTC, 2021b)

1. Quantitative and qualitative development of demand.
2. Measures related to health and hygiene.
3. Innovation and digitization.
4. Sustainability - support for ecological destinations, sustainability as a DNA destination, technology support, traffic flow management, involvement of local communities and more.

Like the UNWTO, WTTC emphasizes the promotion of changes brought about or strengthened by pandemics in national tourism policies and international coordination in order to ensure the resilience of the tourism and related industries.

A comparison of the methods, approaches and measures of the international organizations (esp. UNWTO and WTTC) incl. expert recommendations can be summarized as follows. **The recommended solutions** proposed by individual organizations, despite their different scope and purpose, clearly agree in the emphasis on the following areas:

- **Employment** in tourism and rescue of more than 100 million vulnerable jobs worldwide.
- **Support for entrepreneurship** (small, medium-sized enterprises and large multinational companies) in direct and indirect sectors related to tourism, especially in the form of immediate fiscal measures, ensuring liquidity and protection of existing jobs (reduction of working hours, tax deferral, social security and more).
- **Restoration of consumer confidence** and positive expectations thanks to the measures taken in individual countries and at the level of individual sectors and tourism facilities.

- Emphasis on **innovation and digitization** of the tourism sector in order to increase the resilience of tourism to crisis phenomena.
- **Sustainability as a framework for restructuring the entire tourism industry** and individual sectors (accommodation, transport, travel agencies and others).

The strategic crisis solving tools focus comprehensively on governments, destinations, the private sector, visitors, residents and other interest groups. They recommend implementing the proposed procedures in the implemented national tourism and air transportation policies. Both organizations consider a strategic and coordinated approach not only within individual countries, based on cooperation between the private and public sectors, but also international coordination to be key.

Although the Czech public sector has prepared and applied standard tools for short-term support to the tourism and air transport sectors in 2020/2021 (e. g. tax deferrals, wage subsidies, employment of financial instruments), there are significant gaps in long-term strategic management and lack of the implementation of crisis management methods towards structural changes. The public sector has not yet captured the qualitative challenges and the overall change in the sector.

Discussion

Previous analysis of basic quantitative indicators and strategic documents published by leading international organizations in tourism and air transport clearly shows that managing the crisis in (international) tourism and (international) air transport means accepting the principles and methods of crisis management not only in the private sector but especially in the public sector.

All of the mentioned crisis methods, recommendations and measures follow the **principles of sustainability in the long term.** The gradual quantitative increase of indicators to the level of 2019 will be accompanied by the reconstruction of the sector and by fundamental qualitative changes in both sectors towards sustainability as a new normal. (UNWTO, 2020a), (UNWTO, 2020f), (UNWTO, 2021b)

Crisis and strategic management of recovery is based on the **following methods and principles in connection with already visible market trends.**

1. Strategic approach by public and private sector - creating effective tourism and transport policies driven by rational decisions, not political motives. There are two scenarios available to public institutions. First, they will address the situation by "simply" using public resources so that the ruling political party does not lose political points, but is unable to determine strategic direction in the long run. Second, they will help overcome the crisis by mobilizing public resources, but at the same time set a strategic outlook for the development of the sector based on the creation of conditions and financial resources, both indirect and non-financial, for the private sector. The role of the public sector in the phase of bridging the crisis and the role of a strategic leader for the new formation of the sector is irreplaceable.

2. Private sector – new business models

In setting up innovative business models associated with product development and distribution chain creation (entrances to international markets) we can expect changes towards reducing the cost of trade and marketing activities, their greater focus, a shift to share certain links in the distribution chain and shifts to the so-called platform economy (platform economy). The development of e-commerce and online shopping is an obvious trend not only in international tourism and air transport.

The transition to digital platforms and development of a business environment (setting sectoral policies) by the public sector represent prerequisites for developing sustainable products, partnerships, etc.

