

## THE STUDY ON THE CRISIS MANAGEMENT PRACTICE OF TRAVEL AGENCIES DURING THE PERIOD OF COVID-19 PANDEMIC

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### Abstract

*The main purpose of this paper is to study the impact of travel agencies' crisis management practices on willingness of employee retention and business operations during the COVID-19 outbreak. The results of the study found that there are significant differences in the different statistical variables on crisis management practice and the effect of crisis management practice. Secondly, crisis management practices have a positive impact on employees' willingness to stay. Third, crisis management practices have a positive impact on business operations. Fourth, the talent management, labor force and cost control included in the crisis management practice have a positive impact on willingness of employee retention and business operation.*

**Keywords:** COVID-19, travel agency, crisis management practice, employees' willingness to stay, business operation

### Introduction

Since the outbreak of COVID-19 on December 31, 2019. The world faces unprecedented fear, but Taiwan has the experience of successfully handling the 2003 SARS virus crisis. At the end of January 2020, the Taiwan government urgently ordered a complete ban on aircraft from mainland China entering Taiwan, effectively preventing the entry of the new crown pneumonia virus into Taiwan.

In Europe, the United States and other countries, the terrible incident of human-to-human transmission of the new coronavirus has been rapidly spreading. Travel agencies are faced with the problem of group departures. People are afraid to go abroad by plane. Fear of being infected with the virus. The global mortality rate has continued to rise until now, and travel agencies have encountered force majeure factors. Airlines and tourism operators have fully activated the crisis management mechanism.

The 2020 novel coronavirus pneumonia virus (COVID-19) swept the world, and the tourism industry around the world was hit hard. According to a report released by the United Nations World Tourism Organization (UNWTO), the number of international tourists in 2020 will drop by more than 70% compared with 2019, the number of tourists will decrease by about 1 billion, and the loss of international tourism revenue will reach 1.1 trillion US dollars. By the end of 2020, compared with the previous year, the number of tourists visiting Taiwan showed a negative growth of 88%. Travel agencies have entered a freezing period and urgently need to start crisis management contingency plans. Travel agencies have switched to the deployment of domestic tourism. According to statistics from the Tourism Bureau of the Ministry of Transportation of Taiwan, before the epidemic in early January 2020, the number of employees in travel agencies in Taiwan was 42,859, but the new crown pneumonia epidemic is continuing to ferment. By the end of October 2021, the number of people has decreased by 10,618. There is no sign of economic recovery, resulting in psychological anxiety. If the work performance does not reach the target, the staff will be laid off. Therefore, this article will discuss the travel agency's crisis management practice under the new crown pneumonia epidemic, employee retention and business operations.

### Literature Review

#### New Coronary Pneumonia (COVID-19)

Taiwan experienced the SARS incident in 2003, during which the virus has infected more than 8,000 people around the world. Taiwan's Peace Hospital was the first hospital to be closed because of the SARS outbreak. In the place with the largest number of deaths due to SARS in the world, Taiwan successfully fought the epidemic within a few months, ending the spread of the virus, and the Ministry of Health and Welfare of Taiwan officially designated the SARS virus as the first category of infectious diseases. According to the statistics of the World Health Organization, from November 2002 to July 31, 2003, a total of 8,096 reported severe acute respiratory syndrome (SARS) patients and 774 deaths were found in the world, among which the main infected countries are China. (5,327), Hong Kong (1,755), Taiwan (346), Canada (251) and Singapore (238). It was hit hard by the SARS epidemic. In just a few months, Taiwan's economic index, social order, tourism-related businesses, aviation industry, and medical system were severely impacted.

The new crown pneumonia epidemic continues to spread around the world, and the World Health Organization has designated Covid-19 as a global pandemic. According to statistics from Johns Hopkins University, as of April 22, 2022, the number of patients was 507 million, and the death toll was as high as

6.21 million. Taiwan has 40,186 patients and more than 1,000 deaths. As the new crown epidemic continues to spread, the Taiwan government has also made great efforts to protect the safety of Taiwanese people.

