

Customer behavior impact on international tourist's travel intention due to Covid-19

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Abstract

Purpose: Several industries affected by the Covid-19 outbreak – one of the most affected is the tourism industry due to travel restrictions, which have resulted in an unprecedented slump in the number of international tourists. This situation has an impact on changing consumer behavior towards intention to travel. This study aims to measure the impact of Covid-19 on international tourists' consumer behavior towards crises to intention to travel overseas after the pandemic is over.

Research methodology: A paper questionnaire was distributed to international tourists who have been traveling abroad (outside country of origin) at least once during the last 12 months through a nonprobability, convenience-sampling approach. A total of 350 questionnaires were analyzed using multiple regression linear.

Results: The results from the regression model suggest that: (1) general impact have significant partial effects on traveling intention; (2) attitude and preference have a significant partial impact to travel intention; (3) hygiene and safety have significant partial impacts to travel intention; (4) general impact, attitude, and preference, hygiene and safety have a significant simultaneous impact to travel intention. Implications and future research issues were discussed.

Limitations: This research is limited due to the limited number of respondents.

Contribution: This research suggests that every country carries out promotions and increases national branding to rebuild trust to travel.

Keywords: *Impact, Covid-19, Customer behavior, International tourists, Travel intention, Post-pandemic*

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1. Introduction

The Covid-19 pandemic outbreak pneumonia has symptoms such as fever, cough, exhaustion, and breathlessness in a city in China called Wuhan (Wu et al., 2020). This pandemic creates panic among the public and significantly impacts lower demand in the tourism industry (Bakar & Rosbi, 2020). The Covid-19 is not a pandemic that we have experienced before, and it has cluttered all our economic systems, supply chain infrastructure, and opportunities to travel (Nicola et al., 2020). Many sectors suffered from quarantines, lockdown, entry bans, and border closures (Goodell, 2020); it has created a fundamental shift in demand as consumers focus more on sanitary items. Meanwhile, lifestyles and daily behavior also changed during this trying time (Wen et al., 2020). The world is not yet free from this virus; however, some countries have announced that they have successfully contained this virus and tried to open up for inbound and local tourists. After Covid-19 became a pandemic, the government imposed so many restrictions on free movement to maintain social distance to ensure safety; however,

it yielded so many economic setbacks that cause economic downfall, decreased income, and consumption. Governments commenced elaborating strategies to resume travel and restore economic growth ([Fakhrudin et al., 2020](#)). Statistics show that the loss incurred due to lock down and travel restrictions is prolonged daily, [UNWTO \(2020\)](#) explained if international tourists numbers could fall 60-80% in 2020.

In economics, we can demonstrate this situation as stagflation, a condition when the economy is stagnant and inflation continues ([Blinder, 1979](#)). The case mentioned above is a synopsis of the entire world economy and we can easily understand that the pandemic pushed us to an economic recession and left us with less purchasing capacity. There is no doubt that it profoundly impacts tourists' consumption and behavior ([Wen et al., 2020](#)). People will travel less than before to ensure they healthy and consume less to avoid future uncertainty ([De Vos, 2020](#)). The prominent tourist attractions will be less visited and the tourists will prioritize remote areas. Regarding how tourists decide to visit a tourism destination lies in the behavior of tourists. According to [Ismayanti \(2010: 26\)](#), every tourist has a buying behavior concept with unique purchasing decisions because the tour is a tangible return on investment, closely related to income and expenses, not booked instantly (except for business travelers), and involve decision planning. Being aware of tourists' behavioral patterns is of a high practical value for all tourism stakeholders ([Pearce, 2005](#)). [Sheth \(2020\)](#) explained if some experts believe that even if this virus's transmission stopped by 2021, the tourism industry will not come back to the normal stage before 2024. Opposite with his opinion, [Wahyuni & Kusumaningrum \(2020\)](#) showed their study results if, after the pandemic over, travel intention is high. While to attract tourists after the Covid-19 pandemic over, every destination should concern about the quality and quantity of medical facilities. Every goal should showcase its abilities to protect tourists from public health concerns while traveling ([Wen et al., 2020](#)). After reading some supporting sections from journals and articles, it could be recognized that there is a change in customer behavior towards travel intention. Besides, this study also intended to find out observation markets and assist tourism businesses to prepare for the healing process in this industry.

