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THE IMPACT OF COVID-19 PANDEMIC ON YOUTH TOURISM IN ROSTOV REGION RUSSIA

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The unfolding COVID-19 crisis has caused a major decline in tourism activity all over the world. Nevertheless, it is estimated that the effects of the coronavirus disease will be less in the young, who seem more willing to travel during the pandemic. The study aims to explain the effects of the pandemic on the youth tourism market. Subsequently, a survey was carried out on 133 young people in Rostov region, Russia. The data collected by using the online survey technique were subjected to principal component analysis. The analysis shows that the effects of the COVID 19 crisis on the tourism behavior of the interviewees can be divided in two dimensions as travel attitudes, preferences and hygiene, safety. Hence, the study concluded that the crisis did not cause a huge impact on travel attitudes and behaviors as well as hygiene and safety aspects. Moreover, among web-survey participants, boys were less affected by the pandemic than girls about travel attitudes and preferences. As a result, despite the pandemic damage, there will be a more optimistic picture in youth tourism travel in case hygiene and security measures are taken.

Keywords: pandemic, COVID-19, young tourists

ВЛИЯНИЕ ПАНДЕМИИ COVID-19 НА МОЛОДЕЖНЫЙ ТУРИЗМ В РОСТОВСКОЙ ОБЛАСТИ РОССИИ

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Кризис COVID-19 привел к значительному снижению туристической активности во всем мире. Тем не менее, по оценкам, последствия заболевания коронавирусом будут меньше у молодежи, которая, похоже, более склонна путешествовать во время пандемии. Исследование направлено на объяснение воздействия пандемии на рынок молодежного туризма. Впоследствии был проведен опрос 133 молодых людей в Ростовской области России. Данные, собранные с помощью метода онлайн-опроса, были подвергнуты анализу главных компонентов. Анализ показывает, что влияние кризиса COVID-19 на туристическое поведение респондентов можно разделить на два аспекта: отношение к путешествиям, предпочтения и гигиена, безопасность. Таким образом, в этом исследовании делается вывод о том, что кризис не оказывает серьезного влияния на отношение и поведение к туризму, а также на аспекты гигиены и безопасности. Кроме того, среди участников веб-опроса мужчины в меньшей степени страдают от пандемии, чем женщины, с точки зрения отношения и предпочтений к путешествиям. Таким образом, несмотря на ущерб, нанесенный пандемией, туристическая картина молодежи будет более оптимистичной, если будут приняты меры гигиены и безопасности.

Ключевые слова: пандемия, COVID-19, молодые туристы

Introduction. The coronavirus, which emerged in Wuhan, China, rapidly became a pandemic worldwide on 11th March 2020 [1]. In the effort to slow the surge of the pandemic, several restrictive measures are taken by governments. The COVID-19 crisis brings travel to a standstill, causing massive

job and revenue losses [2–6]. Travel restrictions have damaged international and national tourism; festivals, meetings, events and other public gatherings canceled or delayed [4]. In more detailed, service businesses such as: accommodations, restaurants, transport in many places that much depend on tourism were temporarily closed [6]. The COVID-19 outbreak was not only limited to a certain region but led to a suspension of movement or activity in the global scale. UNWTO announced that international tourist arrivals reduced by 72% in 2020 [7]. Despite the successful development of vaccines, the end of the pandemic is not yet in sight. Social distancing, self-isolation, restrictions or even lockdown are strictly enforced all over the world to prevent the pandemic [8].

As restrictions are likely to remain, tourism academics have concentrated on the improvements, which reflected the understanding of Tourism in a Post-COVID-19 Era. Therefore, it is declared that instead of returning to the past, a transformation in tourism practices in which the new practices and standards have been established based on public health and safety need to be done [9,10]. This new transformation also offers opportunities to make new sustainable regulations to build a more resilient tourism economy [9,10]. Ateljevic supports the idea of transformational travel reflecting a personal meaning and purpose for the individual and appeals to motivations such as self-awareness [9]. On this point, experiential travels are motivated and defined travel through a change in self-reflection and development and deeper interaction with nature and culture [11]. The small-scale applicability of experiential travel is considered to promote sustainable tourism. Hence, youth tourism is a form of tourism that should be assessed in experiential and transformational travels context.