### **Tourism during the COVID-19 period**

Due to the severe outbreak of the epidemic, governments around the world have implemented anti-blocking and preventive health measures, which have caused serious economic losses. In this regard, the global scientific community has joined forces to share knowledge and support responses to the social and economic impact of the pandemic. Many academics have begun to explore different issues related to the coronavirus and tourism. WHO and the World Tourism Organization began to collaborate to better understand the impact of the virus epidemic on human health, the economy and tourism (Wttc, 2019).

According to the statistics of the World Tourism Organization (UNWTO), as of June 2020, the number of cross-border tourists in the world has declined by 65% compared with the same period in 2019, the Asia-Pacific region has declined by 72%, and Northeast Asia has the worst decline of 83% (UNWTO, 2020). Tourism in Taiwan in 2020 declined by 82% compared to the same period in 2019. Due to the new crown pneumonia epidemic, the Taiwan government has successively issued warning notices to the public, prohibiting people from traveling abroad, and entering personnel must be strictly controlled and quarantined for 14 days to prevent the spread of the epidemic. Because people are afraid to travel abroad, the number of people leaving and entering Taiwan airports has dropped significantly since February 2020.

According to the WTTC Travel and Tourism Economic Impact & Trends report, the global tourism and tourism GDP was 10.4% (\$9.17 trillion) in 2019 and 5.5% (\$4.671 trillion) in 2020, due to a 49.1% decrease (a decrease of 4.5 trillion U.S. dollars) due to the epidemic. Dollar). In 2019, 334 million jobs in the global travel and tourism industry accounted for one-tenth of global jobs, and in 2020, only 272 million accounted for one-eleventh of global jobs. Taiwan is also unavoidable in this wave. Taking several large travel agencies in Taiwan as an example, the largest travel agency, Lion Travel Company, has a negative annual growth rate of 63.08% in cumulative revenue in 2020, and a negative annual growth rate of 80.02% in 2021. Although after the outbreak of the epidemic, it actively invested in the living industry and designed high-value domestic tourism, but due to the factors of the Taiwan government policy, it was unable to continue to have stable revenue. Another large travel agency, Phoenix Travel Company, has a negative growth of 63.65% in cumulative revenue in 2020, and a negative growth of 88.90% in cumulative revenue in 2021. Wufu Travel Company, a well-known travel agency in Taiwan, has a negative growth of 67.74% in cumulative revenue in 2020, and a negative growth of 91.95% in cumulative revenue in 2021. The higher-priced travel agency, Shanfu Travel Company, will experience a negative growth of 66.06% in cumulative revenue in 2020, and a negative annual growth of 84.05% in cumulative revenue in 2021. For Canxing Travel Company, has a negative growth of 85.47% in cumulative revenue in 2020, and a negative growth of 83.2% in cumulative revenue in 2021.

Tourism industries are usually highly adaptive and self-reliant organizations (Carruthers, 2020), however under the impact of external crises, they need institutional (government) assistance (Lu et al., 2020). In the first phase, the Taiwanese government has implemented a number of measures, including helping small and medium-sized enterprises with short-term funding problems, work problems, and supporting families in financial distress. For example, the Tourism Bureau of the Ministry of Transportation of Taiwan has proposed various relief measures to help the tourism industry overcome the difficulties of the epidemic. However, the relief funds and the exemption of taxes from various travel agencies are still unable to pay the personnel costs and various expenses of the travel agencies. The deficits on the books of each company continued to widen. The next question of survival for the tourism industry will depend on how the crisis is handled and how it adapts to changes in the economic and social environment.

