

## **Effects of Tourism on Local Residents' Quality of Life, Happiness and Life Satisfaction: Moderating Role of the COVID-19 Risk Perceptions**

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### **ABSTRACT**

This study examines the effects of tourism on local residents' quality of life, happiness and life satisfaction. It also examines how locals' perceptions of the level of risk the COVID-19 pandemic poses on a destination moderates those effects utilizing data collected from residents of a mature tourism destination. The results suggest that economic benefits have significant influence on happiness while environmental and socio-cultural benefits influence quality of life perceptions. Findings also indicate a moderating effect of COVID-19 risk perceptions in the relationship between tourism and happiness and quality of life. These findings suggest that the perceived risk of COVID-19 pandemic on the destination affects individuals' both affective and cognitive evaluations; therefore, it serves as an effective factor in decision-making.

### **KEYWORDS**

Tourism Impacts, Risk Perception, COVID-19, Happiness, Quality of Life, Life Satisfaction.

### **ARTICLE HISTORY**

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## 1. Introduction

Any form of tourism development will have some impacts on the local community and local residents' lives (Yu et al., 2016). Since these impacts on a local community are of very critical determinants of the appropriateness of tourism development, the effects of tourism development on the wellbeing of individuals and communities have received some attention from tourism scholars (Hartwell et al., 2018), and the number of studies examining the relationships between tourism and different wellbeing concepts such as happiness, quality of life and life satisfaction have been increasing in recent years (Liang & Hui, 2016; Hartwell et al., 2018; Bimonte et al., 2019). While happiness is the evaluation of feelings and emotions (Yu et al., 2016), quality of life expresses the gratification with different life domains (Carneiro et al., 2018). On the other hand, life satisfaction is the overall outcome of holistic evaluation of life, and it arises as comprehensive result of happiness and quality of life (Chen & Li, 2018). However, previous studies have mostly investigated the relationship between tourism and only one of those three concepts, or conceptualized them as sub-dimensions of each other. Only a very small number of studies have examined all three holistically.

A number of external and macro environmental factors such as crises can influence the degree of impacts of tourism on wellbeing of individuals and communities. Over the years, scholars have examined the effects of financial crises (Qiu et al., 2020; Zhang et al., 2021), wars, terrorist attacks (Song et al., 2019), natural disasters and industrial accidents (Chew & Jahari, 2014), climate change (Soboll et al., 2012), refugee crises (Pappas & Papatheodorou, 2017), and epidemic diseases such as SARS, swine flu, and the Ebola virus (Qiu et al., 2020; Agyeiwaah et al., 2021). While all these crises had significant impacts on the tourism industry, the effects of COVID-19 pandemic have been on a significantly different scale compared to the previous crises (Higgins-Desbiolles, 2020).

While a number of studies examined the effects of the pandemic on tourism, scholars have mainly focused on the effects of COVID-19 pandemic on tourists' choices and decision-making, and demand levels. Studies on tourists' behavior have highlighted the changes in destination preferences (Huang et al., 2021; Kim et al., 2021), and the importance of safety, health and hygiene (Kaushal & Srivastava, 2021). Studies that investigated the impact on demand levels have reported that the industry shrunk significantly, which resulted in significant loss of income and bankruptcies (Kaushal & Srivastava, 2021). They also reported increases in layoffs and unemployment (Higgins-Desbiolles, 2020), which consequently created job insecurity, decreased employee motivation, and increased employees' intention to seek work in other sectors (Bajrami et al., 2021).

Even though the socio-economic and psychological consequences of crises have significant effects also on individuals and societies (Salman et al., 2021), only very few studies examined local residents' perceptions of and attitudes towards tourism during the pandemic. However, they reported contradictory findings. While some studies reported increases in negative impact perceptions and decreases in support (Armutlu et al., 2021), others reported that while negative perceptions increase, support level stay the same (Woosnam et al., 2021). Moreover, some other studies pointed out that perceptions become more positive in times of crisis, and the support attitudes intensify due to economic reasons (Kamata, 2022). However, even though economic and social problems caused by the pandemic significantly affected individuals and communities (Bou-Hamad et al., 2021) including the lives of local residents (Kim et al., 2013), the impacts of COVID-19 on residents' wellbeing have not received much attention.

This study aims to address these research gaps in understanding impacts of tourism on locals' happiness, quality of life and life satisfaction during COVID-19 pandemic. More specifically, this study addresses two important issues. First, it examines, holistically, the relationships between the benefits of tourism and quality of life, happiness and life satisfaction, which is often analyzed in a piece meal fashion in the literature. Second, it examines the moderating role played by locals' perceptions of the risks posed by COVID-19 in the relationships between the perceived benefits of tourism and happiness and quality of life. Since the effects of the COVID-19 pandemic is likely to be longer lasting than previous epidemics (UNWTO, 2021), it will continue to be one of the important elements in tourism planning (Kamata, 2022). Therefore, findings of this study will also contribute to the literature on tourism planning in the 'new normal' era and provide critical insights to destination managers, marketers and planners.

## 2. Literature Review

### 2.1 Impacts of Tourism

Many studies have examined the impacts of tourism as one of the critical determinants of the success and sustainability of any form of tourism development (Liang & Hui, 2016; Chi et al., 2017). These impacts generally have been investigated as having both positive and negative economic, environmental and socio-cultural dimensions. Locals' perceptions of these impacts can change over time due to changes in a number of external and internal factors such as the type of tourism a destination offers, the stage of development, personal benefits gained from tourism, etc. (Kim et al., 2013).

Even though tourism can result in both positive and negative impacts on a community, most studies focused on the positive economic impacts such as tourism's ability to diversify local economies (Liang & Hui, 2016) and attract investors (Rivera et al., 2016), create jobs and income opportunities (Holm et al., 2017). However, studies also underlined that tourism may also result in economic dependency by causing a decrease in or disappearance of traditional (fishing, agriculture, forestry etc.) industries (Ozturk et al., 2015).

From a social impact perspective, tourism increases the human capital of the local community and improves the status and role of women in family and society (Liang & Hui, 2016). In addition, it increases the quality and quantity of outdoor facilities such as parks, roads, theaters, hiking and biking trails (Holm et al., 2017). On the other hand, it can also result in negative consequences such as overcrowding, traffic jam, overload in public services, conflicts in the community and increase in gambling, prostitution, vandalism, crime and use of drugs (Mbaiwa, 2005).

Tourism contributes to cohesion in communities through enhancing understanding and cultural exchange among community members and societies. It also helps the revival of the local culture and pride (Tosun, 2002). However, tourism is also often accused of being a 'culture exploiter' industry (Holm et al., 2017) leading to the deterioration and corruption of traditional culture (Mbaiwa, 2005) and local lifestyle, and a violator of privacy (Liang & Hui, 2016).

From an environment perspective, tourism is perceived to be a cleaner and environmentally friendly industry compared to some other industries (Holm et al., 2017) because it increases awareness of environmental protection, supports the growth of environmental infrastructure, revitalizes the environmental conservation efforts and improves the physical appearance of the environment (Ozturk et al., 2015). However, many studies have also emphasized that tourism and tourists can cause environmental pollution and destruction of natural life and resources, alter traditional land uses, cause intense and illegal construction and irreversible destruction of nature (Çalışkan & Özer, 2021).

Many theoretical frameworks have been developed on tourism perceptions of local people. For example, models such as IRRIDEX by Doxey (1975) or TALC by Butler (1980) claim that local people would initially perceive tourism positively, but over time perceptions would evolve negatively due to negative impacts of tourism. Similarly, social exchange theory (SET) supposes that local people evaluate tourism from a rational and materialistic perspective (Nunkoo & Ramkissoon, 2009). On the other hand, the social deterioration hypothesis predicts that rapid socio-economic changes, like tourism development brings, would lead to decrease in the quality of life, but afterwards the local people would adapt and have positive perceptions (Chhabra & Gursoy, 2007). Social representation theory (SRT) or the theory of reasoned action (TRA), argue that perceptions are formed by the social relations (Fredline, 2005), and social groups (therefore, by the matters affect the society) (Wassler et al., 2019).

