



Natural Disasters and COVID-19: The Death of Travel Agencies?

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Abstract

The world as we know it has changed drastically since the outbreak of COVID-19. Countries, governments, businesses and individuals have been placed in situations nobody would have imagined a few months ago. The effect of the corona virus outbreak is unprecedented and many businesses have been forced to close down and millions of people worldwide have lost their jobs. With travel between countries restricted, airlines have been forced to close completely or significantly reduce their operations. The net effect to this is that travel agencies have been severely hit with the declining number of travellers. The impact of these measures has led to travel agencies having to re-evaluate their business model and look into what the future holds.

Keywords: *National Disasters, Pandemic, Travel, Travel Agencies, Economy, Unemployment.*

Introduction

With the advent of technology, the world has become a smaller place. In this era of heightened technology and great advancement, the world is facing many challenges such as global warming, famine, overpopulation, and many other threatening scenarios. It has been many years since the SARS outbreak which captured the imagination of the world. In recent months, however a new pandemic has barged to the forefront in the health industry as well as the world in the form of COVID-19 (Corona virus disease 2019). It is a severe respiratory syndrome caused by a Pathogen that is a beta Corona virus, similar to the agents of SARS (severe acute respiratory syndrome) and MERS (Middle East respiratory syndrome) hence designated as SARS-CoV-2 (severe acute respiratory syndrome Corona virus 2) (Zhang, *et al.*, 2020). The first case of COVID-19 can be traced back to 3 December 2019 that was reported from Wuhan, Hubei, China, to the World Health Organisation (WHO) country office in China. Since then the severe outbreak of COVID-19 cases has led the World Health Organisation to declare its worldwide pandemic on 11 March 2020. The outbreak of Corona

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virus is so intense, that since its outbreak it has spread to more than 213 countries and territories with more than 5, million confirmed cases of the Corona COVID-19 that originated from Wuhan, China, and a death toll of more than 350 000 deaths on the 25th of May 2020 (Worlometer, 2020; ECDC, 2020; Gutiérrez, P. 2020.) The number of infections could be higher number of cases than what the statistics show as not all mild symptoms are not yet tested and counted. People with mild symptoms tend to recover quickly, while people with a weakened immune system, diabetes, lung problems and heart disease suffer serious illness (Ries, 2020). The disease can spread very rapidly. Due to the nature of the virus, air travel and other modes of transport contribute to this disease being spread worldwide.

The Impact on the Travel Industry

“While economists may argue about the intensity of the slowdown ranging from being temporary to a long-term recession, they are unanimous about the fact that the slowdown would have a severe impact across various sectors of the economy. Foreign tourism and travel industry is clearly one of the worst-hit sectors and the ban on international flights has all but shut down this segment entirely” (Motwani, 2020). This quote sums up the dire state of the travel industry and by implication travel agents. It is clear from reports in all major media that the tourism sector is one of the hardest-hit by the outbreak of COVID-19, which manifests itself in the demand and supply side of the travel sector.

As the world is still in the midst of the outbreak, it is difficult to have accurate predictions as to the effect and impact of the virus – the SARS scenario of 2003 can serve as a benchmark for estimates on the economic impact (UNWTO, 2020a).

- Based on the latest developments (quarantine measures, travel bans and border closures in most of Europe, which represents 50% of international tourism, and in many countries of the Americas, Africa and the Middle East), the evolutions in Asia and the Pacific and the patterns of previous crises (2003 SARS and 2009 global economic crisis), UNWTO (2020b) estimates international tourist arrivals could decline by 20% to 30% in 2020 down from an estimated growth of 3% to 4% forecast in early January 2020.
- This could translate into a loss of US\$ 30 to 50 billion in spending by international visitors (international tourism receipts).

UNWTO (2020a) reiterates the fact that millions of jobs are at risk, and that there is a need to protect the most vulnerable segments such as SMEs, self-employed, women and youth and that some mechanisms must be put in place to assist these businesses.

The world has never seen such an economic crisis, not even in the drop of global trade in 2008 that it is facing in the COVID-19 pandemic of 2020. On average, in the case of an optimistic scenario, a 13% drop in world trade is expected and pessimistically the worst case can be a trade decline that can be much steeper with no recovery (Walker, 2020).

