

www.economicsrs.com

# RECOVERY OF SLOVENIAN TOURISM AFTER COVID-19 AND UKRAINE CRISIS

#### Predrag Ljubotina<sup>1</sup>, Andrej Raspor<sup>2</sup>

Received 10. 03. 2022.

Sent to review 14. 03. 2022.

Accepted 09. 05. 2022.

## Original Article



<sup>1</sup>School of Advanced Social Studies, Gregorčičeva ulica 19, 5000 Nova Gorica, Slovenia

<sup>2</sup> School of Advanced Social Studies, Gregorčičeva ulica 19, 5000 Nova Gorica, Slovenia

#### **Corresponding Author:**

Andrej Raspor Email: andrej.raspor@fuds.si

**JEL Classification:** L83, Sports • Gambling • Restaurants • Recreation • Tourism

Doi: 10.2478/eoik-2022-0003

UDK: 338.486.1.02(497.4):[616.98:578.834

#### ABSTRACT

The profound impact of the COVID-19 pandemic and the Ukraine crisis 2022 on tourism has rendered forecasts of tourism demand obsolete. Accordingly, scholars have begun to look for the best methods to predict the recovery of tourism. In this study, econometric and judgmental methods were combined in order to to forecast the possible ways to tourism recovery in Slovenia. The goals of this paper are to show and assess the current offerings and potential for the development of tourism in Slovenia, and to point out the advantages and challenges in the development of tourism in this type of destination. Statistical methods were used for benchmark analysis, while Box and Jenkins approach and ARIMA modeling were used for forecasting Slovenian tourism until 2030. The datasets are analyzed using Tableau 2022.1. Our findings show that Slovenian tourism will be slower on the uptake and is not likely to fully recover until 2026, due to COVID-19 related uncertainty. A steep jump in daily COVID-19 infections in China and the Ukraine crisis which is affecting political and economic stability in the world is also slowing down the speed of recovery. In 2019, Chinese, Russian and Ukrainian tourists generated 5% of all tourist arrivals and overnight stays. In particular Russian tourists were well-known for their high consumer expenditure and thus desirable to the destination places. To mitigate the drop in tourist arrivals, Slovenia should do two things, namely concentrate on traditional markets, i.e. Austria, Italy, and Germany, which altogether represent 1/3 of all tourist arrivals and overnight stays, and secondly, it should target new markets, bringing new, innovative products, services, and experiences.

*Keywords:* Slovenia, Ukraine crisis, COVID-19, Tourism demand, Crisis management, Delphi method, Forecasting scenarios.

## 1. INTRODUCTION

Tourism and recreation are important to national economies and the personal income of its citizens (Blazejczyk, 2007). The Slovenian economy exhibits substantial movement between the number of tourists and income and employment, especially as well as International and Domestic Tourism (Chand, n.d.). Further on there is a differentiation between travel and tourism (Difference Between Travel And Tourism, 2010). The tourism sector and tourism research community focus mainly on international in - and outbound tourism volumes and expenditures. But international tourism is only one part of the whole picture (Raspor & Mise-Srajlehner, 2017). Domestic tourism must also be taken into account. This became important at a time when COVID-19 border crossings were restricted. Almost all countries recorded a decline in revenues from tourism.

Coronavirus disease pandemic not only caused a health crisis, but also a worldwide economic crisis. The widespread impact forced the economy to change to new normal conditions. This raises many important research topics in different fields such as health economics, public economics

and public finance, environmental economics, institutional economics, development economics, international trade, behavioral economics, and many others to provide decision-makers with references (Haryanto, 2020). Since Russia launched a full-scale military invasion into Ukraine on February 24, 2022, we have had a new impact on tourism. Due to sanctions, Russians are banned from traveling. On the other hand, because of the war, Ukrainians cannot travel either. In addition to industry forecasting reports, tourism researchers have striven to develop and evaluate multiple forecasting methods to predict tourism demand at different levels (Kourentzes et al., 2021; Liu et al., 2021; Qiu et al., 2021; Yang et al., 2022). Various forecasting methods have since been leveraged and compared in terms of forecasting accuracy. Examples include time series models, artificial neural network (ANN) models, stacking models, forecasting combinations, and the scenario-based mixed judgmental forecasting method (Yang et al., 2022).

The purpose of such studies is not only to help to speed up the recovery of the tourism industry from short-term shocks that were induced by the pandemic and economic crisis, but also to accelerate the recovery of the national economy (Haryanto, 2020). We will also be involved in this type of research. We will research how COVID-19 and the Ukrainian crisis influenced the Slovenian tourism economy and what are predictions for recovery.

The purpose of the paper is to assess the importance of tourism as a driver of economic activity in Slovenia. Time-series methods are used to investigate the importance of tourism. The paper is organized into three parts and an introduction. Part one deals with the literature review of tourism. Part two presents the empirical data. Part three discusses the main empirical findings in the context of literature; it offers some conclusions and explains the limitations of this paper and the direction of future research.

### 2. LITERATURE REVIEW

### 2.1. THE IMPORTANCE OF TOURISM FOR THE NATIONAL ECONOMY

Tourism is the process where people from one place to another go for enjoyment and spend their time (Khan et al., 2020). The modern era of tourism in Slovenia began with independence in 1991. Before was Slovenia part of Yugoslavia. The growth of international tourism has enabled a nontraumatic shift of the younger generation population who is living in the island and coastal communities away from fishing and farming to employment in tourism. Tourism has succeeded in reviving some of the Yugoslav regions, such as the Adriatic Coast, in a demographic and economic sense and paved the way for further development (Gosar, 1989). For Slovenia, as an independent country in the early years, tourism was not such an important economic activity. However, its importance has grown over the years (Table 1: Slovenian and world tourism in numbers: 1995-2021; Table 2: Slovenian tourists in numbers: 1949-2021).

There are many studies on the importance of tourism to an economy (Archer, 1995; Archer & Fletcher, 1996; Kruczek & Mazanek, 2019; Tokhirovich, 2021). There are also Slovenian studies (Gričar et al., 2021; Pantić & Milojević, 2019; Raspor et al., 2020). Tourism has its most immediate impact on gross state product, followed in a few months by personal income. Employment is affected after a lag of one year of crisis (Latzko, 2004).

			SI	World						
Year	Revenues of hospitality (1.000 EUR)	Employees: hospitality	BDP in mio EUR	Revenues of hospitality in GDP	Employees: Slovenia	Share of hospitality among all employees	Arrivals: world	Consumption of hospitality: world (billion USD)	GDP world (billion USD)	Consumption of hospitality in world GDP
1995	601.949	20.444	10.561	5,70%	893.572	2,29%	525	372	30.996	1,20%
1996	651.329	23.324	12.147	5,36%	843.162	2,77%	556	405	31.851	1,27%
1997	668.315	24.258	13.837	4,83%	764.778	3,17%	585	408	31.773	1,28%
1998	701.062	25.474	15.352	4,57%	752.239	3,39%	603	411	31.623	1,30%
1999	733.668	26.651	17.227	4,26%	750.223	3,55%	628	427	32.725	1,30%
2000	778.816	28.103	18.853	4,13%	744.890	3,77%	677	437	33.823	1,29%
2001	824.070	28.177	21.148	3,90%	743.430	3,79%	678	475	33.579	1,41%
2002	875.561	28.237	23.549	3,72%	745.169	3,79%	698	510	34.712	1,47%
2003	957.841	28.920	25.613	3,74%	758.474	3,81%	688	610	38.985	1,56%
2004	967.239	28.305	27.628	3,50%	800.541	3,54%	760	656	43.888	1,49%
2005	1.136.005	31.416	29.114	3,90%	806.349	3,90%	808	679	47.539	1,43%
2006	1.309.327	32.063	31.470	4,16%	808.678	3,96%	856	743	51.466	1,44%
2007	1.496.466	33.244	35.073	4,27%	801.230	4,15%	919	857	58.060	1,48%
2008	1.593.730	33.824	37.926	4,20%	807.490	4,19%	935	939	63.650	1,48%
2009	1.473.323	34.034	36.255	4,06%	858.171	3,97%	895	851	60.280	1,41%
2010	1.463.751	33.228	36.364	4,03%	835.039	3,98%	955	927	65.906	1,41%
2011	1.527.599	32.461	37.059	4,12%	823.967	3,94%	996	1.042	73.119	1,43%
2012	1.500.470	31.944	36.253	4,14%	810.001	3,94%	1.046	1.078	74.619	1,44%
2013	1.540.794	31.069	36.454	4,23%	793.597	3,91%	1.097	1.197	76.750	1,56%
2014	1.595.649	31.214	37.634	4,24%	797.792	3,91%	1.151	1.252	78.944	1,59%
2015	1.652.251	32.351	38.853	4,25%	804.637	4,02%	1.200	1.221	74.779	1,63%
2016	1.821.489	33.982	40.367	4,51%	817.209	4,16%	1.241	1.245	75.824	1,64%
2017	1.944.234	35.187	42.987	4,52%	845.454	4,16%	1.329	1.340	80.262	1,67%
2018	2.103.892	36.505	45.755	4,60%	872.772	4,18%	1.413	1.440	84.930	1,70%
2019	2.263.788	37.704	48.007	4,72%	894.229	4,22%	1.468	1.466	86.599	1,69%
2020	1.500.000	35.162	46.918	3,20%	888.918	3,96%	400	536	84.710	0,63%
2021	1.800.000	34.931	52.020	3,46%	900.262	3,88%	415	590	94.935	0,62%

