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Factors Impacting on Tourism Resilience During the COVID-19 Pandemic: An Empirical Study from Vietnam

Trong Tien Bao BUI[1], Thanh Phuong Quynh NGO[2]

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Abstract

The study's goal is to determine how factors affecting tourism resilience during the COVID-19 pandemic affect Ho Chi Minh Tourism's ability to respond to changes and disruptions. The model and research hypotheses were tested using Multiple Regression Analysis Models. The statistical findings showed that the tourism resilience components have a significant influence on the tourism resilience in Ho Chi Minh city. The analyses revealed that tourism resilience consisted of four latent dimensions. There are 4 explanatory variables with a significance coefficient < 0.05. Therefore, the variables Economic resilience, Ecological resilience, Institutional resilience, and Social resilience all have a significant impact on tourist resilience, which is consistent with Jamaliah and Powell (2017). The findings have important managerial implications for local governments, as well as factors that contribute to tourism resilience, as they must attempt to adapt to changes and turbulences during a pandemic, ensuring that the tourism system rebounds in the future. The four components of tourist resilience are defined in the theoretical contribution. The findings of the study could serve as a starting point for developing future tourist resilience strategies. Because the application of tourist resilience theory is still relatively new, this study presents two theoretical and methodological contributions.

Keywords: Ecological, Economic, Institutional, Social, Tourism Resilience

JEL Classification Code: Z32, L83

1. Introduction

The COVID-19 pandemic has had an impact on the tourism business in Vietnam, particularly in Ho Chi Minh City. According to Vietnam's General Statistics Office (GSO) (2021), the total number of tourists served by accommodation, food, and beverage service establishments in 2020 was 97.3 million VND, down 44 percent from the previous year; the number of tourists served by travel agencies was 3.7 million, down 80.1 percent; and revenue from tourism and travel services in Ho Chi Minh City was down 68.2 percent from the same period last year. Furthermore, in the first quarter of 2020, the COVID-19 pandemic (coronavirus illness) impacted five million workers and nearly 85 percent of businesses in the country. (tuoitrenews.vn, 2020).

The Ho Chi Minh City Tourism Association must specialize in building tourism resilience strategies such as improving tourism product quality and tourism human resources; building promotion strategies, and digital transformation in tourism development to overcome challenges during this period as well as future development orientations. As a result, this study looked into the elements that affected tourist resilience during the COVID-19 pandemic to determine Ho Chi Minh City Tourism's ability to adjust to changes and disruptions. There were two research questions posed: What has been the impact of the COVID-19 outbreak on tourism in Ho Chi Minh City? How will they construct current and future tourism-growth-driven strategies to ensure tourism's long-term viability?

[1]First Author and Corresponding Author. Lecturer, Faculty of Tourism & Hospitality Management, HUTECH University, Vietnam. ORCID ID: 0000-0003-1595-7481. [Postal Address: 475A Dien Bien Phu Street, Ward 25, Binh Thanh District, Ho Chi Minh City, 700000, Vietnam] Email: btt.bao@hutech.edu.vn
[2]Lecturer, Faculty of Hospitality Management - Tourism, Ho Chi Minh City University of Economics and Finance (UEF), Vietnam. ORCID ID: 0000-0001-6004-1566. [Postal Address: 141–145 Dien Bien Phu Street, Ward 15, Binh Thanh District, Ho Chi Minh City, 700000, Vietnam] Email: quynhntp@uef.edu.vn

2. Literature Review

2.1. Tourism Resilience

Holling (1973) defined resilience as "the persistence of systems and of their ability to absorb change and disturbance and still maintain the same relationships between populations or state variables". Resilience is a complex concept that described the capacity of a system to absorb disturbance and reorganize while changing to still retain essentially feedbacks, the identical function, identity, and structure (Walker et al., 2004). Irawan et al. (2021) mentioned that the functionality of an infrastructure system after a disaster and also by the time it takes for a system to return to pre-disaster levels of performance can measure the resilience. Therefore, *Resilience is a social or ecological system that has the ability to maintain the same structure and functions despite being influenced by disruptions, as well as the capability to self-organize and adapt naturally to stress and change* (IPCC, 2007). Resilience has been defined as the ability to return to the original form after being compressed or strained. Kristiana and Brian (2021) indicated that "resilience is needed at all levels, the meso, the micro and macro". Meso resilience is the resilience of the organization to understand its process at different levels. According to Nguyen et al. (2020), macro and micro factors such as local authorities, the local community, tourism businesses, tourism infrastructure, stakeholders' perceptions, tourism business environment, and the diversity of tourism products and support services. Resilience at the micro-level is also associated with human resilience (Kristiana & Brian., 2021).

