2020 Annual Survey Report on Visitors Expenditure and Trends in Taiwan

Summary

The Tourism Bureau, Ministry of Transportation and Communications (MOTC) seeks to understand the motives, viewpoints, tendencies and consumption of the inbound visitors in Taiwan in 2020 to supply reference material to tourism-related organizations to improve sightseeing facilities in Taiwan and to plan international tourism advertising and marketing strategies. The survey can be a source of information to estimate visitor expenditures. We surveyed visitors as they were about to leave Taiwan at the Taiwan Taoyuan International Airport, Kaohsiung International Airport, Taipei Sonshan Airport, and the Taichung International Airport.

The targets of this survey were the foreign and overseas Chinese inbound visitors from January 1 to December 31, 2020 (excluding the foreign and overseas Chinese transit visitors). This survey adopted the method of "Quota Sampling", which conformed best to the control of working standards and the characteristics of the samples to achieve random and sample representatives.

In response to the global pandemic of the new coronavirus pneumonia epidemic (Coronavirus Disease 2019, COVID-19, severe special infectious pneumonia) (hereinafter referred to as the epidemic), our country's Central Epidemic Command Center (hereinafter referred to as CECC) announced on March 18, 2020 that from 0:00 on March 19, 2020, entry of all non-nationals would be rethe stricted. And only those who applied for approval would be released, and all entrants would be required to undergo home quarantine for 14 days after entry. The Tourism Bureau, MOTC has cooperated with CECC's research and judgment on the development of international epidemics and border risk control measures and other epidemic prevention measures. From 0:00 on March 19, the travel agencies were requested to suspend outbound group tours and the entry of inbound groups.

In order to cooperate with the epidemic prevention measures, this survey has suspended airport interview survey since April 2020. By CECC, considering that the domestic epidemic has slowed down and was under stable control, short-term business people who met the four basic conditions could apply for shortening

home quarantine from June 22, 2020. This survey has restarted face-to-face interview survey since July 2020.

By the data from the Ministry of the Interior National Immigration Agency, there was a total of 1,377,861 inbound visitors in 2020, of which 90.62% from January to March, and 9.38% from April to December. The distribution of each quarter showed a discontinuous phenomenon compared with previous years. Among them, the vistors from April to June accounted for only 0.97% of the whole year, which was the lowest among the 2020 quarters, as shown in table A below:

Table A The Number and Percentage of Inbound Visitors in 2020 - by Quarter

Unit: Persons; %

Quarter	Persons	Percentage	
Total	1,377,861	100.00	
Quarter 1 (January-March)	1,248,586	90.62	
Quarter 2 (April-June)	13,300	0.97	
Quarter 3 (July-September)	53,804	3.90	
Quarter 4 (October-December)	62,171	4.51	

Source: National Immigration Agency, Ministry of the Interior.

The Tourism Bureau has cooperated with CECC's research and judgment on the development of international epidemics and border risk control measures and other epidemic prevention measures. It announced that the travel agencies would suspend the entry of tour group visitors from 0:00 on March 19, 2020. According to the survey sample, in January-March 2020, the main purposes of the inbound visitors interviewed were "sightseeing" and "visiting friends or relatives." In July-December 2020, the main purposes of the inbound visitors interviewed were "visiting friends or relatives" and "business."

Since 0:00 on March 19, 2020 all entrants must undergo home quarantine or home isolation 14 days after entering the country, plus a self-health management period of 14 days, resulting in average length of stay of vistors to Taiwan was quite different from the number of nights stayed for mainly the purpose of leisure in previous years. The average number of nights stayed by vistors from January to March of 2020 was 7.56 nights, while the average length of stay from April to December was 35.85 nights. The number of vistors from January to March of 2020 reached more than 90% of the total year, so average length of stay throughout the year in 2020 for 8.29 nights, as shown in table B:

Table B The average length of stay and the percentage of stay under 90 nights of inbound visitors from 2018 to 2020

Unit: Nights; %

Year	Average length of stay	Percentage of stay under 90 nights
2018	6.46	90.71
2019	6.20	90.99
2020	8.29	80.96
January to March	7.56	85.65
April to December	35.85	26.36

Note: The calculation of "average length of stay" was based on the number of stay night from one to ninety. Source: National Immigration Agency, Ministry of the Interior.

In response to the epidemic, this survey adjusted the sampling method and the estimation method of visitor expenditures. Since the survey was suspended in the second quarter of 2020, there was no survey sample. From a statistical point of view, if the sample in the second quarter is regarded as a missing data, then it can be calculated by the method of imputation. In terms of this survey, the hot-deck imputation method should be used. It means that this survey would use the samples in the first quarter (January to March) of 2020 and the second half of 2020, to impute the average daily expenditure per visitor who came to Taiwan in the second quarter (April to June) of 2020. Then, this survey could estimate the total expenditure of inbound visitors in 2020.

In the third quarter (July-September) of 2020, due to the preemptive preparation of the Taiwan government, the strict and effective border controls measures, and Taiwanese people highly cooperated with the guidelines for epidemic prevention measures, the number of inbound vistors of the third quarter increased slightly than that of the first quarter increased slightly (by official statistics, only 4.31% of the first quarter) even Taiwan was in the early stage after the easing of border controls measures and the epidemic situation in many countries around the world was still severe. In addition, visitors to Taiwan for the purpose of "leisure" have not yet been opened except the visitors for the purpose of "visiting friends or relatives" and 'business". At the same time, because the visitors who originally stayed in Taiwan were allowed to stay in Taiwan for more than 90 days, therefore, the structural characteristics of visitors to Taiwan of the third quarter of 2020 have been changed drastically from the first quarter. Thus, although the quota sampling method was still used in the third quarter, it was no longer possible to use the residence, age, gender, and month of the interviewed

visitors as the control characteristics as in the first quarter. However, considering that we needed enough samples in each month to reduce the estimated standard error of the average daily expenditure per visitor, we planned to increase the number of face-to-face interview survey days in the third quarter (more than 20 days per month). The effective sample size was more than 120 people each month. Additionally, considering the actual distribution of foreign visitors, the survey location was also limited to the Taiwan Taoyuan International Airport.

In the fourth quarter (October-December) of 2020, our country's achievements in the epidemic prevention have been recognized by governments, people and media of many countries around the world. Therefore, the number of foreign visitors increased compared with that of the third quarter, and the effective samples were also more than those of the third quarter. Because a sufficient number of samples per month were required to reduce the estimated standard error of the average daily expenditure per visitor, and to facilitate the comparison of each quarter with next year (2021), this survey increased the number of face-to-face interview days. Besides, the target effective number of samples was set to be more than 400 persons for each month. Also, considering the actual distribution of foreign visitors, the interview survey location was still limited to the Taiwan Taoyuan International Airport.

In summary, due to the impact of the epidemic, the market structure, expenditure profile, and tourism trends of inbound visitors in 2020 were very different from those in previous years, the trends have been broken and discontinuous. Therefore, the survey and analysis in 2020 compared with previous years, except the first quarter, was no longer suitable to use the summation of survey samples in the first, third, and fourth quarters of 2020 as the total data for the whole year of 2020 to compare it with those of recent three years.

The estimation of annual vistors expenditure in 2020 was different from previous years. It was based on the sum of vistors expenditure of four quarters in 2020. And the vistors expenditure of each quarter in 2020 was the product of the "number of inbound visitors", the "average length of stay (in nights)" and the "average daily expenditure per visitor" of each quarter. In the second quarter (April-June) 2020, due to the strict border controls measures on the epidemic, the interview survey was suspended. Hence the "average daily expenditure per visitor" for this quarter was imputated based on the characteristic of "stay nights"

that most reflects the vistors expenditure in that quarter. Based on this feature, this survey would use the "average daily expenditure per visitor" of the survey sample that stay 31-60 nights in the third quarter (July-September) of 2020, which was US\$71.16, as the imputation value of the "average daily expenditure per visitor" in the second quarter.

There are three variables in the estimation of the annual vistors expenditure of inbound visitors over the years: "number of inbound visitors", " average length of stay (in nights)" and "average daily expenditure per visitor". Of these three variables, the number of "number of inbound visitors" and " average length of stay (in nights)" showed a huge difference between January and March (before the strict border controls measures on the epidemic) and April to December (after the easing border controls measures on the epidemic). Besides, due to the strict border controls measures on the epidemic, the suspension of survey resulted in the annual "average daily expenditure per visitor" and "average expenditure per visitor" cannot be estimated. There were major changes in the analysis of the year 2020, therefore, the relevant survey and analysis results were only used for the reference of 2020 and should not be used to compare with the previous years. Readers should pay special attention to this major change in interpretation and quotation.

In order to realize the impact of the epidemic on the visitors expenditure and trends, this survey divided the year 2020 into three phases by our country's epidemic border controls measures: January to March was referred to as the "before the strict border controls measures on the epidemic" phase, April to June was called the "the strict border controls measures on the epidemic" phase, and the period from July to December was called the "after the easing of border controls measures on the epidemic" phase. The difference between January-March of 2020 (before the strict border controls measures on the epidemic) (hereinafter referred to as "before the strict border controls") and July-December (after the easing of border controls measures on the epidemic) (hereinafter referred to as " after the easing of border controls") would be summarized below.