Table 1. Slovenian and world tourism in numbers: 1995–2021.

Source: Author's calculation.

The tourism industry plays a great role in the development of the world and it is positively and negatively correlated with the economic growth of the global economy (Khan et al., 2020). Tourist spending reflects the economic valorization of tourism. The scope and structure of tourism consumption are the results of the qualitative and quantitative composition of the tourism product in destination and any microeconomic tourism entity respectively (Lacmanović, 2006). Establishing the scope, structure, and effects of tourist spending at international, national, regional levels or at the level of local economy represents a methodological problem because of the complexity of tourism industry as a socio-economic phenomenon (Antunac, 1985). Tourism in terms of economic activity is treated as an "invisible export" (Marković, 1972). This is largely due to fact that the consumption of services and goods by foreign tourists carry out the export on the spot in a tourist destination. As shown in the Table 1, the tourism expenditure as share of GDP has seen a significant drop and only accounted for 1/3 of the GDP levels from years prior to 2019. However, the tourism has proven itself resilient before (2000 and 2009) and it will recover again and emerged stronger from the crisis, reaching its full potential and driving growth. While measuring the impact that tourism has on GDP there were two widely accepted methodologies as Tourism Satellite Account (TSA) and Computable General Equilibrium (CGE) models (Ivanov & Webster, 2007). The TSA measured the size and impact of tourism on the economic activities explicitly included in the System of National Accounts (SNA) through different variables such as Gross Value Added (GVA) in tourism characteristic activities. The CGE model over Input-Output models, focuses on the impact on GDP through, for instance, increasing foreign tourism expenditure (removal of indirect taxes) and air transport productivity. This model "simulates what will happen in the economy as a consequence of external shocks, however, it does not state what has already happened" (Ivanov & Webster, 2007).

#### 2.2. TOURISM, COVID-19, AND THE UKRAINIAN CRISIS

The coronavisu pandemic, also known as the COVID-19 pandemic, is caused by the acute respiratory syndrome coronavirus 2 (SARS-CoV-2). This pandemic was first identified in Wuhan, China, in December 2019. To stop the spread of this pandemic, all countries have imposed lockdowns, widely restricted international travel, bans on all foreign visitors; travel restrictions from various places

where cases have been confirmed. The number of global flights was cut in half due to the suspension of international flights (Haryanto, 2020). As a consequence, all cross-border tourism was being interrupted.

According to UNWTO report, the global tourism experienced a mild 4% upturn in 2021, with 15 million more international tourist arrivals (overnight visitors) than in 2020 but remained 72% below the levels of the pre-pandemic year 2019 according to preliminary estimates. This follows a 73% plunge in international travel in 2020, which was also the worst year on record for tourism due to the COVID-19 pandemic. International tourism somewhat rebounded in the second half of 2021, with international arrivals down 62% in both the third and fourth quarters, compared to the same periods in 2019 (UNWTO, 2022).

Europe and the Americas recorded the strongest results by region relative to 2020 with arrivals up 19% and 17% respectively, though they remained 62% and 63% below 2019 levels. Africa saw a 12% increase in 2021 compared to 2020, though remained 74% below 2019 levels. In the Middle East arrivals declined 24% compared to 2020 and 79% over 2019. In Asia and the Pacific, arrivals dropped 65% from 2020 levels and 94% when compared to pre-pandemic values. By subregion, the Caribbean saw the best performance in 2021, with international arrivals up 63% over 2020, though 37% below 2019, with some destinations coming close to, or exceeding pre-pandemic levels (UNWTO, 2022).

The economic contribution of tourism (tourism direct gross domestic product) is estimated at US\$1.9 trillion in 2021, above US\$1.6 trillion in 2020, but still well below the pre-pandemic value of US\$ 3.5 trillion. The latest UNWTO Panel of Experts survey indicates that 61% of tourism professionals expect better performance in 2022 than in 2021. However, most experts (64%) also believe international tourism will not return to 2019 levels until 2024 or later.

The recent spike in COVID-19 cases and the emergence of the Omicron variant could delayed the recovery of tourism in early 2022. UNWTO scenarios point to 30% to 78% growth in international tourist arrivals in 2022 depending on various factors. This would be 50% to 63% below pre-pandemic levels. As international tourism bounces back, domestic tourism will continue to drive the recovery of the sector in an increasing number of destinations. Domestic travel is fueled by demand for destinations that are closer to home and for rural areas which have low population density. Tourists are looking for outdoor activities and nature-based products (UNWTO, 2022).

After seeing the unprecedented growth of 2022 and 2021, the international tourism is now expected to continue its recovery in 2022. As of 24 March, 12 destinations had no COVID-19 related restrictions in place. Accordingly, an increasing number of destinations were easing or lifting travel restrictions, which is helping to release pent-up demand.

Many countries have imposed sanctions against Russia in response to its invasion of Ukraine. Russia has retaliated by advising its citizens against traveling to these destinations (although many may not be able to afford to do so, given the rapid increase in airfares in the country). Russians had been making up a larger proportion of tourists in many European, Asian, and Middle Eastern countries over the past couple of decades, with some resorts on the Mediterranean basing their economies around visitors from the country. However, high uncertainty derived from the military offensive of the Russian Federation on Ukraine coupled with a challenging economic environment and the travel restrictions still in place due to the ongoing pandemic, could affect overall confidence and disrupt the upward trend seen in tourism in 2021. All of this is set to harm a global tourism industry still reeling from the impact of the COVID-19 pandemic (Karadima, 2022).

However, we should not overlook the fact that in 2019 Russia ranked 6<sup>th</sup> in terms of global tourism expenditure (32.39 billion EUR), while Ukraine ranked 38<sup>th</sup> (7.6 billion EUR). Russia and Ukraine thus accounted for a combined of 3% of global spending on international tourism (UNWTO, 2022).

### 2.3. SLOVENIAN TOURISM

Our data on tourist numbers, revenues, and expenditures are based on information from the SURS. The following table (Table 2: Slovenian tourists in numbers: 1949-2021) shows the number of tourist arrivals registered in Slovenia each year. Anyone who spends at least one night in the country but

does not live there for more than 12 months is considered a tourist. Insofar as the survey included the purpose of the trip, business trips, and other non-tourism travel purposes have already been excluded. The number of people passing through within the same day, e.g. crew members of ships or flights is also not considered tourists in most countries. If the same person travels in and out more than once within the same year, each visit counts again.