Resilience theory has not yet been widely applied to the tourism industry, although resilience is defined as the ability of social, economic, or ecological systems to recover from tourism-induced stress (Tyrrell & Johnston, 2008). Resilience is defined as the ability of a socio-ecological system (Prayag, 2020) to absorb disturbance and to learn and adapt in times of turmoil to grow and become more dynamic (Holladay & Powell, 2016). Resilience has been explored in the context of tourism-related climate/ environmental change and sustainability concerns, as well as disaster and risk management (Sheppard & Williams, 2016). Resilience refers to the capacity of the tourism industry to deal effectively with disasters and self-inflicted crises to maintain the stability of the sector while also ensuring the 'flexibility and diversity necessary for innovation and further development' (Buultjens et al., 2017). Tourism resilience is the ability of the tourism industry to withstand the disruptions and changes generated locally, regionally, and globally; and this concept helps us understand how the tourism industry can respond effectively and can adapt positively to global changes, disturbances, or changes. Within this paper, we defined tourism resilience as the ability of tourism systems to absorb, adapt to changes and perturbations.

2.2. The Resilience Tourism Research Framework

According to resilience theory and its tourism application, resilience is composed of four factors: social, institutional (governance), economic, and ecological (Davidson et al., 2013; Holladay & Powell, 2013; Shen et al., 2016); is the foundations for the measures linked to the resilience of tourism in Ho Chi Minh City. Social resilience represented groups or communities' capability to cope with external stresses and disturbances, influenced by social, political, and environmental changes (Shen et al., 2016). Institutional resilience concerns more about its flexibility, self-organization, local control, and power-sharing (Holladay & Powell, 2016); Institutional resilience is the ability of institutions to withstand disturbances by providing both stability to reduce uncertainty and flexibility to respond to the uncertainties of changing external conditions (Davidson et al., 2013). Economic resilience is the ability of an entity or system to maintain function (e.g., continue producing) when shocked (Rose, 2007). Economic resilience comprises three dimensions: 1) the ability of a region to withstand external pressures, 2) the ability of a region to respond positively to external changes, 3) the ability of a region to be adapted or to learn long term (Karoulia et al., 2016). Ecological resilience is the capacity of ecosystems to absorb disturbance and maintain healthy habitats and biodiversity; important for supporting diverse ecological and social communities (Davidson et al., 2013). Ecological resilience can be described as the ability of a historic district's socio-ecological system to persist in the face of adversity (Shen et al., 2016). We examine tourism resilience in this research, which we define as the ability of the tourism system to absorb change or adapt to changes and shocks (Figure 1).

3. Methodology

A survey questionnaire was devised for this study to collect responses from local people and tourism personnel working for a tourism service company. Demographic information (3 things), economic resilience (3 items), ecological resilience (3 items), institutional resilience (4 items), social resilience (4 items), and tourism resilience (4 items) were among the inquiries (4 items). On a 5-point Likert scale, all of the items were evaluated. Respondents were asked to rate their agreement with each statement on a scale of 1 to 5, with 1 = strongly disagree to 5 = strongly agree (see Table 1). Age, gender, and educational level were used as demographic variables in the study.