Youth tourism emerges with the travel of students, volunteers, language teachers, cultural exchange program participants, backpackers, and digital nomads. In the view of the World Youth Student & Educational (WYSE) Travel Confederation, young tourists under the age of 30 make up 23% of international tourist arrivals. Besides, the youth tourism market created about USD 330 billion in tourism revenue in 2019 [12]. As of 2020, there has been a dramatic decrease in the youth tourism market, as happened in all tourism markets, because of the pandemic. By contrast, it can be anticipated that the youth will take the lead in the travel movements [2]. Therefore, young, single, middle class and experienced tourists adapt current conditions easier when they travel [13].

The WYSE researches point out that enterprises offering experiential products such as camping, educational trips, language courses, and voluntary tourism have a relatively optimistic attitude towards the pandemic [14]. Young people are inspired and motivated to travel as often as they possibly can. Furthermore, several businesses show that the crisis may have a positive effect on youth tourism. Thus, volunteering and camping activities probably rise accordingly. Thereby, young tourists are expected to be less affected by the COVID-19 pandemic. Based on this, the study aims to examine the effects of the COVID19 crisis on the youth tourism market.

In the study, a survey was carried out on 133 young people in the Rostov region by using a social networking website – Instagram to examine the effects of the Coronavirus disease on the youth market. The study results are expected to make a contribution to the youth tourism literature and the literature on the COVID-19 crisis and its effects on the youth tourism as well. Also, the study puts forward recommendations for tourism enterprises and policymakers targeting the youth tourism market.

Youth Tourism. WYSE defines the youth tourism as a type of tourism including independent travelers (the young are not accompanied by a parent or conservator) for periods of less than one year, individuals have the motivation for such movement willingness to experience new culture and to benefit from new learning opportunities formal or informal in an unknown place, different from normal routine life.

Taking into account the youth tourism, it can be seen that the young are prone to travel alone or in groups before tying the knot or starting a family [15]. Subsequently, youth tourism has become more and more popular tourism market that attracts the attention of many destinations and tourism enterprises, because it removes the seasonality feature of tourism as a whole. Apart from relax and having fun, young people often travel to explore, study and/or work in places they visit [16]. Young tourists, who are interested in adventure as well as taking fewer responsibilities to a family, do not look for much comfort in their destinations and it is easier for them to be satisfied. Furthermore, young people rarely refrain from traveling due to political unrest, diseases, and natural disasters; they are pioneers in opening new interesting places; they not only find cultural benefits from travel but make contributions to the development of destinations they visit [16,17].

The COVID-19 pandemic has caused significant damage to youth tourism as well as all market segments of tourism. Despite the fact that there are some social researches that examine youth-related issues during the crisis process [18,19] only a few studies concentrating on youth tourism are available. For example, Richards & Morrill examined youth tourism businesses in the context of unfolding pandemic [20,21]. According to these studies, youth tourism businesses experience various challenges while tourism businesses in general faced some other difficulties. For instance, due to social distancing restrictions, it is hard to decrease the capacity in buildings where 4-12 people stay in a room or where social interaction areas occupy a large space. Yet, Richards & Morrill claimed that the youth travel industry has the ability to respond more creatively that can provide some mitigation, but the room for maneuvers still small [21]. Additionally, these studies concentrated on the supply dimension of youth tourism, it is also needed for studies examining the demand dimension. Therefore, this study explores the attitudes and behavior changes of young tourists because of COVID-19 crisis.

Methods. An online survey has been conducted on Instagram to examine the effects of the COVID-19 pandemic on the behaviors of participants in youth tourism market. On the platform, many young travelers get together, take part in activities such as backpacking, railway travel, volunteer tourism share their travel experiences or plans.

The researcher uses online questionnaires to collect data, during the period of imposed intense restriction. The impact scale developed by Wen et al after the SARS epidemic in China was used to discover the behavioral effects of the COVID-19 crisis in tourism [22]. This scale includes a 22-item with 3 factors named general effect, touristic attitude and behavior, hygiene and safety. An item on the consumption of wild animals as food in the scale was eliminated because it was not found to be meaningful in a cultural context. The questions were asked on a five-point Likert scale (1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree). In addition, the questionnaire, which is used to interview 138 online survey participants, consists of questions in terms of age, gender, marital status, educational attainment, and reasons for travel.