The total number of effective samples completed in this survey in 2020 year was 3,987, of which the effective sample size from January to March was 2,133, and the effective sample size from July to December was 1,854.

The major investigative results of this survey were classified into 7 parts: "Related Indices of the Inbound Visitors in Taiwan", "Analysis of the Inbound Visitors' Plans", "Analysis of the Inbound Visitors' Behavior", "Analysis of the Inbound Visitors' Satisfaction", "Analysis of Basic Information of the Inbound Visitors" and "Analysis Findings".

I. Related Indices of the Inbound Visitors in Taiwan

1,377,861 persons.... Number of inbound visitors; a decrease of

88.39% from the previous year.

8.29 nights..... Average length of stay (nights) for all inbound

visitors; an increase of 2.09 nights of the

previous year.

US\$1,800 million.... Total annual amount of visitor expenditure; a

decrease of 87.51% from the previous year.

Table 1 Related Indices of the Inbound Visitors in Taiwan from 2018 to 2020

Year	2020	2019	2018
Number of inbound visitors	1,377,861 persons	11,864,105 persons	11,066,707 persons
Average length of stay for all inbound visitors	8.29 nights	6.20 nights	6.46 nights
Total annual amount of	US\$ 1.800 billion	US\$ 14.411 billion	US\$ 13.705 billion
visitor expenditure	(NT\$ 53.934 billion)	(NT\$ 445.649 billion)	(NT\$ 413.282 billion)
(the fee on international	* Note 2, Note 4	* Note 1, Note 4	* Note 1, Note 4
airline was excluded)			

- Note: 1. The total annual amount of visitor expenditure in 2019 and 2018 were the product of "the number of inbound visitors", "average length of stay for all inbound visitors", and "average daily expenditure per visitor."
 - 2. The total annual amount of visitor expenditure in 2020 is calculated by adding the value of the four quartly amount of visitor expenditure in 2020; and the quartly amount of visitor expenditure in each quarter of 2020 is calculated by the product of "the number of inbound visitors", "average length of stay for all inbound visitors", and "average daily expenditure per visitor" of each quarter. However, in the second quarter (April-June) 2020, due to the strict border controls measures on the epidemic, the interview survey was suspended. Hence the "average daily expenditure per visitor" for this quarter was imputated based on the characteristic of "stay nights" that most reflects the vistors expenditure in that quarter. Based on this feature, this survey would use the "average daily expenditure per visitor" of the survey sample that stay 31-60 nights in the third quarter (July-September) of 2020, which was US\$71.16, as the imputation value of the "average daily expenditure per visitor" in the second quarter.
 - 3. The data source of "Number of inbound visitors" and "Average length of stay for all inbound visitors" is the National Immigration Agency, Ministry of the Interior, Republic of China (Taiwan). The calculation of "average length of stay for all inbound visitors" is based on the number of stay nights from 1 to 90.
 - 4. The data sources of the quartly average exchange rate of the New Taiwan Dollar to the U.S. dollar of each quarter in 2020, the annually average exchange rate in 2019 (which was 30.295), and the annually average exchange rate in 2018 (which was 30.156), is the official website of the Central Bank of the Republic of China (Taiwan).
 - "International Tourism Receipts" in 2019 and 2018 were changed to "total annual amount of visitor expenditure" in 2020 to meet the UNWTO definition.

II. Analysis of the Inbound Visitors' Plans

A. Before the strict border controls, 63% of the inbound visitors came to Taiwan with the sightseeing as their main purpose. After the easing of border controls, 57% of the inbound visitors came to Taiwan with the visiting friends or relatives as their main purpose.

In January-March 2020 (before the strict border controls measures on the epidemic), the main purposes of the inbound visitors were sightseeing (62.59%), and visiting friends or relatives (24.00%). In July-December 2020 (after the strict border controls measures on the epidemic), the main purposes of the inbound visitors were visiting friends or relatives (57.28%), and business (33.66%).

Table 2 The main purpose the inbound visitors in 2020 - by the situation of border controls

Unit: person; %

Main Durnosa		farch 2020 border controls)	July-December 2020 (after the easing of border controls)		
Main Purpose	Frequency	Percentage	Frequency	Percentage	
Total	2,133	100.00	1,854	100.00	
Sightseeing	1,335	62.59	-	-	
Business	196	9.19	<u>624</u>	<u>33.66</u>	
International conference or exhibition	12	0.56	7	0.38	
Visiting friends or relatives	<u>512</u>	<u>24.00</u>	1,062	57.28	
Studies	19	0.89	21	1.13	
Medical treatment	8	0.38	24	1.29	
Others	51	2.39	116	6.26	

Note: 1. "-" means there is no survey sample.

B. Before the strict border controls, 52% of the inbound visitors chose to make their trip as a "Without any arrangements through travel agencies for booking accommodations and tickets; no arrangements by a Taiwan travel agency or OTA after arrival." After the easing of border controls, 92% of the inbound visitors chose to make their trip as a "Without any arrangements through travel agencies for booking accommodations and tickets; no arrangements by a Taiwan travel agency or OTA after arrival."

^{2. &}quot;Others" includes private affairs, get a residence permit, presidential election vote, bring children to study, apply for a residence permit, concer, immigration, and adopt a child, etc.

^{3.} In the second quarter of 2020 (April-June), the investigation was suspended due to the strict border controls.

In January-March 2020 (before the strict border controls), a total of 52.37% of the inbound visitors chose to make their trip as a "Without any arrangements through travel agencies for booking accommodations and tickets; no arrangements by a Taiwan travel agency or OTA after arrival", followed by "individual tour arranged through a travel agency only for booking accommodations(and tickets)" (36.85%)

In July-December 2020 (after the easing of border controls), a total of 91.80% of the inbound visitors chose to make their trip as a "Without any arrangements through travel agencies for booking accommodations and tickets; no arrangements by a Taiwan travel agency or OTA after arrival", followed by individual tour arranged through a travel agency only for booking accommodations(and tickets) (6.26%)

Table 3 Kinds of arrangements the inbound visitors made on their trips in 2020 - by the situation of broder controls

Unit: person; %

		Tour group	Tour group Non-tour-group					
Frequency Row Percentage	Total	Group tour arranged through a travel agency (Joined a tour group)	Individual tour arranged through a travel agency	Individual tour arranged through a travel agency only for booking accommo -dations (and tickets)	arrangements through travel agencies/OTA for booking	Without any arrangements through travel agencies/OTA for booking accommodations and tickets; no arrangements by a Taiwan travel agency after arrival		
January-March 2020 (before the strict	2,133	154	20	786	56	1,117		
border controls)	100.00	7.22	0.94	36.85	2.63	52.37		
July-December 2020 (after the easing of border controls)	1,854	-	2	116	34	1,702		
	100.00	-	0.11	6.26	1.83	91.80		

Note: 1. "-" means there is no survey sample.

C. Before the strict border controls, 97% of the inbound visitors surfed the internet during their stay in Taiwan. "Free WiFi" was their major way to connect to the Internet. After the easing of border controls, 99% of the inbound visitors surfed the internet during their stay in Taiwan. "SIM card" was their major way to connect to the Internet.

^{2.} In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls.

In January-March 2020 (before the strict border controls), 97% of the inbound visitors surfed the internet during their stay in Taiwan. The ways that the inbound visitors connect to the internet were Free WiFi (70 persons per hundred), SIM card (53 persons per hundred), international roaming (17 persons per hundred), and router (15 persons per hundred).

In July-December 2020 (after the easing of border controls), 99% of the inbound visitors surfed the internet during their stay in Taiwan. The ways that the inbound visitors connect to the internet were SIM card (82 persons per hundred), Free WiFi (68 persons per hundred), international roaming (8 persons per hundred), and router (3 persons per hundred).

Table 4 Whether the inbound visitors surfed the internet during their stay in Taiwan in 2020 - by the situation of border controls

Unit: person; %

				F, / -
Whether surfed the internet	•	larch 2020 border controls)	July-Decer (after the easing o	mber 2020 of border controls)
	Frequency	Percentage	Frequency	Percentage
Total	2,133	100.00	1,854	100.00
Yes	2,076	97.33	1,834	98.92
No	57	2.67	20	1.08

Note: In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls.

Table 5 How did inbound visitors surfed the internet during their stay in Taiwan in 2020 - by the situation of border controls

Unit: persons; persons per hundred											
	January-M	larch 2020	July-December 2020								
T((before the strict	border controls)	(after the easing of	f border controls)							
Item	Persons	Relative Percentage	Persons	Relative Percentage							
Free WiFi	1,462	70.42	1,249	68.10							
iTaiwan Free WiFi	117	5.64	43	2.34							
Other free WiFi	1,427	68.74	1,237	67.45							
SIM card	1,110	53.47	1,511	82.39							
International roaming	358	17.24	155	8.45							
Router	316	15.22	49	2.67							

Note:1. Visitors interviewed were allowed to choose more than one item in this question.