### **Crisis management**

Crisis has been basically defined in many literatures. Pearson and Clair (1998) define a crisis as a low-probability, high-impact situation that key stakeholders perceive as threatening the viability of an organization. Beirman (2011) defines a crisis as an event or series of situations that may damage the reputation and marketability of a tourism business. Williams (2017) defines a crisis as a process that may ultimately lead to events that disrupt the normal functioning of the participants. From the above literature, this paper defines a crisis as a major threat to business operations, which may have negative consequences if not handled properly. In crisis management, a threat is the potential damage to an organization, stakeholders, and industry. A crisis has three related threats, namely public safety, economic loss, and reputational loss. Dilenschneider (2000) points out in the corporate communication bible that all crises have the potential to cause damage to some extent.

The travel industry is extremely sensitive to crisis situations, and even a mild negative event can severely impact travel and lead to a travel company's financial performance. Major crises in the tourism industry are often caused by external factors and may lead to the development of further crisis situations. According to Alonso-Almeida et al. (2015), the concept of crisis management consists of three main areas, including crisis identification, active and passive crisis management strategies, where active strategies are preventive measures and are related to strengthening the operational efficiency of a company; Passive crisis

management strategies are temporary and uncertain management responses to environmental changes, mainly immediate cost reduction measures.

As in the crisis management literature in general, the literature does not have a specific definition of tourism crisis. Santana (2004) concluded, as the term of tourism crisis has multiple definitions (Beirman, 2003; Faulker, 2001; Glaesser, 2003; Henderson, 2007; Ritchie, 2004). However, a more comprehensive definition can be provided by Sönmez, Backman and Allen (1994), which states that any event that may threaten the normal operation of tourism-related business and related events is called a tourism crisis. In addition, studies have pointed out (Sönmez et al., 1994) that the tourism crisis can be explained by tourists having a negative perception of the destination and damage to the overall reputation of the destination in terms of safety, attractiveness and comfort, and the reduction in consumer spending will lead to a downturn in the local tourism economy that may disrupt the business operations of the local tourism industry. The COVID-19 outbreak has halted all tourism activities and created a major crisis for the global travel industry. In this uncertain environment, it is difficult to predict the development of any potential further crisis situations, as there is no historical trajectory to follow, as all other global crises of the last century were caused by other causes (e.g. natural disasters, economics, etc.). Although it is difficult to differentiate crisis management activities because crises caused by the environment and crises caused by viruses are not the same, appropriate crisis recovery strategies must be based on knowledge and experience in the previous literature on crisis management. The environmental crisis mainly causes major damage to infrastructure, while the epidemic crisis caused by the virus will cause greater social and economic damage and a more lasting impact (Lu et al., 2020).

### **Crisis management practice in tourism**

There are four well-defined research types in the field of tourism crisis management. The first type of studies focused on the impact of the crisis on tourism, such as Mihalic (1999) studying the impact of the war on Yugoslav tourism, and Henderson (1999a, 1999b, 1999) evaluating the impact of the Asian financial crisis on tourism. The second type of studies focuses on the recovery aspects of crisis management, rebuilding the image of the destination through appropriate crisis communication and marketing programs (Beirman, 2003; Fall, 2004; Fall & Massey, 2006; Frisby, 2002), and through implement specific business recovery strategies to rebuild confidence in destination tourism (Anderson, 2006; Leung & Lam, 2004; Litvin & Alderson, 2003). A third types of studies highlight the importance of the pre-crisis phase and argues that destinations all need to understand the causes and consequences of previous crises in order to plan and prepare for future crises. Foot and Mouth Disease (FMD) and Severe Acute Respiratory Syndrome (SARS), for example, have affected tourism not only in the UK, Southeast Asia and Canada, but globally (Coles, 2003; Henderson, 2004; Kim, Chun, & Lee, 2005; McKercher & Chon, 2004; Sharpley & Craven, 2001). Research on these crises has focused on assessing the industry's response and identifying crisis management for use in similar situations in the future (Armstrong, 2005; Henderson, 2003a, Henderson, 2003b; Henderson, 2004). Scholars in the field believe it is crucial to learn from past crises. Although learning crisis management experience from past crises can be used as a reference for facing crises in the future, relevant research does not propose an overall crisis management plan. The last types of studies integrates existing general crisis knowledge and proposes concise strategies, models and frameworks for crisis management in the tourism industry (Faulkner, 2001; Glaesser, 2003; Ritchie, 2004).