The data were taken into a preliminary evaluation before being analyzed. Thereby, it has been determined that there is no missing data in the data set. After that, using the standardized z values, an outlier analysis was made. Values at a distance of 3.0 standard deviations from the mean were identified as an outlier and were removed from the data set [23]. Finally, skewness and kurtosis values were reviewed on 133 questionnaires, and normal distribution was examined. It was determined that kurtosis and skewness values in the data set were in the range of $- / + 2$ and it was recorded that the data showed a normal distribution [24].

The principal component analysis was performed to construct validity in data analysis. The Kaiser-Meyer-Olkin (KMO) value of 0.882 was at a good level in the test performed to prove that sample size was sufficient [25]. Bartlett's test was carried out to determine that the presence of statistically

significant correlations between variables is significant ($p = 0.000$). Furthermore, the researcher chose Varimax rotation as the factor rotation method. For group comparison, at least 30 observations in the group were required [23]. Hence, the analysis of differences could not be performed for other demographic variables.

Furthermore, the research focused to examine the connection between demographic characteristics and the effects of the pandemic on travel behavior. T-test and Pearson correlation tests were used to expose the relevance between age and gender variables and the effects of the crisis on travel behavior. The SPSS 21 program was used to analyze the collected data.

Results. First of all, the demographic characteristics of the respondents were analyzed descriptively in the study. The interviewees' ages range from 18 and 37 years with 57% identified as female and the average age is 24. Almost all of them are unmarried (92%). Their educational attainment is pretty high. Besides, the respondents were asked about the main reasons for travel following the scale given by the World Tourism Organization [16] for the youth tourism market.

Table 1

Demographic Variables of the online Interviewees

Variable (n = 133)	M	n	%
Age (from 18 to 37)	24.5		
Gender			
Female		76	57.1
Male		57	42.9
Marital status			
Unmarried		123	92.5
Married		10	7.5
Educational attainment			
High school/equivalent or lower-level		18	13.5
University graduate (associate degree and undergraduate)		90	67.7
Postgraduate		25	18.8
Reasons for travel			
Exploring new places/cultures		86	64.7
Pleasure and relaxation		30	22.6
Study overseas		4	3.0
Visiting friends and relatives		8	6.0
Work overseas		5	3.8

Table 2

Principal Component Analysis Item Variance Explained

Item	Variance Explained	Eigenvalue	M	SD	Item-Total Correlation	Factor Loadings
Hygiene and safety ($\alpha = .910$)	7.57	50.47	3.82			
I care more about the hygiene and safety of the means of conveyance post- COVID-19.			4.173	1.197	.647	.883
I care more about the hygiene			4.083	1.213	.733	.879

Item	Variance Explained	Eigenvalue	M	SD	Item-Total Correlation	Factor Loadings
and safety of destinations post-COVID-19.						
Due to COVID-19, I become more interested in outdoor activities and ecotourism			4.098	1.186	.772	.807
I care more about the hygiene and safety of the must-have things during travel post-COVID 19.			3.992	1.203	.719	.800
I care more about the hygiene and safety of accommodations post-COVID-19.			4.075	1.216	.683	.786
I care more about the health of the companions post- COVID-19.			4.038	1.104	.701	.668
I will keep away from COVID-19 affected destinations			3.429	1.405	.766	.643
I prefer to stay in high-quality accommodations post-COVID-19			2.647	1.220	.400	.451
Travel attitudes and preferences ($\alpha = .868$)	1.85	12.33	3.199			
I will decrease the length of trips post- COVID-19.			2.940	1.284	.629	.852
I will dramatically decrease my travel plans in the next one year			3.436	1.421	.628	.819
I will keep away from traveling to busy and big cities post-COVID-19			3.376	1.385	.703	.773
I prefer countryside or nearby places for leisure trips post-COVID-19.			3.233	1.290	.634	.721
I prefer separate dining during a tour group trip			3.128	1.282	.600	.688
Due to COVID-19, I think travel will be dangerous.			3.398	1.359	.695	.680
I prefer traveling with family members and relatives post-COVID-19.			2.880	1.354	.469	.464
Total ($\alpha = .926$)	62.79					