^{2.} The figure was calculated from the sample that excluding those who were not surfed the internet during their stay in Taiwan.

^{3.} In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls.

D. Before the strict border controls, 58% of the inbound visitors with sightseeing purpose had obtained pre-travel information about Taiwan from official government tourism promotion campaigns or travel reports. The visitors indicated that their vacation travel planning was often done through word-of-mouth recommendations from friends or relatives, internet (including social networking service), tourism leaflets of travel agencies, newspapers, magazines, books, and the TV, radio.

Due to the border controls, only in the first quarter, there were inbound visitors mainly for sightseeing in 2020. Therefore, this section only analyzes the inbound visitors interviewed in the first quarter of 2020. There were 1,710 inbound visitors with sightseeing purpose (with the sightseeing as their main or the secondary purpose). The percentage of the inbound visitors who had obtained pre-travel information about Taiwan from official government tourism promotion campaigns or travel reports was 58.42%. The sources of the advertisements and reports mentioned above were mostly the internet (including social networking service) (75 persons per hundred), word-of-mouth recommendations from friends or relatives (29 persons per hundred), TV, radio (21 persons per hundred), newspapers, magazines, books (14 persons per hundred), and tourism leaflets of travel agencies (14 persons per hundred).

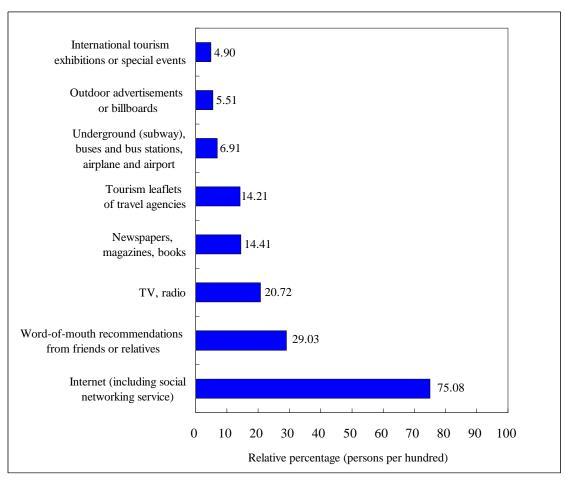
The visitors indicated that their vacation travel planning was often done through word-of-mouth recommendations from friends or relatives, the internet (including social networking service), tourism leaflets of travel agencies, newspapers, magazines, books and TV, radio (with the mean larger than 3.50.)

Table 6 The percentage of the inbound visitors with sightseeing purpose who had obtained pre-travel information about Taiwan from official government tourism promotion campaigns or travel reports in January-March 2020

			Unit: %
	Total	Yes	No
Percentage	100.00	58.42	41.58

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Note: The inbound visitors with sightseeing purpose include all the visitors with the sightseeing as their main or the secondary purpose.



Note: The inbound visitors with sightseeing purpose include all the visitors with the sightseeing as their main or the secondary purpose .

Figure 1 Where did the inbound visitors with sightseeing purpose see Taiwan tourism advertisements or travel reports in January-March 2020

Table 7 How much the inbound visitors with sightseeing purpose were influenced by the media in making their decision to visit Taiwan in January-March 2020

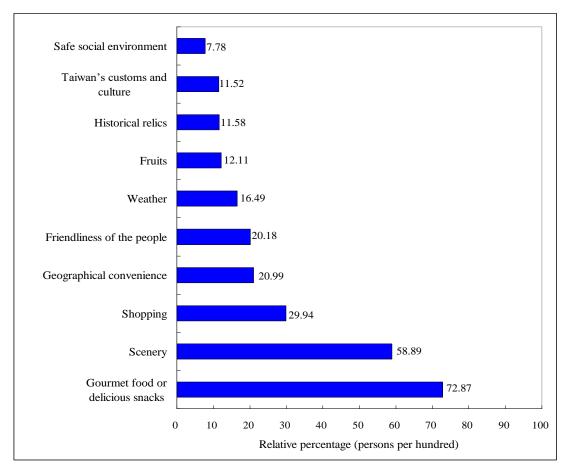
Item	pape magaz	News- papers, magazines, books books Undergroe (subway buses at bus statio airplane a airport		yay), s and tions, e and	TV, radio		Interna- tional tourism exhibit- tions or special events		Outdoor advertise- ments or billboards		Tourism leaflets of travel agencies		Word-of- mouth recommen -dations from friends or relatives		Internet (including social networking servic)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Sightseeing purpose	3.58	0.99	3.14	1.45	3.57	1.11	3.47	1.10	3.15	1.27	3.70	1.09	4.29	0.87	4.16	1.01

Note: 1. SD means standard deviation.

- 2. Likert 5 point scale: 1= not at all, 2= somewhat, 3= a little, 4= a lot, 5= entirely.
- 3. The inbound visitors with sightseeing purpose include all the visitors with the sightseeing as their main or the secondary purpose.

E. Before the strict border controls, "Gourmet food or delicious snacks" and "scenery" were the major reasons that attracted the inbound visitors to take a sightseeing trip to Taiwan.

Due to the border controls, only in the first quarter, there were inbound visitors mainly for sightseeing in 2020. Therefore, this section only analyzes the inbound visitors interviewed in the first quarter of 2020. The reasons that the inbound visitors went sightseeing in Taiwan were mainly gourmet food or delicious snacks (73 persons per hundred), scenery (59 persons per hundred), shopping (30 persons per hundred), geographical convenience (21 persons per hundred), friendliness of the people (20 persons per hundred), weather (16 persons per hundred), fruits (12 persons per hundred), historical relics (12 persons per hundred), and Taiwan's customs and culture (12 persons per hundred), etc.



Note: Visitors interviewed were allowed to choose more than one item in this question.

Figure 2 Top 10 reasons why the inbound visitors decided to take sightseeing trips to Taiwan in January to March of 2020

III. Analysis of the Inbound Visitors' Behavior

A. Before the strict border controls, a total of 44% of the inbound visitors was the first time visitors to Taiwan in the past three years. After the easing of border controls, only a total of 14% of the inbound visitors was the first time visitors to Taiwan in the past three years.

In January-March 2020 (before the strict border controls), the number of inbound visitors for the first time in recent three years (43.93%) was the most, followed by more than five times (19.64%), and the second time (18.47%). In July-December 2020 (after the easing of border controls), the number of inbound visitors for more than five times (35.60%) was the most, followed by the third time (23.25%), and the second time (18.93%).

Table 8 The times of the inbound visitors have been to Taiwan in the past three years (including this time) in 2020 - by the situation of border controls

Unit: person; %

Times	January-M (before the strict	larch 2020 border controls)	July-December 2020 (after the easing of border controls)		
Times	Frequency	Percentage	Frequency	Percentage	
Total	2,133	100.00	1,854	100.00	
The first time	937	43.93	264	14.24	
The second time	394	18.47	351	18.93	
The third time	304	14.25	<u>431</u>	<u>23.25</u>	
The forth time	79	3.70	148	7.98	
More than 5 times	<u>419</u>	<u>19.64</u>	660	35.60	

B. Before and after border controls, Night markets, Taipei 101 and Ximending all ranked in the top 3 major scenic spots for the inbound visitors. after the fourth place, before the strict border controls, the order were, Jioufen, Chiang Kai-shek Memorial Hall, Longshan Temple, Tanshui, National Palace Museum, and Pingxi, etc.; after the easing of border controls, the order were, Tanshui, Xinyi Shopping District, Yangmingshan, and Beitou etc.

In January-March 2020 (before the strict border controls), the major scenic spots in the inbound visitors visited were night markets, Taipei 101, Ximending, Jiufen, Chiang Kai-Shek Memorial Hall, Longshan Temple, Tamsui, The Palace Museum and Pingxi, etc. In July-December 2020 (after the easing of border controls), the major scenic spots in the inbound visitors visited were night

markets, Taipei 101, Ximending, Tamsui, Xinyi Shopping District, Yangmingshan, and Beitou, etc.