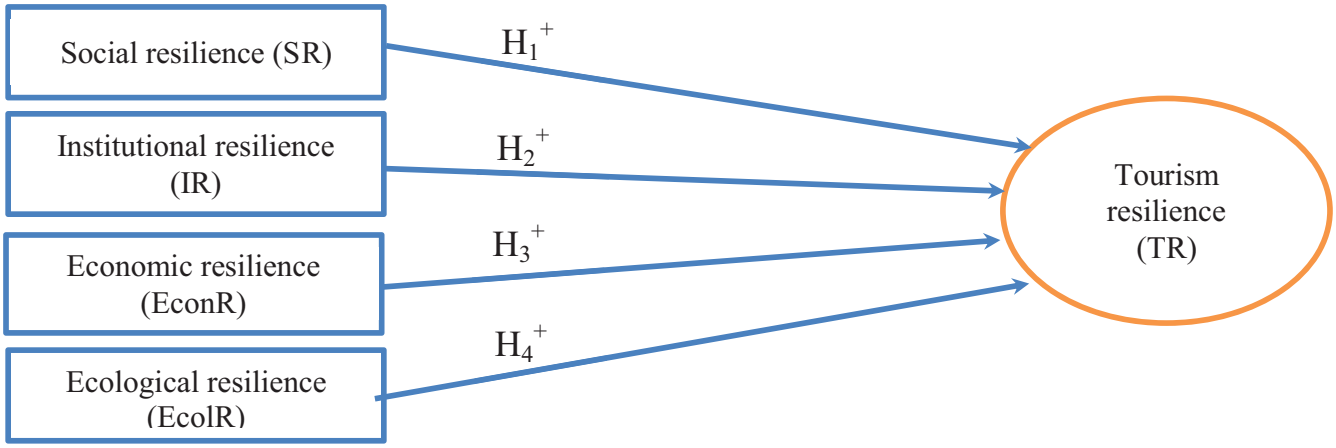

Figure 1: The Proposed Hypothetical Model of Tourism Resilience
(Source: Holladay & Powell, 2013; Shen et al., 2016; Jamaliah & Powell, 2017)

Table 1: Measurements Used in Constructing the Questionnaire

Factors	Code	Investigated Variables and Related Research
Social Resilience	SR1	I feel like I can ask others in my community for help when I need it (Holladay & Powell, 2013; Shen et al., 2016)
	SR2	I feel like I am a member of my community (Holladay & Powell, 2013; Shen et al., 2016)
	SR3	Everyone in my community supports each other (Holladay & Powell, 2013; Shen et al., 2016)
	SR4	Everyone has an equal chance to succeed (Shen et al., 2016)
Institutional Resilience	IR1	Local leaders work well together (Holladay & Powell, 2013; Shen et al., 2016)
	IR2	Local leaders adjust quickly to changing problems (Holladay & Powell, 2013)
	IR3	Locals do not have to wait on national leaders to make decisions for their community (Holladay & Powell, 2013)
	IR4	Local residents have opportunities to participate in policymaking for regional or national development (Shen et al., 2016)
Economic Resilience	ER1	The community leaders have as much power here as national leaders (Holladay & Powell, 2013)
	ER2	You mainly buy your products from locals in your community (Holladay & Powell, 2013)
	ER3	Businesses buy their products from locals (Holladay & Powell, 2013)
Ecological Resilience	ECOR1	There are more roads in my community now locals (Holladay & Powell, 2013)
	ECOR2	There are more homes in my community now locals (Holladay & Powell, 2013)
	ECOR3	There are more businesses in my community now locals (Holladay & Powell, 2013)
Tourism Resilience	TR1	I benefit directly from tourism (Holladay & Powell, 2013)
	TR2	Tourism is good for my community (Holladay & Powell, 2013)
	TR3	I am confident that the tourism system will turn out well in the future (Biggs et al., 2015)
	TR4	The Tourism system will be able to adapt to change better in the future (Biggs et al., 2015)

All of the questions were put to the test to ensure that the constructs were reliable and valid. The data was analyzed using IBM SPSS Statistics statistical software, which allowed us to identify the major attributes that measure the component of tourism resilience, and Multiple Regression Analysis Models were used to test the model and research hypotheses.

4. Results

4.1. Evaluation of the Measurement Model: Validity and Reliability

The results show that the 18 observed variables used to measure research concepts are above 0.3 which mean that all indicator is valid. Reliability result all the variables are reliable because the value of Cronbach's Alpha is bigger than 0.8. Results show that all variables meet the requirements for values.

The EFA of factors affecting tourism resilience is divided into 04 factors corresponding to measured variables of four concepts, each with a cumulative variance of 73.803 percent and an Eigenvalue of 1.670; the EFA of tourism resilience is reduced to one factor with an average variance of 69.963 percent and an Eigenvalue of 2.799. The Varimax rotation clarifies the EFA results. Furthermore, the measurement of sampling adequacy (KMO) for all variables is 0.739 and 0.689, which is greater than 0.600, and the value of significance of variables is 0.000 according to Bartlett's test of sphericity.