Year	Tourist arrivals: together	Arrivals of domestic tourists	Arrivals of foreign tourists	Overnight stays of tourists: together	Overnight stays of domestic tourists	Overnight stays of foreign tourists	Duration of overnight stays domestic	Duration of overnight stays in foreign	Share of domestic arrivals among all arrivals	Share of foreign arrivals among all arrivals	The proportion of domestic overnight stays among all arrivals	The proportion of foreign overnight stays among all arrivals
1949	246.777	237.806	8.971	1.383.679	1.350.845	32.834	5,68	3,66	96%	4%	98%	2%
1950	261.958	249.194	12.764	1.473.236	1.433.724	39.512	5,75	3,10	95%	5%	97%	3%
1951	310.911	293.436	17.475	1.327.432	1.275.599	51.833	4,35	2,97	94%	6%	96%	4%
1952	308.667	278.837	29.830	1.062.695	991.538	71.157	3,56	2,39	90%	10%	93%	7%
1953	407.554	349.413	58.141	1.276.777	1.139.846	136.931	3,26	2,36	86%	14%	89%	11%
1954	443.382	371.077	72.305	1.212.266	1.038.480	173.786	2,80	2,40	84%	16%	86%	14%
1955	496.631	399.868	72 903	1.454.442	1.200.609	255.855	3,00	2,62	81%	19%	85%	1/%
1957	559.994	470.699	89.295	1.919.170	1.664.876	254.294	3,54	2,52	84%	16%	87%	13%
1958	595.960	484.546	111.414	2.238.559	1.901.784	336.775	3,92	3,02	81%	19%	85%	15%
1959	697.008	544.649	152.359	2.705.703	2.226.710	478.993	4,09	3,14	78%	22%	82%	18%
1960	786.281	628.732	157.549	3.046.697	2.557.502	489.195	4,07	3,11	80%	20%	84%	16%
1961	833.082	632.521	200.561	3.099.931	2.515.052	584.879	3,98	2,92	76%	24%	81%	19%
1962	813.520	584.671	228.849	2.947.321	2.244.481	702.840	3,84	3,07	72%	28%	76%	24%
1963	979.720	741 712	412 645	3 794 034	2.511.509	1.020.700	3,55	2,99	64%	36%	67%	31%
1965	1.226.781	743,959	482.822	4.050.756	2.617.723	1.433.033	3,52	2,97	61%	39%	65%	35%
1966	1.321.128	696.966	624.162	3.839.834	2.068.676	1.771.158	2,97	2,84	53%	47%	54%	46%
1967	1.428.086	749.711	678.375	3.724.052	1.818.015	1.906.037	2,42	2,81	52%	48%	49%	51%
1968	1.520.567	807.510	713.057	3.954.211	1.999.032	1.955.179	2,48	2,74	53%	47%	51%	49%
1969	1.695.682	873.837	821.845	4.525.786	2.296.538	2.229.248	2,63	2,71	52%	48%	51%	49%
1970	1.780.105	9/2.0/8	879 730	5 443 561	2.324.833	2.501.050	2,60	2,85	54%	45%	53%	48%
1972	1.945.150	1.091.943	853.207	5.628.853	3.061.156	2.567.697	2,80	3,01	56%	44%	54%	46%
1973	2.037.359	1.082.107	955.252	5.964.203	3.054.445	2.909.758	2,82	3,05	53%	47%	51%	49%
1974	2.023.785	1.210.856	812.929	6.129.770	3.575.386	2.554.384	2,95	3,14	60%	40%	58%	42%
1975	2.151.536	1.310.502	841.034	6.444.354	3.854.084	2.590.270	2,94	3,08	61%	39%	60%	40%
1976	2.110.775	1.526.022	790 782	6 740 682	3.928.969	2.430.485	2,96	2 00	65%	3/%	65%	38%
1978	2.508.846	1.632.057	876,789	7.522.881	4.836.191	2.686.690	2,91	3,06	65%	35%	64%	36%
1979	2.518.962	1.705.241	813.721	8.081.110	5.367.046	2.714.064	3,15	3,34	68%	32%	66%	34%
1980	2.377.583	1.508.546	869.037	7.771.265	4.976.579	2.794.686	3,30	3,22	63%	37%	64%	36%
1981	2.418.741	1.556.479	862.262	7.679.814	4.731.029	2.948.785	3,04	3,42	64%	36%	62%	38%
1982	2.359.980	1.590.362	769.618	7.303.665	4.696.267	2.607.398	2,95	3,39	67%	33%	64%	36%
1984	2.575.342	1.620.282	955.060	8.095.492	4.856.042	3.239.450	3,00	3,39	63%	37%	60%	40%
1985	2.752.990	1.697.161	1.055.829	8.822.385	5.093.620	3.728.765	3,00	3,53	62%	38%	58%	42%
1986	2.821.396	1.770.314	1.051.082	9.213.434	5.549.483	3.663.951	3,13	3,49	63%	37%	60%	40%
1987	2.734.487	1.664.157	1.070.330	9.043.784	5.401.173	3.642.611	3,25	3,40	61%	39%	60%	40%
1988	2.723.856	1.526.498	1.117.218	8.807.368	4.933.798	3.873.770	3,07	3,47	59%	41%	54%	44%
1990	2.536.786	1.441.733	1.095.053	7.956.406	4.283.288	3.673.118	2,97	3,35	57%	43%	54%	46%
1991	1.425.321	1.126.577	298.744	4.885.842	3.916.251	969.591	3,48	3,25	79%	21%	80%	20%
1992	1.367.224	750.842	616.382	5.097.973	3.082.951	2.015.022	4,11	3,27	55%	45%	60%	40%
1993	1.450.098	825.727	624.371	5.384.626	3.372.180	2.012.446	4,08	3,22	57%	43%	63%	37%
1994	1.5/8.6/5	830.402	748.273	5.865.608	3.384.526	2.481.082	4,08	3,32	53%	4/%	58%	42%
1995	1.570.072	825 774	831.895	5 832 244	3 281 637	2.4550.607	3.97	3.07	50%	50%	56%	41%
1997	1.823.129	848.779	974.350	6.384.062	3.305.662	3.078.400	3,89	3,16	47%	53%	52%	48%
1998	1.798.925	822.411	976.514	6.295.308	3.232.876	3.062.432	3,93	3,14	46%	54%	51%	49%
1999	1.749.532	865.484	884.048	6.056.563	3.315.345	2.741.218	3,83	3,10	49%	51%	55%	45%
2000	1.957.116	867.567	1.089.549	6.718.998	3.314.901	3.404.097	3,82	3,12	44%	56%	49%	51%
2001	2.085.722	859 941	1.218.721	7.129.602	3 300 262	4 020 799	3.84	3.09	42%	58% 60%	47%	55%
2002	2.246.068	872.931	1.373.137	7.502.569	3.327.184	4.175.385	3,81	3,04	39%	61%	44%	56%
2004	2.341.281	842.429	1.498.852	7.588.737	3.225.954	4.362.783	3,83	2,91	36%	64%	43%	57%
2005	2.395.010	840.041	1.554.969	7.572.584	3.173.338	4.399.246	3,78	2,83	35%	65%	42%	58%
2006	2.484.605	867.955	1.616.650	7.722.267	3.233.438	4.488.829	3,73	2,78	35%	65%	42%	58%
2007	3.083.713	1.126.022	1.957.691	9,314.038	3,962,756	5.351.282	3,52	2,78	37%	63%	43%	57%
2009	2.984.828	1.160.897	1.823.931	9.013.773	4.077.480	4.936.293	3,51	2,71	39%	61%	45%	55%
2010	3.299.537	1.250.556	2.048.981	9.883.920	4.352.702	5.531.218	3,48	2,70	38%	62%	44%	56%
2011	3.535.794	1.299.637	2.236.157	10.413.012	4.363.347	6.049.665	3,36	2,71	37%	63%	42%	58%
2012	3.635.688	1.259.036	2.376.651	10.604.352	4.163.266	6.441.086	3,31	2,71	35%	65%	39%	61%
2013	3.901 563	1.244.424	2.675.071	10.738.766	4.056.607	6.833.040	3,18	2,67	31%	69%	36%	64%
2015	4.373.878	1.351.860	3.022.018	11.653.764	4.172.107	7.481.657	3,09	2,48	31%	69%	36%	64%
2016	4.834.071	1.437.198	3.396.873	12.647.876	4.307.898	8.339.978	3,00	2,46	30%	70%	34%	66%
2017	5.503.284	1.512.602	3.990.682	14.208.545	4.523.216	9.685.329	2,99	2,43	27%	73%	32%	68%
2018	5.933.266	1.508.128	4.425.139	15.694.705	4.518.695	11.176.010	3,00	2,53	25%	75%	29%	71%
2019	3.065.085	1.527.695	4.701.878	9 204 374	4.404.505 5.850.018	3 354 356	2,88	2,42	60%	40%	28% 64%	36%
2021	4.003.682	2.171.236	1.832.446	11.251.158	6.456.686	4.794.472	2,97	2,62	54%	46%	57%	43%

Table 2. Slovenian tourists in numbers: 1949–2021.

