RESIDENTS' PERCEPTION ON TOURISM IMPACT FACTORS: A STUDY OF OHRID, NORTH MACEDONIA

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ABSTRACT

Rapid tourism growth may negatively affect the sustainability of the destination and disrupt the life of local residents. This paper explores the direct and indirect connections among tourism impact factors in the area of sustainability. Exploratory factor analysis is conducted in order to assess the underlying dimension of residents' satisfaction with given impacts of tourism development. The authors use the three-pillar sustainability concept (socio-cultural, environmental and economic) and suggest a model that measures residents' attitudes on tourism impacts. The model is empirically tested by elaborating the case of Ohrid (North Macedonia). The study informs tourism policy makers how to manage tourism impacts and to improve sustainability perspective. The proposed model can be adopted and applied to any tourism destination facing unsustainable development.

KEY WORDS: Residents' attitudes; Tourism impacts; Factors.

INTRODUCTION

Rapid tourism growth cause negative effects on the quality of life of locals, whomight harshly interrupt to enjoy the uniqueness of their destination. On the other hand, the evergrowing number of tourists brings forth rising income from tourism, thus benefiting local economy. As a consequence, in the strategic development documents of tourist destinations,the authorities are predominantly guided by the economic interest only, while neglecting the other two sustainability dimensions -environmental and socio-cultural effects. Destinations are visited by thousands of visitors on a daily basis, thus riskingto put in danger the socio-cultural and natural resources, includingthe protected cultural or natural heritage.

A number of studieshave started to provide an in-depth evaluationoflocal residents' perception on tourism impacts (Dioko, 2017; García et al., 2015; Hughes, 2018; Kuščer&Mihalič, 2019; Martín Martín et al., 2018; Nunkoo et al., 2013; Seraphin et al., 2018; VALICON, 2017; Vodeb&Medarić, 2013).This article contributes to the existingliterature byexploring the locals'perceptions on sustainability of tourism development. It studies the three mainstream tourism sustainability pillars (socio-cultural,environmental, and economic) and proposes a model that measures destinations residents' attitudes on both positive and negative sustainable tourism impacts that affect the quality of life.

Specifically, we provide a case study of the city of Ohrid in North Macedonia, which is the top tourist destination in the country, and an exceptional mixture of natural and human attractions(UNESCO, 2015). Since the city and the surrounding region of Lake Ohridhave been given the status of a transboundary mixed World heritage property (UNESCO, 1979, 1980), theyattract alarge number of visitors gradually affecting the life quality of its residents. OftenOhridis reaching the potential critical point (UNESCO, 2019) in terms of the physical and social carrying capacities (Russo,2001; Weber et al., 2017). It is facing a profound urban transformation, being imposed to physical and environmental pressure in terms of heavy traffic, congestion, costal exploitation, excessive urban development, etc.(Petrevska& Collins-Kreiner, 2019). Consequently, UNESCO noted many urgent concerns that threaten the sustainability values with a strong consideration to put the site on the List of World Heritage in Danger (UNESCO, 2019: 122).This, along with the increased pressure in social and cultural environments, disrupts residents' quality of living in the destination under tourism pressure (Dioko, 2017).

This study draws on thesustainability tourism paradigm from the perspective of resident's satisfaction with living in a tourist destination. First, it includes the accumulated academic knowledge on sustainable and unsustainable

tourism impacts. Second, it deals witha real-world problem, as it applies the sustainability impacts model to the destination ofOhrid.The paper is structured as follows. After the introduction, the next section describes the methodology, data and the research questions. The paper concludes with the main findings, research limitations and the unresolved issues for future work.

METHODOLOGY AND DATA

The study combines theacademic and practical considerationsand it is based on the sustainable-responsible tourism (SRT) theoretical model (Kuščer&Mihalič, 2019), which addresses the three-pillar sustainability concept (socio-cultural, environmental and economic). The research questions explore the tourism impacts by surveying residents' opinion on their life satisfaction, strongly impacted by tourism. Although the research indicates that path connections among the impact constructs are multidimensional and that some impacts might mediate the other, only direct connections have been surveyed in this paper.

The model employs theexploratory factor analysis (EFA) on 30 items. The questionnaire followed the set of sustainable indicators proposed within the European Tourism Indicator System (ETIS), which enables to identify the coherentfactorsand assists the destinations in developing long-term sustainability (European Commission, 2016).

All three main sustainability pillar impacts, as argued in the SRT concept(Kuščer&Mihalič, 2019), address:
- Socio-cultural impacts cover effects on habits, customs, social life, and other interactions between locals and tourists which may threaten destination's spiritual and physical integrity;
- Environmental impacts cover use and overuse of natural resources, which helps in protecting and preserving them; and
- Economic impacts cover support and encouragement of local business environment and enriching the fabric of the community, along with overpricing, increased cost of living, direct dependency and short seasonal effects.