### 2.2 Happiness, Quality of life, Life Satisfaction and Tourism

From positive psychology perspective, there are two well-being research paradigms; personal wellbeing (PWB) and subjective wellbeing (SWB) (Nawijn & Mitas, 2012). The PWB, which is known as 'eudemonia', deals with the meaning of life, self-actualization, virtuous behaviors, transcendence, and the realization of life goals (Ozturk et al., 2015; Smith & Diekmann, 2017). On the other hand, SWB reflects the hedonic perspective and focuses on the pleasures and positive emotions gained through certain activities and deals with happiness, quality of life, and life satisfaction (Nawijn & Mitas, 2012; Sirgy, 2019). Subjective wellbeing

refers to the assessment of life experiences and is based on individuals' comparison of their current state to a standard set by themselves. Therefore, it focuses on individuals' self-evaluation of their own lives (Diener, 1994). Scholars have used various conceptualizations of SWB, which caused confusion. For example it has been examined through a broad range of concepts, which are generally used interchangeably, such as quality of life, life satisfaction, happiness, wellbeing, welfare or health (Bimonte & Faralla, 2016; Carneiro et al., 2018). Even though these concepts are similar and related (Yu et al., 2016), they are also conceptually different (Martin et al., 2010). Suess, Baloglu, & Busser (2018) state that the subjective well-being consists of emotional dimension (happiness), cognitive dimension (quality of life) and life satisfaction as an outcome of these two factors.

Happiness refers to 'enjoyment of life' (Nawijn & Mitas, 2012) based on individuals' assessment of their feelings and emotions such as joy, fun, sadness or pessimism about their life (Yu et al., 2016). Quality of life refers to the feeling of contentment from particular life domains such as physical, psychological, social, economic, or spiritual (Manning-Walsh, 2005). Therefore, it is a "subjective experience dependent on an individual's perceptions and feelings" (Carneiro et al., 2018, p. 484) and is about "how people view, or what they feel about their lives" (Hartwell et al., 2018, p. 1834).

Life satisfaction refers to the level of gratification with physical and psychological experiences or accomplishments of wants and needs (Holm et al., 2017). It represents the outcome of the self-assessment of circumstances in individuals' lives, that is, the importance of life conditions for individuals and their level of satisfaction with those conditions (Diener, 1994). In other words, life satisfaction is the overall gratification of life (Chen & Li, 2018) and therefore is considered as an overall indicator of happiness and quality of life (Eslami et al., 2019).

Studies have argued that many factors like home ownership (Liang & Hui, 2016), type of employment (McCabe & Johnson, 2013), number of tourists (Ivlevs, 2016), public services (security, roads, cleaning, education, health, recreational/cultural activities, etc.) (Chi et al., 2017) can have significant impacts on wellbeing. However, impacts of tourism development have been the most studied elements (Woo et al., 2015; Liang & Hui, 2016; Carneiro et al., 2018).

The literature underlines that tourism development affects the happiness of local populations (Nawijn & Mitas, 2012; Rivera et al., 2016). However, the direction and magnitude of these effects in previous studies show significant differences. For example, while Rivera et al. (2016) found that all types of tourism benefits positively affect locals' happiness, Kafashpor, Ganji, Samaneh & Johnson (2018) and Movono, Pratt & Harrison, (2005) found that happiness is affected only by the socio-cultural consequences of tourism. Similarly, Kim et al. (2013) reported that social benefits are related to happiness. Others also reported that economic, social (Bimonte & Faralla, 2016), environmental (Yu et al., 2016), and socio-cultural impacts (Ozturk et al., 2015) can affect locals' happiness.

Studies examining the relationship between the impacts of tourism and quality of life have also reported very divergent and significantly different results. While some scholars argued that all impacts of tourism influence quality of life (Kim et al., 2013; Suess et al., 2018), others reported that only some of the impacts are effective (Eslami et al., 2019). For example, while Bimonte et al. (2019) found that tourism decreases quality of life, others suggested that tourism affect the quality of life positively (Alrwajfah et al., 2019). Andereck & Nyaupane (2011) reported that economic, environmental and cultural benefits are influential determinants of quality of life. Yu et al. (2016) found that socio-cultural and environmental benefits affect quality of life.

The diversity and complexity of the findings are further exacerbated when relationships between tourism and happiness and quality of life were examined simultaneously. While Nawijn & Mitas (2012), reported that tourism affects quality of life but not happiness, Chi et al. (2017) found that particularly social impacts affect both quality of life and happiness. Similarly, Kafashpor et al. (2018) found that happiness is related to social impacts and quality of life is related to economic, environmental and cultural outcomes. Moreover, Chi et al. (2017) emphasized that, in destinations that are economically dependent on tourism, tourism benefits affect happiness and quality of life, but negative impacts do not. Based on the preceding discussions, this study proposes that;

**H1.** Perceived positive economic (a), environmental (b) and socio-cultural (c) benefits increase residents' happiness.

**H2.** Perceived positive economic (a), environmental (b) and socio-cultural (c) benefits increase residents' quality of life.

On the other hand, studies present a clear link between happiness, quality of life and life satisfaction. For example, Park, Peterson & Ruch (2009), and Selim (2008) reported that happiness predicts life satisfaction; as happiness increases, life satisfaction does too. Others documented that quality of life and life satisfaction are closely linked and quality of life predicts higher life satisfaction (Garrido et al., 2013). Thus, this study proposes that;

**H3.** Residents' happiness (a) and perceived quality of life (b) increase their life satisfaction.

## 2.3 Risk Perception

Risks are defined as danger, damage, or loss, which affect safety or health, and can occur at both individual and communal levels (Kim et al., 2021). While at the individual level, risks include harassment, extortion, rape, financial loss, etc., at the communal level, they include political or social instability, natural disasters, terrorist attacks, epidemics, etc. (Yang et al., 2020). Risk is generally identified as a negative situation with unpredictable and uncertain consequences (Berbekova et al., 2021), and the term 'perceived risk' refers to subjective assessments of uncertainty and potential losses (Quintal et al., 2010). Therefore, it can differ among individuals (Joo et al., 2021).

Protection Motivation Theory (PMT) (Rogers, 1975) describes how individuals perceive and evaluate any risk (Hsieh et al., 2021; Nazneen et al., 2022). PMT states that individuals experience risk appraisal and coping appraisal processes when they face with a threat or the possibility of a dangerous outcome (Gumasing et al., 2022). While in risk appraisal, also called as risk perception (Hsieh et al., 2021), individuals assess the magnitude of threat and the possibility of being harmed (Nazneen et al., 2022), coping appraisal includes personal responses to eliminate or minimize the threat (Gumasing et al., 2022; Nazneen et al., 2022). According to the TMP, high risk perceptions encourage individuals to engage in risk avoidance behaviors (Rad et al., 2021; Gumasing et al., 2022; Kim et al., 2022), and people are likely to exhibit coping behaviors in situations where the perceived risk is high.

Scholars utilized PMT to investigate individuals' attitudes about health-related issues such as influenza, H1N1, SARS epidemics, infectious diseases, or cancer (Rad et al., 2021), as well as natural disasters such as Typhoons (Gumasing et al., 2022). In tourism field, PMT has been used mostly to examine changes in tourist behavior caused by crises like the COVID-19 pandemic (e.g., Kim et al., 2022; Nazneen et al., 2022). Studies reported that tourists avoid traveling to areas where COVID-19 is concentrated (Joo et al., 2021), avoid interactions with locals (Salman et al., 2021) and prefer less crowded rural areas (Zhu & Deng, 2020). Although crises can influence also the local residents' perceptions of and attitudes towards tourism (Qiu et al., 2020; Salman et al., 2021; Joo et al., 2021), only a few studies have examined them during crises (Sharifpour et al., 2014).

These few studies indicate that if tourism is important for the economic viability of a destination, as in case of Bodrum, and if a crisis leads to significant decreases in demand, residents may overlook the negative outcomes of tourism development, and focus on protecting the gains tourism can bring to their community (Garau-Vadell et al., 2018), especially during the times of both economic and social difficulties, such as the COVID-19 pandemic (Kamata, 2022). Therefore, in this study, local residents' perceptions of positive impacts of tourism were taken into account.

Furthermore, Kim et al. (2022), argue that an individual's risk assessment can also significantly affect his/her thoughts about his/her own individual lifestyle. However, only few studies have examined how lives of local residents residing in tourism destinations are affected by the COVID-19 pandemic. For example, comparing Egypt, Portugal and Turkey, Seabra et al., (2021) found that the risk perception of COVID-19 negatively affects the daily life of local people.