The outbreak of COVID-19 globally presents the world with major tourism and travel challenges. In the time when the whole world is in a lockdown, all the international airlines are suspended, and world tourism has been brought to a halt. The World Tourism Organisation is strengthening its collaboration with World Health Organisation, prioritising

tourism second to the world pandemic (UNWTO, 2020a) Restriction in travelling plays a significant role in limiting COVID-19 transmission as practically experienced in China. Travelling is the main reason for the spreading of COVID-19 throughout the world – China, which restricted travelling, proved that the measures taken by national and international agencies for public health helped (Chinazzi, *et al.*, 2020). As business travelling is being suspended and holiday travel is also suspended, travel agencies in particular will find it difficult to survive (Motwani, 2020).

Roger Dow, president and CEO of the US national industry, stated that the travel industry is affected 6-7 times more seriously than the effect of the 9/11 attacks on the USA Trade Center (Becker, 2020).

In order to place the travel industry in perspective the following is highlighted:

- In 2019, the travel industry of the United States contributed GDP \$580.7 billion in GDP (Lock, 2020).
- About 48.7 million jobs have been associated with the travel industry in the Asia Pacific region.
- It has forecasted that about 10.1 million jobs have been lost in the European region in the travel industry so far (Statista, 2020a).
- The number of flights in 2019 worldwide was 39 million (Statista, 2020b). According to the Global Business Travel Association, more than 94% of all flights world-wide have been cancelled (GBTA, 2020).
- It is estimated that the global Travel and Tourism industry, represent 10.3% of global GDP and it is estimated that about 330 million jobs (1 in 10) are associated with this sector. The effect of travel restrictions therefore places jobs at risk and according to the Statista (2020a) report, the global travel industry has already lost 75.2 million jobs worldwide in 2020 due to COVID-19. It is also estimated that 1 million jobs are lost every day (WTTC, 2020).

It is clear from the preceding sections that travel agencies are in for tough times due to the decline in tourism because of a natural disaster or pandemic such as COVID-19. This gives rise to the question “*What practices can travel agencies employ to manage the short- and long-term impact of COVID-19 crisis?*”

From the discussion, it has been found that there is no appropriate information available on the impact of a natural disaster such as COVID-19 on the travel industry. There is a gap of sufficient information related to this topic. Therefore, it provides the opportunity as well as the need for the researchers to address the specific topic of COVID-19 on the travel industry around the globe.

The scope of the study provides a comprehensive explanation related to the impact of COVID-19 on the travel industry all around the world. The main focus of this research is to provide an analysis of the impact of the pandemic on the current and future patterns of the

travel industry. Moreover, this study would also provide the framework of the crisis management approach concerning the disaster. The primary aim of the study is to identify the impact of a natural disaster such as COVID-19 on the travel industry. The second objective of the research is to identify the crisis management approach of the authorities and industry officials regarding the COVID-19. Along with this recent research, it would determine the scale of the impact with the practical method of crisis management. The practical implication of this research lies in the fact that it will assist travel agencies to assess the impact.

Methodology

Conceptual Framework and Hypothesis

The study explores the how travel agencies can utilise the crisis management practices to reduce the short- and long-term impact of the COVID-19 crisis. After a careful examination of the previous studies (Perl & Israeli, 2018; Israeli, Mohsin, & Kumar, 2011; Israeli & Reichel, 2003; Okumus & Karamustafa, 2005; Okumus, Altinay, & Arasli, 2005), the following conceptual model, Figure 1 has been proposed.