Principal component analysis was used for scale structure validity, including the effects of the COVID-19 crisis on participants' behavior. While applying the analysis, it is needed to pay attention that factor loads should be equal to or greater than 0.30 [26]. Items with a factor load of less than 0.10 in more than one dimension were excluded from the analysis because they have co-morbid factor loads [27]. In terms of criterion of reliability, item-total correlation values that were required to be above 0.30 in item selection were examined [28]. Items not meeting the criteria were excluded from the analysis. Subsequently, a factor structure of 15 items with 2 factors was reached. The factors were called "travel attitudes and preferences" and "hygiene and safety" conforming to the original scale. The explained variance rate is 62%, which a satisfactory level [29]. Moreover, as shown in Table 2 above, the internal consistency rates, which are examined as a criterion of reliability, are pretty high too.

The general average of the respondents agreeing with the statements about the impact of the COVID 19 crisis on travel attitudes and preferences is 3.19 (Table 2 above). In other words, the effect of the pandemic is not huge on the travel attitude and preferences of the respondents. However, the general average of interviewees agreeing with the statements concerning the impact of coronavirus disease on the hygiene and safety dimension is 3.82. In this context, the respondents are relatively more affected by the disease with regard to hygiene and safety.

In this research, the impacts of the COVID-19 crisis on the respondents and demographic variables was examined. T-test results were applied to expose the crisis impacts according to the gender variable are shown in Table 3 below. Following to the analysis results, it is clear that the gender variable has a statistically significant result in the dimension of travel attitudes and preferences ($p < 0,05$). Girls are more affected by the Covid-19 crisis compared to boys, and the pandemic's impact level on their travel attitudes and preferences are relatively higher. On the subject of hygiene and safety, respondents are moderately affected by the crisis, despite their gender.

Table 3

COVID-19 Pandemic Impacts by Gender

Factor	Gender	n	M	SD	T-Value	p
Hygiene and safety	Female	76	3.89	.94	1.552	.123
	Male	57	3.63	.93		
Travel attitudes and preferences	Female	76	3.35	.94	2.045	.043
	Male	57	2.99	1.08		

Correlation analysis was used to discover the interconnection between the effects of the COVID-19 pandemic on the interviewees' age (Table 4 below). The analysis result has shown that the age variable has a positive and remarkable interconnection with both factors ($p < 0.05$). Therefore, the older respondents are, the stricter attitudes regarding both hygiene, safety, and travel attitudes, preferences they have.

Table 4

COVID-19 Pandemic Impacts by Age

Factor	M	SD	r	p
Hygiene and safety	3.19	1.019	.68	0.000
Travel attitudes and preferences	3.78	.94	.67	0.000

Conclusion. The study has conducted a survey on 133 young participants by using Instagram platform in order to be aware of the impact of the COVID-19 crisis on the youth_market. The data collected online during the period when people were struggling to deal with the pandemic, some findings were gained on the subject of the effects of the crisis on young tourists. Hence, it was detected that the pandemic did not have a vital impact on young tourists' travel attitudes and preferences, and their hygiene and safety attitudes as well. The result shows that there will not be a dramatic decline in the travel of the young after the pandemic. In contrast, with regard to hygiene and safety, the crisis can relatively affect the travel behavior of the respondents. Therefore, it is estimated that young tourists will be relatively more sensitive regarding hygiene and safety in their trips.

Also, the study assists the sector analysis of the WYSE Travel Confederation (2020b). Subsequently, young tourists will be ready to restart traveling by paying attention to the hygiene and safety dimension when the epidemic prevention measures and restrictions finish. Furthermore, youth tourism practices without seasonal limitation can create a tourism activity the whole year effectively.