In the later stage, three items were excluded from the EFA due to their irrelevance. Manylinks from the model were removed because of the low loadings (three from the socio-cultural environment, five from the natural environment, five from the economic environment, and three from the quality of living). Finally, we have retained five factors and 13 variables in the model (six from the socio-cultural environment, three from the natural

environment, two from the economic environment, and two from the quality of living).

Data have beencollected from a surveyconducted in January 2020 among local residents of Ohrid, during different week days and times of the day. The sample consists of 630 residents living in various locations in Ohrid. Out of them, 55.2% are male and 44.8% female, which fully representsOhrid's population by gender (χ^2 = 1.87344, df = 1, p > 0.01) and age (χ^2 = 10.40174, df = 5, p > 0.01). Only 7.3% of the respondents have finished elementary school, 44.1% have secondary education, and 48.6% have higher level of education. Slightly more than half (55.4%) are full-time employed, 8.9% are part-time employed, 10.3% are students, 13.8% are unemployed, and 11.6% are retired. The vast majority (83.3%) has monthly personal income of up to 500 euros. With regards to the place of living, 6.7% live in the old city, 20.8% up to 1km from the center, 41.7% more than 1 km from the center, and 30.8% in the suburb or a nearby village. More than half of the respondents (56.2%) are not dependent on tourism, 32.2% of them, either personally or some family members, receive direct tourism benefit, like: job, private accommodation rental, etc., while 11.6% receive indirect/induced effects for: farmer, supplier, local food producer, construction builder, taxi driver, shop salesman, etc.

The questionnairewas checked by two university professors and two tourism practitioners with tourism policy and development as main expertise, in order to ensure its validity, clarity and layout, as well as to identify possible omissions, irrelevant items and to know how long time is required to finish it. A fixed-choice self-administered questionnaire with a five point Likert scale (1=strongly disagree to 5=strongly agree) was used.Principal axis factoring with an oblique rotation (promax) was chosen to accommodate the possible correlation among factors. The structural equation modeling (SEM) was appliedrepresenting the relationships and critical paths between the factors.

RESULTS
Table 1.Factors of Ohrid tourism

No	SRT item	Loading/ Cro Alpha	Mean	Std. dev	Std. Error mean	t	Sig. (2-tailed)
F1	*Socio-cultural benefits*	*0.680*	*3.87*				
1	Tourism in Ohridimproves shopping…	0.757	4.17	1.034	0.0412	8.987	0.000
2	Quality of public services is better due to …	0.654	3.20	1.328	0.0529	9.158	0.000
3	Community benefits from tourism and tourists…	0.711	4.33	0.944	0.0376	10.938	0.000
7	Preservation of local culture.	0.598	3.79	1.195	0.0476	8.771	0.000
F2	*Destructive human activities*	*0.839*	*4.19*				
8	New facilities destroy Ohrid architecture ...	0.839	4.25	1.109	0.0442	2.310	0.021
9	Tourism increases illegal building construction	0.839	4.13	1.166	0.0465	5.308	0.000

F3	*Negative environmental impacts*	*0.623*	*3.16*				
13	Tourism is likely to destroy green areas.	0.725	2.98	1.288	0.0513	-7.544	0.000
17	Tourism endangers endemic flora and fauna …	0.657	2.86	1.414	0.0563	-7.767	0.000
18	Increased water traffic endangers natural …	0.486	3.65	1.313	0.0523	-7.713	0.000
F4	*Economic benefits*	*0.790*	*4.16*				
20	Encourages production of local products.	0.780	4.34	0.901	0.0359	4.021	0.000
25	Brings benefits to other economic sectors.	0.799	3.98	0.977	0.0389	3.991	0.000
F5	*Quality of Life (QoL)*	*0.852*	*3.90*				
29	I am satisfied to live in Ohrid.	0.852	4.31	0.992	0.0395	-8.428	0.000
30	The quality of life in Ohrid is high, due to tourism.	0.852	3.49	1.259	0.0502	-8.133	0.000

Extraction method: principal axis factoring; Rotation method: promax with Kaiser normalization

Based on EFA, Table 1 presents the measurement variables for each impact factor in a form of a statement. Only the variables with sufficient internal consistency are presented. The total variance explained by the three distinctive dimensions is 54.617%, which is moderately enough and fully acceptable for tourism studies (Hair et al., 2005). The overall Cronbach's alpha value of the indicators is 0.76, which is above the suggested benchmark of 0.6 (Nunnally& Bernstein, 1994). The KMO value of sample adequacy is 0.684, being classified as a mediocre (Field, 2009). The Bartlett's test is highly significant ($p < 0.05$) indicating that the factor analysis is appropriate.