Perceived risk may also affect the strength and direction of the relationship between independent variable(s) and dependent variable(s) (Pangaribuan et al., 2021), and serve as a ‘moderator’ for subjective evaluations (Lo, 2013). Thus, perceived COVID-19 risk is likely to moderate locals’ perceptions of tourism and its impacts on personal lives. However, the impact of COVID-19 risk perceptions on local residents’ personal lives have not received adequate attention. It is not clear how residents’ perception of risk posed by the COVID-19 pandemic influence their wellbeing perceptions. As suggested by Ramkissoon (2020), the impact of the COVID-19 pandemic on wellbeing of residents in tourism destinations needs further examination. To address this gap in the literature, this study examines the moderating role of COVID-19 risk perceptions on the relationship between perceptions of tourism and happiness and quality of life.

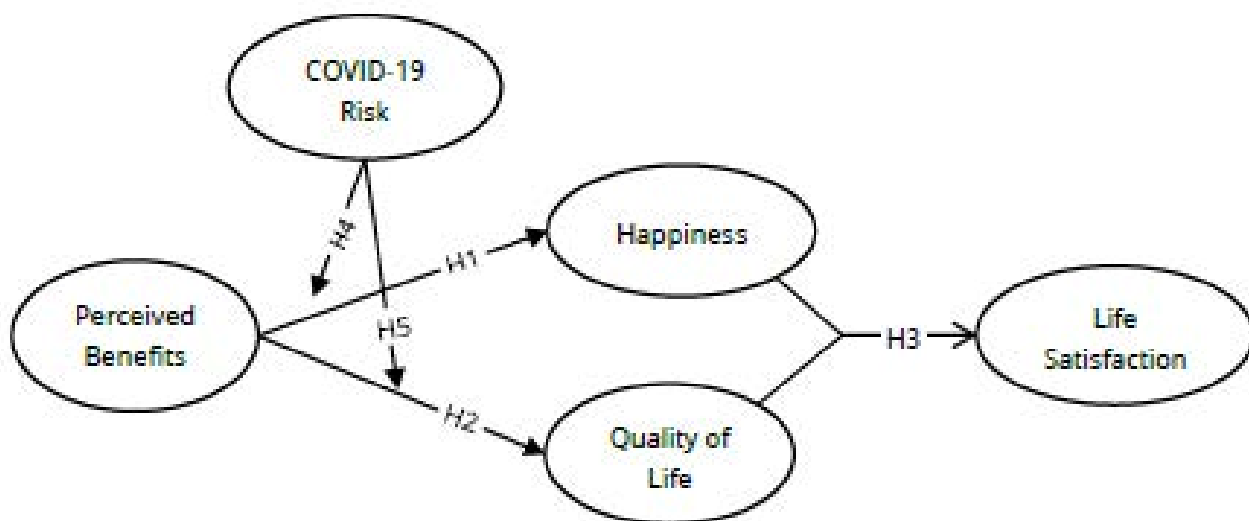
Based on PMT and literature, this study argues that residents in a tourism destination who perceive that the COVID-19 pandemic poses a significant risk to tourism in their destination are more likely to use positive impacts as a psychological magnifier and, thus magnify the positive impacts of tourism on their happiness and quality of life to cope with the perceived threat caused by COVID-19 pandemic. This coping behavior helps them reach a balanced psychological state and reduce the anxiety caused by the pandemic. Therefore, when the risk of COVID-19 pandemic on the destination is perceived as high, the positive effects of tourism benefits on happiness and quality of life will be stronger. Accordingly, the hypotheses are proposed:

**H4.** COVID-19 risk perceptions on the destination strengthens the positive relationship between perceptions of economic (a), environmental (b) and socio-cultural (c) benefits and residents’ happiness.

**H5.** COVID-19 risk perceptions on the destination strengthens the positive relationship between perceptions of economic (a), environmental (b) and socio-cultural (c) benefits and residents’ quality of life.

By examining the moderating role of COVID-19 risk perceptions on the relationships between impacts of tourism and the well-being of residents, this study expands the literature and thus contributes to gaining new perspectives on tourism planning and policies during and post-COVID-19 period. The proposed research framework is presented in Figure 1.

**Figure 1.** Conceptual Model



Source: Own Elaboration

### 3. Methodology

#### 3.1 Sampling, Instrument and Data Collection

Data for this study were collected from the residents of Bodrum, Turkey. Bodrum, where 181,541 people reside (Turkish Statistical Institute (TUIK), 2021), is the third most visited tourist destination in Turkey, just after Antalya and Istanbul. It has intertwined with tourism since the 1960s, however, tourism has developed mainly since the mid-1980s and now Bodrum is an internationally renowned destination. Tourism, based on sea-sand-sun, has become the main economic activity in Bodrum (Bodrum Chamber of Commerce, 2007). Bodrum hosted 1.75 million tourists in 2019, including around one million international tourists. In 2020, when the COVID-19 pandemic started, this number fell to around 900 thousand, of which 250 thousand were international tourists (Ministry of Culture and Tourism, 2021).

The items used to measure the constructs were identified through a comprehensive review of the literature. Ten items on tourism benefits were adapted from Chi et al. (2017) and Liang & Hui (2016). Three, two and five items were used to measure economic, environmental and socio-cultural benefits, respectively. Quality of life, happiness and life satisfaction were measured by ten items identified from previous studies (Andereck & Nyaupane, 2011; Kim et al., 2013; Chen & Li, 2018). Four items from Qiu et al. (2020) were utilized to measure risk perception of COVID-19. All items were measured using a 5-point Likert type scale (1: Totally disagree, 5: Totally agree). Respondents' demographic information was also gathered.

Since the list of the universe could not be reached, convenience sampling method was used. In convenience sampling, participants are included to the survey based on their volunteer, and accessibility (Bornstein et al., 2013). Although the convenience sampling is disadvantageous to generalize the results, it is frequently used in social sciences because it is fast and economic, and it is very useful to get clues and basic information quickly and efficiently in the explanatory phases of the researches (Sekaran, 2000). Data were collected between March and June 2021 by trained research assistants. To compile the opinions of different social segments, the data were gathered in commercial and residential areas on different days of the week and at different times of the day. During the week, data were collected in the afternoon in commercial areas and between five and seven pm in residential zones having different socio-economic features, while in weekends, data were gathered all day both in commercial and residential zones. Research assistants were asked to intercept every tenth resident in the most frequented commercial areas, and to start with the third building in the street and then visit every fifth building, and select the flats randomly, in the residential zones.

Once the respondent was identified, he/she was briefly informed about the purpose and content of the study. Afterwards, the participants completed the questionnaire themselves. Totally 584 responses were obtained. After eliminating responses with missing data, 572 responses were retained. Hair, Black, Babin & Anderson (2014) suggest that 10 responses are required per item. Therefore, data from at least 240 questionnaires were necessary since the questionnaire form had 24 items. Moreover, Sekaran (2000) suggest that 384 survey data is sufficient for populations over 75,000. So, the number of responses was considered satisfactory for the analysis.

#### 3.2 Data Analysis and Findings

Data were analyzed through multivariate statistical methods. Using SPSS (Statistical Package for the Social Sciences) version 22.0, descriptive analyzes and Explanatory Factor Analysis, and using AMOS, version 21, Confirmatory Factor Analysis and a Structural Equation Modeling were run. First, the normality of data was checked. The Skewness and Kurtosis values of items were all less than 2, indicating a normal distribution of the data (Kline, 2011). Afterwards, the demographic characteristics of the respondents were examined. As presented in Table 1, approximately 54% of the respondents were female and 53% were married. 67.7% of the respondents were in the 26–55 age range, and 54.2% had an associate, bachelor or graduate degree. Most respondents (66.8%) reported a monthly income of 4,000 Turkish Liras (approximately 550 US \$) or less. Approximately 30% of the participants were employed full time, whereas 30.1% were housewives, students and retirees.

**Table 1.** Demographic Profile

	Gender			Marital Status	
	Frequency	Percent		Frequency	Percent
Female	309	54.0	Single	268	46.9
Male	263	46.0	Married	304	53.1
Total	572	100.0	Total	572	100.0

	Age			Occupation	
	Frequency	Percent		Frequency	Percent
18–25	103	18.0	Housewife	61	11.1
26–35	153	26.7	Student – Unemployed	54	9.8
36–45	153	26.7	Retired	48	8.7
46–55	82	14.3	Public Officer	48	8.7
55–65	69	12.1	Private sector paid employee	213	38.6
65+	12	2.1	Self-Employed, employer	128	23.2
Total	572	100.0	Total	552	100.0

	Monthly Income*			Education	
	Frequency	Percent		Frequency	Percent
2000 TL or less	105	21.3	Primary or less	40	7.0
2001 – 4000 TRY	224	45.5	Secondary and high school	222	38.8
4001 – 6000 TRY	84	17.1	Associate degree, undergraduate, graduate	310	54.2
6001 TRY or more	79	16.1			
Total	492	100.0	Total	572	100.0

\* For the data collection period, 1 US dollar was approximately 8.12 TL (in average) (Central Bank of Türkiye, n.d.)  
Source: Own Elaboration

The proposed model was tested utilizing a three-step process. First, an exploratory factor analysis (EFA) was performed on 256 questionnaires to test the reliability and construct validity of the scales adopted from different studies. Afterwards, a confirmatory factor analysis (CFA) was performed to assess the suitability of the scales with the study model on 316 responses (Hair et al., 2014). Finally, the relationships constructed within the model were tested using structural equation modeling (SEM).