2. Literature Review

In previous studies, some researchers defined if a way of thinking, emotive and physical performance when people choose, buy, use, waste of goods, satisfying needs, and passions is the definition of customer behavior ([Schifman & Kanuk, 2009](#); [Abbasi & Torkamani, 2010](#)). Customer behavior also involves activity to get, utilize, and waste the goods and services, acquiring ideas, and undertaking these decision actions ([Mowen, 1993](#); [Engel, Blackwell & Miniard, 1986](#)). [Wen & Kavanaugh \(2008\)](#) used three dimensions to measured changes in customer behavior during SARS to Chinese tourists, that dimension is; general impact, attitude preference, and safety hygiene. These widespread impacts are influenced by element appear on the effects of life and consequence of tourism behavior related to personal reasons such as occupation and lifestyle ([Abdu & Purwanto, 2013](#)). Attitude and preference are influenced by factors of tourism inclination and the tour, which is related to psychological reasons such as perception and new attitude preference to travel. Hygiene and safety are influenced by hygiene, food, and lodging. By defining the dimensions and connecting to the research subject, international tourists, the researcher would like to measure whether these dimensions influence travel intention. During this study, these variables will be measured.

Based on previous studies, [Wen et al., \(2020\)](#) found that Covid-19 temporarily affects Chinese citizens' lifestyles and travel, and Covid-19 also impacts Indonesia's community life ([Sasmita et al., 2020](#)). The Covid-19 epidemic has already had a colossal level of impact on society, the economy, tourism, and on the long-term health of those who acquire it, concerning cardiovascular disease, unhealthy lifestyle, and anxiety ([Gossling et al., 2020](#); [Mattioli et al., 2020](#)). [Folinas & Metaxas \(2020\)](#) have also commented that all human activity is affected, such as social, religious, athletic, artistic, and cultural aspects of life. It, therefore, follows that there will be a worldwide contraction in the tourism market. As a result, in line with [De Vos' \(2020\)](#) suggestion, policymakers and planners should consequently try to encourage travel actively. Travel behavior has reflected each disaster through severe declines and certain changes ([Page, Song, and Wu, 2011](#)). Due to the possible risk, it is difficult to travel, and it is important to pay attention to the risk perceptions factor for international tourists ([Nik Hashim, Ritchie & Tkaczynski, 2017](#)). Additionally, it is directly influenced tourists' intention to travel ([Nik Hashim, Ritchie &](#)

[Tkaczynski, 2017](#)). Various scholars have studied the effect of attitude toward intention to travel ([Jalilvand et al., 2012](#); [Gardiner, King & Grace, 2013](#); [Yoon & Uysal, 2005](#)). A study by Jalilvand (2012) identified that attitude has a significant relationship toward travel intention, it is also agreed by [Gosal et al, 2020](#); [Amalia, 2018](#). Past studies also have heavily focused on health and travel risk toward travel intention ([Jahari & Chew, 2014](#); [Nik Hashim et al., 2018](#)). A study by [Chapuls Falher \(2015\)](#) shown that perceived risk is reflected in the intention to visit. Incidents such as disasters that pose a risk to safety, security, and health are indeed vulnerable to the tourism industry ([Cro and Martins, 2017](#)). We thus propose the following hypotheses based on literature:

H1. There is a significant simultaneous relationship among impacts of Covid-19 to general impacts, attitude, and preference, hygiene, and safety on travel intention.

H2. There is a significant partial relationship between general impacts on travel intention due to Covid-19.

Studies relating to consumer attitude and consumer choice and behavior predictions are most closely tied to the marketing function/ ([Um & Crompton, 1990](#)). Consumer attitude towards a particular brand influences purchases intention decisions ([Bagozzi & Dholakia, 1999](#)). Similarly, in terms of destination, tourist decision-making is also based on attitude ([Jalilvand et al., 2012](#)) and a favorable attitude towards a particular destination, strengthens intended behavior, which internally pushes tourists to a specific destination ([Yoon and Uysal, 2005](#)). In [Woodside and Lysonski's \(1989\)](#) model, intention to visit is determined by a traveler's destination preferences and in turn, their attitude, which is most frequently used a variable to predict consumer choice behavior ([Um & Crompton, 1990](#)). As a result of the above discussion, the following hypothesis is presented:

H3. There is a significant partial relationship between attitude and preference on travel intention due to Covid-19.