The crisis management literature on tourism has focused on general guidelines on how to respond to different crisis situations in tourism destinations and businesses (Seraphin, 2019). In fact, there are also more specific research on crisis management practices, such as Kimes (2009) who investigated the practice of hotel revenue management during bad economic times. From his analysis, it shows that the crisis is global, regardless of facility type, brand or service, etc. There are no major differences between items, hotels. In contrast, Kapiki (2011) analyzed the impact of the global financial crisis on the Greek tourism and hospitality industry and found that the recession caused serious problems for luxury hotels. This result confirms the findings of Hampson and McGoldrick (2017), who investigated the shopping patterns of customers during recessions and found that customers are more demanding, more knowledgeable, and more concerned about buying more than they deserve during recessions value. Likewise, Alonso-Almeida and Bremser (2013) point out that, in addition to brand image and efficiency performance, the best way to deal with an economic crisis is to build a large and loyal customer base, as loyal guests can positively impact hospitality companies during a crisis and subsequent financial performance. Azabagaoglu and Oraman (2011) show that although shopping patterns have changed during the recession, customers prefer well-known premium brands and have high loyalty.

During a recession, the travel industry's most common response is to cut costs. Smallbone et al. (2012) studied the response of UK and New Zealand SMEs to the global financial crisis and found that they responded by reducing costs and thoroughly implemented crisis management practices. Another cost-cutting approach is the labor force, and McCool (2012) emphasizes the importance of employees to the hospitality industry and recommends strengthening other practices such as business competitiveness and cuts in areas other than labor. Campiron and Scott (2014) identified the key success factors for hotel crisis recovery management in Thailand after the global financial crisis, and the results suggested that hoteliers should adopt

the following programs, including developing crisis management plans, crisis market segmentation, strengthening marketing promotion and staff management plans. Radwan (2017) thoroughly analyzed the Egyptian hotel industry's response to the global financial crisis and compiled a list of 32 crisis management practices for hotel business management during the crisis, focusing on cost control, labor force, talent management, etc. Based on the above literature review, this paper discusses the crisis management practices (including talent management, labor force, and cost control) and the impact of crisis management practices in the domestic tourism industry.

### **The impact of crisis management practices on business operations**

In order to continue to operate, companies must adopt a relative plan in the face of crisis, which may have major changes as a whole, including the organization's mission, goals, structure, and corporate culture. This is multi-faceted, multi-level, qualitative, discontinuous, and logically jumping organizational change (Lavy & Merry, 1988). In addition, Bibeault's (1982) research results show that there are three important key success factors affecting enterprises, including people (There are people aspects), complete competition (There are the business aspects of total competitiveness), and appropriate disclosure of financial resources (Adequate bridge financing)..

Hamel and Prahalad (1994) pointed out that enterprises face the influence of competition and need to re-establish the core strategy of enterprises and change the rules of industry competition. When enterprises face important changes in the operating environment and their own operating conditions deteriorate, in order to break through the bottleneck of operation and maintain sustainable operation, tourism crisis management should take the organization's human resources as a crisis management plan and promote it (Christof Pforr, 2008). According to the MIT Sloan School of Management study on business transformation and sustainability, two-thirds of the 4.700 respondents agreed that the sustainability of business transformations is critical to competitiveness, and nearly a quarter agreed that the sustainability of business transformation is part of long-term development (Kiron et al, 2012). In addition, not only the resources and emerging social issues, but also the expectations of the company's stakeholders (such as customers, investors, employees, suppliers or society) can increase the pressure on companies to transform sustainable issues into their business. Companies need to address these challenges in order to benefit from the transformative forces of transformational development, making sustainability a key success factor (Hahn and Scheermesser 2006). Therefore, the sustainability of transformation needs to be integrated into the core business, namely business strategy, operating model, and value-generating processes and products (Porter and Kramer 2006). Looking at the opinions of the above scholars, the travel industry is facing the factors of the continuing epidemic. The company must have the ability to deal with emergencies and develop effective response strategies, and make the best use of experienced talents, so that the company can continue to be sustainable. Therefore, this study establishes the first hypothesis as follows:

H1 : There is a positive effect between crisis management practices and business operations

H1a: There is a positive effect between talent management in crisis management practices and business operations.