### 3.2.1 Explanatory and Confirmatory Factor Analyses

In the EFA, the criteria that communalities of 0.50 or above, eigenvalue of 1.0 and a factor loading of 0.60 or more (Hair et al., 2014) were used to explore the underlying dimensions. The results of the EFA revealed a clear 7-factor model that explained 80.21% of the total variance. Communalities varied between 0.654 and 0.954, the Kaiser-Meyer-Olkin (KMO) value was 0.74 ( $> 0.5$ ), and the p-value of Bartlett's Test of Sphericity was significant ( $p < 0.001$ ). Moreover, in the CFA, the reliability and validity of the model were assessed via Cronbach's Alpha (CA), Composite Reliabilities (CR), standardized factor loadings, Average Variance Extracted (AVE), correlations between factors, and square roots AVE.

As presented in Table 2, all CA values were higher than 0.70 (ranging between 0.83 and 0.95), and CR values ranged between 0.83 and 0.91. All factor loadings were greater than 0.60 and AVEs ranged from 0.62 to 0.83. The highest correlation was only 0.42, and all square root AVEs were much higher than the corresponded factor correlations (Table 3). Therefore, the results indicated that the data were reliable, and had convergent and discriminatory validities. The values of Chi-square and df were 264.115 and 153



respectively, so the  $\chi^2/df$  was 1.73. Furthermore, the values of other fit indices were comparative fit index (CFI)=0.960; Tucker–Lewis index (TLI)=0.950; root mean square error of approximation (RMSEA)=0.048 and standardized root mean square residual (SRMR)=0.044, which indicated that the items fitted the 7-factor measurement model well.

**Table 2.** Results of the Factor Analyses (EFA and CFA)

	Factor Loadings	Cronbach's $\alpha$	Eigenvalue	Explained Variance	AVE	CR
<b>Economic Benefits (ECB)</b>		0.833	2.316	9.65	0.62	0.83
ECB1: Tourism contributes to the increase of state tax revenues	0.654					
ECB2: Tourism increases the income of local people who live in Bodrum	0.902					
ECB3: Tourism creates most of the businesses in Bodrum	0.793					
<b>Environmental Benefits (ENB)</b>		0.918	1.843	7.68	0.83	0.91
ENB1: Tourism contributes to the preservation of traditional architecture and historic buildings	0.954					
ENB2: Tourism contributes to the conservation and flourishing of the natural environment	0.864					
<b>Socio-Cultural Benefits (SCB)</b>		0.913	3.797	15.82	0.66	0.90
SCB1: Thanks to tourism, I learn more about Bodrum culture	0.723					
SCB2: Tourism provides cultural interaction between local people and tourists	0.812					
SCB3: Tourism contributes to better understanding between people	0.887					
SCB4: Tourism preserves and develops local culture	0.909					
SCB5: Tourism improves women's status in family	0.696					
<b>Happiness (H)</b>		0.883	3.039	12.66	0.64	0.88
H1: I am generally happy in my family life.	0.737					
H2: I have a group of friends that make me happy.	0.733					
H3: I am a person at peace with myself.	0.892					
H4: Usually, I think I'm happy	0.825					
<b>Quality of Life (QoL)</b>		0.882	2.477	1.32	0.65	0.85
QoL1: I am satisfied with the quality and variety of public services (health, safety, transportation, etc.) in Bodrum	0.766					
QoL2: I am satisfied with the number and quality of entertainment and leisure facilities in Bodrum	0.934					
QoL3: I am satisfied with the socialization opportunities in Bodrum	0.698					
<b>Life Satisfaction (LS)</b>		0.828	2.313	9.64	0.67	0.86
LS1: My life conditions are satisfactory	0.755					
LS2: Up to now, I've got most of the things I wanted	0.902					
LS3: In general, I am happy with quality of my life	0.794					
<b>Risk Perception of COVID-19 (COV)</b>		0.945	3.466	14.44	0.67	0.89
COV1: Increase in tourism movements will threaten public health because of the COVID-19 pandemic.	0.692					
COV2: Increase in tourism movements will make the control of the pandemic and patient follow-up difficult.	0.858					

COV3: Increase in tourism movements will cause problems in accessing protective equipment (mask, disinfectant, etc.). 0.858

COV4: Increase in tourism movements will cause medical problems (access to vaccination, treatment, etc.). 0.841

Source: Own Elaboration

**Table 3.** Correlations between Factor and Square Root of AVEs

Factors	ECB	ENB	SCB	H	QoL	LS	COV
ECB	(.790)						
ENB	<b>-.186</b>	(.910)					
SCB	.120	<b>.200</b>	(.810)				
H	<b>.179</b>	.045	.043	(.799)			
QoL	-.023	<b>.199</b>	<b>.171</b>	-.002	(.805)		
LS	.077	-.037	.003	<b>.358</b>	<b>.421</b>	(.819)	
COV	-.013	-.006	-.065	-.012	-.028	-.023	(.815)

Notes: Numbers in parentheses are square roots of AVE; Correlations in bold are significant at  $p < 0.5$  level.

Source: Own Elaboration

### 3.2.2 Evaluation of Structural Model

A Structural Equation Modeling (SEM) approach was utilized with the Maximum likelihood method of estimation to test the proposed relationships. The fit indices of the proposed model ( $\chi^2/df= 1.75$  (Chi-square=274.105;  $df=157$ ), CFI=0.958; TLI=0.949; RMSEA=0.049 and SRMR=0.050) indicated that the proposed structural model was acceptable and supported by the data.

The results of SEM (Table 4 and Figure 2) indicated that only economic benefits have significant influence on happiness, which provided support for hypotheses H1a. However, the results did not support H1b, and H1c. As expected, economic benefits increased happiness; however, the sway was not that strong. On the other hand, environmental and socio-cultural benefits were influential on quality of life, but only slightly, providing support for H2b and H2c. However, H2a was not supported, as economic benefits did not have any significant effect on quality of life.

Findings show that tourism in mature destinations has mild effects on residents' happiness and quality of life. These results may be due to the life cycle stage of the study site. Tourism is the main economic activity in most mature destinations, as in the study area (Bodrum Chamber of Commerce, 2007) and economic benefits increase happiness, since it helps local people meet their needs and support their families.

Both H3a and H3b were supported since happiness and quality of life were found to be critical determinants of life satisfaction. Moreover, quality of life and happiness moderately influenced life satisfaction. These findings suggest that resident form their life satisfaction perceptions after a careful cognitive and emotional evaluations.

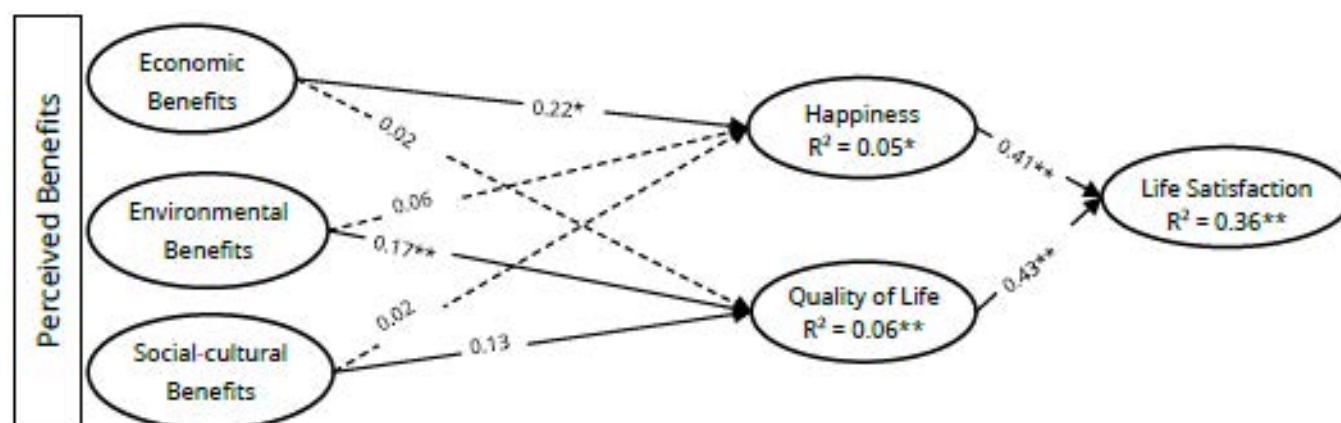
Furthermore, the R-square values indicated that economic, environmental, and socio-cultural benefits predicted 5% ( $p=.07$ ) and 6% ( $p=.04$ ) variance in happiness and quality of life, respectively. This result suggested that perceived benefits of tourism significantly affected residents' quality of life and happiness perceptions. In addition, the result of this study revealed that happiness and quality of life explained 36% ( $p< .001$ ) variance in life satisfaction, pointing to a salient role of people's life evaluation in influencing their life satisfaction.