Table 9 Ranking of the major scenic spots inbound visitors visited in 2020 - by the situation of border controls

Unit: persons; persons/per hundred

			Unit. persons, persons/per nundred				
ъ	January-Mar		. 1 \	July-December 2020 (after the easing of border controls)			
Ran-	(before the strict be	order con		(after the easing of	border co		
king	Scenic spot	Persons	Relative percentage	Scenic spot	Persons	Relative percentage	
1	Night market	1,522	71.35	Night market	784	42.29	
2	Taipei 101	820	38.44	Taipei 101	292	15.75	
3	Ximending	810	37.97	Ximending	181	9.76	
4	Jioufen	709	33.24	Tanshui	133	7.17	
5	Chiang Kai-Shek Memorial Hall	476	22.32	Xinyi Shopping District	114	6.15	
6	Longshan Temple	468	21.94	Yangmingshan	89	4.80	
7	Tanshui	404	18.94	Beitou	82	4.42	
8	National Palace Museum	385	18.05	Sun Moon Lake	66	3.56	
9	Pingxi	348	16.32	Jioufen	64	3.45	
10	Yehliu	243	11.39	Taroko Tienhsiang	63	3.40	
11	Sun Moon Lake	235	11.02	Xiangshan	62	3.34	
12	Sun Yat-sen Memorial Hall	225	10.55	Love river	60	3.24	
13	Beitou	220	10.31	Jiaoxi	58	3.13	
14	Taroko Tienhsiang	178	8.35	Longshan Temple	53	2.86	
15	Yangmingshan	164	7.69	Anping Castle	50	2.70	
16	Xiangshan	146	6.84	Kenting National Park	49	2.64	
17	Kenting National Park	137	6.42	Dream Mall	46	2.48	
18	Love river	126	5.91	The Pier 2 Art Center	46	2.48	
19	Lotus pond	119	5.58	Chiang Kai-Shek Memorial Hall	45	2.43	
20	Alishan	111	5.20	Sun Yat-sen Memorial Hall	38	2.05	

Note: 1. Each visitor was asked to list at most 15 most impressed scenic spots for those he has visited.

^{2.} In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls.

C. Before the strict border controls, "Sun Moon Lake" was the favorite scenic spot for the inbound visitors. After the easing of border controls, "Taipei 101" was the favorite scenic spot for the inbound visitors.

Each visitor can choose only one favorite scenic spot for those he has visited. In January-March 2020 (before the strict border controls), the favorite scenic spot for the inbound visitors was Sun Moon Lake followed by, Jioufen, "Pingxi", "Tamsui", "Beitou", "Yehliu", and "Ximending", "Taipei 101", "Night makert", and "National Palace Museum", etc. In July-December in 2020 (after the easing of border controls), only the relative percentage of night market and Taipei 101 was more than 10 (persons per hundred). The most favorite scenic spot was Taipei 101, followed by the night market.

Table 10 Ranking of the favorite scenic spots the inbound visitors visited in 2020 - by the situation of border controls.

				1				
		ary-March 202		July-December 2020				
	(before the	strict border o	controls)	(after the ea	(after the easing of border controls)			
Ran- king	Scenic spot	Relative Percentage (persons per hundred	Percentage favoring the scenic spot	Scenic spot	Relative Percentage (persons per hundred	Percentage favoring the scenic spot		
1	Sun Moon Lake	11.02	28.51%	Taipei 101	15.75	29.45%		
2	Jioufen	33.24	27.50%	Night market	42.29	21.05%		
3	Pingxi	16.32	21.26%					
4	Tanshui	18.94	19.31%					
5	Beitou	10.31	18.18%					
6	Yehliu	11.39	17.28%					
7	Ximending	37.97	16.42%					
8	Taipei 101	38.44	15.00%					
9	Night market	71.35	14.65%					
10	National Palace Museum	18.05	14.55%					

Note: 1. Each visitor can choose only one favorite scenic spot for those he has visited.

^{2.} The percentage favoring the scenic spot=(man-time favoring the scenic spot)/(man-time visiting the scenic spot) * 100%.

^{3.} Not included in the calculation if the relative persons visiting the scenic spot doesn't exceed 10 (persons per hundred).

^{4.} In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls.

D. Before and after the border controls, Taipei City was the major city/county for the inbound visitors. Northern Taiwan was the major area for the inbound visitors

In January-March 2020 (before the strict border controls), the major sightseeing cities/counties for the inbound visitors were (in orders): Taipei City, New Taipei City, Kaohsiung City, Taichung City, Nantou County, Hualien County, and Pingtung County. In July-December 2020 (after the easing of border controls), The major sightseeing cities/counties for the inbound visitors were (in orders): Taipei City, New Taipei City, Taichung City, Kaohsiung City, Tainan City, Nantou County, Yilan County, and Hualien County.

In January-March 2020 (before the strict border controls), the scenic spots (in orders) visited by the inbound visitors were in the northern Taiwan, southern Taiwan, central Taiwan, eastern Taiwan, and offshore islands. In July-December 2020 (after the easing of border controls), the scenic spots (in orders) visited by the inbound visitors were in the northern Taiwan, central Taiwan, southern Taiwan, eastern Taiwan, and offshore islands.

Table 11 Ranking of the major city/county the inbound visitors visited in 2020 - by the situation of border controls

Unit: persons; persons per hundred

D a.r.	January-March 2020 (before the strict border controls)			July-December 2020 (after the easing of border controls)		
Ran- king	City/County	Persons	Relative percentage	City/County	Persons	Relative percentage
1	Taipei City	1,612	75.57	Taipei City	816	44.01
2	New Taipei City	1,030	48.29	New Taipei City	299	16.13
3	Kaohsiung City	331	15.52	Taichung City	230	12.41
4	Taichung City	304	14.25	Kaohsiung City	196	10.57
5	Nantou County	294	13.78	Tainan City	123	6.63
6	Hualien County	197	9.24	Nantou County	123	6.63
7	Pingtung County	147	6.89	Yilan County	90	4.85
8	Tainan City	118	5.53	Hualien County	86	4.64
9	Chiayi County	117	5.49	Keelung City	77	4.15
10	Yilan County	82	3.84	Pingtung County	69	3.72
11	Taitung County	79	3.70	Taoyuan City	63	3.40
12	Keelung City	53	2.48	Taitung County	63	3.40
13	Taoyuan City	52	2.44	Chiayi County	34	1.83
14	Changhua County	36	1.69	Changhua County	33	1.78
15	Hsinchu County	16	0.75	Hsinchu County	28	1.51
16	Miaoli County	10	0.47	Miaoli County	23	1.24
17	Yunlin County	10	0.47	Hsinchu City	20	1.08
18	Chiayi City	10	0.47	Chiayi City	13	0.70
19	Hsinchu City	9	0.42	Yunlin County	12	0.65
20	Penghu County	4	0.19	Penghu County	10	0.54
21	Kinmen County	-	-	Kinmen County	9	0.49
22	Lianjiang County	-	-	Lianjiang County	3	0.16

Note: 1.The figures in the table were calculated from the cities/counties of the scenic spots that the inbound visitors

^{2. &}quot;-" means that there is no investigation sample.
3. In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls.

Table12 Ranking of the major area the inbound visitors visited in 2020 - by the situation of border controls

Unit: persons; persons/per hundred

	January-March 2020			July-December 2020				
Ran-	(before the st	rict border co	ontrols)	(after the easin	(after the easing of border controls)			
king	Area	Persons	Relative percentage	Area	Persons	Relative percentage		
1	Northern Taiwan	1,698	79.61	Northern Taiwan	987	53.24		
2	Southern Taiwan	476	22.32	Central Taiwan	344	18.55		
3	Central Taiwan	471	22.08	Southern Taiwan	285	15.37		
4	Eastern Taiwan	210	9.85	Eastern Taiwan	124	6.69		
5	Offshore islands	4	0.19	Offshore islands	22	1.19		

Note: 1. The figures in the table were calculated from the areas of the scenic spots that the inbound visitors have visited.

2. Northern Taiwan: Taipei City, Keelung City, New Taipei City, Yilan County, Taoyuan City, Hsinchu County, Hsinchu City.

Central Taiwan: Miaoli County, Taichung City, Changhua County, Nantou County, Yunlin County.

Southern Taiwan: Chiayi County, Chiayi City, Tainan City, Kaohsiung City, Pingtung County. Eastern Taiwan: Taitung County, Hualien County.

Offshore islands: Kinmen County, Lienchiang County, Penghu County.

3. In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls.

E. Before the strict border controls, "shopping", "night market sightseeing" and "historical relics sightseeing" were the major activities of the inbound visitors in Taiwan. After the easing of border controls, "shopping", "night market sightseeing", "massage and acupressure",

"hiking/trekking/backpacking/mountaineering", and "health care" were the major activities of the inbound visitors in Taiwan.

In January-March 2020 (before the strict border controls), "shopping", "night market sightseeing", "historical relics sightseeing"

"hiking/trekking/backpacking/mountaineering, "hot spring soaking", "eco tour",

"massage and acupressure" were the major activities of the inbound visitors in Taiwan. In July-December 2020 (after the easing of border controls), "shopping", "night market sightseeing", "massage and acupressure",

"hiking/trekking/backpacking/mountaineering," health care", "historical relics sightseeing, and "hot spring soaking" were the major activities of the inbound visitors in Taiwan.

Table 13 Ranking of the activities the inbound visitors participated in 2020 - by the situation of border controls.