Source: Author's calculation.

Within 31 years, the country's dependence on tourism has decreased substantially. Slovenia has exemplary tourism organization. However, the COVID-19 pandemic wrecked havoc on Slovenian travel and tourism industry. Due to government financing support programmes (in response to coronavirus pandemic crisis Slovenian government has issued tourist vouchers to every person permanently residing in Slovenia) tourism is now recovering, but the pace of recovery remains slow. Tourism businesses and companies have seen the most benefit from vouchers. In 2021, just over 4 million tourist arrivals (31% more than in 2020) and 11.3 million overnight stays (22% more than in 2020) were recorded in tourist accommodation establishments in Slovenia. While domestic tourists generated almost 2.2 million arrivals (17% more than in 2020) and almost 6.5 million overnight stays (10% more than in 2020), foreign tourists generated 1.8 million arrivals (51% more than in 2020) and almost 4.8 million overnight stays (43% more than in 2020).

Nowadays, Slovenia is positioned on global markets as a green, active, and healthy destination. It has the opportunity to develop boutique-style, innovative, and sustainable tourist products with high added value. Its main objectives include a focus on IT-supported and innovative marketing of Slovenian tourism, a green scheme, the promotion of innovation and entrepreneurship, and the cooperation and integration of the main stakeholders to achieve shared goals and synergies. The common green thread of these various objectives is to increase Slovenia's recognisability as a green, active, healthy, and safe boutique destination, and for tourism to generate  $\in$ 3 billion in revenues annually, resulting in at least 6% annual growth.

War in Ukraine will have significant effect on Slovenian tourism. Due the economic turmoil caused by sanctions there will be no Russian tourists arrivals. We will also see a drop in Ukrainian tourist artrivals, who in 2019 accounted for 2.4% of total arrivals and 3.7% of overnight stays which equals 5% of tourism expenditure. The Ukraine war will have significant long-term consequences for Slovenian tourism over the next 5 years.

## 3. METHODOLOGY AND SAMPLE

For the purpose of this research we did times series historical data analysis. In this paper, we have followed the following methodology. It includes three steps as shown (Figure 1):



Figure 1. Research methodology.

Source: Author's creation.

#### **3.1. DATA COLLECTION**

For this research, the data on the examined countries was collected from the Slovenia national statistical office. The main reason for using these sources is an intention to observe the total number of arrivals, overnight stays, revenue and the workers employed in Slovenian tourism industry which is important for our discussion.

#### 3.1.1. CONCRETE TASK AND RESEARCH QUESTION

The task to be solved in this paper is to analyze the dataset of Slovenian tourism within twentynine years (from 1992 or. 1991 to 2021) to find some patterns, cyclical or seasonal features, or other significant information that allows forecasting of the future consumption within the certain degree of accuracy. The main research question is: When is Slovenian tourism expected to recover to 2019 levels?

#### **3.1.2. TIME-SERIES DATA**

The dataset represents a one-year sampling rate. The data presents different quantities and some sub-metering values and is a typical representative of time-series data that can be defined as a sequence of observed values. One of the most distinctive features of the time series is that data is not generated independently; their dispersion varies in time, is often governed by a trend, and has cyclic components. An observed time series can be decomposed into three components: the trend (long term direction), the seasonal (systematic, calendar-related movements), and the irregular (unsystematic, short term fluctuations) (Beliaeva et al., 2013).

Luckily, a time series on the SURS website offers data from 1949 onwards. Very detailed information since independence onwards (in 1991) are also freely available. The methodology of data collection is constantly being updated, so certain data are not directly comparable and have been included since 1995 onwards.

### 3.2. ANALYSING THE DATA USING TOOLS

Several scientific methods have been used for the purposes of this paper. In order to define the guidelines for development and improvement of casino tourism in Slovenia, we used a management strategy tool, Gap Analysis. The Goal of Gap Analysis is to answer four key questions (Thompson & Strickland, 2001) (Pearce et al., 2000): Where are we now? (A); Where are we likely to be? (B); Where do we want to be? (C); and how to overcome the gap between B and C? . Our Gap Analysis model (Figure 2.) is depicted below:





Source: Author's creation.

Within the scope of point A: Tourism in Slovenia Actual Situation (2022), we provide quantitative analysis. To define point B: Tourism in Slovenia — a realistic scenario where we used econometrics. There is no precise definition of econometrics. One would say that those are all so-called economics tricks, while the others would define econometrics as the application of statistics and mathematics in economics to prove hypotheses and foresee the future of trends (Moosa, 2017). Thanks to the autoregressive integrated moving average (ARIMA) model (Akaike Info Criterion), a model that is used to predict the time series, we gave a forecast of gambling income by the end of 2030. That is the realistic scenario of development based on the average growth rate for the observed period. We analyzed the yearly time series from 1992 to 2021 (29 observations in total).

In a world of ever-occuring economic, technological and environmental challenges, organizations are forced to constantly change and adapt in order to sustain their competitive advantage. Strategies must therefore be constantly upgraded. In addition to the general presentation of the Slovenian tourist environment, we also focused on financial data, more specifically on performance indicators. We would like to draw attention of the Slovenian expert public and highlight the opportunities which can help organizations to improve their business.

Point C: Tourism in Slovenia Wanted scenario foresees the tourism business in Slovenia. We will comment on the data in Table 1 and 2. The dawn of which changes are necessary insofar as progress is desired. This is the second step of our methodology. Here the datasets are analyzed using Tableau 2022.1. This is a realistic development scenario based on the average growth rate in the observed period. The well-known trends due to COVID-19 and Ukraine crisis have also been considered. Time series analysis has been done for all the available years.

### 3.2.1. FORECASTING PROCESS

Forecasting is the process of estimating the unknown. It can be defined as the science of predicting future outcomes. Forecast should be fitted with the following characteristics: it should be timely, it should be as accurate as possible; it should be reliable; it should be in meaningful units. In order to do the forecasting process the following steps should be computed (Nolan 1994; Armstrong 2001):

- 1. Definition of the purpose of the forecasting;
- 2. Data preparation;
- 3. Preliminary analysis;
- 4. Choosing and fitting the best model;
- 5. Forecasting;
- 6. Evaluation.

### 3.2.1.1. DATA PREPARATION

The following variables were needed to analyze Slovenian tourism and its share in GDP: year, revenue, arrivals, overnight stays, GDP, employees.

We were able to calculate the share of tourism in GDP, the share of employees in Slovenian hospitality and tourism industry among all employees for all observed years. In addition, we have prepared various forecasts until 2030.

### **3.2.1.2. PRELIMINARY ANALYSIS**

A good way to understand the data is a visualization to find some consistent patterns or significant trends. With the help of Tableau 2022.1, a powerful statistical tool for the exploration and visualization of the datasets, the graphs for the different periods are constructed (Tableau, 2014).

### 3.2.1.3. CHOOSING AND FITTING THE MODEL

The next step is to determine the appropriate model that fits the data. For that purpose, we use Box and Jenkins approach (Box in sod., 2015) which allows selecting from a group of forecasting models the one that is the best to fit the time series data. The ARIMA (autoregressive integrated moving average) modeling can be applied to most types of time series data. The forecasting accuracy of the ARIMA model is considered by scientists to be of a high degree (Beliaeva et al., 2013).

### 3.2.1.4. FORECASTING

The forecasting is done for the period from 1992/1995 to 2030. The results of the prediction with respect to year's period are presented in the figure 3–6.

**Equation 1:** Forecasting

$$\hat{y}_{t+h|t} = l_t + s_{t-m+h_m^+}$$

$$l_t = \alpha(y_t - s_{t-m}) + (1 - \alpha)l_{t-1}$$

$$s_t = \gamma(y_{t-l_{t-1}}) + (1 - \gamma)s_{t-m}$$
(1)

### **3.3. COMPARING THE PERFORMANCE**

This is the last and final step of the proposed methodology. We have given the screenshots obtained at the time of analyzing the dataset.

### 3.3.1. EVALUATION

The evaluation was made by using the Mean absolute scaled error (MASE) which is the most reliable according to Hyndman and Koehler (table 3).