**Table 4.** Results of SEM (Path Coefficient)

			Path Coefficient	S.E.	Est./S.E.	p-Value
ECB	→	Happiness	.221	.102	2.179	.029**
ENB	→	Happiness	.058	.072	.796	.426
SCB	→	Happiness	.021	.057	.367	.713
ECB	→	QoL	.015	.071	.206	.837
ENB	→	QoL	.168	.074	2.262	.024**
SCB	→	QoL	.128	.069	1.843	.065*
Happiness	→	LS	.410	.074	5.517	.000**
QOL	→	LS	.430	.060	7.191	.000**

\*\* Significant at  $p=.05$ ; \* Significant at  $p=.1$

Source: Own Elaboration

**Figure 2.** Results of SEM Model

Note: The relationships shown with straight line are statistically significant (\*: significant at  $p= .1$  level; \*\*: significant at  $p= .05$  level) and the dashed lines are not.

Source: Own Elaboration

Multi-group SEM analysis was used to test the moderating effects of risk perception of COVID-19 on the effects of tourism on happiness and quality of life. Multigroup analysis ensures that “observed differences in structural relationships across conditions are uncontaminated by neither measurement errors nor measurement differences” and is “one of the common methods” to estimate the group differences (Her et al., 2019, p. 141). Based on the level of perceived risk posed by the COVID-19 pandemic, participants were categorized into three groups: high, moderate and low. Participants with high and low level of risk perception were classified as ‘high’ ( $n=121$ ) and ‘low’ ( $n=118$ ), respectively, and were used in data analysis.

When the perceived risk of pandemic on the destination is low, no significant moderating effects were found in the relationship between benefits of tourism and either quality of life, or happiness (Table 5). However, in the high-risk perception group, the relationships between economic benefits and happiness and between socio-cultural benefits and quality of life were boosted.

These findings indicated that the contribution of economic benefits to happiness increases when the perceived risk of COVID-19 pandemic on the destination is high. This finding suggests that individuals with high risk perception of COVID-19 pandemic on the destination place more emphasis on the economic benefits because economic development due to tourism mitigates the social costs of COVID-19 pandemics. In other words, people with higher perceived risk of COVID-19 pandemic on the destination view tourism as an economic activity that can minimize the economic strains of the epidemic. Because the local economy is heavily dependent upon tourism, the continuation of economic life depends on the continuation of tourism activities.

Moreover, though the perceived risk of COVID-19 pandemic on the destination does not affect the relationship between environmental benefits and quality of life, the socio-cultural benefits reflect positively on the quality of life when risk perception is higher. These findings suggest that given that the pandemic limits social activities and can spread rapidly among people; individuals with high perceived risk of COVID-19 pandemic on the destination are more concerned about the wellbeing of the community.

Therefore, H4 and H5 are both partially supported since they both posit positive impacts of the perceived risk of COVID-19 pandemic on the destination in the relationship between tourism benefits and happiness and quality of life. These findings indicate that the perceived risk of COVID-19 pandemic on the destination affects individuals' both affective and cognitive evaluations, therefore, it serves as an effective factor in decision-making. Local residents who perceive the COVID-19 pandemic posing higher levels of risks on the destination are more likely to value tourism development.

**Table 5.** Moderation Effects of Risk Perception of COVID-19

		Path Coefficient	S.E.	Est./S.E.	p-Value	Risk Perception of COVID-19
ECB	→ Happiness	-.129	.108	-1.194	.232	Low
		.429	.194	2.209	.027	High
ENB	→ QoL	.181	.111	1.632	.103	Low
		.079	.100	.793	.428	High
SCB	→ QoL	.113	.113	1.004	.315	Low
		.260	.118	2.200	.028	High

Source: Own Elaboration

## 4. Conclusion

This study examined the relationships between perceptions of tourism impacts and wellbeing concepts and the moderating role of COVID-19 risk perception on these relationships. Contradictory to some studies (Ozturk et al., 2015; Yu et al., 2016; Rivera et al., 2016) claiming that socio-cultural and environmental impacts can also influence happiness, results of this study point out that only economic benefits of tourism improves happiness of individuals, as Bimonte & Faralla (2016) and Movono et al. (2005) argue. This may be explained by the fact that the study site is a mature tourism destination, and its economy is mainly based on tourism (Bodrum Chamber of Commerce, 2007). Since the main income source of households is tourism, the economic benefits on residents' livelihood become more prominent and result in increases in happiness.

Moreover, although Bimonte et al. (2019) state that tourism decreases the quality of life, findings of this study indicate that, environmental and social benefits improve locals' quality of life, which is consistent with findings reported by Andereck & Nyaupane (2011), Kim et al. (2013) and Woo et al. (2015). On the other hand, findings of this study are inconsistent with several previous studies (Uysal et al., 2016; Eslami et al., 2019), and indicate no significant relationships between economic benefits and quality of life. These findings might be explained by the fact that, compared to the residents of developing destinations (Ozturk et al., 2015), residents of mature tourism destinations understand the importance of tourism for the destination economy and for their financial wellbeing, therefore they mainly focus on helping the destination stay competitive. However, findings further suggest that the environmental and social benefits are still valued by locals since they play critical roles in their life quality. Thus, socio-cultural and environmental factors reflect more positively on the quality of life of the local residents.

Findings of the study also clearly suggest that life satisfaction is positively related to happiness and quality of life. These findings are in line with the literature (Selim, 2008; Park et al., 2009; Garrido et al., 2013) and indicate that life satisfaction is heavily influenced by both cognitive and emotional evaluations.

Findings of the study suggest that locals' perception of the level of risk the COVID-19 pandemic poses on the destination moderates the effects of tourism impacts on both emotional (happiness) and cognitive

dimensions (quality of life). Findings also suggest that those who perceive the COVID-19 pandemic posing high risk to the destination are more sensitive to the effects of tourism impacts on their wellbeing. These findings are consistent with the results reported by Garau-Vadell et al. (2018), Kamata (2022), and Vegara-Ferri, Pallarés & Angosto (2021), and reveal that those who perceive the COVID-19 pandemic posing high risk to the destination perceive tourism more positively. Particularly, they view the economic benefits making significant contribution to their own happiness, and the socio-cultural benefits contributing to own quality of life. More specifically, as the level of perceived risk of the COVID-19 pandemic on the destination increases, so do the influence of the economic benefits on happiness and of the sociocultural benefits on quality of life.

#### 4.1 Theoretical Contributions

While the effects of tourism on residents' happiness, quality of life and life satisfaction have received significant attention from scholars, this study makes important theoretical contributions to the knowledge. First, it tests the wellbeing concepts in a holistic model, and attests evidence that happiness is related to personal issues such as financial and economic gains while the perception of quality of life is related to social factors, and that life satisfaction is a synthesis and result of satisfaction/dissatisfaction with interrelated life domains (Chen & Li, 2018; Hartwell et al., 2018). Therefore, by exerting that happiness, quality of life and life satisfaction are related but different and non-interchangeable concepts, this study contributes to the knowledge on comprehensiveness of the wellbeing concept.

Second, this study investigating an under-researched topic, namely the impact of COVID-19 risk perceptions on wellbeing of local residents in tourism destinations, contributes to the literature. Findings of the study suggest that risk perception of COVID-19 on destination serves as a 'moderator' for subjective evaluations and influences the perceptions of both individual and societal concerns. Findings suggest that perceived risk of the COVID-19 on the destination creates an emotional and cognitive connection with the destination and community. People, who perceive the risk of COVID-19 as high, place more emphasis on the preservation and improvement of the economic and social structure of the destination.