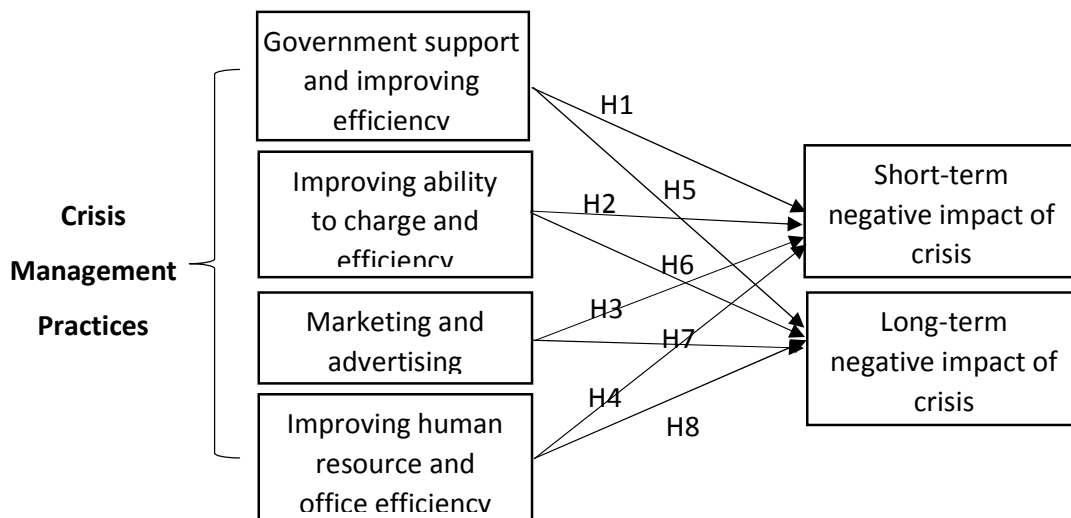


Figure 1: Conceptual Framework

From the above discussion, eight hypotheses (from H1 to H8) were formulated.

- H1: Government support and improving efficiency have significant impact on short-term crisis.
- H2: Improving ability to charge and efficiency have significant impact on short-term crisis.
- H3: Marketing and advertising have significant impact on short-term crisis.
- H4: Improving human resource and office efficiency have significant impact on short-term crisis.
- H5: Government support and improving efficiency have significant impact on long-term crisis
- H6: Improving ability to charge and efficiency have significant impact on long-term crisis.

- H7: Marketing and advertising have significant impact on long-term crisis.
- H8: Improving human resource and office efficiency have significant impact on long-term crisis.

Sampling Design and Data Collection

The process of selecting a sample of respondents who typically represent the target population is referred to as sample design. Sample frame indicates the source or population from which a representative sample is drawn. In this study, the sample population includes 2509 top travel companies in the Asia Pacific region. A non-probability convenience sampling technique is followed due to difficulty and expensive nature of probability sampling process. The respondent is a person who plays a vital role in decision making or knows the business activities. The final sample size decision is guided by statistical technique, structural equation modelling (SEM), employed for analysing the data. In SEM, multivariate normality of data, estimation technique, and model complexity are aspects on which proposed guidelines for the sample size depend. Weston and Gore (2006) recommended to use 200 as a critical sample size for SEM estimations. But Byrne (2009) suggested that a sample size of 400 or more would be sensitive to estimation and show a poor model fit. Thus, for this study, it has decided to take a sample size of at least 300. To conduct the research, data were collected through a structured questionnaire and a quantitative research method has been followed.

The questionnaire has three parts. In the first part, respondents' demographic information had been asked including age, education and work experience. In the second part, respondents were asked to rate their degree of agreement and disagreement on a 5-point Likert scale for the construct related to crisis management practices. Finally, respondents were asked to rate their degree of agreement and disagreement on a 5-point Likert scale for perception of reduction in short- and long-term impact of COVID-19 crisis. Among 1000 distributed questionnaire 330 usable questions were received showing a response rate of 33%. After finalising, 300 responses were retained for analysis in structural equation modelling. The confidence interval for this research is 95% and the rest is margin of error. The analysis showed that data are normally distributed. The demographic analysis of the respondents is shown in the findings section.

Measurement Instrument

The scale items for measuring crisis management practices were adopted from the studies of Perl and Israeli (2018), Israeli *et al.* (2011), and Israeli and Reichel (2003). The items measuring the short- and long-term effect of a crisis were adopted from the studies of Okumus and Karamustafa (2005) and Okumus *et al.*, (2005). The latent constructs and their observed variables are shown in Table1. Respondents were asked to rate their degree of agreement or disagreement on a 5-point Likert scale ranging from highly disagree to highly agree.