Hygiene and safety are close to the concept of perceived risk. This concept on particularly tourism is an important function influencing tourist behavior ([Bauer, 1960](#)). As the Covid-19 epidemic continues and its repercussions continue to grow and be felt, to find out what influences a tourist's intention to travel, especially regarding safety and security, it is important to know the risks that tourists feel. In their study of the SARS pandemic, [Wen et al \(2008\)](#) noted the importance that was placed on public hygiene and safety. Additionally, perceived risk directly influenced tourist intention ([Nik Hashim, Ritchie & Tkaczynski, 2017](#)). Several previous researchers have studied the impact of risk on travel intention toward consumer behavior ([Adam, 2015](#); [Sharipour, Walters & Ritchie., 2014](#); [Chew & Jahari, 2014](#)). Due to the apparent influence of hygiene and safety risk on consumer travel intention, the following hypothesis is proposed:

H4. There is a significant partial relationship between the impacts of hygiene and safety on travel intention due to Covid-19.

3. Research Methodology

3.1. Sample design and data collection

International tourists who have been traveling abroad (outside the country of origin) at least once during the last 12 months would be the target population for this study. This study used non-probability sampling; international tourists were selected from representatives of the world's five continents. As to size, the final resulting in a sample of 350 valid respondents were collected. The questionnaire was distributed to respondents through social media such as WeChat, What'sapp, Facebook, Instagram, weblog, and email. Data were gathered from April until June 2020. Before sharing the final questionnaire to all respondents, the first draft of questions was distributed to 50 respondents randomly selected to measure validity and reliability testing. When the correlation between the items tested is more than a 0.2306 R table, it can be declared valid. The identified factors were calculated alpha reliability coefficients ([Cronbach, 1951](#)), it is acceptable if the value is more than 0.07 ([Nunnally & Bernstein, 1994](#)). Figure 1 displayed the research model used in this study to measure interrelationships between variables dependent on independent variables.

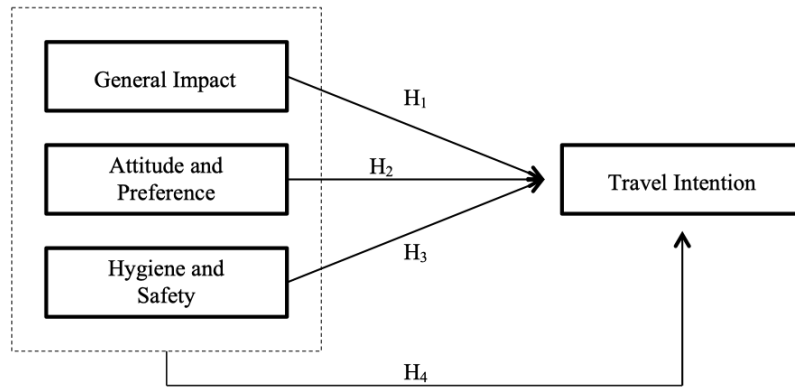


Figure 1. The research model

3.2. Questionnaire design

This study aimed to measure the interrelationships among general impact, attitude, hygiene, and safety toward travel intention. The survey was divided into five sections: Items including gender obtained demographic information of respondents, age, area of origin, education, occupation, income, travel interest, travel mates, travel plans, and likely travel. Following (Wen et al., 2008), we measured using general impacts by employing 4 items, attitude, and preference with 9 items, hygiene, and safety with 9 items questions. Jalilvand et al. (2012) measured travel intention with four items, in this study authors modified and used it. In this study, a five-point Likert scale was used to measure 36 items, where number 1 is equal to strongly disagree to the highest number five is equal to strongly agree. To find out the items and their descriptive statistics can be seen in Table 1.