3. Changes in the marketing mix and product development

In times of crisis, the public sector is reviewing tourism policy and related strategies and policies. It is important to measure the impact of the pandemic on demand and on qualitative changes in demand in international tourism and air transport. Strategic management and marketing mix can be implemented only under the conditions of sufficient quality information about markets, competition, consumers, etc. in the public and private sector (market intelligence).Product development is adapted to the new requirements of source markets and segments, with a focus on sustainability, quality, authenticity and building a strong product brand.

4. Digitization in the public and private sector

The success of strategic as well as crisis management of international tourism and international air transport depends on the degree of digitization and the progress made in digitizing the public sector agenda. Differences in the level of digitization in European destinations were already apparent before the crisis broke out, which has deepened them dramatically in the last year. Within the set tourism policy, it would be desirable to expect from the public sector (educational) programs associated with the digitization of the private sector supported by financial and non-financial instruments.

5. Innovation and education

Tourism can exist only under conditions of mobility given by technical and technological progress. The challenges in this area lie in the further development of non-contact technologies (airports, airlines, hotels and others) associated with the further development of biometrics, automatic identification and self-service services.

Demands for hygienic measures are reflected in the use of robotics and automation in disinfection, cleaning, measuring the temperature of clients, cleaning with ultraviolet radiation. Tools for monitoring and video analysis of traffic streams are beginning to be implemented to maintain spacing and manage traffic (so far, especially at airports). A separate area is the provision of internationally usable digital health (vaccination) passports (CommonPass, Travel Pass).

The preparation and implementation of **a strategy based on digitization,** focused on domestic and foreign markets and based on serious and continuous analysis

means a shift in demands for education and training of new jobs and professionals. The training of professionals concerns both the public and private sectors, whose interdependence will strengthen much more than before the pandemic. A specific group for education are young people and women, who make up the majority of lower and middle positions in tourism and air transport.

A new **aspect of personal communication** between the customer and the employee is the increased sensitivity of customers and employees due to difficult conditions (eg. fears of infection, use of safety equipment). Platforms for sharing information, experiences, workshops, implementation of artificial intelligence, the Internet of Things, the use of big data and expert analytical work with data (market intelligence) and other forms of education are essential for the strategic and long-term recovery of the sectors concerned.

Many theorists, practitioners and public sector representatives (abroad) address the question of **what the period of development of tourism and air transport transformation** will look like and the parameters of the "new" standard in air transport and tourism. Any new standards cannot be set without considering the need for quantity and quality of human resources and their strategic development.

In terms of approaches to the issue of **qualitative transformation of tourism and air transport, several different approaches** can be found in the literature that affect ideas, resp. estimates of the qualification requirements of future employees in both sectors. The concept of industry transformation based on changes in consumer demand patterns (Wen et al, 2020), the concept of promoting sustainability in the physical environment, economic and socio-cultural (Higgins-Desbiolles, 2020) to the concept of strong digitization and robotization of the industry (Zeng et al, 2020)

The main theoretical approaches correspond to the spectrum of survey results, expert studies and opinions presented since 2020 by leading international organizations active in the field of air transport and tourism.

Although the effects of the pandemic on both sectors are dramatic and represent a crisis in the sector, many theorists and practitioners point to the opportunity to redefine the basic parameters of the sector, especially for tourism (Brouder, 2020), (Lapointe, 2020). **The idea of the strategic importance of human resources development, education and training for the transformation and rapid revitalization** of both sectors seems to be widely accepted.

The basic framework for recovery given by both the UNWTO and the WTTC, linking the public and private sectors, predetermines to some extent the requirements for education, training and tourism training for the next period, as confirmed by other academic authors (eg Tiwari et al, 2020).

Accelerating digitization already places demands on the development of innovative and creative potential of employees.

- **Sustainability as a new standard** in all phases of public and private sector management.