Table 1: Constructs and Measured Variables

Construct	Code	Items
Government support and improving efficiency	GS1	Industry-wide demand for a grace period on tax payments
	GS2	Organised protest against the lack of government support
	GS3	Increased reliance on outsourcing
	GS4	Industry-wide demand for governmental assistance with current expenses
	GS5	Selling products of unknown quality to generate income
	GS6	Replacing long-standing employees with new employees
Improving ability to charge and efficiency	IA1	Charging for services that were previously offered at no charge
	IA2	Charging (or increasing the charge) for opening a customer file or order
	IA3	Marketing and promoting new products or services (selling show tickets and guides)
	IA4	Joining a travel agency chain
	IA5	Management voluntary salary reduction
	IA6	Freezing or reducing pay rate
	IA7	Passing charges to customers (such as credit card transaction fees)
	IA8	Communicating 'business as usual'
Marketing and advertising	MA1	Cost cuts by postponing office maintenance (cosmetics)
	MA2	Advertising on different media channels
	MA3	Reducing prices on special offers
	MA4	Marketing to new segments (such as ultra-orthodox)
Improving human resource and office efficiency	HR1	Dismissing employees to reduce labour force
	HR2	Using unpaid vacation to reduce labour force
	HR3	Cost cuts by purchasing lower cost office supplies
Short-term crisis	ST1	Domestic demand wasn't decreased
	ST2	Didn't faced difficulties in collecting loans
	ST3	Didn't postponed future investment projects
	ST4	Didn't experienced a stressful working environment
	ST5	No delays in services from the local authorities
	ST6	No difficulties paying our debts
	ST7	No reduction in our budget for training
	ST8	Our fixed and variable costs didn't increase
Long-term crisis	LT1	Will not result in further decreases in domestic demand
	LT2	Will not result in delays in government support in the industry
	LT3	Will not result in the creation of an image of country as a cheap destination
	LT4	Will not result in delays in investments in the industry
	LT5	Will not result in delays in new investments by the private sector
	LT6	Will not result in qualified employees leaving the industry
	LT7	Will not negatively affect our marketing efforts

Data Analysis

Data collected through the questionnaire were analysed using the software SmartPLS having version 3. Structural equation modelling (SEM) technique was utilised to test the conceptual model of the study. Frequency distribution and percentile measures were used

primarily for sample distribution. Collinearity statistics had been used to test multicollinearity among the independent variables. Moreover, the reliability of the scale items was established through the score of Cronbach's alpha coefficients and composite reliability (CR).

Findings

Demographic Analysis

Demographic breakdown of respondents has been shown in Table 2.

Table 2: Demographic Breakdown of Respondents

Category	Sub-category	Frequency	Percent (%)
Age	Less than 20 years	7	2.3
	20-30 years	75	25.0
	31-40 years	117	39.0
	41-50 years	32	10.7
	More than 50 years	69	23.0
Education level	High School and Vocational Education	5	1.7
	Diploma degree	49	16.3
	Bachelor degree	227	75.7
	High Diploma degree	7	2.3
	Master's degree	12	4.0
Experience	1-5 years	161	53.7
	6-10 years	88	29.3
	11-20 years	25	8.3
	More than 20 years	26	8.7

Descriptive Analysis

All independent constructs including government support and improving efficiency (GS), improving ability to charge and efficiency (IA), marketing and advertising (MA), improving human resource and office efficiency (HR) and dependent constructs including short-term crisis (ST) and long-term crisis (LT) were primarily analysed using the scores of mean and standard deviation. As illustrated in Table 3, all values of skewness and Kurtosis values fall within acceptable range. The normality of the data has been established.

Structural equation modeling (SEM) was employed to analyse the data and test the conceptual model. Due to model complexity, a partial least square (PLS) technique was employed with 500 sub-samples bootstrapping procuring using SmartPLS software version 3.

Table 3: Descriptive Statistics

	Mean	Std. Deviation	Skewness	Kurtosis
Government support and improving efficiency (GS)	2.2383	.71179	1.047	2.777
Improving ability to charge and efficiency (IA)	3.7296	.76651	-1.277	3.273
Marketing and advertising (MA)	4.0483	.90298	-1.971	4.189
Improving human resource and office efficiency (HR)	3.2678	1.32598	-.694	-.921
Short-term crisis (ST)	4.1921	.73688	-1.892	5.951
Long-term crisis (LT)	4.2152	.77037	-2.706	8.912

Test of Validity and Reliability

Confirmatory factor analysis (CFA) is used to assess construct validity of each latent construct of the measurement model. Convergent validity and discriminant validity were investigated to see construct validity. According to Ling and Ding (2006), factor loading and average variance extracted (AVE) having value above 0.50 indicates good convergent validity. An AVE of 0.50 or more means that the latent construct accounts for 50% or more of the variance in the observed variables, on the average. Fornell and Larcker (1981) noted that square root of AVE must be larger than correlation coefficients among all the constructs to achieve discriminant validity. Higher internal consistency is ensured when Cronbach's α and composite reliability (CR) value exceed or equal to 0.70 (Nunnally, 1978).