If the MASE is lower than 1 the forecast model is right (Hyndman in Koehler, 2006). In table 1 you will see that in all cases MASE is lower than 1. On the other side, the Akaike information criterion (AIC) is very low which means the used model is appropriate (Bozdogan, 1987).

These results represent the high accuracy of the forecast. This proves the assurance of scientists that the forecasting accuracy of the ARIMA model is normally of a high degree.

All forecasts were computed using exponential smoothing.

				Arr	ivals: world	: 1995-20	30							
Model				Quality Metrics					Smoothing Coefficients					
Level	Trend	Season		RMSE	MAE	MASE	MAPE	AIC		Alpha	Beta	Gamma		
Additive	Additive	Additive		212	84	0,96	15,10%	312		0,468	0	0,471		
		Cons	sum	mption of hospitality: the world (billion USD): 1995-2030							)			
	Model			Quality Metrics						Smoothing Coefficients				
Level	Trend	Season		RMSE	MAE	MASE	MAPE	AIC		Alpha	Beta	Gamma		
Additive	Additive	Additive		197	86	0,87	12,50%	308		0,466	0	0,469		
				Arrivals o	f domestic t	ourists: 19	992-2030							
	Model			Quality Metrics						Smoothing Coefficients				
Level	Trend	Season		RMSE	MAE	MASE	MAPE	AIC		Alpha	Beta	Gamma		
Additive	Additive	Additive		109.778	72.000	1,04	5,70%	732		0,438	0	0,441		
Arrivals of foreign tourists: 1992-2030														
	Model			Quality Metrics						Smoothing Coefficients				
Level	Trend	Season		RMSE	MAE	MASE	MAPE	AIC		Alpha	Beta	Gamma		
Additive	Additive	Additive		664.746	281.505	0,90	17,60%	843		0,349	0	0,353		
Tourist arrivals: together: 1992-2030														
Model				Quality Metrics						Smoothing Coefficients				
Level	Trend	Season		RMSE	MAE	MASE	MAPE	AIC		Alpha	Beta	Gamma		
Additive	Additive	Additive		613.521	267.465	0,83	8,20%	838		0,221	0	0,427		
Overnight stays of domestic tourists: 1992-2030														
Model				888	<i>)</i> 0 01 <b>a</b> 0111 <b>0</b> 0	tie touriot	0. 1772 20.							
	Model			88	Quality	v Metrics				Smoot	hing Co	efficients		
Level	Model Trend	Season		RMSE	Quality MAE	Metrics MASE	MAPE	AIC		Smoot Alpha	hing Co Beta	efficients Gamma		
Level Additive	Model Trend Additive	Season Additive		RMSE 391.218	Quality MAE 243.152	Metrics MASE 1,10	MAPE 5,50%	AIC 810		Smoot Alpha 0,347	hing Co Beta 0	efficients Gamma 0,352		
Level Additive	Model Trend Additive	Season Additive		RMSE 391.218 Overnight st:	Quality MAE 243.152 ays of foreig	7 Metrics MASE 1,10 m tourists	MAPE 5,50% : 1992-203	AIC 810		Smoot Alpha 0,347	hing Co Beta 0	efficients Gamma 0,352		
Level Additive	Model Trend Additive Model	Season Additive		RMSE 391.218 Overnight sta	Quality MAE 243.152 ays of foreig Quality	7 Metrics MASE 1,10 m tourists 7 Metrics	MAPE 5,50% : 1992-2030	AIC 810		Smoot Alpha 0,347 Smoot	hing Co Beta 0	efficients Gamma 0,352 efficients		
Level Additive Level	Model Trend Additive Model Trend	Season Additive Season		RMSE 391.218 Overnight sta RMSE	Quality MAE 243.152 ays of foreig Quality MAE	7 Metrics MASE 1,10 m tourists 7 Metrics MASE	MAPE 5,50% : 1992-203 MAPE	AIC 810 0 AIC		Smoot Alpha 0,347 Smoot Alpha	hing Co Beta 0 hing Co Beta	efficients Gamma 0,352 efficients Gamma		
Level Additive Level Additive	Model Trend Additive Model Trend Additive	Season Additive Season Additive		RMSE 391.218 Overnight str RMSE 1.561.991	Quality MAE 243.152 ays of foreig Quality MAE 683.456	7 Metrics MASE 1,10 m tourists 7 Metrics MASE 0,92	MAPE 5,50% : 1992-2030 MAPE 15,70%	AIC 810 0 AIC 896		Smoot Alpha 0,347 Smoot Alpha 0,348	hing Coo Beta 0 hing Coo Beta 0	efficients Gamma 0,352 efficients Gamma 0,353		
Level Additive Level Additive	Model Trend Additive Model Trend Additive	Season Additive Season Additive		RMSE 391.218 Overnight sta RMSE 1.561.991 Overnight sta	Quality MAE 243.152 ays of foreig Quality MAE 683.456 ys of tourist	<ul> <li>Metrics</li> <li>MASE</li> <li>1,10</li> <li>n tourists</li> <li>Metrics</li> <li>MASE</li> <li>0,92</li> <li>s: togethe</li> </ul>	MAPE 5,50% : 1992-203 MAPE 15,70% r: 1992-203	AIC 810 0 AIC 896 30		Smoot Alpha 0,347 Smoot Alpha 0,348	hing Co Beta 0 hing Co Beta 0	efficients Gamma 0,352 efficients Gamma 0,353		
Level Additive Level Additive	Model Trend Additive Model Trend Additive Model	Season Additive Season Additive		RMSE 391.218 Overnight sta RMSE 1.561.991 Overnight sta	Quality MAE 243.152 ays of foreig Quality MAE 683.456 ys of tourist Quality	<ul> <li>Metrics</li> <li>MASE</li> <li>1,10</li> <li>n tourists</li> <li>Metrics</li> <li>MASE</li> <li>0,92</li> <li>s: togethe</li> <li>Metrics</li> </ul>	MAPE 5,50% : 1992-203 MAPE 15,70% r: 1992-203	AIC 810 0 AIC 896 30		Smoot Alpha 0,347 Smoot Alpha 0,348 Smoot	hing Co Beta 0 hing Co Beta 0	efficients Gamma 0,352 efficients Gamma 0,353 efficients		
Level Additive Level Additive	Model Trend Additive Model Trend Additive Model Trend	Season Additive Season Additive Season		RMSE 391.218 Overnight sta RMSE 1.561.991 Overnight sta RMSE	Quality MAE 243.152 ays of foreig Quality MAE 683.456 ys of tourist Quality MAE	<ul> <li>Metrics</li> <li>MASE</li> <li>1,10</li> <li>n tourists</li> <li>Metrics</li> <li>MASE</li> <li>0,92</li> <li>s: togethe</li> <li>Metrics</li> <li>MASE</li> <li>MASE</li> </ul>	MAPE 5,50% : 1992-203 MAPE 15,70% r: 1992-203 MAPE	AIC 810 0 AIC 896 30 AIC		Smoot Alpha 0,347 Smoot Alpha 0,348 Smoot Alpha	hing Co Beta 0 hing Co Beta 0 hing Co Beta	efficients Gamma 0,352 efficients Gamma 0,353 efficients Gamma		
Level Additive Level Additive Level Additive	Model Trend Additive Model Trend Additive Model Trend Additive	Season Additive Season Additive Season Additive		RMSE 391.218 Overnight sta RMSE 1.561.991 Overnight sta RMSE 1.326.900	Quality MAE 243.152 ays of foreig Quality MAE 683.456 ys of tourist Quality MAE 609.331	<ul> <li>Metrics</li> <li>MASE</li> <li>1,10</li> <li>m tourists</li> <li>Metrics</li> <li>MASE</li> <li>0,92</li> <li>s: togethe</li> <li>Metrics</li> <li>MASE</li> <li>0,86</li> </ul>	MAPE 5,50% : 1992-2030 MAPE 15,70% r: 1992-203 MAPE 6,50%	AIC 810 0 AIC 896 30 AIC 886		Smoot Alpha 0,347 Smoot Alpha 0,348 Smoot Alpha 0,246	hing Co Beta 0 hing Co Beta 0 hing Co Beta 0	efficients Gamma 0,352 efficients Gamma 0,353 efficients Gamma 0,452		
Level Additive Level Additive Level Additive	Model Trend Additive Model Trend Additive Model Trend Additive	Season Additive Season Additive Season Additive		RMSE 391.218 Overnight sta RMSE 1.561.991 Overnight sta RMSE 1.326.900 Revenues of h	Quality MAE 243.152 ays of foreig Quality MAE 683.456 ys of tourist Quality MAE 609.331 ospitality (1	<ul> <li>Metrics</li> <li>MASE</li> <li>1,10</li> <li>m tourists</li> <li>Metrics</li> <li>MASE</li> <li>0,92</li> <li>s: togethe</li> <li>Metrics</li> <li>MASE</li> <li>0,86</li> <li>.000 EUR</li> </ul>	MAPE 5,50% : 1992-203 MAPE 15,70% r: 1992-203 MAPE 6,50% .): 1995-203	AIC 810 0 AIC 896 30 AIC 886 30		Smoot Alpha 0,347 Smoot Alpha 0,348 Smoot Alpha 0,246	hing Co Beta 0 hing Co Beta 0 hing Co Beta 0	efficients Gamma 0,352 efficients Gamma 0,353 efficients Gamma 0,452		