Socio-cultural sustainability impacts have a Cronbach's alpha value of 0.760 and are represented by two factors (Table 1, numbers F1 and F2) where each factor is set of further sub-dimensions.The third initially identified factor ("Socio-cultural conflicts") was excluded due to low loadings of the variables. So, the first factor,"Socio-cultural benefits", has a Cronbach's alpha value of 0.680, a mean value of 3.87, and consists of four items. The second socio-cultural factor, "Destructive human activities", has high Cronbach's alpha value of 0.839, the highest mean value of 4.19, and consists of two items.

The second dimension of sustainability refers to thenegative environmental impacts. Due to the low loadings, one initially identified factor was excluded, so just the factor "Negative environmental impacts" reflects the natural effects. It has a Cronbach's alpha value of 0.623, a mean value of 3.16, and consists of three items.

The third economic sustainability dimension had an initially identified factor ("Pricing"),whichwas excluded due to the low loadings. Hence, only the factor "Economic benefits" (two items) represent the economic impacts. It has high Cronbach's alpha value of 0.790and high mean value of 4.16.

Finally, structural equation modeling was performed. Figure 2 presents the path analysis model representing the relationships between the factors within the socio-cultural, environmental and economic impacts in Ohrid.

The model (Figure 1) confirms the connections among the impact factorsfrom the SRT framework. All constructs are relatively well explained by their predictors as suggested by the explained variance (a range from 0.45 to 0.92). Though, some exceptions are noteworthy. First, there is a low construct of 0.22 between the socio-cultural benefits and environmental impacts. Second, there are problematic constructs of the "Destructive human activities" and the "Environmental impacts" with explained variables of only 0.00 and 0.29. Logically, this results in negative constructs towards Quality of living (QoL) of -0.14 and -0.24, respectively.This stands for the fact that these factors actually present negative tourism impacts, as: socio-cultural destruction and destruction of physical fabric (natural). Since the focus of the research is residents' satisfaction (high explained variance of 0.79), these results imply that negative tourism impacts provoke negative quality of living.
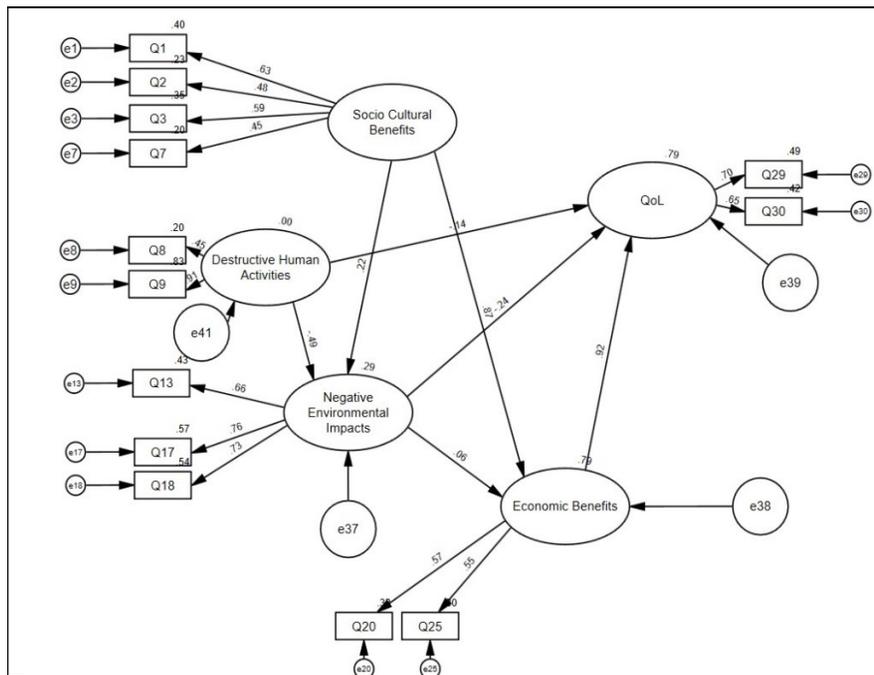

Figure 1. Path analysis model results
Source: Authors' calculations

Further analysis of the model reveals that the economic benefits have the highest positive impact on the residents' living (0.92). In the same line, the positive socio-cultural impacts (Factor Socio-cultural benefits) have positive impact on the economic environment.