H1b: There is a positive effect between labor force in crisis management practices and business operations.

H1c: There is a positive effect between cost control in crisis management practices and business operations.

### **The willingness of employee retention**

Dictionary by Merriam-Webster defines retain as the continuation of an employee in the same position or in the same position, while intent refers to a decision made by the heart. Abelson (1986) pointed out that the willingness to stay refers to the process of people deciding whether to continue working in the same company, and the process will be affected by factors such as population, environment and economy. Tett & Meyer (1993) defined the willingness to stay as the willingness of employees to continue to work in an organization after careful consideration.

Genevieve (1990) distinguishes between organizational retention and professional retention according to the object of retention. Organization retention refers to workers who continue to work in the same organization, while professional retention refers to workers who continue to work in the same company's professional field and continue their work. Personal professional development. Robbins (1993) divides retention into voluntary retention and involuntary retention according to the autonomy of retention. Voluntary retention means that the worker has free will and can choose to stay in the original organization or company to continue working, while involuntary retention means that the worker is bound by external forces and must choose to stay in the original organization; for example: the worker signs a contract with the employer Standardize not to resign within a certain number of years of service; obligations to perform duties according to law, such as professional soldiers, government officials, etc. In addition, there is a distinction based on the functional impact of retention (Dalton, Todor, & Krackhardt, 1982), which is divided into functional retention and non-functional retention. Functional retention refers to a worker's performance rating and development potential. It is an important human capital for an organization or company to do its best to adjust its strategy or system to retain this employee in the organization. Every industry values business talents, especially the business units of travel agencies. The company hopes to keep excellent business

personnel in the company, so that the company's revenue and employees can achieve a win-win situation. Non-functional retention means that when a worker's performance and ratings are not good, they can only choose to stay in the original organization, because the worker is afraid that after leaving the original organization, he will not find a better job and will not work hard. , thus leading to a decrease in the overall efficiency of the organization.

Max Messmer (2006) explores professional talent within a company, arguing that retention rates in the current environment are largely determined by four key drivers of job satisfaction, including compensation and benefits, work environment, career development and promotion, and balance of work and life. In addition, the leadership style within an organization can also affect the willingness of employee retention. Bernard Muhangi Wakabi (2013) proposes from a review of several empirical studies that leadership styles significantly influence employee retention desires and that organizations need to adopt leadership styles that promote employee retention. There are also scholars (Michelle De Sousa, Sabbagha, Onillia Ledimo & Nico Martin, 2018) to explore the willingness of employee retention from the perspective of job motivation and job satisfaction. The research results show that there is no significant difference between employees' work motivation and the willingness of retention, but job satisfaction has a significant difference in the willingness of employees' retention, and for the talent management of the organization, it is necessary to seek to determine the motivation and satisfaction in order to retain talented employees. Therefore, this study establishes the second hypothesis as follows:

- H2 : There is a positive effect between crisis management practices and willingness of employee retention.
- H2a: There is a positive effect between talent management in crisis management practices and willingness of employee retention.
- H2b: There is a positive effect between labor force in crisis management practices and willingness of employee retention.
- H2c: There is a positive effect between cost control in crisis management practices and willingness of employee retention.