Third, examining how local residents' risk perceptions affect the relationship between tourism impact perceptions and wellbeing, it provides additional support for the appropriateness of the use of PMT in tourism context. The results indicate that as the risk posed by the COVID-19 pandemic on the destination increases among the local people, locals' perception of the vital importance of the tourism industry for the destination and community's financial wellbeing increases as well. The increased impact of socio-cultural benefits on quality of life suggests that the risk posed by the pandemic makes residents realize the socio-cultural benefits provided by tourism activities to local community.

#### 4.2 Practical Implications

This study also provides useful managerial implications by shedding some light on how residents' perceptions of the risk posed by the COVID-19 pandemic can influence and amplify the effects of tourism impacts on locals' happiness, quality of life, and life satisfaction.

Results reveal the necessity to focus on the socio-economic consequences of the COVID-19 pandemic, and clearly suggest that locals care about their destination and their community. They also clearly emphasize the opportunities COVID-19 pandemic offers for improving locals' support for tourism development. Taking advantage of these opportunities can help destination managers maximize the benefits of tourism on residents' quality of life perceptions and their happiness.

The World Health Organization draws attention to the fact that, in the new normal era, governments should take a leadership role in public communication during the pandemic (WHO, 2020). Thus, communication between the stakeholders of the tourism sector should be improved (Zhang et al., 2021). Therefore, local governments should develop policies and practices to access and communicate accurate information quickly to make visitors and local residents feel safe. Moreover, local governments and the tourism industry can help reduce the risk perception of the local people by ensuring that tourists comply with the anti-COVID-19 measures. They should utilize social media channels, addition to traditional communication channels, to provide reliable and up-to-date information (Nazneen et al., 2022) to prevent the

spread of false information about COVID-19 cases, and to reduce the tension in communities (Hsieh et al., 2021). Universities and research centers may be included in the information processes to increase the reliability and the effectiveness of the messages (Chiappa et al., 2018).

Furthermore, local governments may carry out activities/programs to encourage residents to shop from local businesses, to overcome the economic problems caused by the COVID-19 pandemic (Kim et al., 2022). Moreover, providing economic support to those who are more economically vulnerable can help reduce financial and social pressure on the community (Wong et al., 2021). In addition, policies to mitigate the negative impacts of changes in tourism demand due to the pandemic should prioritize local communities' needs and wants. The decision makers and planners should focus on diversifying tourism offerings in medium and long-term. They should also develop policies and incentives to ensure that locals are active in tourism businesses, not only out-of-town investors (Higgins-Desbiolles, 2020).

The study, like many other studies, argues that destination managers and planners should not only focus on the economic returns and losses but also develop strategies for socio-cultural and environmental issues. They should develop and implement action plans for the restoration of historical buildings, environmental conservation, and preservation and revitalization of local culture (Yu et al., 2016). Increasing the quality and quantity of recreation areas that can be used by both tourists and locals, improving the quality of roads, sanitation facilities and environmental protection and management (Eslami et al., 2019) can also have significant impacts on happiness, quality of life and consequently life satisfaction. Moreover, in post-COVID era, activities and/or festivals should be organized to create socialization opportunities, and therefore to reduce social isolation caused by COVID-19. Such activities, beyond contributing to the reduction of people's stress, can also contribute to generation of creative ideas for revitalizing the industry.

This study stresses also the importance of local residents' involvement in planning and strategy development activities for reducing the effects of the pandemic on the destination's tourism industry (Higgins-Desbiolles, 2020). In addition to traditional methods such as meetings and focus group discussions, local governments should use the latest communication technologies and social media to motivate local communities to participate more effectively in the planning processes. So that the views and expectations of diverse and large segments of society may be reflected in planning studies (Chiappa et al., 2018). Furthermore, community participation can reflect positively on happiness, quality of life and, in return, life satisfaction, and may help increase tourism satisfaction of locals, and therefore, offer opportunities for sustainable development (Kim et al., 2013).

### 4.3 Limitations

As in every study, this study has several limitations, which provide future research opportunities. Firstly, the data were collected in a single destination and therefore its results cannot be generalized. Furthermore, the data were compiled over a relatively short period during the pandemic, which may have resulted in sampling bias. Thus, the relationships examined in this study should be re-examined after the pandemic. Moreover, the study was conducted in a mature tourism destination where the main economic activity is tourism. Thus, it is strongly suggested that future studies examine the proposed relationships in destinations that are at different stages in their life cycle. The use of only benefits of tourism is also another limitation of this study. Studies examining the effects of both positive and negative impacts of tourism on SWB in the context of COVID-19 risk perception can contribute to the literature. In addition, the demographic and psychological characteristics of residents were not considered in this study. Future studies should consider those variables. Finally, as suggested by Suess et al. (2018), studies that utilize both the objective and subjective measures of wellbeing may benefit the literature.

## REFERENCES

- Agyeiwaah, E., Adam, I., Dayour, F., & Baiden, F. B. (2021). Perceived impacts of COVID-19 on risk perceptions, emotions, and travel intentions: evidence from Macau higher educational institutions. *Tourism Recreation Research*, 46(2), 195-211. <https://doi.org/10.1080/02508281.2021.1872263>.
- Alrwajfah, M. M., Almeida-García, F., & Cortés-Macía, R. (2019). Residents' Perceptions and Satisfaction toward Tourism Development: A Case Study of Petra Region, Jordan. *Sustainability*, 11, 1907. <https://doi.org/10.3390/su11071907>.