3.3. Data analyses

In this study, the authors used descriptive and quantitative analysis. For descriptive analysis, it was divided into two parts: the first part is descriptive analysis to describe the characteristics of respondents included age, gender, occupation, income, occupation, likely travel, travel plan, and the second part is to explain the distribution of the variables used in this study. Quantitative analysis in this study uses multiple linear regression analysis, with the following steps: a) the linear regression equation, this step is to find a linear regression equation to a measured relationship among X and Y variables (Dhakal, 2018); b) f test, to find out there a significant simultaneous relationship between variables X and variable Y (Sugiyono, 2007); c) t-test, to find out there a significant partial impacts of variables X to variable Y (Kim, 2005), d) standardized beta, to find out which variables independent is dominant influence variable dependent (Shadab et al., 2018); e) r-squared in the regression model was used to examine statistically the proportions of variance described in a study (Cohen et al., 2003).

4. Result and discussions

4.1. Measurement of validity and reliability

To collect data that covers the actual investigation area is the function of validity (Ghauri & Gronhaugh, 2005). According to Field (2005) means to measure what is intended to be measured. Content validity was measured using Bivariate Pearson correlation on 50 respondents on 26 questions items for independent and dependent variables. If the correlation value higher than r table then it can be concluded if items were valid, while the research's significance is 5% (0.05) (Pearson, 1948). Finally, the results of the validity test to 26 items showed if the value of 26 items (Pearson correlation > 0.2306), which is means that the research instrument has validity and can be used as a correct measurement tool because it has a validity of more than 0.2306.

Reliability is defined as measurement consistency and precision (Linn & Gronlund, 2000; Carlota, 1987). To evaluate the reliability of the measurement scales, Cronbach's alpha was utilized. Based on benchmark value (i.e. 0.70), the scales are considered reliable (Nunnally, 1959). Finally, the results of the reliability measured results known to Cronbach's Alpha value of 0.745 > 0.70, it can be concluded

that the research instrument is declared reliable.

4.2. Data analysis technique

4.2.1. Descriptive analysis

Descriptive analysis is intended to describe the characteristics of respondents. Table 1 shows international tourist's characteristics in detail and Table 2 shows descriptive statistics to explain the distribution of the variables.

4.2.1.1. Descriptive of respondent's characteristics

The next table is the statistics of respondents. Table 1 indicates the characteristics such as gender, age, area of origin, education, etc.

Table 1
Statistics of the sampled international tourist characteristics.

Characteristic	Category	Frequency	Percentage
Gender	Female	186	53.4
	Male	161	46.6
Age	15 - 29	315	90
	30 - 44	33	9.4
	>45	2	0.6
Area of origin	Africa and the Middle East	13	3.7
	Asia	294	84
	Australia and Oceania	3	0.9
	Europe	35	10
	North America	3	0.9
	South America	2	0.6
Education	Bachelor's Degree	208	59.4
	High School or less	41	11.7
	Master's Degree	62	17.7
	Others	26	7.4
	Ph.D. or higher	13	3.7
Occupation	Entrepreneur	30	8.6
	Government employee	31	8.9
	Others	55	15.7
	Private sector	54	15.4
	Public sector	35	10
	Student	145	41.4
Income	Above the US \$ 1500	45	12.9
	Below the US \$ 500	164	46.9
	The US \$ 1000-1500	28	8
	The US \$ 500-1000	113	32.3
Travel	Group Travel	89	25.4
	Independent Travel	261	74.6
Tsavelmates	Alone	77	22
	Family	94	26.9
	Friends	126	36
Travel plans	Partner	53	15.1
	Budget	60	17.1

	Health condition	132	37.7
	Holiday/Time	122	34.9
	No impacts	18	5.1
Likely travel	Africa and the Middle East	11	3.1
	Asia	207	59.1
	Australia and Oceania	15	4.3
	Europe	107	30.6
	North America	9	2.6
	South America	1	0.3