As illustrated in following Table 4, all the scale items had higher factor loadings with their respective latent constructs as well as all the values of AVE exceed the threshold value of 0.50. Thus, convergent validity of the latent construct has been attained. Composite reliability and Cronbach's α values of all the latent variables are above 0.70.

Table 4: Measurement Model Summary

Construct	Items	Factor Loading	AVE	CR	Cronbach's α
Government support and improving efficiency	GS1	0.832	0.689	0.930	0.912
	GS2	0.817			
	GS3	0.785			
	GS4	0.893			
	GS5	0.854			
	GS6	0.796			
Improving ability to charge and efficiency	IA1	0.829	0.704	0.950	0.940
	IA2	0.809			
	IA3	0.888			
	IA4	0.842			
	IA5	0.885			

Construct	Items	Factor Loading	AVE	CR	Cronbach's α
	IA6	0.855			
	IA7	0.786			
	IA8	0.812			
Marketing and advertising	MA1	0.843	0.613	0.864	0.790
	MA2	0.796			
	MA3	0.744			
	MA4	0.745			
Improving human resource and office efficiency	HR1	0.973	0.959	0.986	0.979
	HR2	0.984			
	HR3	0.981			
Short-term crisis	ST1	0.763	0.670	0.942	0.929
	ST2	0.757			
	ST3	0.902			
	ST4	0.848			
	ST5	0.859			
	ST6	0.793			
	ST7	0.843			
	ST8	0.771			
Long-term crisis	LT1	0.868	0.724	0.948	0.936
	LT2	0.849			
	LT3	0.890			
	LT4	0.892			
	LT5	0.739			
	LT6	0.839			
	LT7	0.868			

Note: AVE = average variance extracted CR = composite reliability

The Table 5 indicates that the values of square root of the AVE are higher than all the correlations among the latent constructs. Thus, the discriminant validity of the model has been achieved.

Table 5: Discriminant Validity of Latent Constructs

	GS	HR	IA	LT	MA	ST
GS	0.830 ^a					
HR	-0.038	0.979 ^a				
IA	-0.501	0.242	0.839 ^a			
LT	-0.082	0.273	0.555	0.851 ^a		
MA	-0.067	0.128	0.464	0.446	0.783 ^a	
ST	-0.174	0.266	0.542	0.462	0.342	0.819 ^a

Note: ^a Diagonal element are square root of AVE, off-diagonal elements are the correlation between constructs

Structural Model Analysis

Model Assessment

Figure 2 indicates that the value of R^2 of short-term crisis is 0.330 which indicates around 33% variation in endogenous construct (short-term crisis) is explained by all the exogenous constructs (crisis management practices). The value of R^2 of long-term crisis is 0.402 which indicates around 40.2% variation in endogenous construct (long-term crisis) is explained by all the exogenous constructs (crisis management practices).