- Andereck, K. L., & Nyaupane, G. P. (2011). Exploring the Nature of Tourism and Quality of life Perceptions among Residents. *Journal of Travel Research*, 50(3), 248-260.
- Armutlu, M. E., Bakır, A. C., Sonmez, H., Zorer, E., & Alvarez, M. D. (2021). Factors affecting intended hospitable behaviour to tourists: Hosting Chinese tourists in a post-Covid-19 world. *Anatolia*, 32(2), 218–231. <https://doi.org/10.1080/13032917.2020.1855595>.
- Bajrami, D. D., Terzić, A., Petrović, M. D., Radovanović, M., Tretiakova, T. N., & Hadoud, N. (2021). Will we have the same employees in hospitality after all? The impact of COVID-19 on employees' work attitudes and turnover intentions. *International Journal of Hospitality Management*, 94, 102754.
- Berbekova, A., Uysal, M., & Assaf, A. G. (2021). A thematic analysis of crisis management in tourism: A theoretical perspective. *Tourism Management*, 86, 104342. <https://doi.org/10.1016/j.tourman.2021.104342>.
- Bimonte, S., & Faralla, V. (2016). Does residents' perceived life satisfaction vary with tourist season? A two-step survey in a Mediterranean destination. *Tourism Management*, 55, 199–208.
- Bimonte, S., D'Agostino, A., Grilli, G., & Pagliuca, M. (2019). Tourist season and residents' life satisfaction: Empirical evidence from a longitudinal design in a Mediterranean destination. *International Journal Tourism Research*, 21, 323–333.
- Bodrum Chamber of Commerce (2007). Bodrum'un Coğrafi Konumu (Geographical Location of Bodrum). Retrieved from <https://www.bodto.org.tr/content.php?id=00038&lang=tr>.
- Bornstein, M. H., Jager, J., & Putnick, D. L. (2013). Sampling in developmental science: Situations, shortcomings, solutions, and standards. *Developmental Review*, 33, 357–370.
- Bou-Hamad, I., Hoteit, R., & Harajli, D. (2021). Health worries, life satisfaction, and social wellbeing concerns during the COVID-19 pandemic: Insights from Lebanon. *PLoS ONE*, 16(7), e0254989. <https://doi.org/10.1371/journal.pone.0254989>.
- Butler, R. W. (1980). The Concept of a Tourist Area Cycle of Evolution: Implications for Management of Resources. *Canadian Geographer*, 24(1), 5-12.
- Carneiro, M. J., Eusebio, C., & Caldera, A. (2018). The Influence of Social Contact in Residents' Perceptions of the Tourism Impact on Their Quality of life: A Structural Equation Model. *Journal of Quality Assurance in Hospitality and Tourism*, 19(1), 1–30.
- Central Bank of Türkiye (n.d.) Döviz Kurları (Exchange rates). Retrieved from <https://www.tcmb.gov.tr/wps/wcm/connect/TR/TCMB+TR/Main+Menu/Istatistikler/Doviz+Kurlari>
- Chhabra, D., & GURSOY, D. (2007). Perceived Impacts of Gambling: Integration of Two Theories. *UNLV Gaming Research & Review Journal*, 11(1), 27-40.
- Chen, Y., & Li, X. R. (2018). Does a happy destination bring you happiness? Evidence from Swiss inbound Tourism. *Tourism Management*, 65, 256–266.
- Chew, E. Y. T., & Jahari, S. A. (2014). Destination image as a mediator between perceived risks and revisit intention: A case of post-disaster Japan. *Tourism Management*, 40, 382–393. <http://dx.doi.org/10.1016/j.tourman.2013.07.008>.
- Chi, C. G-q., Cai, R., & Li, Y. (2017). Factors influencing residents' subjective well-being at World Heritage Sites. *Tourism Management*, 63, 209–222.
- Chiappa, G. D., Atzeni, M., & Ghasemi, V. (2018). Community-based collaborative tourism planning in islands: A cluster analysis in the context of Costa Smeralda. *Journal of Destination Marketing & Management*, 8, 41–48. <https://doi.org/10.1016/j.jdmm.2016.10.005>.
- Çalışkan, U., & Özer, Ö. (2021). Relationship between Local Residents' Perceptions of Tourism and Support Attitudes in Post-Communist Countries: Case of Turkestan (Kazakhstan). *Tourism Planning & Development*, 18(5), 573-593. <https://doi.org/10.1080/21568316.2020.1837228>.
- Diener, E. (1994). Assessing subjective well-being: Progress and opportunities. *Social Indicators Research*, 31(2), 103–157.
- Doxey, G. V. (1975). A causation theory of visitor-resident irritants: methodology and research inferences. The impact of tourism. *Sixth annual conference proceedings of the Travel Research Association* (08-11 September), San Diego: The Travel Association (pp. 195-198).
- Eslami, S., Khalifah, Z., Mardani, A., Streimikiene, D., & Han, H. (2019). Community attachment, tourism impacts, quality of life and residents' support for sustainable tourism development. *Journal of Travel & Tourism Marketing*, 36(9), 1061-1079. <https://doi.org/10.1080/10548408.2019.1689224>.
- Fredline, E. (2005). Host and Guest Relations and Sport Tourism. *Sport in Society*, 8(2), 263-279, <https://doi.org/10.1080/17430430500087328>.
- Garau-Vadell, J. B., Gutierrez-Taño, D., & Diaz-Armas, R. (2018). Economic crisis and residents' perception of the impacts of tourism in mass tourism destinations. *Journal of Destination Marketing & Management*, 7, 68–75.
- Garrido, S., Mendez, I., & Abellan, J. M. (2013). Analysing the Simultaneous Relationship between Life Satisfaction and Health-Related Quality of life. *Journal of Happiness Studies*, 14, 1813–1838. <https://doi.org/10.1007/s10902-012-9411-x>.
- Gumasing, M. J. J., Prasetyo, Y. T., Ong, A. K. S., & Nadlifatin, R. (2022). Determination of factors affecting the response efficacy of Filipinos under Typhoon Conson 2021 (Jolina): An extended protection motivation theory approach. *International Journal of Disaster Risk Reduction*, 70, 102759.

- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. (2014). *Multivariate Data Analysis* (7<sup>th</sup> Edition). Pearson Education Limited.
- Hartwell, H., Fyall, A., Willis, C., Page, S., Ladkin, A., & Hemingway, A. (2018). Progress in Tourism and destination Wellbeing research. *Current Issues in Tourism*, 21(16), 1930–1892.
- Her, Y. W., Shin, H., & Pae, S. (2019). A multi group SEM analysis of moderating role of task uncertainty on budgetary participation performance relationship: Evidence from Korea. *Asia Pacific Management Review*, 24, 140–153. <https://doi.org/10.1016/j.apmr.2018.02.001>.
- Higgins-Desbiolles, F. (2020). Socialising tourism for social and ecological justice after COVID-19. *Tourism Geographies*, 22(3), 610–623. <https://doi.org/10.1080/14616688.2020.1757748>.
- Holm, M. R., Lugosi, P., Croes, R. R., & Torres, E. N. (2017). Risk-tourism, risk-taking and subjective well-being: A review and synthesis. *Tourism Management*, 63, 115–122.
- Hsieh, Y. J., Chen, Y-L., & Wang, Y-C. (2021). Government and social trust vs. hotel response efficacy: A protection motivation perspective on hotel stay intention during the COVID-19 pandemic. *International Journal of Hospitality Management*, 97, 102991. <https://doi.org/10.1016/j.ijhm.2021.102991>.
- Huang, S., Shao, Y., Zeng, Y., Liu, X., & Li, Z. (2021). Impacts of COVID-19 on Chinese nationals' tourism preferences. *Tourism Management Perspectives*, 40, 100895. <https://doi.org/10.1016/j.tmp.2021.100895>.
- Ivlevs, A. (2016). Happy hosts? International tourist arrivals and residents' subjective well-being in Europe. *Journal of Travel Research*, 56(5), 599–612.
- Joo, D., Xu, W., Lee, J., Lee, C-K., & Woosnam, K. M. (2021). Residents' perceived risk, emotional solidarity, and support for tourism amidst the COVID-19 pandemic. *Journal of Destination Marketing & Management*, 19, 100553.
- Kafashpor, A., Ganji, S. F. G., Samaneh, S., & Johnson, L. W. (2018). Perception of tourism development and subjective happiness of residents in Mashhad, Iran. *Asia Pacific Journal of Tourism Research*, 23(6), 521–531. <https://doi.org/10.1080/10941665.2018.1476392>.
- Kamata, H. (2022). Tourist destination residents' attitudes towards tourism during and after the COVID-19 pandemic. *Current Issues in Tourism*. 25(1), 134–149. <https://doi.org/10.1080/13683500.2021.1881452>.
- Kaushal, V., & Srivastava, S. (2021). Hospitality and tourism industry amid COVID-19 pandemic: Perspectives on challenges and learnings from India. *International Journal of Hospitality Management*, 92, 102707.
- Kim, J., Park, J., Lee, J., Kim, S., Gonzalez-Jimenez, H., Lee, J., ..... & Marshall, R. (2021). COVID-19 and Extremeness Aversion: The Role of Safety Seeking in Travel Decision Making. *Journal of Travel Research*. Advance online publication. <https://doi.org/10.1177/00472875211008252>.
- Kim, K., Uysal, M., & Sirgy, M. J. (2013). How does tourism in a community impact the quality of life of community residents? *Tourism Management*, 36, 527–540.
- Kim, J., Yang, K., Min, J., & White, B. (2022). Hope, fear, and consumer behavioral change amid COVID-19: Application of protection motivation theory. *International Journal of Consumer Studies*, 46, 558–574. DOI: 10.1111/ijcs.12700.
- Kline, R. B. (2011). *Principles and Practice of Structural Equation Modeling* (3<sup>rd</sup> Ed.). New York: The Guilford Press.
- Liang, Z. X., & Hui, T. K. (2016). Residents' Quality of life and attitudes toward tourism development in China. *Tourism Management*, 57, 56–67.
- Lo, A. Y. (2013). The role of social norms in climate adaptation: Mediating risk perception and flood insurance purchase. *Global Environmental Change*, 23, 1249–1257.
- Manning-Walsh, J. (2005). Effect on Quality of life and Life Satisfaction in Women with Breast Cancer. *Journal of Holistic Nursing*, 23(2), 120–140. <https://doi.org/10.1177/0898010104272019>.
- Martin, J. S., Perles, F., & Canto, J. M. (2010). Life Satisfaction and Perception of Happiness among University Students. *The Spanish Journal of Psychology*, 13(2), 617–628.
- Mbaiwa, J. E. (2005). The socio-cultural impacts of tourism development in the Okavango delta, Botswana. *Journal of Tourism and Cultural Change*, 2(3), 163–184. <https://doi.org/10.1080/14766820508668662>.
- McCabe, S., & Johnson, S. (2013). The Happiness Factor in Tourism: Subjective Well-Being and Social Tourism. *Annals of Tourism Research*, 41, 42–65. <https://doi.org/10.1016/j.annals.2012.12.001>.
- Ministry of Culture and Tourism. (2021). Accommodation Statistics. Retrieved from <https://www.ktb.gov.tr/EN-249308/accomodation-statistics.html>.
- Movono, A., Pratt, S., & Harrison, D. (2005). Adapting and reacting to tourism development: A tale of two villages on Fiji's Coral Coast. In S. Pratt and D. Harrison (Eds.), *Tourism in Pacific Islands, Current Issues and Future Challenges*. (pp. 111–117). Routledge.
- Nawijn, J., & Mitas, O. (2012). Resident Attitudes to Tourism and Their Effect on Subjective Well-Being: The Case of Palma de Mallorca. *Journal of Travel Research*, 51(5), 531–541.
- Nazneen, S., Xu, H., Din, N. U., & Karim, R. (2022). Perceived COVID-19 impacts and travel avoidance: application of protection motivation theory. *Tourism Review*, 77(2), 471–483.