The answers were described in table 1; a slight majority (53.4%) of respondents were female while 46.6% were males. Their ages mostly ranged between 15-29 years (90%), representing the very active age group, and 9.4% between 30-44 years, with only 0.6% above 45 years. Over 84% of respondents are from Asia, 10% Europe, 9% Australia, 9% North America, 6% South America, with only 3.7% from Africa. Educational attainment with those with basic education dominating with 59.4% and 17.7% has completed bachelor's and master's degrees. Also, an appreciable number of the respondents (11.7%) were having completed high school or less. Those with basic educational 3.7% and 7.4% have completed Ph.D. and others. Additionally, in terms of occupation, they were predominantly students (41%) while the dominant income below the US \$ 500 (46.9%). More than half (74.6%) wills independent travel. Most of the respondents (36%) will travel with friends. Overall, 37.7% of respondents had a concern about health conditions on their future travel plans, while only 5.1% had no impacts on it. The majority of respondents likely to travel aboard 59.1% to Asia and 30.6% would like to travel to Europe.

4.2.1.2. Descriptive research variable

To explain the distribution of the variables used in this study can be shown in table 2.

Table 2

Descriptive statistics.

Variable	N	Mean	Std. Deviation
General Impacts (X_1)	350	15.12	3.787
Attitude and Preference (X_2)	350	30.33	6.572
Hygiene and Safety (X_3)	352	35.69	8.143
Travel Intention (Y)	350	15.02	4.455
Valid N (listwise)	350		

As shown in table 2, the total number of respondents was 350. Variable travel intention (Y), the mean value of 15.02, and the standard deviation value of 4.455, which means the mean value is greater than the standard value so that the data deviations that occur are low then the distribution of values is evenly distributed. The general impact variable (X_1) has a standard deviation value of 3787 and the mean value is 15.12, which means X_1 is greater than the standard value so that data deviations that occur are low, thus distributing the values evenly. The attitude and preference variable (X_2) has a standard deviation value of 6.572 and the mean value is 30.33, which means the mean X_2 is greater than the standard value so that data deviations that occur are low, thus distributing the values evenly. Hygiene and safety (X_3) have a standard deviation value of 8.143 and the mean value is 35.69, which means the mean X_3 is greater than the standard value so that data deviations that occur are low, thus distributing the values evenly.

4.2.2. Quantitative analysis

Multiple linear regressions models were used to determine the influence among this research variables ([Koksal, 1985](#); [Tabachnick, 1996](#)). In this study, SPSS 23 used to tested instruments and hypotheses. Table 3 shows the analysis relationship among variables on the regression model.

Table 3
Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.682	1.348		1.248	0.213
1 General Impacts	0.288	0.058	0.245	4.999	0
Attitude and Preference	0.275	0.033	0.406	8.27	0
Hygiene and Safety	0.263	0.035	0.448	7.489	0

a. Dependent Variable: Travel Intention

4.2.2.1. The linear regression equation

This step aims to find a linear regression equation to determine if there is any positive or negative relationship between general impacts, attitude & preference, and hygiene & safety variables. As shown in Table 3 we can see that there is a positive direction and the value of the regression coefficient can be made as follows:

$$Y = 1.682 + 0.288 X_1 + 0.275 X_2 + 0.018 X_3 + \epsilon \quad (1)$$

Y is travel intention, X1 is the general impacts variable, X2 is the attitude and preference variable, X3 is the hygiene and safety variable, the intercept, b is the slope, ϵ is residual/error.

4.2.2.2 F test

To measure the effect of independent variables on the dependent variable and has an f-distribution under the null hypothesis are the objective of the f-test. Using SPSS 23 to calculate F count, if the value is less than significant 0.05, it can be concluded that general impacts, attitude & preference, hygiene & safety simultaneously impact travel intention.

Table 4
ANOVA.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2127.621	3	709.207	51.119	.000 ^b
1 Residual	4800.276	346	13.874		
Total	6927.897	349			

a. Dependent Variable: Travel Intention

b. Predictors: (Constant), Hygiene and Safety, General Impacts, Attitude, and Preference

Based on table 4, the ANOVA test indicated if the F count is 51.119 with .000 sig, which means the regression model can prove if general impacts, attitude & preference, hygiene & safety simultaneously have a significant impact to travel intention. Then we can conclude that H₁ in this study is supported.