Unit: persons; persons per hundred

	January-M (before the strict		July-December 2020 (after the easing of border controls)		
Item	Persons	Relative percentage	Persons	Relative percentage	
Shopping	1,880	88.14	1,557	83.98	
Night market sightseeing	<u>1,522</u>	<u>71.35</u>	<u>784</u>	42.29	
Historical relics sightseeing	751	35.21	178	9.60	
Exhibitions	364	17.07	94	5.07	
Hiking/trekking/ backpacking/ mountaineering	298	13.97	245	13.21	
Hot spring soaking	295	13.83	153	8.25	
Eco tour	274	12.85	139	7.50	
Massage or acupressure	203	9.52	261	14.08	
Aquatic recreation activities (including lake tour)	173	8.11	56	3.02	
Pubs or night clubs	99	4.64	111	5.99	
Festival activities	68	3.19	32	1.73	
Theme park	56	2.63	37	2.00	
Culture events	49	2.30	31	1.67	
Leisure farm	31	1.45	31	1.67	
Health care	21	0.98	209	11.27	
Tourism factory	16	0.75	16	0.86	
Sports or sporting competitions	15	0.70	16	0.86	
Tribal tourism	14	0.66	10	0.54	
Others	35	1.64	32	1.73	

Note: 1. Visitors interviewed were allowed to choose more than one item in this question.

^{2. &}quot;Others" includes KTV, SPA, wedding photographs, bicycle round the island, bicycle touring, presidential election evening, Pokémon catch treasure, buy a house, etc.

^{3.} In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls.

IV. Analysis of the Inbound Visitors' Expenditure

A. The total expenditure of the inbound visitors in 2020 was US\$1.800 billion, a decrease of 87.51% from the previous year.

Because of the suspension of the survey in the second quarter due to the strict border controls measures on the epidemic, there is no survey sample. From a statistical point of view, if the sample in the second quarter is regarded as a missing value, some imputation methods can be used to calculate it. For this survey, the hot-deck imputation method should be used, that is, we used the investigation samples in the first quarter (January-March) and the third and fourth quarters (July-December) of 2020, to impute the value of "average daily expenditure per visitor" in the second quarter (April-June) of 2020.

After comprehensively analyzing and comparing the advantages and disadvantages of various imputation methods, this survey considers the characteristic of "stay nights" that best reflects the expenditures of passengers in the quarter. Using the survey sample from July to September of 2020, with the number of stay nights in "31-60 nights", the average daily expenditure per visitor is US\$71.16, which is used to impute the average daily expenditure per visitor in the second quarter. And then the total annual amount of visitors expenditure is calculated by adding up the amount of visitors expenditure in each quarter, which was US\$1.80 billion, a decrease of 87.51% from the previous year; equivalent to NT\$53.934 billion, a decrease of 87.90% from the previous year. The average exchange rate of the New Taiwan dollar against the US dollar in 2020 was based on the data of the Central Bank of R.O.C.(Taiwan).

Table 14 The total expenditure of the inbound visitors in 2020

	Number of	Average	Average	Total annual	Quartly	Total annual
	inbound	length of	daily	amount of	average	amount of
	visitors	stay for all		visitors	exchange	visitors
Period	(persons)	inbound	per visitor	expenditure	rates of	expenditure
	(1)	visitors	(USD)	(billion USD)	the NTD	(billion NTD)
		(nights)	(3)	$(4)=(1)\times(2)\times(3)$	to the USD	$(6)=(1)\times(2)\times(3)$
		(2)		÷1,000,000,000	(5)	×(5)÷1,000,000,000
2020 (total)	1,377,861			1.800		53.934
JanMar.	1,248,586	7.56	152.09	1.436	30.147	43.280
AprJun.	13,300	51.19	71.16^{*1}	0.048	29.933	1.450
JulSep.	53,804	32.29	77.90	0.135	29.481	3.990
OctDec.	62,171	32.44	89.85	0.181	28.772	5.214

Note: 1. The total annual amount of visitors expenditure in 2020 is the summation of the quartly amount of visitors expenditure in each quarter of 2020. The formula for calculating the quartly amount of visitors expenditure in each quarter is the product of the "number of inbound visitors", "average length of stay for all inbound visitors" and "average daily expenditure per visitor" in that quarter. The investigation was suspended in the second quarter (April-June) due to the strict border strict border controls measures on the epidemic. This investigation considering the characteristic of "stay nights" that best reflects the visitors expenditure of the quarter, hence we used the average daily expenditure per visitor of the survey sample from July to September of 2020, with the number of stay nights in "31-60 nights", which is US\$71.16, to impute the average daily expenditure per visitor of the second quarter of 2020.

- 2. The data source of "number of inbound visitors" and "average length of stay for all inbound visitors" is the National Immigration Agency, Ministry of the Interior, R.O.C.(Taiwan). The calculation of "average length of stay for all inbound visitors" is based on the number of stay nights from 1 to 90.
- 3. The quartly average exchange rates of the new Taiwan dollar to the US dollar in 2020 were obtained from the official website of the Central Bank of R.O.C.(Taiwan).

Table 15 Total annual amount of visitor expenditure on tourism in 2018-2020

-	Number of	Average	Average	Total annual	Annual	Total annual
	inbound	length of	daily	amount of	average	amount of
	visitors	stay for all	expenditure	visitors	exchange	visitor
Year	(persons)	inbound	per visitor	expenditure	rates of	expenditure
	(1)	visitors	(USD)	(billion USD)	the NTD	(billion NTD)
		(nights)	(3)	$(4)=(1)\times(2)\times(3)$	to the USD	$(6)=(1)\times(2)\times(3)\times$
		(2)		÷1,000,000,000	(5)	(5)÷1,000,000,000
2020	1,377,861	8.29	*Note 3	1.800	29.578	53.934
2019	11,864,105	6.20	195.91	14.411	30.925	445.649
2018	11,066,707	6.46	191.70	13.705	30.156	413.282

- Note: 1. The formula for calculating the total annual amount of vistors expenditure in 2019 and 2018 (billion USD) is the product of the "number of inbound visitors", "average length of stay for all inbound visitors" and "average daily expenditure per visitor" in that year. That is, $(4)=(1)\times(2)\times(3)\div1,000,000,000$. Among them, the "average daily expenditure per visitor" is estimated from the survey samples throughout the year.
 - 2. The total annual amount of visitors expenditure in 2020 is the summation of the quartly amount of visitors expenditure in each quarter of 2020. The formula for calculating the quartly amount of visitors expenditure in each quarter is the product of the "number of inbound visitors", "average length of stay for all inbound visitors" and "average daily expenditure per visitor" in that quarter. The investigation was suspended in the second quarter (April-June) due to the strict border strict border controls measures on the epidemic. This investigation considering the characteristic of "stay nights" that best reflects the visitors expenditure of the quarter, hence we used the average daily expenditure per visitor of the survey sample from July to September of 2020, with the number of stay nights in "31-60 nights", which is US\$71.16, to impute the average daily expenditure per visitor of the second quarter of 2020.
 - 3. In 2020, the "average daily expenditure per visitor" cannot be estimated. It is due to the estimation of the total annual amount of visitors expenditure" in 2020 is the summation of the quartly amount of visitors expenditure in each quarter of 2020, and it is impossible to calculate the annual average daily expenditure per visitor through reverse calculation. This phenomenon is similar to the Simpson Paradox: different conclusions can be drawn from different angles such as the whole or the details of the same data. Further investigation, it may be due to the large difference between the percentage of visitors in the first quarter (91%) and the sum of the percentage of visitors in the second, third, and fourth quarters (only 9% in total).
 - 4. The formula for calculating "total annual amount of visitors expenditure (million NTD)" in 2020 is the summation of the quartly amount of visitors expenditure in each quarter of 2020. The calculation formula of "total annual amount of visitors expenditure (million NTD)" in 2019 and 2018 is " $(6)=(1)\times(2)\times(3)\times(5)\div1,000,000,000$ ".
 - 5. The data source of "number of inbound visitors" and "average length of stay for all inbound visitors" is the National Immigration Agency, Ministry of the Interior, R.O.C.(Taiwan). The calculation of "average length of stay for all inbound visitors" is based on the number of stay nights from 1 to 90.
 - 6. The data source of the "annual average exchange rate of NTD to USD" is from the official website of the Central Bank of R.O.C.(Taiwan).

B. After the easing of border controls, the average daily expenditure of shopping details of each person of the inbound visitors was only 57% of that before the strict border controls.

In July-December 2020 (after the easing of border controls), the average amount of daily expenditure in Taiwan was US\$86.25, which was only 57% of the the average amount of daily expenditure in Taiwan (US\$152.09) in January-March 2020 (before the strict border controls). Except miscellaneous charges increased that that of January to March, the amount of the rest of the expenses items decreased than those of January to March. In July-December 2020 (after the easing of border controls), the consumption of the daily shopping expenses of visitors to Taiwan was lower than that of January to March, except for "others" (mainly epidemic prevention related commodities).