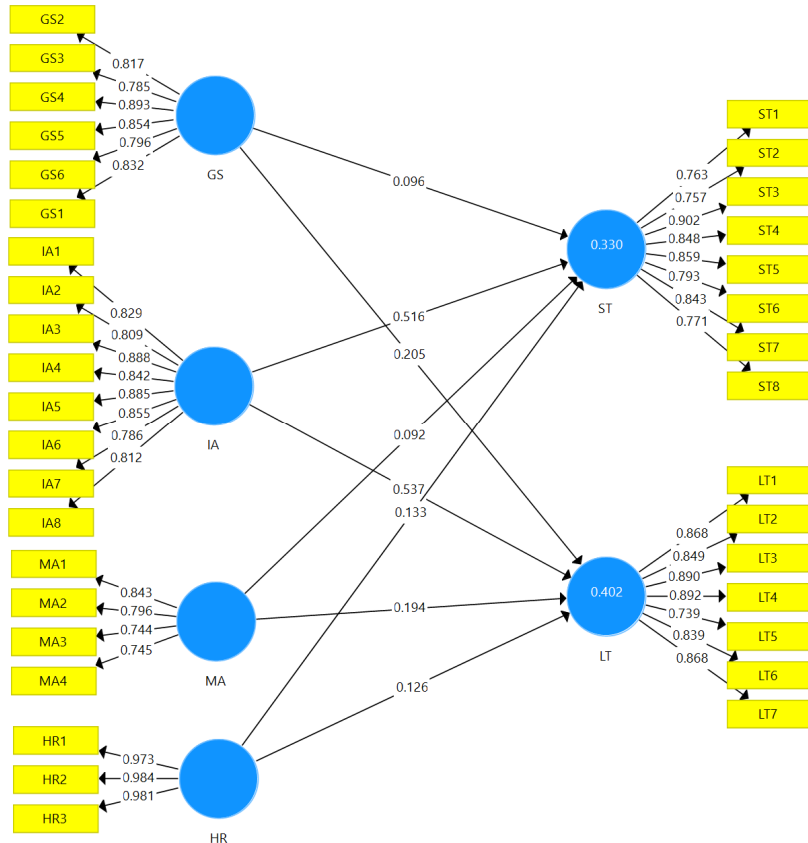


Figure 2: The Structural Model

Main Effects and Path Coefficients

Table 6 illustrates all the path coefficients (β), t-values, p-value and significance of the structural paths. A two-tailed t-test with a significance level of 5% has been used. The path coefficient will be significant if t-value exceeds 1.96. The results show that six out of eight hypotheses were supported and significant at $p < 0.05$ level. On the other hand, two hypotheses were not supported at $p < 0.05$ level.

That means improving ability to charge and efficiency (IA), improving human resource significantly reduce short-term crisis (ST) related to COVID-19. But, government support and improving efficiency (GS) and marketing and advertising (MA) are not significantly reduce short-term crisis (ST). Moreover, all the crisis management practices such as government support and improving efficiency (GS), improving ability to charge and

efficiency (IA), marketing and advertising (MA), improving human resource and office efficiency (HR) significantly reduce long-term crisis (LT) related to COVID-19.

Table 6: Structural Model Estimates

Path	Coefficients (β)	T Statistics	P Values	Impact
1. GS -> ST	0.096	1.367	0.172	Insignificant
2. IA -> ST	0.516	6.477	0.000*	Significant
3. MA -> ST	0.092	1.487	0.138	Insignificant
4. HR -> ST	0.133	2.822	0.005*	Significant
5. GS -> LT	0.205	2.448	0.015*	Significant
6. IA -> LT	0.537	6.507	0.000*	Significant
7. MA -> LT	0.194	3.380	0.001*	Significant
8. HR -> LT	0.126	2.555	0.011*	Significant

Note: * $p < 0.05$, based on two-tailed test; $t = 1.96$.

Discussion

Though the tourism and hospitality industry contribute a large portion of country's gross national product, it faces several threats during crisis (Israeli & Reichel, 2003). Corona virus disease 2019 (COVID-19) outbreak has tremendous impact on business organisations as the whole world is now in a lockdown situation. The tourism and hospitality industry are facing immense challenges due to this COVID-19 crisis. However, there are less literature related to crisis management practices in the hospitality industry (Israeli & Reichel, 2003). Very few empirical studies have been conducted regarding how economic, political, and ecological crises can be managed by tourism (Okumus *et al.*, 2005). Crisis brings negative outcomes including a reduction in demand and revenues, increasing costs, the disruption of normal operations, failings in decision making and communication activities, employee lay-offs, the cancellation of investments, stressful living and working environments, and the closure of organisations (Kash & Darling 1998). Thus, proper actions should be taken to lessen these crises. There are four crisis management practices such as government support and improving efficiency (GS), improving ability to charge and efficiency (IA), marketing and advertising (MA), improving human resource and office efficiency (HR) which were proven practices found in the previous studies (Perl & Israeli, 2018; Israeli *et al.*, 2011; Israeli & Reichel, 2003). These four practices were revised from the initial four practices such as marketing, infrastructure (or hotel) maintenance, human resources, and governmental assistance. However, previous researches didn't identify the impact of crisis management practices on reduction of perceived crisis (Israeli & Reichel, 2003). Therefore, the main purpose of the study was to investigate the short- and long-term crisis of COVID-19 on travel agency businesses as well as how they utilise crisis management practices and its impact on perceived reduction of these crises. Four crisis management practices significantly reduce perception of long-term crisis including government support and improving efficiency (GS), improving ability to charge and efficiency (IA), marketing and advertising (MA), improving human resource and office efficiency (HR). Among them, only ability to charge and efficiency (IA), improving human resource significantly reduce short-term crisis. Analysis of