4.2.2.3. T-test

To test each independent variable partially to the dependent variable, the t-test was used. There is a significant partial impact between general impacts, attitude & preference, hygiene & safety toward travel intention if the value of sig. < 0.050. According to table 5, it is shown that sig. value 0.000 <

0.050, which means there is a significant partial impact between general impacts toward travel intention. Then it can be concluded that H₂ is supported. The attitude and preference variable shows a sig. value is 0.000 < 0.050, which means there is a significant partial impact between attitude and preference toward travel intention so H₃ is supported. Thus, the hygiene and safety variable shows that a sig. value 0.000 < 0.050, which means there is a significant partial impact between hygiene and safety toward travel intention so H₄ is supported.

4.2.2.4. Standardized Beta

The regression output reproduced in table 3 shows that the beta value on the general impact variable is 0.245. The beta value on the attitude and preference is 0.406, and the beta value on the hygiene and safety is 0.448. Because the value of hygiene and safety is the biggest among others, it can be concluded that Covid-19 has a dominant influence on hygiene and safety.

4.2.2.5. R-squared (R²)

Table 5.

Model summary

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate
1	.554 ^a	0.307	0.301	3.725

a. Predictors: (Constant), Hygiene and Safety, General Impacts, Attitude, and Preference

In this section, statistically, the proportions of variance general impacts, attitude & preference, hygiene & safety on travel intention will be explored. Table 5 presents the proportion of values of R and R². The value of R showed 0.554, which indicates a high level of relation. The value of R² shows the extent to which the dependent variable, travel intention, is affected by the independent variables: general impacts, attitude, and preference, hygiene, and safety have a significance. In this case, 30.7% can be explained.

Based on table 5 the value of R² is 30.7%, we find 69.3 % unexplained variables that affect dependent variable (travel intention) using

$$\begin{aligned} \epsilon &= 100\% - R^2 && (2) \\ &= 100\% - 30,7\% \\ &= 69,3\% \end{aligned}$$

where ϵ is unexplained variables and R² is R-squared.

4.2.3. Hypotheses testing

However, after analyses, chapter four with the regression model has demonstrated the accurate customer behavior impacts on international tourist's travel intention due to Covid-19 presented in table 6.

Table 6

Hypotheses testing.

	Research Null Hypotheses	Supported	Reject
H ₁	There is a significant simultaneous relationship among general impacts, attitudes, and preferences, hygiene, and safety on travel intention due to Covid-19.	✓	
H ₂	There is a significant partial relationship between general impacts on travel intention due to Covid-19.	✓	
H ₃	There is a significant partial relationship between attitude and preference on travel intention due to Covid-19.	✓	

H₄ There is a significant partial relationship between hygiene and safety on travel intention due to Covid-19. ✓

The survey results imply that Covid-19 has had an impact on the work and life of the international tourist, the attitude towards tourism inclination, and the fact that public hygiene and safety are now greatly considered. Many respondents provided information confirming that they had canceled their travel plans due to travel bans and compulsory measures that had weakened their resolve to or prevented them from traveling. However, after quarantine measures, which saw many people housebound for considerable periods, people's desire to go out was strong. The possibility of joining tour groups after Covid-19 was unlikely, with tourists more likely to opt for traveling with family members and relatives. Therefore, one of the impacts of Covid-19 has been to potentially reduce mass tourism and heighten the need and demand for sustainable tourism. The survey results suggest that the highest effect of Covid-19 is related to hygiene & safety wear for personal or the public. After the Covid-19 pandemic is over, it would seem that people are likely more concerned with public places, accommodation, and transportation when traveling. Peoples also showed concern for the health of their traveling companions.