- Not only training focused on **health and safety measures,** but also from the point of view of management also training focused on crisis management risk assessment and management for future employees in the private and public sectors.
- Equipping **professionals with soft skills** including communication, language skills, IT skills and analytical thinking.
- Emphasis on **strategic thinking and planning** in the public and private sectors.
- Focus on **marketing research** and changing demand needs.
- Inclusion of **online teaching and communication** as a standard format.

IATA, as an authority in the field of air transport, emphasizes **the need for long-term strategic planning over a period of 10 to 20 years,** despite the high dependence on technical and technological progress, the degree of regulation of the sector, despite possible market fluctuations. (Pearce, 2020), (IATA, 2021), (European Commission, ECAC, 2021)

An important specificity of air transport is the presence and role of several groups of market players - airlines, governments and regulators building long-term infrastructure and regulatory planning, airport operators and civil aviation authorities, and navigation service providers. **Aviation therefore offers a wide range of applications for a variety of professions.**

According to IATA, the key issues affecting the development and future of air transport are **geopolitics, data and information retrieval, government policy, security, privacy and trust, new business models, economic development, changing values across communities, the physical environment and technology.** Regarding the regional distribution of air traffic, IATA's attention is focused on developments in the Asia-Pacific region and Africa.

The IATA recommendations for the further development of air transport are **social, environmental, economic, technological and political.** In **the social field,** there will be a clear shift towards new patterns of consumption, environmental activities, instability caused by infectious diseases and the ever-present risk of terrorism, as well as an aging population and dynamic development in the Asia-Pacific region. IATA recommends the introduction of social responsibility programs, a coordinated approach to risk management and the facilitation of travel for disabled passengers. It pays particular attention to further enhancing security at airports and promoting harmonized security standards. In the field of marketing, it focuses on understanding the needs of demand in new, so-called emerging markets.

Technological level and equipment are inextricably linked with air transport. Are the drivers of further progress, which are also reflected in the profiles of future employees in air transport, being the emphasis on cyber security, the Internet of Things, the discrepancy between data protection and surveillance, but also robotics and automation and alternative modes of rapid transport? IATA strongly

recommends strengthening information exchange systems against cyber threats, using new technologies (eg blockchain) while managing the risks it may pose. A systematic issue is also the solution of new entities (drones, drones,...) and the setting of rules at the level of airlines, governments and regulators, airport operators, civil aviation authorities and navigation services.

IATA sees the support of **the physical (environment)** in the use of alternative fuels and energy sources, but also in the need for international regulation of emissions and noise pollution. IATA considers extreme weather fluctuations to be one of the main factors behind the change. The IATA Recommendations aim at a comprehensive concept of sustainability, building on the UN Sustainable Development Goals 2030. IATA strives for a sector-wide social responsibility program focused on transparency, security and meeting global standards.

From **an economic point of view,** not only oil prices, but also the overall development of the global economy, international trade and the degree of integration achieved, have long been decisive for the development of air transport. IATA recommendations aim at creating early warning systems, but also at creating training plans for the next generation of employees and users.

The political level is characterized by geopolitical instability, internal emissions regulations and noise pollution, the growing influence of alternative regional and global institutions, but also the ownership of airspace and critical infrastructure by the public sector or anti-competitive decisions. The preparation of a system of emergency measures and procedures in the event of an imbalance, strategic thinking and continued support for institutions such as ICAO, or the development of relations with partners from Africa and Asia-Pacific are important qualifications of future employees in the sector. Equally important will be the training of staff supporting the building of relationships with public administration institutions from the national to the local level (infrastructure planning).

Air transport will require **employees of various professions and specializations,** from technology specialists through security or sustainability specialists to economists, managers and marketing specialists. According to IATA, safety, security, operational issues and economic education are key areas of air traffic restart. The interviewed practitioners consider the following to be a professional trend essential for the further development of air transport: (Pearce, 2020), (IATA, 2021), (European Commission, ECAC, 2021)

- Operational safety and security in aviation.
- Operation, including basic skills for performing individual positions.
- Management and leadership (teams).
- Problem solving and adaptability.
- Legal awareness and awareness of set regulations.