factor loading showed that items such as industry-wide demand for a grace period on tax payments, organised protest against the lack of government support, industry-wide demand for governmental assistance with current expenses, selling products of unknown quality to generate income have the highest impact on the first factor, government support and improving efficiency (GS). The second factor improving ability to charge and efficiency (IA) is mostly explained by marketing and promoting new products or services, management voluntary salary reduction, freezing or reducing pay rate. The third factor marketing and advertising (MA) has mostly related with cost cuts by postponing office maintenance (cosmetics). Finally, improving human resource and office efficiency (HR) has the highest factor loading with all the three items. Among the four crisis management practices, ability to charge and efficiency (IA) has the largest coefficient with both short-term and long-term crisis effect. It has got implications for the players in tourism and hospitality industries specially travel agencies. Thus, business decision makers should give priority and consider these crisis management practices to lessen short- and long-term impact of different crisis especially COVID-19 on their businesses.

Conclusion

The study investigates the short- and long-term crises of COVID-19 and crisis management practices to lessen the perceived threats of the crisis. Four crisis management practices significantly reduce perception of long-term crisis including government support and improving efficiency (GS), improving ability to charge and efficiency (IA), marketing and advertising (MA), improving human resource and office efficiency (HR). Among them, only ability to charge and efficiency (IA), improving human resource significantly reduce short-term crisis. It has got implications for the players in tourism and hospitality industry, especially travel agencies. Nonetheless, every study has limitations and scope for further research. First of all, the result is difficult to generalise because of using non-probability convenience sampling procedure. Thus, a probability sampling method which represents the population properly can be used for generalisation. Second, the current study considers the crisis management approaches of travel agencies. Therefore, this study can be replicated considering other business sectors such as hotels, motels, restaurants, and online businesses. Third, the sample size should be increased for more precision of the research. Regardless of these limitations, the present research has contributed toward existing literature by exploring the crisis management approaches and COVID-19 threats in the context of travel agencies.

References

- Allegranzi, B., 2020. *Corona virus disease (COVID-19) advice for the public*, s.l.: world health organization.
- Baldwin, R. & Mauro, B. W. d., 2020. *Economics in the Time of COVID-19*. 1st ed. london: CEPR press.

- Becker, E., 2020. How hard will the Corona virus hit the travel industry?. Available at: <https://www.nationalgeographic.com/travel/2020/04/how-Corona-virus-is-impacting-the-travel-industry/>.
- Byrne, B. M. 2009. Structural Equation Modelling with AMOS: basic concepts, applications, and programming, Taylor & Francis.
- Chinazzi, M., Davis, J. T. & Ajelli, M., 2020. The effect of travel restrictions on the spread of the. *Science* , pp. 3-4.
- CRM, 2020. COVID-19: No sign of a second wave in Asia, s.l.: Control Risk Management.
- ECDC, 2020, COVID-19 situation update worldwide, as of 24 May 2020. European Centre for Disease Prevention and Control. Available at: <https://www.ecdc.europa.eu/en/geographical-distribution-2019-ncov-cases>.
- Fernandes, N., 2020. Economic effects of Corona virus outbreak (COVID-19) on the world economy , s.l.: Full Professor of Finance IESE Business School Spain
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 18(1), 39-50. doi: 10.1177/002224378101800104
- GBTA, 2020. Global Business Travel Becomes the Latest Casualty of the Corona virus Pandemic, Washington D.C: Global Business Travel Association.
- Gutiérrez, P. 2020. Corona virus world map: which countries have the most cases and deaths? *The Guardian international edition*. Available at: <https://www.theguardian.com/world/2020/may/25/Corona-virus-world-map-which-countries-have-the-most-cases-and-deaths>.
- Heyden, I. & Nathaniel, P., 2020. A Crisis Management Blueprint for COVID-19, s.l.: Insead Knowledge.
- Israeli, A. A., & Reichel, A. (2003). Hospitality crisis management practices: the Israeli case. *International Journal of Hospitality Management*, 22(4), 353-372.
- Israeli, A. A., Mohsin, A., & Kumar, B. (2011). Hospitality crisis management practices: The case of Indian luxury hotels. *International Journal of Hospitality Management*, 30(2), 367-374.
- Kash, T., and J. Darling (1998). Crises Management: Prevention, Diagnosis and Intervention. *Leadership and Organization Development Journal* 19(4):179–186.