Level Additive Level Additive Level Additive	Model Trend Additive Model Trend Additive Model Trend Additive	Season Additive Season Additive Season Additive		RMSE 391.218 Overnight sta RMSE 1.561.991 Overnight sta RMSE 1.326.900 Revenues of h	Quality MAE 243.152 ays of foreig Quality MAE 683.456 ys of tourist Quality MAE 609.331 ospitality (1 Quality	<ul> <li>Metrics</li> <li>MASE</li> <li>1,10</li> <li>m tourists</li> <li>Metrics</li> <li>MASE</li> <li>0,92</li> <li>s: togethe</li> <li>Metrics</li> <li>MASE</li> <li>0,86</li> <li>.000 EUR</li> <li>Metrics</li> </ul>	MAPE 5,50% : 1992-203 MAPE 15,70% r: 1992-203 MAPE 6,50% .): 1995-203	AIC 810 0 AIC 896 30 AIC 886 30		Smoot Alpha 0,347 Smoot Alpha 0,348 Smoot Alpha 0,246 Smoot	hing Co Beta 0 hing Co Beta 0 hing Co Beta 0	efficients Gamma 0,352 efficients Gamma 0,353 efficients Gamma 0,452 efficients		
Level Additive Level Additive Level Additive	Model Trend Additive Model Trend Additive Model Trend Additive	Season Additive Season Additive Season Additive		RMSE 391.218 Overnight sta RMSE 1.561.991 Overnight sta RMSE 1.326.900 Revenues of h RMSE	Quality MAE 243.152 ays of foreig Quality MAE 683.456 ys of tourist Quality MAE 609.331 ospitality (1 Quality MAE	<ul> <li>Metrics</li> <li>MASE</li> <li>1,10</li> <li>n tourists</li> <li>Metrics</li> <li>MASE</li> <li>0,92</li> <li>s: togethe</li> <li>Metrics</li> <li>MASE</li> <li>0,86</li> <li>.000 EUR</li> <li>Metrics</li> <li>MASE</li> <li>MASE</li> <li>MASE</li> </ul>	MAPE 5,50% : 1992-203 MAPE 15,70% r: 1992-203 r: 1992-203 MAPE 6,50% .): 1995-203 MAPE	AIC 810 0 AIC 896 30 AIC 886 30 AIC		Smoot Alpha 0,347 Smoot Alpha 0,348 Smoot Alpha 0,246 Smoot Alpha	hing Co Beta 0 hing Co Beta 0 hing Co Beta 0	efficients Gamma 0,352 efficients Gamma 0,353 efficients Gamma 0,452 efficients Gamma		
Level Additive Level Additive Level Additive	Model Trend Additive Model Trend Additive Model Additive Model Trend Additive	Season Additive Season Additive Season Additive Season Additive		RMSE 391.218 Overnight sta RMSE 1.561.991 Overnight sta RMSE 1.326.900 Revenues of h RMSE 172.008	Quality MAE 243.152 ays of foreig Quality MAE 683.456 ys of tourist Quality MAE 609.331 ospitality (1 Quality MAE 117.532	<ul> <li>Metrics</li> <li>MASE</li> <li>1,10</li> <li>n tourists</li> <li>Metrics</li> <li>MASE</li> <li>0,92</li> <li>s: togethe</li> <li>Metrics</li> <li>MASE</li> <li>0,86</li> <li>.000 EUR</li> <li>Metrics</li> <li>MASE</li> <li>0,96</li> </ul>	MAPE 5,50% : 1992-203 MAPE 15,70% r: 1992-203 MAPE 6,50% .): 1995-203 MAPE 8,80%	AIC 810 0 AIC 896 30 AIC 886 30 AIC 886 30 AIC 687		Smoot Alpha 0,347 Smoot Alpha 0,348 Smoot Alpha 0,246 Smoot Alpha 0,246	hing Co Beta 0 hing Co Beta 0 hing Co Beta 0 ching Co Beta 0	efficients Gamma 0,352 efficients Gamma 0,353 efficients Gamma 0,452 efficients Gamma 0,422		
Level Additive Level Additive Level Additive Level Additive	Model Trend Additive Model Additive Model Trend Additive Model Trend Additive	Season Additive Season Additive Season Additive Season Season Additive		RMSE 391.218 Overnight sta RMSE 1.561.991 Overnight sta RMSE 1.326.900 Revenues of h RMSE 172.008 Employ	Quality MAE 243.152 ays of foreig Quality MAE 683.456 ys of tourist Quality MAE 609.331 ospitality (1 Quality MAE 117.532 yees: hospita	<ul> <li>Metrics</li> <li>MASE</li> <li>1,10</li> <li>m tourists</li> <li>Metrics</li> <li>MASE</li> <li>0,92</li> <li>s: togethe</li> <li>Metrics</li> <li>MASE</li> <li>0,86</li> <li>.000 EUR</li> <li>MASE</li> <li>0,86</li> <li>.000 EUR</li> <li>MASE</li> <li>0,96</li> <li>ality: 1995</li> </ul>	MAPE 5,50% : 1992-203 MAPE 15,70% r: 1992-203 MAPE 6,50% .): 1995-203 MAPE 8,80% -2030	AIC 810 0 AIC 896 30 AIC 886 30 AIC 687		Smoot Alpha 0,347 Smoot Alpha 0,348 Smoot Alpha 0,246 Smoot Alpha 0,246	hing Co Beta 0 hing Co Beta 0 hing Co Beta 0 ching Co Beta 0	efficients Gamma 0,352 efficients Gamma 0,353 efficients Gamma 0,452 efficients Gamma 0,422		
Level Additive Level Additive Level Additive Level Additive	Model Trend Additive Model Additive Model Trend Additive Model Trend Additive	Season Additive Season Additive Season Additive		RMSE 391.218 Overnight sta RMSE 1.561.991 Overnight sta RMSE 1.326.900 Revenues of h RMSE 172.008 Employ	Quality MAE 243.152 ays of foreig Quality MAE 683.456 ys of tourist Quality MAE 609.331 ospitality (1 Quality MAE 117.532 yees: hospita Quality	<ul> <li>Metrics</li> <li>MASE</li> <li>1,10</li> <li>m tourists</li> <li>Metrics</li> <li>MASE</li> <li>0,92</li> <li>s: togethe</li> <li>Metrics</li> <li>MASE</li> <li>0,86</li> <li>.000 EUR</li> <li>Metrics</li> <li>MASE</li> <li>0,96</li> <li>ality: 1995</li> <li>Metrics</li> </ul>	MAPE 5,50% : 1992-203 MAPE 15,70% r: 1992-203 MAPE 6,50% .): 1995-203 MAPE 8,80% -2030	AIC 810 0 AIC 896 30 AIC 886 30 AIC 687		Smoot Alpha 0,347 Smoot Alpha 0,348 Smoot Alpha 0,246 Smoot Alpha 0 Smoot	hing Co Beta 0 hing Co Beta 0 hing Co Beta 0 hing Co Beta 0,024	efficients Gamma 0,352 efficients Gamma 0,353 efficients Gamma 0,452 efficients Gamma 0,422		
Level Additive Level Additive Level Additive Additive	Model Trend Additive Model Trend Additive Model Trend Additive Additive Model Trend	Season Additive Season Additive Season Additive Season Additive		RMSE 391.218 Overnight sta RMSE 1.561.991 Overnight sta RMSE 1.326.900 Revenues of h RMSE 172.008 Employ RMSE	Quality MAE 243.152 ays of foreig Quality MAE 683.456 ys of tourist Quality MAE 609.331 ospitality (1 Quality MAE 117.532 yees: hospita Quality MAE	<ul> <li>Metrics</li> <li>MASE</li> <li>1,10</li> <li>m tourists</li> <li>Metrics</li> <li>MASE</li> <li>0,92</li> <li>s: togethe</li> <li>MASE</li> <li>0,92</li> <li>s: togethe</li> <li>MASE</li> <li>0,86</li> <li>.000 EUR</li> <li>Metrics</li> <li>MASE</li> <li>0,96</li> <li>ality: 1995</li> <li>Metrics</li> <li>MASE</li> <li>MASE</li> </ul>	MAPE 5,50% : 1992-203 MAPE 15,70% r: 1992-203 MAPE 6,50% .): 1995-203 MAPE 8,80% 2030 MAPE	AIC 810 0 AIC 896 30 AIC 886 30 AIC 687 AIC		Smoot Alpha 0,347 Smoot Alpha 0,348 Smoot Alpha 0,246 Smoot Alpha 0	ching Co Beta 0 hing Co Beta 0 ching Co Beta 0,024 ching Co Beta	efficients Gamma 0,352 efficients Gamma 0,353 efficients Gamma 0,452 efficients Gamma 0,422 efficients Gamma		