Table16 The average daily expenditure of shopping details of each person of the inbound visitors in 2020 - by the situations of border controls

Unit: USD

The situation of controls.		Total	Hotel Bills	Meals excluding hotel meals	Local transpor- tation	Entertain- ment	Miscella- neous expenses	Shopping
2020	Amount	152.09	62.19	33.58	14.54	5.20	3.92	32.66
(before the strict border controls)	Percent	100.00%	40.89%	22.08%	9.56%	3.42%	2.58%	21.47%
July-December 2020	Amount	86.25	46.55	16.04	5.86	1.53	5.65	10.62
(after the easing of border controls)	Percent	100.00%	53.97%	18.60%	6.80%	1.77%	6.55%	12.31%

Note: 1. The samples size in 2020 was 3,987, the number of samples from January to March was 2,133, and the number of samples from July to December was 1,854.

^{2.} In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls

Table17 The average daily expenditure of shopping details of each person of the inbound visitors in 2020 - by the situation of border controls.

Unit: USD

				Unit · USD
	January-M	larch 2020	July-Dece	mber 2020
Champing Dataila	(before the strict	border controls)	(after the easing of	of border controls)
Shopping Details	Amount of money	Percentage	Amount of money	Percentage
Total	32.66	100.00%	10.62	100.00%
Clothes or accessories	6.65	20.36%	<u>1.94</u>	<u>18.27%</u>
Jewelry or jade	1.74	5.33%	0.57	5.37%
Souvenirs or handicraft products	2.16	6.62%	0.32	3.01%
Cosmetics or perfumes	3.30	10.10%	1.04	9.79%
Local special products	12.88	39.44%	2.95	27.78%
Tobacco or alcohol	0.75	2.29%	0.29	2.73%
Chinese herbal medicine or health food	0.58	1.78%	0.57	5.36%
3C or electronic appliances	1.22	3.73%	0.91	8.57%
Tea	2.24	6.86%	0.72	6.78%
Others	1.14	3.49%	1.31	12.34%

Note: 1. The samples size in 2020 was 3,987, the number of samples from January to March was 2,133, and the number of samples from July to December was 1,854.

^{2.} In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls.

C. After the easing of border controls, the percentage of inbound visitors who had used the refund service was far lower than that before the strict border controls. The percentage of people who thought the refund procedures were convenient was also lower than that before the strict border controls.

In July-December 2020 (after the easing of border controls), only 1.46% of the inbound visitors had used the refund service, which was much lower than 17.67% of the inbound visitors in January-March 2020 (before the strict border controls).

In July-December 2020 (after the easing of border controls), 88.89% of inbound visitors who had used the tax refund service thoutht that the procedures were convenient, which was lower than 94.69% of inbound visitors in January-March 2020 (before the strict border controls).

Table18 The tax refund conditions for the inbound visitors in 2020 - by the situation of border controls.

Unit: %

The situation of border controls	Percentage of applied for tax refund	Percentage of thought the procedures were convenient	
January-March 2020 (before the strict border controls)	17.67		
July-December 2020 (after the easing of border controls)	1.46	88.89	

Note: In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls.

D. Before The strict border controls, and after the easing of border controls, the rate of using the mobile payment by inbound visitors was less than 10%. Before The strict border controls, The most used mobile payment platform was Alipay. After The easing of border controls, The most used mobile payment platform was Apple Pay.

In July-December 2020 (after the easing of border controls), only 7.66% of the inbound visitors used mobile payment for this trip, which was lower than the 9.10% in January-March 2020 (before the strict border controls).

After The easing of border controls (July-December 2020), the most used mobile payment platform was Apple Pay (58 persons per hundred). Before The strict border controls (January-March 2020), The most used mobile payment platform was AliPay (49 persons per hundred), followed by Apple Pay (32 persons per hundred), WeChat Pay (18 persons per hundred), etc.

Table 19 Rates of mobile payment used by inbound visitors in 2020 - by border controls

Unit: %

The situation of border controls	Perentage of using mobile payment
January-March 2020 (before the strict border controls)	9.10
July-December 2020 (after the easing of border controls)	7.66

Note: In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls.

Table 20 The mobile payment platform used by the inbound visitors in 2020 - by the situation of border controls

Unit: persons; persons per hundred

M 1 1 D	January-M		July-December 2020		
Mobile Payment	(before the strict	border controls)	(after the easing o	f border controls)	
Platform	Persons	Relative percentage	Persons	Relative percentage	
AliPay	96	49.48	4	2.82	
Apple Pay	<u>63</u>	<u>32.47</u>	82	57.75	
WeChat Pay	34	17.53	1	0.70	
LINE Pay	9	4.64	<u>23</u>	<u>16.20</u>	
Google Pay	9	4.64	16	11.27	
JKOSPay	2	1.03	10	7.04	
Taiwan Pay	-	-	2	1.41	
Pi	-	-	1	0.70	
Others	13	6.70	21	14.79	

Note: 1. This question is a multiple choice question, which has been added since 2019.

^{2.} The figure was calculated from the sample that excluding those who were not surfed the mobile payment for this trip.

^{3.} Others include "Samsung Pay", "YouTrip" and "Easycard" etc.

^{4.} In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls.

V. Analysis of the Inbound Visitors' Satisfaction

A. Before the strict border controls, and after the easing of border controls, a total of 96% of the inbound visitors were satisfied with their overall experience in Taiwan.

In July-December in 2020 (after the easing of border controls), the satisfaction of "efficiency of applying for a visa" (average 3.66) was significantly lower than that in January-March 2020 (before the strict border controls). The average satisfaction scores for the remaining items and all the items in January-March 2020 are all greater than 4.00, indicating that the interviewed vistorrs tended to be satisfied in three major aspects: "tourism convenience", "environment internationalization" and "environmental safety". Between January-March and July-December 2020, more than 96% of the inbound visitors were satisfied with their overall experience in Taiwan.

Table 21 The overall satisfaction of the inbound visitors during this trip to Taiwan in 2020 - by the situation of border controls.

Item		(before	Iarch 2020 the strict controls)	July-December 2020 (after the easing of border controls)	
		Mean	Standard Deviation	Mean	Standard Deviation
	Efficiency of applying for a visa	4.35	0.81	3.66	0.94
e	International transportation to Taiwan (Ease of obtaining tickets, flight times, etc.)	4.50	0.64	4.17	0.87
nien	Communication facilities (Int'l public telephone, Internet)	4.36	0.74	4.23	0.76
Convenience	Free Wi-Fi	4.15	0.86	4.03	0.98
0	Access to tourist information	4.40	0.66	4.34	0.70
	Local transportation	4.47	0.63	4.33	0.64
	Communication facilities	4.35	0.74	4.33	0.77
	Customs procedures	4.40	0.70	4.38	0.70
ent ization	Clearness of road signs and public	4.33	0.76	4.22	0.79
Environment Internationalization	Access to services in language	4.29	0.81	4.32	0.80
E _j	Friendliness of Taiwan people	4.66	0.55	4.59	0.58
	Safety of recreational facilities	4.57	0.56	4.39	0.63
>	Safety of social environments	4.60	0.54	4.44	0.62
Safety	Safety of accommodation facilities	4.58	0.55	4.46	0.59
	Good public environmental hygiene	4.36	0.73	4.31	0.69
	Good food hygiene	4.30	0.74	4.21	0.70
Overall	Overall satisfaction	4.52	0.55	4.34	0.55

Note: 1. Likert 5 point scale: 1=very poor, 2=poor, 3=fair, 4=good, 5=excellent.

^{2.} In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls.

B. Before the strict border controls, a total of 99% of the inbound visitors were willing to revisit Taiwan, the likely purpose of their next trip would be sightseeing. A total of 99% of the inbound visitors will recommend relatives and friends to visit Taiwan. After the easing of border controls, a total of 99% of the inbound visitors were willing to revisit Taiwan, the likely purpose of their next trip would be visiting relatives/friends and business needs. A total of 97% of the inbound visitors will recommend relatives and friends to visit Taiwan.

In January-March 2020 (before the strict border controls), a total of 99% of the inbound visitors said they were willing to come back to Taiwan. The main purpose of their next trip would be sightseeing (76.47%). A total of 99% of the inbound visitors will recommend relatives and friends to visit Taiwan.

In July-December in 2020 (after the easing of border controls), a total of 99% of the inbound visitors said they were willing to come back to Taiwan. The main purpose of their next trip would be visit relatives/friends (55.37%), and business (30.75%). A total of 97% of the inbound visitors will recommend relatives and friends to visit Taiwan.

Table 22 The percentage of the inbound visitors of 2020 to revisit Taiwan - by the situation of border controls

Unit: %

The situation of border controls	Percentage of visiting Taiwan again
January-March 2020 (before the strict border controls)	99.20
July-December 2020 (after the easing of border controls)	99.46

Note: In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls.

Table 23 The main purpose of the inbound visitors of 2020 to revisit Taiwan - by the situation of border controls

Unit: %

The situation of border controls	Total	Sight- seeing	Business	Inter- national confer- ence/ exhibition	Visit relatives/ friends	Studies	Medical Treat- ment	Others
January-March 2020 (before the strict border controls)	100.00	76.47	6.52	0.24	15.78	0.43	0.28	0.28
July-December 2020 (after the easing of border controls)	100.00	10.25	30.75	0.22	55.37	0.87	0.76	1.79

Note: In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls.