In addition, according to the research results of Oginni, B.O, Ogunlusi, C.F and Faseyiku, I.O (2017) on the retention strategy of local private universities, employees' retention intention has a significant impact on the operation and development of the organization, therefore, this study establishes the third hypothesis as:

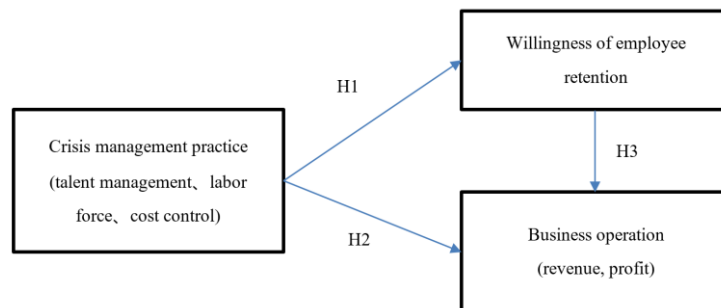
- H3: There is a positive effect between willingness of employee retention and business operations.

Where the business operations include revenue or profit.

**Methods**

**Research structure**

This study is based on the mixed methodology proposed by scholars (Arora, 2012), combined with literature review, and used online and paper questionnaires to collect original data. The crisis management practice is divided into three aspects, including talent management, labor force and cost control. The impact of crisis management practice includes two aspects, there are willingness of employee retention and business operation. All questions are positive question types. The higher the score, the higher the recognition of the question. On the contrary, the lower the score, the lower the recognition of the question. The research object is the travel agency employees who are registered with the Tourism Bureau of the Taiwan Ministry of Transportation. The research structure is shown in Figure 1.



**Figure 1. Research Structure**

Base on the research structure, the research hypothesis as follow:

- H1: There is a positive effect between crisis management practices and business operations.
- H1a: There is a positive effect between talent management in crisis management practices and business operations.
- H1b: There is a positive effect between labor force in crisis management practices and business operations.
- H1c: There is a positive effect between cost control in crisis management practices and business operations
- H2 : There is a positive effect between crisis management practices and willingness of employee retention.

- H2 : There is a positive effect between crisis management practices and willingness of employee retention.
- H2a : There is a positive effect between talent management in crisis management practices and willingness of employee retention.
- H2b: There is a positive effect between labor force in crisis management practices and willingness of employee retention.
- H2c: There is a positive effect between cost control in crisis management practices and willingness of employee retention.
- H3: There is a positive effect between willingness of employee retention and business operations.

**Questionnaire design and distribution**

This research questionnaire sets all Taiwan travel agency practitioners as the research object, and the respondents fill in the Google electronic form and paper form. The survey period is from October 3 to October 31, 2021. Based on the principle of confidentiality of personal information, the questionnaires will be filled in anonymously. A total of 310 questionnaires were distributed and returned, and 100% were effectively recovered.

**Result and Discussion**

**Description of sample characteristics**

The sample characteristics include gender, age, marriage, children, and education. The characteristics of employees include the current title, years of service, and the number of employees in the company. In terms of gender, there are 115 male respondents, accounting for 37.1%, and 195 female respondents, accounting for 62.9%. The data shows that women are more careful and cautious in the internal work of travel agencies, and the proportion is also higher than that of men. In terms of age, respondents aged 56 and above have the largest number, accounting for 18.7%, followed by 51-55 years old, accounting for 17.7%. The results show that travel agencies give priority to retaining employees with experience, strong business ability and longevity. In terms of marriage, the number of respondents who are married is the largest, accounting for 47.4%, followed by unmarried, accounting for 45.2%. It shows that most of the travel agency employees are getting married, and they are more stable in work. In terms of whether they have children, most respondents have no children, accounting for 54.8% of the respondents. It shows that the proportion of travel agency employees who have no children is relatively high even if they are married. In terms of education, among the respondents' valid questionnaires, universities are the most effective, accounting for 41%, followed by junior colleges, accounting for 31.9%, indicating the popularization of education, and the higher education level required for employment in travel agencies. In terms of job titles, the respondents with the most valid questionnaires were employees, accounting for 46.8% of the respondents, and the least respondents were middle and senior managers, accounting for 14.5% of the respondents. In terms of service experience, the respondents with more than 20 years of service are the most, accounting for 39%, and the minimum service life is less than 2 years (inclusive), accounting for 4.8%. The results show that senior employees need to consider the age of retirement and consider leaving their current jobs, and may not find higher-paying jobs. In terms of the number of employees in the company, the respondents have the largest number of employees in the company with 1-200 employees, accounting for 65.2%, followed by those with more than 1,000 employees, accounting for 22.9%, and the least 601-800 employees, accounting for 0.3%. It shows that most of the travel agencies are Type A and Type B, and their businesses are not limited by the size of the comprehensive travel agency, domestic group travel, air ticket sales and life industries. The results are shown in Table 1.