5. Conclusion

Covid-19, characterized by fever, a dry cough, and fatigue, and the potential to develop pneumonia and gastrointestinal symptoms was first noted in Wuhan, China (Wu et al., 2020). Covid-19 already has a crisis impact on tourism with travel restrictions leading to a catastrophic slump in international tourism demand. As Haryanto (2020) notes, many countries affected by this virus, they began managing health protocols to prevent the spread of the disease. Many countries have enforced quarantine, the prohibition of entering the territory, and some travelers' restrictions (Jamal & Budke, 2020). Such a situation also changes consumer behavior by reducing the intention to travel. According to the results of this study, conclusions can be drawn:

- a. The general impact (X_1) sig. value $0.000 < 0.050$. The result means that the general impact has partially significant toward travel intention. It indicated that international tourists feel that Covid-19 pandemic impacts their daily life and work. It also has an impact on business travel and leisure travel that have been previously planned.
- b. Attitude and preference (X_2) sig. value $0.000 < 0.050$. The result means that attitude and preference have partially significant toward travel intention. Covid-19 also has an impact on the attitude and preference of international tourists in travel intention. They changed the travel plans they had prepared, being more careful in choosing travel destinations and travel mates.
- c. Hygiene and Safety (X_3) sig. value $0.000 < 0.050$. The result means that hygiene and safety have partial significance toward travel intention. Hygiene and safety have an important role in reducing the negative effects caused by Covid-19 and carrying out a campaign to prevent the spread of Covid-19 is a good way to educate the public. It indicated that international tourists feel that the Covid-19 pandemic changes their daily needs with concern for safety & hygiene. So they must adjust themselves with new regulations to maintain safety during travel overseas after the pandemic is over.
- d. ANOVA test indicated if the F count is 51.119 with .000 sig, which means the regression model can prove if general impacts, attitude & preference, hygiene & safety simultaneously have a significant impact on travel intention. Based on beta value hygiene and safety have the most influential effect on tourism intention.

Although the Covid-19 pandemic has an impact on international tourist customer behavior in travel intentions, respondents are still willing to travel overseas after the pandemic is over concerning the necessary regulations for overseas travel. Responding to this crisis everyone has different attitudes, changing traditional behavior is not easy to do. Due to the limited number of respondents, this research is limited. Larger-scale research by future researchers is recommended. Similarly, the impacts of Covid-19 towards global tourism may also be a very important issue to examine by other researchers in the future. This research suggests that every country carries out promotions and increases national branding to rebuild trust to travel.

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Appendix A

Measurement scales

Construct, code and items	Source
<i>General impact</i>	Wen et al., 2008
GI1. Covid-19 has greatly affected my work and life	
GI2. Covid-19 has greatly affected my attitude towards life and my way of life	
GI3. All of my business travels have been canceled during the Covid-19 period	
GI4. All of my leisure travels have been canceled during the Covid-19 period	
<i>Attitude and preference</i>	
AP1. Because of Covid-19, I believe traveling aboard will be unsafe	
AP2. I will greatly reduce my travel plans in the next 12 months	
AP3. I will avoid traveling to crowded big cities after Covid-19	
AP4. Because of Covid-19, my interest in participating in outdoor activities and eco-tourism has increased	
AP5. I will reduce the length of travel and tourism after Covid-19	
AP6. In choosing tourist destinations, I will avoid Covid-19 affected areas	
AP7. I prefer suburbs or areas within a short distance for leisure travel after Covid-19	
AP8. I will reduce the possibility of joining tour groups after Covid-19	
AP9. I prefer traveling with family members and relatives after Covid-19	
<i>Hygiene and safety</i>	
HS1. I will not take wild animals as food in the future	
HS2. I care more about the hygiene and safety of the tourist sites after Covid-19	
HS3. I care more about the hygiene and safety of the public recreation sites after Covid-19	
HS4. I care more about the hygiene and safety of the means of transportation after Covid-19	
HS5. I care more about the health of the members in the tour group after Covid-19	
HS6. I prefer to stay in high-quality star hotels after Covid-19	
HS7. I care more about the hygiene and safety of the hotels after Covid-19	
HS8. I prefer separated dining while traveling with a tour group	
HS9. I care more about the hygiene and safety of the daily necessities while traveling after Covid-19	
<i>Travel intention</i>	
TI1. I predict I will travel overseas in the future	Jalilvand et al., 2012
TI2. If everything goes as I think, I will plan to travel overseas in the future	
TI3. I intend to travel overseas in the future	Molinillo et al., 2018
TI4. I would choose to travel overseas as the destination form my next holidays	