Table 24 The willingness of the inbound visitors to recommend friends or relatives to visit Taiwan in 2020 - by the situation of border controls

Unit: %

The situation of border controls	Percentage of the inbound visitors to recommend friends or relatives to visit Taiwan		
January-March 2020 (before the strict border controls)	98.64		
July-December 2020 (after the easing of border controls)	97.36		

Note: In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls.

C. Before the strict border controls, Taiwan's "gourmet food", "tourist spots", "night markets sightseeing" were the top 3 most impressive parts of Taiwan for inbound visitors. After the easing of border controls, Taiwan's "gourmet food", "local friendliness and hospitality", "convenience stores" were the top 3 most impressive parts of Taiwan for inbound visitors. After the easing of border controls on the epidemic, vistors are more impressed with "fruits" and "health care" than those before the strict border controls.

In January-March (before the strict border controls) and July-December in 2020 (after the easing of border controls) in 2020, the first place that the visitors were most impressed by Taiwan was "gourment food", but there was a big difference between the second and the third place. Before the the strict controls (January-March), the second place was "tourist spots", the third place was "night markets sightseeing". After the easing of border controls (July-December), the second place was "local friendliness and hospitality", and the third place was "convenience stores". In addition, the relative percentage of the two items of

"fruit" and "health care" items in July-December was much higher than that in January-March.

Table 25 Ranking of the deepest impression of Taiwan as thought of by inbound visitors in 2020 - by the situation of border controls

Unit: persons; persons per hundred

Oint. persons, persons per nundred						
Item	January-M		July-December 2020			
	(before the strict	· · · · · · · · · · · · · · · · · · ·	(after the easing of border controls)			
	Persons	Relative percentage	Persons	Relative percentage		
Gourmet food	1,196	56.07	960	51.78		
Tourist spots	<u>1,010</u>	47.35	277	14.94		
Night markets sightseeing Local friendliness	870 734	40.79	313	16.88		
and hospitality	/34	34.41	<u>752</u>	<u>40.56</u>		
Historical relics	555	26.02	94	5.07		
Coastal view	496	23.25	232	12.51		
Convenience stores	381	17.86	473	25.51		
Fruits	291	13.64	430	23.19		
Hot springs	271	12.71	112	6.04		
Famous local products	247	11.58	91	4.91		
Temple	239	11.20	86	4.64		
Night life	216	10.13	81	4.37		
Book stores	86	4.03	97	5.23		
Health Care	64	3.00	198	10.68		
Cycling fun	64	3.00	28	1.51		
Aboriginal culture	57	2.67	19	1.02		
The accommodation experience	35	1.64	23	1.24		
Festival activities	26	1.22	11	0.59		
Others	124	5.81	240	12.94		

Note: 1. Visitors interviewed were allowed to choose more than one item in this question.

^{2.} In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls.

^{3. &}quot;Others" includes epidemic prevention done well, convenient local transportation, good service attitude, low price, clean environment, presidential election atmosphere, etc.

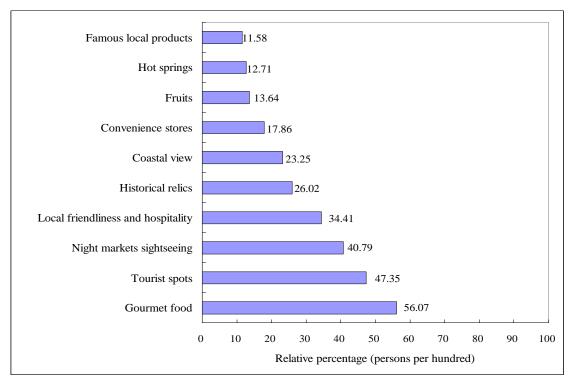


Figure 3 The top 10 deepest impressions of Taiwan as thought of by inbound visitors in January-March 2020 (before strict border controls)

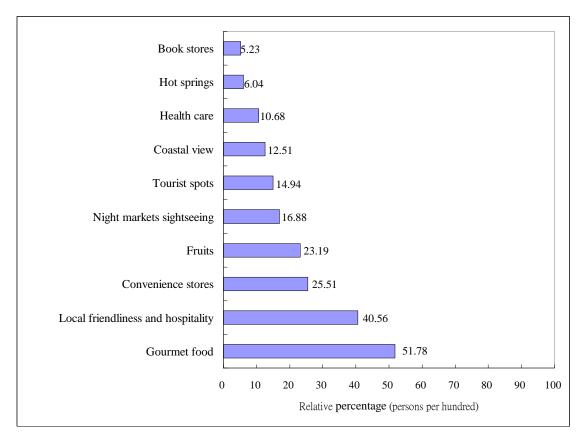


Figure 4 The top 10 deepest impressions of Taiwan as thought of by inbound visitors in July-December 2020 (after the easing of border controls)

D. Before strict border controls The overall satisfaction of the inbound visitors for their accommodation for hotel is 88%, and 76% for guest houses (or B&B). After the easing of border controls, the overall satisfaction of the inbound visitors for their accommodation for hotel is 79%, and 77% for guest houses (or B&B).

In January-March 2020 (before the strict border controls), the main accommodation for the inbound visitors was a hotel (72 persons per hundred). The rating of the hotel tends to be "very satisfied" (41.49%) and "satisfied" (46.28%). The second accommodation for the inbound visitors was a The home of relatives or friends (22 persons per hundred). The third accommodation for the inbound visitors was a Guest house(or B&B) (16 persons per hundred). The rating of the guest houses(or B&B) tends to be "very satisfied" (31.09%) and "satisfied" (44.87%).

In July-December in 2020 (after the easing of border controls), the main accommodation for the inbound visitors was a hotel (70 persons per hundred). The rating of the hotel tends to be "very satisfied" (31.05%) and "satisfied" (47.73%). The second accommodation for the inbound visitors was a The home of relatives or friends (58 persons per hundred). The third accommodation for the inbound visitors was a Guest house(or B&B) (6 persons per hundred). The rating of the guest houses(or B&B) tends to be "very satisfied" (36.94%) and "satisfied" (40.54%).

E. Before strict border controls, over 82% of the inbound visitors were satisfied with the means of local transportation in Taiwan. After the easing of border controls, over 85% of the inbound visitors were satisfied with the means of local transportation in Taiwan.

In January-March 2020 (before the strict border controls), the inbound visitors trend toward satisfied with the means of local transportation in Taiwan (all above 82%, except the airplane with too small sample size), the ranking of satisfaction from high to low was: Uber, MRT, High speed rail, Train, Coach, Public bicycles, Ferry, Car rental, Taxi, and Bus (includes Taiwan tourist shuttle bus, Double decker sightseeing bus, etc.)

In July-December in 2020 (after the easing of border controls), the inbound visitors trend toward satisfied with the means of local transportation in Taiwan

(all above 85%, except the coach and airplane with too small sample size), the ranking of satisfaction from high to low was: ,Public bicycles ,Uber, High speed rail, MRT , Car rental, Taxi, Train, Bus (includes Taiwan tourist shuttle bus, Double decker sightseeing bus, etc.) and Ferry.

F. Before strict border controls, a total of 95% of the inbound tour group visitors were satisfied with their overall impressions of the travel agencies and the services of the tour guides.

In January-March 2020 (before the strict border controls), a total of 95% of the inbound tour group visitors trend toward satisfing with travel agencies and the services of the tour guides, whose ranking of satisfaction from high to low was: "the tour guide's ability to handle emergencies", "professionalism of the tour guides", "the tour guides' integral service performances", "transportation (including driver services)", "itinerary", "accommodation", and "meals."

G. Before the strict border controls, the most improtant reasons why the vistors interviewed still chose to come to Taiwan when the Covid 19 was spreading globally were "Taiwan's COVID-19 situation is not serious" and "having confidence in the Taiwanese government's and the people's anti-epidemic measures," followed by "tourism itinerary has been arranged." After the easing of border controls, the most common cause was "visiting friends or relatives," followed by "business needs."

In March 2020 (before the strict border controls), the reasons why the vistors interviewed still chose to come to Taiwan when the Covid 19 was spreading globally were "Taiwan's COVID-19 situation is not serious" and "having confidence in the Taiwanese government's and the people's anti-epidemic measures" (both are 39 persons per hundred), followed by "tourism itinerary has been arranged" (36 persons per hundred), "visiting friends or relatives" (35 persons per hundred), etc. In July-December in 2020 (after the easing of border controls), the reasons why the vistors interviewed still chose to come to Taiwan when the Covid 19 was spreading globally were "visiting friends or relatives" (57 persons per hundred), followed by "business needs" (34 persons per hundred), "Taiwan's COVID-19 situation is not serious" (30 persons per hundred), "having confidence in the Taiwanese government's and the people's anti-epidemic measures" (30 persons per hundred), etc.