4.2. Evaluation of the Structural Model

The results of multiple linear regression are as follows:

The correlation coefficient and the standard error of the estimation are included in the Model Summary (Table 2). The multiple correlation coefficient $R^2 = 0.568$ suggests that the tourist resilience components and tourism resilience, as well as the factors included in the regression model, have a strong relationship. The value of the coefficient of determination, Adjusted $R^2 = 0.563$, indicates that 56.2% of the variance of the dependent variable, the tourism resilience components, and tourism resilience is explained by the regression equation.

The ANOVA test table provides the F test for the null hypothesis that none of the explanatory variables are in a correlation with the tourism resilience components and tourism resilience variable. This hypothesis is, however, categorically rejected, given the value of $F = 88.557$ ($p < 0.05$), Durbin-Watson is 1.869 between 1.5 and 2.5, and it can therefore be concluded that at least one of the explanatory variables is correlated with the dependent variable.

When one of the explanatory variables increases by one unit while all other factors stay constant, Unstandardized Coefficients-B (Table 3) predicts how much the dependent variable, tourism resilience factors, would increase. With a significance coefficient of 0.05, there are four explanatory variables. Economic resilience, ecological resilience, institutional resilience, and social resilience all have a significant impact on tourism resilience, which is consistent with Jamaliah and Powell (2017). The Equation is as follows:

$$TR = 0.387 + 0.288\ ECONR + 0.237\ SR + 0.196\ IR + 0.172\ ER + e$$

The explanations of the equation are:

- The coefficient of 0.288 indicates that increasing the variables in this study's Economic Resilience (ECONR) by one scale or unit will boost tourist resilience by 0.288. As a result, the authorities should concentrate on a diverse range of tourism products and attractions, as well as securing financial resources, improving operational efficiency, and lowering operating expenses, as recommended by Jamaliah and Powell (2017).
- The coefficient value of 0.237 indicates that increasing the variables of Social Resilience (SR) by one scale or unit will have a 0.237 effect on tourism resilience. As a result, the local government provides social benefits such as income or unemployment support, housing assistance, or public health care, which is consistent with Dagdeviren et al. (2020).
- The coefficient value of 0.196 indicates that if the variables in this study (IR) were increased by one scale or unit, tourist resilience would increase by 0.196. As a result, the local government established a credible institutional environment in which people can place their trust; allowed local people to participate in policymaking for regional or national development, which is consistent with Shen et al. (2016); supported businesses and helped them reclaim jobs; and invested in digital transformation.

Table 2: Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Durbin-Watson
1	0.754[a]	0.568	0.562	0.38855	1.869

[a]Predictors: (Constant), ECONR, IR, ECOLR, SR; [b]Dependent Variable: TR.

Table 3: Coefficients

Model B		Unstandardized Coefficients		Standardized Coefficients	*t*	Sig.	Collinearity Statistics	
		Std. Error	Beta				Tolerance	VIF
1	(Constant)	0.387	0.188		2.063	0.040		
	ECOR	0.288	0.032	0.374	8.915	0.000	0.911	1.098
	ER	0.172	0.032	0.235	5.285	0.000	0.811	1.233
	IR	0.196	0.038	0.218	5.199	0.000	0.912	1.097
	SR	0.237	0.034	0.310	6.901	0.000	0.795	1.258

[a]Dependent Variable: TR.

- The coefficient of 0.172 indicates that increasing the variables in this study's Ecological Resilience (ER) by one scale or unit will improve tourism resilience by 0.172. As a result, the local government should support tourism policies that improve the environment and attract more tourists, which is in line with Shen et al. (2016).

5. Conclusion and Limitations

Finally, the statistical data revealed that the factors of tourism resilience had a considerable impact on tourism resilience in Ho Chi Minh City. Tourism resilience was discovered to have four latent dimensions, according to the findings. The findings have important managerial implications for local governments, as well as elements that contribute to tourism resilience, as they must endeavor to adjust to changes and turbulences during a pandemic, ensuring that the tourism system recovers in the future. Because the application of tourist resilience theory is still relatively new, this study presents two theoretical and methodological advances. This study differs from prior studies in terms of methodological contribution by examining the impact relationship between these factors and tourism resilience. The research was limited by the responses of the 274 residents in the sample, and the results cannot be applied to the entire population of Ho Chi Minh City on an annual basis. The findings of the study, on the other hand, could serve as a springboard for developing future tourist resilience initiatives. The study could be adopted and implemented in the context of Viet Nam as a future research direction to observe Vietnamese people's perceptions of tourism resilience.

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