The resulting model provides strong evidence for the proposed relationships between the constructs and their indicators. The chi-square is significant, and in compare with sample size, the ratio χ^2/df has a value lower than 5. Both CFI and IFI are above 0.9, the RMSEA is slightly over 0.05, and the SRMR is below 0.8. Hence, all measures support a good model fit (Table 2).

Table 2. Goodness-of-fit measures

χ^2	p	df	χ^2/df	CFI	IFI	RMSEA	SRMR
207.2	0.000	57	3.64	0.914	0.915	0.065	0.055

Source: Authors' calculations

DISCUSSION AND CONCLUSION

By forming separate factors with EFA, the study identifies 13 indicators creating a five-factor model drawing on the SRT conceptual model. This researchcontributes to the tourism knowledge base by exploring the connection paths among the factors that influence residents' satisfaction with tourism development in the city of Ohrid (North Macedonia).Generally, the study finds that each of the three sustainability environments impactsOhrid's residents' quality of living with tourism development and presence.

On one hand, the respondents give the highest score to the negative socio-cultural impacts (Table 1, mean of 4.19). So, it seems that the residents are mostly affected by the factor "Destructive human activities", provoking high dissatisfaction. Namely, new facilities (tourism and housing) in the old city-center and along the lakeshore, illegal building construction, etc.destroy the traditional architecture in Ohrid, irritating the locals and disrupting their quality of living.Obviously, the negative socio-cultural impacts must be a matter of serious consideration for the local government tourism policy.

On the other hand, the socio-cultural benefits are found to be a factor with medium positive influence. Here, theperceived benefits mostly stem fromthe community benefits of tourism and tourists(4.33), and the power of tourism that improves shopping, restaurants and entertainment opportunities (4.17).It is often a case when the residents have valuated positively the fact that tourism has a positive influence on the services offered by the community (Andereck&Nyaupane, 2011), it raises interest in preserving local culture (Oviedo et al., 2008), and overall improves the quality of life of residents (McGehee&Andereck, 2004).

The environmental effects are expressedonly in a negative manner, as already discussed by Bujosa&Rosselló, (2007), Yoon et al., (2001), and many more.They represent a complete destruction of physical fabric in a natural manner (like: destruction of green areas due to tourism, endangerment of endemic flora, fauna and whole natural heritage of Lake Ohrid). This results in residents' dissatisfaction creating a negative perception on the quality of living. At the same time, the local government has an interest in the tourism use of natural resources, particularly the Lake Ohrid, to attract tourists. Thus, a potential collision occurs, which must rely on appropriate water management, urban planning and effective management of natural protection.

Finally, the study finds that Ohridresidents score the positive economic impacts with the second highestmean value of 4.16. Thus, the economic environment in terms of benefits (tourism encouragement to production and sales of local products; tourism brings benefits to other economic sectors) is the strongest factor (β=0.92) that shapes directly the residents' satisfaction level with tourism. So, providing more business for local people highlights the direct relationship between residents satisfaction with quality of living and economic benefits. It is to be expected that economic environment will further have the power to create tourism development and shape the local business environment (Dyer et al., 2007).

In this regard, one may conclude that the residents perceive tourism development in Ohrid as sustainable with regard to the existing economic, but not the natural environment. Nevertheless, even the environmental dimension is very important to the city of Ohrid due to its UNESCO protection, it is not significant enough forthe residents be prepared to lower their living standards, as demonstrated in the study by Liu and Var (1986). It seems that residents prefer to support tourism, putting its advantages ahead of environmental damage (García et al., 2015).

So, Ohrid as tourist destination, but as a community as well, inevitably needs to have a strong collaboration among local community, local government and many other stakeholders, when it comes to effective tourism planning and sustainable development. This calls for modification, adjustment and reshaping of current tourism policies according to all stakeholders' needs. Tourism in Ohrid must be led by utilizing resources and balancing the needs of local residents and the tourism industry.

The research islimited by several factors that can also serve as productive starting points for future work. First, it employsa reduced set of indicators and may be further expanded by additional criteria to better assess residents' perception. Because data arequestionnaire-based, the research may also suffer from the common method variance effect. Second, it assesses only the

perceptions of locals, so future research should address the satisfaction of other stakeholders, too. Third, by providing a case study, the researchfaces the risk of overgeneralization of the findings.It may also address a combined methodological approach (Sharpley, 2014). Finally, another relevant topic for future research would be to explore the mediating role of economic benefits in total residents' tourism satisfaction, as previous research indicated the importance of economic tourism dimension for quality of life in the destination.Yet, these limitations do not diminish the significance ofthe findings, but rather suggest some broad directions for further research. Moreover, the findings enable better understanding of the current residents' attitude on tourism development in Ohrid.The proposed model can be adopted and applied to other tourist destinations in order to assist them to improve sustainability level of tourism development.

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