However, according to Richards and Morrill's statement, youth tourism enterprises are struggling to deal with plenty overall and particular difficulties because of the pandemic [20]. At this time, youth tourism businesses should receive assistance of the governments to overcome the challenging period. In spite of the fact that, there are no dramatic changes expected in young tourists' attitudes and preferences after pandemic travel, the requirements such as to be fully vaccinated or take the COVID-19 test may shape the international mobility of young tourists. Moreover, with limited access to vaccines in developing countries, it is hard to low-risk group like the young to access. This may affect their ability to fly, cruise and travel once vaccinations become mandatory. Thereby, governments may introduce applications such as free vaccination and test for young people traveling with education, language learning, or voluntary purposes after pandemic tourism.

In tourism, it is crucial to decrease the negative effects after the pandemic and to adopt more sustainable practices, especially in socio-economic terms. According to Lew et al, policy-makers will play a significant role in tourism, especially to transform tourism and reach sustainable tourism forms after the crisis [5]. In this context, plans and policies creating environments for tourists safely take part in are expected. Standards are developed to cover tourism practices in public health and hygiene.

Youth tourism is a more sustainable form of tourism compared to mass tourism due to its year-round demand and small-scale applicability. In this context, incentives can be introduced for businesses that will enter into the youth market. Facilitating practices can be used for young tourists to take a part in travel. In addition to, convenience in passport procedures or special visa applications can be introduced to expand student exchange programs.

One limitation of the research is the limited sample size. It was assumed that the members of the Instagram group who took a part in the survey are potential or effective young tourists. Future studies can be conducted with a sample of effective young tourists. Another limitation of the study is that it is planned and fulfilled in a short period of time. More comprehensive scale development studies are needed to research on the effects of the COVID19 pandemic on tourist behavior.

References

1. WHO director-general's opening remarks at the media briefing on COVID-19. 11 March 2020 // World Health Organization URL : <https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020> (accessed 12.10.2021).
2. Aydın, B. The Effect of Novel Coronavirus (COVID-19) on Travel Risk Perception / B. Aydın, R. Arıca, Y. Arslantürk // Journal of Yasar University, 2020. — P. 378–392.

3. Gallego, I. Changes in air passenger demand as a result of the COVID-19 crisis: Using big data to inform tourism policy / I. Gallego, X. Font // *Journal of Sustainable Tourism*. — 2020. — P. 1470–1489. <https://doi.org/10.1080/09669582.2020.1773476>
4. Gössling, S. Pandemics, tourism and global change: A rapid assessment of COVID-19 / S. Gössling, D. Scott, C. M. Hall // *Journal of Sustainable Tourism*. — 2020. — P. 1–20. <https://doi.org/10.1080/09669582.2020.1758708>
5. Visions of travel and tourism after the global COVID-19 transformation of 2020 / A. A. Lew, J. M. Cheer, M. Haywood, et al. // *Tourism Geographies*. — 2020. — P. 455–466. <https://doi.org/10.1080/14616688.2020.1770326>
6. Williams, C. C. COVID-19 and undeclared work: Impacts and policy responses in Europe / C. C. Williams, A. Kayaoglu // *The Service Industries Journal*. — 2020. — P. 914–931 <https://doi.org/10.1080/02642069.2020.1757073>.
7. International Tourist Numbers Could Fall 60-80% In 2020, UNWTO Reports, 2020 // UNWTO — World Tourism Organization URL : <https://www.unwto.org/news/covid-19-international-tourist-numbers-could-fall-60-80-in-2020> (accessed 12.10.2021).
8. Kim, J. Uncertainty risks and the strategic reaction of restaurant firms amid COVID19: Evidence from China / J. Kim, J. Kim, Y. Wang // *International Journal of Hospitality Management*. — 2021. — Vol. 92. — P. 1–11. <https://doi.org/10.1016/j.ijhm.2020.102752>
9. Ateljevic, I. Transforming the (tourism) world for good and (re)generating the potential ‘new normal’ / I. Ateljevic // *Tourism Geographies* — 2020 — P. 467–475. <https://doi.org/10.1080/14616688.2020.1759134> .
10. Galvani, A., COVID-19 is expanding global consciousness and the sustainability of travel and tourism. / A. Galvani, A. A. Lew, M. S. Perez // *Tourism Geographies*, — 2020. — P. 567–576. <https://doi.org/10.1080/14616688.2020.1760924>
11. Trimble, M. Why transformative travel will be the travel trend of 2017 // *Vogue*. URL : <https://www.vogue.com/article/transformative-travel-trend-2017> (accessed 12.10.2021).
12. The Youth Travel Industry and COVID-19 6 month report (March 2020 – August 2020) // WYSE Travel Confederation URL : <https://www.wysetc.org/research/wyse-covid-19-travel-business-impact-series/> (accessed 12.10.2021).
13. Hitting the road again: How Chinese travelers are thinking about their first trip after COVID-19. / K. Chen, W. Enger, Yu. Jackey, C. Zhang // *McKinsey*, — 2020. URL : <https://www.mckinsey.com/businessfunctions/marketing-and-sales/our-insights/a-global-view-of-how-consumer-behavior-is-changing-amidCOVID-19>. (accessed 12.10.2021).
14. Youth travel anticipating 30% Decrease in Business for 2020. // WYSE Travel Confederation, 2020. — URL : <https://www.wysetc.org/2020/03/COVID-19-travel-business-impact-series-part-1/> (accessed 12.10.2021).
15. Demographic Change and Tourism. UNWTO // UNWTO — World Tourism Organization. — 2010. — 127 p. URL : <https://www.e-unwto.org/doi/book/10.18111/9789284413423> (accessed 12.10.2021).
16. Youth travel matters understanding the global phenomenon of youth travel. // UNWTO — World Tourism Organization — 2008. — 117 p. URL : <https://www.e-unwto.org/doi/book/10.18111/9789284412396> (accessed 12.10.2021).
17. Yunusovich, S. S. Youth tourism as a scientific research object / S. S. Yunusovich // *Journal of Tourism & Hospitality*. — 2018. — P. 1–3.