Conclusion

The public sector (public finances) will play a key role not only in the phase of overcoming the crisis (application of support instruments for the survival of the sector). However, the role of the public sector is even more important in the phase of responsible strategic planning of sustainable supply and consumption. In order to adapt to new market conditions, market operators (destinations, private entities, airlines and other) will place emphasis on strengthening the strategic approach, including strategic management. (UNWTO, 2020g)

The role of **strategic approaches in crisis situations** is essential not only in the private, but primarily in the public sector. Public sector sets the general framework for tourism and air transportation policy.

Strengthening the institutional framework and setting relevant tourism policies as well as transport policies become the basic preconditions for the renewal of tourism at the level of national destinations in particular. Growth scenarios and sectoral development priorities are no less important, such as involving sustainability principles, change marketing mix, involving local communities, promoting local products and, on the other hand, creating global digital platforms through investment in digital systems and education. (UNWTO, 2020b), (UNWTO, 2020g), WTTC 2021g)

Crisis and strategic management of recovery is based on the following methods and principles in connection with already visible market trends.

Methods, tools and recommendations **for temporary crisis and long-term strategic management** consist of following:

- A strategic outlook for the development of the sector based on the creation of conditions and financial resources, systematic approach, strategic management incl. risk management.
- Private sector – new business models.
- Changes in the marketing mix and product development - understanding the needs of demand.
- Digitization in the public and private sector.
- Sustainability as a new normal.
- Social field – introduction of social responsibility programs, a coordinated approach to risk management, safety and security standards and other.
- Environmental (physical) field - a comprehensive concept of sustainability, building on the UN Sustainable Development Goals 2030 meeting global standards.
- Economic field - creating early warning systems, but also at creating training plans for the next generation of employees and users and other.
- Technological field - strengthening information exchange systems against cyber threats, using new technologies, managing the risk and other.

- Political field – building a system of emergency measures and procedures, the training of staff supporting the building of relationships with public administration institutions from the national to the local level and other.
- Innovation and education - platforms for information sharing, experience, workshops, the deployment of artificial intelligence, the Internet of Things, the use of big data and expert analytical work with data (market intelligence) and other forms of education.
- Strategic approach to the human resources management.

The connecting key element in both sectors is the emphasis on health and hygiene measures, reflecting the use of technology, robotics and automation in disinfection, cleaning, client temperature measurement, ultraviolet cleaning. Employee education, training and coaching will also include mental health care as part of the organizational culture.

According to expert estimates, the ongoing revitalization of the international air transport and international tourism sector will last until 2023 - 2025. The gradual return or new entry of employees into both sectors will therefore be rather gradual, with the exception of the domestic air transport and domestic tourism segment in selected territories.

The analysis of the above materials representing both sectors from both the public and private sectors shows that **as employment in air transport and tourism increases, so will the requirements for their education, competences and skills.**

In the approaches to revitalization in international air transport and international tourism, despite the specifics of both sectors, it is possible to find identical elements, including **the emphasis on the human factor, training, developing and maintaining the necessary qualifications.** Especially in air transport, from the point of view of the loss of educated and trained professionals, a restart of the industry is impossible with regard to the aspect of safety, the regulation of the industry and its dependence on technology.

In both cases, more than before the pandemic, there is **a need to link theoretical and practical training and international partnerships as well as to coordinate the public, private and educational sectors.** The training of professionals concerns both the public and private sectors, whose interdependence will strengthen much more than before the pandemic. A specific group for education are young people and women, who make up the majority of lower and middle positions in tourism and air transport.

The strategic role of the public sector, including public budgets, plays a role not only in education, but also in setting and implementing long-term strategies for both sectors. The role of the public sector in the bridging phase and the role of strategic leader in the new sector formation are irreplaceable.

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