The reasons why vistors still take this trip to Taiwan when the COVID-19 is Table26 spreading globally - by the situation of border controls

Unit: persons; persons per hundred

	Moro	h 2020	July December 2020		
			July-December 2020 (after the easing of border controls)		
Reason	Persons	Relative percentage	Persons	Relative percentage	
Taiwan's COVID-19 situation is not serious	223	39.47	564	30.42	
Having confidence in the Taiwanese government's and the people's anti-epidemic measures	222	39.29	550	29.67	
Tourism itinerary has been arranged	205	36.28	48	2.59	
Business needs	63	11.15	<u>639</u>	<u>34.47</u>	
Participating in international conferences or exhibitions	-	-	13	0.70	
Visiting friends or relatives	196	34.69	1,058	57.07	
Scheduled medical treatment	4	0.71	55	2.97	
Others	44	7.79	277	14.94	

Note: 1. This question is a multiple-choice question, which has been added since March, 2020.

 [&]quot;-" means there is no survey sample.
 In the second quarter (April-June) of 2020, the investigation was suspended due to the strict border controls

^{4. &}quot;Others" includes private affairs, funeral, get a residence permit, apply for a residence permit, family members are critically ill, the global epidemic was not serious when I came to Taiwan, adopt a child, Like Taiwan, etc.

VI. Analysis of Basic Information of the Inbound Visitors

A. Before the border controls of the epidemic, there were more women than men interviewed; after the border controls of the epidemic was relaxed, more men than women were interviewed.

In January-March 2020 (before the strict border controls), women (51.01%) were more than men (48.99%). In July-December 2020 (after the easing of border controls), the number of vistors surveyed was men (58.68%) more than women (41.32%).

B. Before the strict border controls of the epidemic, the average age of the interviewed vistors was about 38 years old; after the easing of border controls on the epidemic, the average age of the interviewed vistors was about 51 years old.

In January-March 2020 (before the strict border controls), the most vistors interviewed were 30-39 years old (accounting for 30.33%), followed by 20-29 years old (27.19%); the average age was 38.30 years old, and the standard error is 0.21 years old.

In July-December 2020 (after the easing of border controls), the most vistors interviewed were 30-39 years old (24.97%), followed by 50-59 years old (21.41%); average age was 51.08 years old, and the standard error is 0.17 years old.

C. Before and after the strict border controls, the occupation of the interviewed visitors were mainly professionals.

In January-March 2020 (before the strict border controls), the main occupation of the inbound visitors was professionals (32.35%), followed by legislators, senior officials and managers (12.38%), and service and sales workers (12.28%).

In July-December 2020 (after the easing of border controls), the main occupation of the inbound visitors was professionals (31.50%), followed by legislators, senior officials and managers (22.28%), and retirees (13.48%).

D. Before the strict border controls, the annual income of the interviewed visitors was mostly no fixed income, US\$40,000-69,999 and US\$30,000-39,999, with an average annual income of approximately US\$37,457. After the easing of border controls, the annual income of the interviewed tourists is mostly no fixed income, more than US\$100,000 and US\$40,000-69,999, with an average annual income about US\$76,395.

In January-March 2020 (before the strict border controls), the annual income of the visitors surveyed was unfixed income, accounting for 28.69%, followed by 40,000-69,999 US dollars, accounting for 15.75%, and third, 30,000-39,999 US dollars, accounting 14.91%, the average annual income is approximately US\$37,457.

In July-December 2020 (after the easing of border controls), those inbound visitors with "no fixed income", annual income "more than US\$100,000 and US\$40,999-69,999", were the three major categories which made up 44.12%, 16.34% and 13.70% of those inbound visitors, respectively. The average annual income is approximately US\$76,395.

VII. Analysis Findings

- 1. Affected by the coronavirus pneumonia epidemic, the number of inbound visitors in 2020 dropped sharply, a decrease of 88.39% compared with the previous year. In 2020, visitors to Taiwan, there were fewer females than males in the whole year except January. In the same year, the number of vistors to Taiwan who stayed over 90 nights in the second, third, and fourth quarters increased significantly. The largest number of visitors to Taiwan in each quarter of 2020 was from the New Southbound 18 countries.
- 2. In the first quarter of 2020, of the interviewed visitors to Taiwan, there were more women than men. However, the interviewed proportion of women in the third and fourth quarters was significantly lower than that of men. In the first quarter, by the place of residence of visitors, most vistors came from Japan. However, in the third and fourth quarters, most visitors came from the United States. Regarding the main purpose of vistors visiting Taiwan in the first quarter is for sightseeing, and the third and fourth quarters were for visiting friends or relatives. With reference to the "length of stay (nights)", most visitors stayed under 30 nights in the first quarter, whereas, most vistors in third and fourth quarters stayed 31-90 nights.
- 3. In 2020, the total expenditure of the inbound visitors was US\$1.800 billion, a decrease of 87.51% compared with that of the previous year. If the sum was calculated in New Taiwan dollars, it would be equivalent to NT\$53.934 billion, a decrease of 87.90% compared with that of the previous year.
- 4. In the first quarter of 2020, the average daily expenditure per visitor of inbound visitors decreased by 22.09% compared with the same period last year; the third quarter decreased by 58.91% compared with the same period last year, and the fourth quarter decreased by 52.98% compared with the same period last year. In the third quarter of 2020, the average daily expenditure per visitor of inbound visitors was only about 51% of that of the first quarter, and the fourth quarter was only about 59% of that of the first quarter. Of the breakdown of the average daily shopping fee per visitor in the third quarter, the amount of "Chinese herbal medicine or health food" and "others" (mainly anti-epidemic related products) increased compared with that of the first quarter, and in the fourth quarter, the shopping amount of "others" (mainly anti-epidemic related products) increased compared with that of the first

quarter.

- 5. In the first quarter of 2020, 9.10% of the interviewed vistors used mobile payment, and Alipay was the most used platform, followed by Apple Pay. In the third quarter, 9.19% of the interviewed vistors used mobile payment, and Apple Pay was the most used platform, followed by Line Pay. In the fourth quarter, 7.01% of the interviewed vistors used mobile payment, and Apple Pay was the most used platform, followed by Line Pay.
- 6. The average daily expenditure per visitor of male visitors in the first, third and fourth quarters of 2020 was higher than that of female visitors, while women preferred to shop. The average daily expenditure per visitor in the first quarter of 2020 increased with the higher annual income.
- 7. Both in January-March 2020 (before the strict border controls measures on the epidemic) and in July-December 2020 (after the easing of border controls measures on the epidemic), the top three popular attractions of the interviewed vistors were night markets, Taipei 101, and Ximending. In January-March 2020 (before the strict border controls measures on the epidemic), the favorite scenic spot for the inbound visitors was Sun Moon Lake, followed by, Jiufen. In July-December 2020 (after the easing of border controls measures on the epidemic), the favorite scenic spot for the inbound visitors was Taipei 101, followed by, night markets.
- 8. In July-December 2020 (after the easing of border controls measures on the epidemic), of the activities that interviewed vistors were interested in, significantly higher than those in January-March 2020 (before the strict border controls measures on the epidemic), were "health care", "massage or acupressure"; the activities that have been significantly reduced were "night markets sightseeing", "historical relics sightseeing" and "exhibitions".
- 9. In July-December 2020 (after the easing of border controls measures on the epidemic), of the items that interviewed vistors had an impression of Taiwan, significantly higher than those in January-March 2020 (before the strict border controls measures on the epidemic), were "fruits", "health care", "convenience stores" and "local friendliness and hospitality"; the items that have been reduced more were "tourist spots", "night markets sightseeing", "historical relics" and "coastal view".

- 10. Both in January-March 2020 (before the strict border controls measures on the epidemic) and in July-December 2020 (after the easing of border controls measures on the epidemic), the overall satisfaction level of the inbound visitors with their experience in Taiwan was over 96%, and the willingness to revisit Taiwan reached 99%. The willingness to recommend relatives and friends to visit Taiwan has reached more than 96%; they were all inclined to be satisfied with the various modes of transportation in Taiwan.
- 11. In March 2020 (before the strict border controls measures on the epidemic), when the new coronavirus pneumonia epidemic spread globally, the major reasons why vistors still chose to visit Taiwan were "Taiwan's COVID-19 situation was not serious" and "having confidence in the Taiwanese government's and the people's anti-epidemic measures", followed by "tourism itinerary has been arranged" and "visiting friends or relatives" in order. In July-December (after the strict border controls measures on the epidemic was relaxed), "visiting friends or relatives" was the most common, followed by "business needs", "Taiwan's COVID-19 situation is not serious", and "having confidence in the Taiwan's government and the people's anti-epidemic measures."
- 12. In January-March 2020 (before the strict border controls measures on the epidemic), the main factors for attracting vistors to visit Taiwan for sightseeing were "gourmet foods or delicious snacks" and "scenery." The internet (including social networking service) still had the highest reaches of tourism advertisements or travel reports in Taiwan. The word-of-mouth recommendations from friends or relatives and the internet (including social networking service) could most influence vistors' decision to visit Taiwan.