#### Table 3. Forecast error measures

Source: Table output; own research.

Our findings show that the forecasting model is accurate, although the quality of forecasting is not high due to the unknown and uncertain future. Our forecasting model is slightly less accurate in forecasting domestic arrivals and overnight stays, which is due to the effects of COVID-19.

### 4. RESULTS

Firstly, we present a corrective forecast of global tourism trends for the period until 2030 and compare it with the forecast made in stable conditions (Figure 3: Tourist arrivals and tourist consumption world: 1995-2030). In the last eight years, global tourism has surpassed the world economy in terms of growth rates; by 2019, Slovenia recorded its sixth consecutive record tourist year. In the past, tourism has proven to be an industry that has been hit hard by crises, but has also recovered relatively quickly (Raspor & Macuh, 2021). Currently, the final impact of the global

pandemic on tourism is still difficult to assess, as the situation is uncertain and changing rapidly. At the end of March 2020, the Organization for Economic Co-operation and Development (OECD) estimated that the decline in international travel would be 45%, assuming austerity measures until June 2020, rising to 70% if the recovery was delayed until outumn 2020.



Figure 3. Tourist arrivals and tourist consumption world: 1995-2030.

Following the forecast, we simulated consumption. Here, too, we believe that consumption will shift more from global flows to local ones. It depends on the providers how they will be able to offer additional services to consumers and thus increase consumption. It is not realistic for tourist consumption to stagnate, as this did not happen even between I. or II. world war. The situation is always different from continent to continent.

We were more optimistic about the forecasts, as we were of the opinion (Raspor & Macuh, 2021) that tourism from global flows will be transferred to the local level. This means fewer multiplicative effects as there are fewer trips. In practice, the fall in 2020 was 73% at the level of revenues and 63% at the level of revenues. A 10% increase was observed during the year. In 2022, this increase is expected to be 60%.

It is estimated that after COVID-19 we will probably return to this level in 2024. However, the recovery will take even longer for Slovenia (Figure 4: Tourist arrivals in Slovenia: 1992-2030; Figure 5: Overnight stays of tourists in Slovenia: 1992–2030; Figure 6: Revenue of 1,000 EUR from tourism and the number of persons working in tourism in Slovenia: 1995–2030).

Source: Author's creation.

Figure 4. Tourist arrivals in Slovenia: 1992-2030.



Source: Author's creation.

Domestic tourists are expected to fall, in both arrivals and overnight stays, as tourists will return abroad (Croatia, Greece, Egypt). On the other hand, according to the most optimistic scenario, we can expect a record level to be reached as far ahead as after year 2027, if not in 2030.

The revenue losses were not large, due to government's intervention measures. In 2020, Slovenian government issued vouchers of 200 EUR to every citizen aged 18 and above and vouchers of 50 EUR to every citizen under the age of 18. In 2021, vouchers of 100 EUR were available to citizens aged 18 and above and vouchers of 50 EUR were available to every citizen under the age of 18. The vouchers for both years cost Slovenian government more than 420 million EUR. If we count in the measures concerning salary compensation in case of waiting for work this number adds up to over 1 billion EUR (Grgič, 2021).



Source: Author's creation.







### 5. DISCUSSION

### 5.1. HOW TO ACHIEVE WANTED SCENARIO?

With the above analyses and forecasts, we have created points A, B, and C. A question arises of how the desired tourism revenues can be achieved by 2030. The answers can be found in strategic management.

The current pandemic is undoubtedly affecting people psychologically . Therefore, it is likely that people may have different behaviors in the pandemic world. The recent literature also states that the current pandemic may change the travel behavior of tourists because pathogenic threats generally result in behavioral changes in the communities (Zenker & Kock, 2020). Thus, the coronavirus may significantly reshape tourist behavior, which can be effective for a long time in the post-viral world (Seyitoğlu & Ivanov, 2022). The COVID-19 pandemic is utterly reshaping the traveling industry. Accordingly, the tourism supply chain is presented with a tremendous challenge for adjusting to new trends in travel, which stem from changes in tourist behaviors (Bire & Nugraha, 2022).

However, it is clear that without a significant marketing effort, Slovenia as a tourism destination will not sell itself. Slovenia will have to reposition itself in the tourist environment. In fact, Austrian, German and Italian guests have already accounted for 43% of all arrivals and overnight stays in the past. In the record year of 2019, this share was 34%. It is encouraging that this share increased to 46% in 2020. Data for 2022 also show good results. It follows that Slovenian tourism should readapt the offer to attract these groups of visitors and bring them back.

In order to revive the tourism, it is crucial to define marketing strategy under the strategy of tourism development. Especially important aspect is defining sales policy. In order to ensure high rates of hotel occupancy and high revenues from tourism, the cooperation of hotels with specialized tourist agencies and travel organizers abroad is crucial is vital. It is necessary to set up a complete tourism system. Without the support of state departments, we cannot expect further development of the current tourism.

### 5.1. CONCLUSIONS AND SUGGESTIONS FOR FUTURE RESEARCH

During this highly uncertain time, tourism forecasting has come to play a more important role than ever in informing decisions among government personnel, industry professionals, and other tourism stakeholders (Yang et al., 2022). First, forecasting allows for tourism recovery predictions and can provide valuable insight for tourism policy design and implementation. Second, as demand has been volatile during the pandemic, accurate forecasts can help industry players better allocate their resources (e.g., inventory and staffing) to serve incoming demand.

#### 5.3. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The article has certain acknowledgeable limitations and offers some directions for future research. Lack of some data point on limiting the scope of our analysis and prevent detailed finding to be presented. All data were collected from secondary sources with all limitations in that sense. There were no prior research studies on this topic that sign on some findings which couldn't be compared with a similar one to find out whether there is some inconsistency or not. Some sources which are used had a different scope of data such as statistical data regarding the participation. This study, as applicative research, defines some of the opportunities for future research in terms of the new aspect concerning the subject.

### 5.4. PRACTICAL AND/OR SOCIAL IMPLICATIONS (IF APPLICABLE)

The practical implication can be seen from the results of the study that can stimulate the use of Tableau for forecasting management work.

### 5.5. THE ORIGINALITY OF THE RESEARCH

The original value of the article is reflected in the fact that this is the first forecast of Slovenian tourism that includes the latest situation after COVID-19 and the Ukrainian crisis. Russian and Ukrainian tourists are not numerous (less than 5% in total), but they spend more than others.

### REFERENCES

Antunac, I. (1985). Turizam i ekonomska teorija. Institut za istraživanje turizma.