- Nunkoo, R., & Ramkissoon, H. (2009). Applying the means-end chain theory and the laddering technique to the study of host attitudes to tourism. *Journal of Sustainable Tourism*, 17(3), 337-355.
- Ozturk, A. B., Ozer, O., & Çalışkan, U. (2015). The relationship between local residents' perceptions of Tourism and their happiness: a case of Kusadasi, Turkey. *Tourism Review*, 70(3), 232-242. <https://doi.org/10.1108/TR-09-2014-0053>.
- Pangaribuan, C. H., Manurung, A. H., Saroso, H., & Rusmanto, T. (2021). The Influence of Risk Perception on Destination Attachment and Voluntourism Behavior: Empirical Evidence from Indonesia. *Journal of Asian Finance, Economics and Business*, 8(3), 1287-1293. <https://doi.org/10.13106/jafeb.2021.vol8.no3.1287>.
- Pappas, N., & Papatheodorou, A. (2017). Tourism and the refugee crisis in Greece: Perceptions and decision-making of accommodation providers. *Tourism Management*, 63, 31-41.
- Park, N., Peterson, C., & Ruch, W. (2009). Orientations to happiness and life satisfaction in twenty-seven nations. *The Journal of Positive Psychology*, 4(4), 273-279. <https://doi.org/10.1080/17439760902933690>.
- Qiu, R. T. R., Park, J., Li, S. N., & Song, H. (2020). Social costs of tourism during the COVID-19 pandemic. *Annals of Tourism Research*, 84, 102994. <https://doi.org/10.1016/j.annals.2020.102994>.
- Quintal, V. A., Lee, J. A., & Soutar, G. N. (2010). Tourists' information search: The differential impact of risk and uncertainty avoidance. *International Journal of Tourism Research*, 12(4), 321-333. <https://doi.org/10.1002/jtr.753>.
- Rad, R. E., Mohseni, S., Takhti, H. K., Azad, M. H., Shahabi, N., Aghamolaei, T., & Norozian, F. (2021). Application of the protection motivation theory for predicting COVID-19 preventive behaviors in Hormozgan, Iran: a cross-sectional study. *BMC Public Health*, 21, 466. <https://doi.org/10.1186/s12889-021-10500-w>.
- Ramkissoon, H. (2020). Perceived social impacts of tourism and quality-of-life: a new conceptual model. *Journal of Sustainable Tourism*. DOI: 10.1080/09669582.2020.1858091.
- Rivera, M., Croes, R., & Lee, S. H. (2016). Tourism development and happiness: A residents' perspective. *Journal of Destination Marketing & Management*, 5, 5-15.
- Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change. *Journal of Psychology*, 91, 93-114.
- Salman, A., Kamekar, U., Jaafar, M., & Mohamad, D. (2021). Empirical analysis of COVID-19 induced socio cognitive factors and its impact on residents of Penang Island. *International Journal of Tourism Cities*. Advance online publication. <https://doi.org/10.1108/IJTC-05-2020-0091>.
- Seabra, C., AlAshry, M., Çınar, K., Raja, I. Reis, M., & Sadiq, N. (2021). Restrictions' acceptance and risk perception by young generations in a COVID-19 context. *International Journal of Tourism Cities*, 7(2), 463-491. DOI: 10.1108/IJTC-08-2020-0165.
- Sekaran, U. (2000). *Research Methods for Business* (3<sup>rd</sup> Ed.). John Wiley & Sons.
- Selim, S. (2008). Life Satisfaction and Happiness in Turkey. *Social Indicators Research*, 88, 531-562. <https://doi.org/10.1007/s11205-007-9218-z>.
- Sharifpour, M., Walters, G., & Ritchie, B.W. (2014). Risk perception, prior knowledge, and willingness to travel: Investigating the Australian tourist market's risk perceptions towards the Middle East. *Journal of Vacation Marketing*, 20(2), 111-123.
- Sirgy, M. J. (2019). Promoting quality-of-life and well-being research in hospitality and tourism. *Journal of Travel & Tourism Marketing*, 36(1), 1-13.
- Smith, M. K., & Diekmann, A. (2017). Tourism and wellbeing. *Annals of Tourism Research*, 66, 1-13.
- Soboll, A., Klier, T., & Heumann, S. (2012). The prospective impact of climate change on tourism and regional economic development: A simulation study for Bavaria. *Tourism Economics*, 18(1), 139-157.
- Song, H., Livat, F., & Ye, S. (2019). Effects of terrorist attacks on tourist flows to France: Is wine tourism a substitute for urban tourism? *Journal of Destination Marketing & Management*, 14, 100385.
- Suess, C., Baloglu, S., & Busser, J. A. (2018). Perceived impacts of medical tourism development on community Wellbeing. *Tourism Management*, 69, 232-245.
- Tosun, C. (2002). Host perceptions of impacts: a comparative tourism study. *Annals of Tourism Research*, 29, 231-253.
- Turkish Statistical Institute (TÜİK). (2021). Results of Address Based Population Registration System, 2020. Retrieved from <https://biruni.tuik.gov.tr/medas/?kn=95&locale=tr>.
- UNWTO (2021). International Tourism and COVID-19. Retrieved from <https://www.unwto.org/international-tourism-and-covid-19>.
- Uysal, M., Sirgy, M. J., Woo, E., & Kim, H. L. (2016). Quality of life and well-being research in Tourism. *Tourism Management*, 53, 244-261.
- Vegara-Ferri, J. M., Pallarés, J. G., & Angosto, S. (2021). Differences in residents' social impact perception of a cycling event based on the fear of the COVID-19 pandemic. *European Sport Management Quarterly*. Advance online publication. <https://doi.org/10.1080/16184742.2021.1903526>.
- Wassler, P., Nguyen, T. H. H., Mai, L. Q., & Schuckert, M. (2019). Social representations and resident attitudes: A multiple-mixed method approach. *Annals of Tourism Research*, 78, 102740.

- WHO (2020). COVID-19 strategy update. Retrieved from <https://www.who.int/docs/default-source/coronaviruse/covid-strategy-update-14april2020.pdf>.
- Wong, B. Y-M., Lam, T-H., Lai, A. Y-K., Wang, M. P., & Ho, S-Y. (2021). Perceived Benefits and Harms of the COVID-19 Pandemic on Family Well-Being and Their Sociodemographic Disparities in Hong Kong: A Cross-Sectional Study. *International Journal of Environmental Research and Public Health*, 18, 1217. <https://doi.org/10.3390/ijerph18031217>.
- Woo, E., Kim, H., & Uysal, M. (2015). Life satisfaction and support for tourism development. *Annals of Tourism Research*, 50, 84–97.
- Woosnam, K. M., Russell, Z., Ribeiro, M. A., Denley, T. J., Rojas, C., Hadjidakis, E., Barr, J., & Mower, J. (2021). Residents' pro-tourism behaviour in a time of COVID-19. *Journal of Sustainable Tourism*. DOI: 10.1080/09669582.2021.1985128.
- Yang, Y., Zhang, H., & Chen, X. (2020). Coronavirus Pandemic and Tourism: Dynamic Stochastic General Equilibrium Modeling of Infectious Disease Outbreak. *Annals of Tourism Research*, 83, 102913.
- Yu, C. P., Cole, S. T., & Chancellor, C. (2016). Assessing community Quality of life in the context of tourism development. *Applied Research in Quality of life*, 11(1), 147-162. <https://doi.org/10.1007/s11482-014-9359-6>.
- Zhang, H., Song, H., Wen, L., & Liu, C. (2021). Forecasting tourism recovery amid COVID-19. *Annals of Tourism Research*, 87, 103149.
- Zhu, H., & Deng, F. (2020). How to influence rural tourism intention by risk knowledge during COVID-19 containment in China: Mediating role of risk perception and attitude. *International Journal of Environmental Research and Public Health*, 17(10), 3514. <https://doi.org/10.3390/ijerph17103514>.

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