- Ling, C. P., & Ding, C. G. (2006). Evaluating group difference in gender during the formation of relationship quality and loyalty in ISP service. *Journal of Organizational and End User Computing (JOEUC)*, 18(2), 38-62. doi: 10.4018/joeuc.2006040103
- Lock, S., 2020. Forecasted change in revenue from the travel and tourism industry due to the Corona virus (COVID-19) pandemic worldwide from 2019 to 2020. Available at: <https://www.statista.com/forecasts/1103426/COVID-19-revenue-travel-tourism-industry-forecast>
- Motwani, S., 2020. Impact of COVID-19 on Travel: Foreign Travel Industry Needs an Immediate Rescue Plan, Available at:<https://www.entrepreneur.com/article/348757>.
- Nunnally, J. C. (1978). *Psychometric Theory*. (2nd ed.). New York: McGraw-Hill.
- Okumus, F., &Karamustafa, K. (2005). Impact of an economic crisis evidence from Turkey. *Annals of tourism research*, 32(4), 942-961
- Okumus, F., Altinay, M., &Arasli, H. (2005). The impact of Turkey's economic crisis of February 2001 on the tourism industry in Northern Cyprus. *Tourism Management*, 26(1), 95-104.
- Perl, Y., & Israeli, A. A. (2011). Crisis management in the travel agency sector: A case study. *Journal of Vacation Marketing*, 17(2), 115-125.
- Ries, J. 2020. What It's Like to Have a 'Mild' Case of COVID-19. *Health line*. Available at: <https://www.healthline.com/health-news/what-its-like-to-survive-COVID-19>.
- Statista, 2020a. COVID-19: forecast job loss in travel and tourism sector worldwide 2020, by region. Available at: <https://www.statista.com/statistics/1104835/Corona-virus-travel-tourism-employment-loss/>.
- Statista, 2020b. Number of flights performed by the global airline industry from 2004 to 2020. Available at: <https://www.statista.com/statistics/564769/airline-industry-number-of-flights/>.
- VB, 2020. COVID-19: Managing Your Human Resources in Vietnam, s.l.: Vietnamm Briefing.
- Walker, A., 2020. Corona virus: 'Drop in global trade to be worse than 2008 crisis', s.l.: BBC.
- WESTON, R. & GORE, P. A. 2006. A brief guide to structural equation modeling. *The Counseling Psychologist*, 34, 719-751.

UNWTO (2020a) COVID-19: Putting People First. Available at:
<https://www.unwto.org/tourism-COVID-19>.

UNWTO (2020b) Impact assessment of the COVID-19 outbreak on international tourism.
Available at: [https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2020-03/24-03Corona virus.pdf](https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2020-03/24-03Corona%20virus.pdf).

WSB, 2020. Marketing During COVID-19: 4 Essential Copywriting Guidelines, s.l.:
WorldStream.

WTTC, 2020. The Domino Effect of COVID-19. Available at: <https://wtcc.org/en-gb/COVID-19>.

Worldometer, 2020. Countries where COVID-19 has spread. Worldometer. Available at:
<https://www.worldometers.info/Coronavirus/countries-where-Coronavirus-has-spread/>

Zhang, S. et al., 2020. Estimation of the reproductive number of Novel Corona virus (COVID-19) and the probable outbreak size on the Diamond Princess cruise ship: A data-driven analysis. *International Journal of Infectious Diseases*, (93). 201-204.

Zhao, D. et al., 2020. A comparative study on the clinical features of COVID-19 pneumonia to other pneumonias. *Clinical Infectious Diseases*.