Archer, B. (1995). Importance of tourism for the economy of Bermuda. Annals of Tourism Research, 22(4), 918–930.

https://doi.org/10.1016/0160-7383(95)00018-1

Archer, B., & Fletcher, J. (1996). The economic impact of tourism in the Seychelles. *Annals of Tourism Research*, 23(1), 32–47.

https://doi.org/10.1016/0160-7383(95)00041-0

- Armstrong, J. S. (2001). *Principles of forecasting: a handbook for researchers and practitioners* (Vol. 3 0). Springer Science & Business Media.
- Beliaeva, N., Petrochenkov, A., & Bade, K. (2013). Data set analysis of electric power consumption. *European Researcher. Series A*, 10–2, 2482.
   10.13187/er.2013.61.2482
- Bire, R. B., & Nugraha, Y. E. (2022). A value chain perspective of the new normal travel behaviour: A case study of Indonesian millennials. *Tourism and Hospitality Research*, https://doi.org/10.1177/14673584211065615
- Blazejczyk, K. (2007). Multiannual and seasonal weather fluctuations and tourism in Poland. *ClimateChangeandTourismAssessmentandCopyingStrategies,Maastricht-Warsaw-Freiburg*, 69–90.
- Box, G. E. P., Jenkins, G. M., Reinsel, G. C., & Ljung, G. M. (2015). Time series analysis: forecasting and control. John Wiley & Sons.
- Bozdogan, H. (1987). Model selection and Akaike's information criterion (AIC): The general theory and its analytical extensions. *Psychometrika*, 52(3), 345–370. https://doi.org/10.1007/bf02294361
- Chand, S. (n.d.). 2 Types of Tourism: International and Domestic Tourism. Retrieved 10 March 2017, from:

http://www.yourarticlelibrary.com/tourism/2-types-of-tourism-international-and-domestic-tourism/14100/

- Difference Between Travel And Tourism. (2010). https://www.enotes.com/homework-help/explain-difference-between-traveltourism-180649
- Gosar, A. (1989). Structural impact of international tourism in Yugoslavia. *Geo Jurnal*, 19(3), 277–283.

https://doi.org/10.1007/bf00454572

- Grgič, M. (2021, October 12). *Počivalšek: Veljavnosti bonov ne bomo podaljšali Delo*. https://www.delo.si/gospodarstvo/novice/pocivalsek-veljavnosti-bonov-ne-bomopodaljsali/
- Gričar, S., Bojnec, Š., Karadžić, V., & Backović Vulić, T. (2021). Tourism-led economic growth in Montenegro and Slovenia. *Economic Research-Ekonomska Istraživanja*, 1–33. https://doi.org/10.1080/1331677x.2021.1875858
- Haryanto, T. (2020). COVID-19 pandemic and international tourism demand. *JDE (Journal of Developing Economies)*, 5(1), 1–5. https://doi.org/10.20473/jde.v5i1.19767
- Hoang, A. (n.d.). *The Differences Between Business vs. Leisure Travelers*. E-Marketing Associates. Retrieved 10 March 2017, from: http://www.e-marketingassociates.com/understanding-differences-business-vs-leisure
  - travelers/
- Hyndman, R. J., & Koehler, A. B. (2006). Another look at measures of forecast accuracy. *International Journal of Forecasting*, 22(4), 679–688.

https://doi.org/10.1016/j.ijforecast.2006.03.001

Ivanov, S., & Webster, C. (2007). Measuring the Impact of Tourism on Economic Growth. *Tourism Economics*, 13(3), 379–388.

https://doi.org/10.5367/00000007781497773

Karadima, S. (2022, March 10). Will the Ukraine invasion impact the tourism industry? Investment Monitor. Investment Monitor. https://www.investmentmonitor.ai/special-focus/ukraine-crisis/russia-ukraine-conflict-

https://www.investmentmonitor.ai/special-focus/ukraine-crisis/russia-ukraine-conflictimpact-tourism-industry

- Khan, N., Hassan, A. U., Fahad, S., & Naushad, M. (2020). Factors affecting tourism industry and its impacts on global economy of the world. *Available at SSRN 3559353*. https://doi.org/10.2139/ssrn.3559353
- Kourentzes, N., Saayman, A., Jean-Pierre, P., Provenzano, D., Sahli, M., Seetaram, N., & Volo, S. (2021). Visitor arrivals forecasts amid COVID-19: A perspective from the Africa team. *Annals of Tourism Research*, 88, 103197.

https://doi.org/10.1016/j.annals.2021.103197

- Kruczek, Z., & Mazanek, L. (2019). Krakow as a tourist metropolitan area. Impact of tourism on the economy of the city. *Studia Periegetica*, 26, 25–41.
- Lacmanović, D. (2006). Prodaja hotelskog proizvoda (1st ed.). Univerzitet Mediteran Fakultet za turizam, hotelijerstvo i trgovinu-Bar.
- Latzko, D. A. (2004). Tourism and fluctuations in the hawaiian economy. *Journal of Tourism Studies*, 15(2), 67–72.
- Liu, A., Vici, L., Ramos, V., Giannoni, S., & Blake, A. (2021). Visitor arrivals forecasts amid COVID-19: A perspective from the Europe team. *Annals of Tourism Research*, 88, 103182. https://doi.org/https://doi.org/10.1016/j.annals.2021.103182
- Marković, S. i Z. (1972). Ekonomika turizma. Školska knjiga.
- Moosa, I. A. (2017). Econometrics as a con art: exposing the limitations and abuses of econometrics. Edward Elgar Publishing.
- Nolan, B. (1994). Data analysis: an introduction. Polity.
- Pantić, N., & Milojević, I. (2019). Investments and employment in tourism in the Republic of Serbia. *Менацмент у Хотелијерству и Туризму*, 7(1), 95–104.
- Pearce, J. A., Robinson, R. B., & Subramanian, R. (2000). Strategic management: Formulation, implementation, and control. Irwin/McGraw-Hill Columbus, OH.
- Qiu, R. T. R., Wu, D. C., Dropsy, V., Petit, S., Pratt, S., & Ohe, Y. (2021). Visitor arrivals forecasts amid COVID-19: A perspective from the Asia and Pacific team. *Annals of Tourism Research*, 88, 103155.

https://doi.org/10.1016/j.annals.2021.103155

- Raspor, A., Kleindienst, P., Peršič, K. T., Mastilo, Z., Borojević, D., & Miletić, V. (2020). A case study of ethno village in Slovenia and Bosnia and Herzegovina. *ECONOMICS*, 8(2), 89–102. https://doi.org/https://doi.org/10.2478/eoik-2020-0015
- Raspor, A., & Mise-Srajlehner, M. (2017). Globalization challenges in Slovenian tourism sector: from drive in to fly in destination. In Globalization Challenges. DOBA Fakulteta. https://eman-conference.org/wp-content/uploads/2019/04/zbornik\_radova\_eman\_2017\_ final\_3.pdf
- Seyitoğlu, F., & Ivanov, S. (2022). The" New Normal" in the (Post-) Viral Tourism: The Role of Technology. *Tourism: An International Interdisciplinary Journal*, 70(2), 151–167. https://doi.org/https://doi.org/10.37741/t.70.2.1
- Tableau. (2014). Visual Analysis Best Practices. Tableau Software, 41. http://www.tableausoftware.com/learn/whitepapers/tableau-visual-guidebook
- Thompson, A. A., & Strickland, A. J. (2001). Strategic management : concepts and cases. McGraw-Hill/Irvin.

- Tokhirovich, T. K. (2021). The Role and Importance of Tourism in the Economy of Small Regions. *International Journal of Culture and Modernity*, 9, 62–66.
- UNWTO. (2022). UNWTO World Tourism Barometer and Statistical Annex, January 2022. UNWTO World Tourism Barometer, 20(1), 1–40. https://doi.org/10.18111/WTOBAROMETERENG.2022.20.1.1
- Yang, Y., Fan, Y., Jiang, L., & Liu, X. (2022). Search query and tourism forecasting during the pandemic: When and where can digital footprints be helpful as predictors? *Annals of Tourism Research*, 93, 103365.

https://doi.org/https://doi.org/10.1016/j.annals.2022.103365

Zenker, S., & Kock, F. (2020). The coronavirus pandemic–A critical discussion of a tourism research agenda. *Tourism Management*, 81, 104164. https://doi.org/10.1016/j.tourman.2020.104164