18. Barbhuiya, F. Transformation of a recreational youth group into community service group during the COVID-19 pandemic / F. Barbhuiya, A. G. Mazmuder // *Social Work with Groups*. — 2021. — P. 53–59.
19. Gordon, F. Youth (in)justice and the COVID-19 pandemic: Rethinking incarceration through a public health lens / F. Gordon, H. Klose, M. L. Storrod // *Current Issues in Criminal Justice* — 2021. — P. 27–46.
20. Richards, G. The impact and future implications of COVID-19 in the youth travel sector / G. Richards, W. Morrill // *Atlas Review*. — 2020. — P. 57–64.
21. Richards, G. The challenge of COVID-19 for Youth Travel. *Revista* / G. Richards, W. Morrill // *Anais Brasileiros De Estudos Turísticos* — 2021. — P. 1–8.
22. Wen, Z. The impacts of SARS on the consumer behaviour of Chinese domestic tourists / Z. Wen, G. Huimin, R. R. Kavanaugh // *Current Issues in Tourism* — 2005. — P. 22–38. URL : <https://doi.org/10.1080/13683500508668203> (accessed 12.10.2021).
23. Richard A. Johnson, *Applied Multivariate Statistical Analysis* / A. Johnson Richard, W. Wichern Dean // Prentice Hall — 2017. — P. 430–449.
24. Balanda, K. P. Kurtosis: A critical review / K. P. Balanda, H. L. Macgillivray // *The American Statistician*, 1988. — Vol. 42. — P. 111–119. <https://doi.org/10.2307/2684482>
25. *Multivariate data analysis*. Pearson Education / J. F. Hair, W. Black, B. Babin, R. Anderson. — 2010. — P. 71–78.
26. Ho, R. *Handbook of univariate and multivariate data analysis and interpretation with SPSS*. / R. Ho // Chapman and Hall, 2006. — 424 p. <https://doi.org/10.1201/9781420011111>
27. Douglas Bors. *Data Analysis for the Social Sciences: Integrating Theory and Practice*. / Douglas Bors // SAGE Publications Ltd, 2018. — 662 p.
28. Tinsley, E. A. *Handbook of applied multivariate statistics and mathematical modeling*. / E. A. Tinsley, S. D. Brown // Academic Press, 2000. — 721 p.
29. *Multivariate Analysis with LISREL* / K. G. Jöreskog, U. H. Olsson, F. Y. Wallentin // Springer International Publishing, 2016. — 557 p. <https://doi.org/10.1007/978-3-319-33153-9>

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