**Table 1.** Descriptive statistics of sample characteristics

Basic data variables		No. of samples	Percentage	Basic data variables		No. of samples	Percentage
<b>Gender</b>	female	195	62.9%	job titles	employee	145	46.8%
	male	115	37.1%		supervisor	53	17.1%
<b>Age</b>	under 25	12	3.9%	manager	45	14.5%	
	26-30	27	8.7%	senior manager	67	21.6%	
	31-35	21	6.8%	service experience (years)	under 2	15	4.8%
	36-40	46	14.8%		2-5	35	11.3%
	41-45	47	15.2%		5-10	63	20.3%
	46-50	44	14.2%		10-15	39	12.6%
	51-55	55	17.7%		15-20	37	11.9%
	over 56	58	18.7%		over 20	121	39.0%
<b>Marriage</b>	married	140	45.2%	number of employees	1-200	202	65.2%
	unmarried	147	47.4%		201-400	16	5.2%
	divorced	23	7.4%		401-600	6	1.9%

<b>Education</b>	under junior high school	53	17.1%	601-800	1	0.3%
	senior high school	99	31.9%	801-1000	14	4.5%
	university/college	127	41.0%	over 1000	71	22.9%
	graduate School	28	9.0%			
	others	3	1.0%			

### Reliability and validity analysis

In this study, a preliminary test was conducted first, and the Cronbach  $\alpha$  of the results were all greater than 0.9, and the reliability of the questionnaire was within the acceptable range. After the formal investigation, the factor analysis was carried out, and the explained variation amount was above 70%. In addition, the factors extracted from each aspect were consistent with the content of the operational definition of this study. Therefore, the scale of this study should have an appropriate construction validity.

### One sample t test

The results of the analysis showed no significant differences in terms of gender. In terms of children, there is no significant difference between cost control and business operation, but there are significant differences in talent management, labor force, cost control, and willingness of employee retention. It shows that practitioners with children will consider more than those without children, and it is not easy to change jobs impulsive. In terms of marriage, there are significant differences in the two aspects of talent management and willingness of employee retention, but there are no significant differences in other aspects.

### One-way analysis of variance

In this study, one-way analysis of variance was used to test the differences between the characteristics of different practitioners and variables. If the difference reaches a significant level, the Post Hoc multiple comparison method will continue to be tested to understand the difference between the variables. The test results are described as follows.

1. There was no significant difference in age.
2. In terms of education, there are significant differences between the aspect of cost control and crisis management practices. It is shown that practitioners with different educations have markedly different views on the crisis management practices and the impact of practices.
3. In terms of job titles, there are significant differences in the aspects of talent management, crisis management practices, and willingness of employee retention. It shows that practitioners at different job levels have great differences in their views on the aspect of talent management and willingness of employee retention in crisis management practices. Among them, general employees and senior executives have great differences in their views on the aspect of talent management and willingness of employee retention in crisis management practice.
4. In terms of years of service, except for the significant difference in the aspect of willingness of employee intention, there are no significant differences in other aspects, and the post test shows that employees with 5-10 years of service are different from those with 20 years of service.
5. In terms of the number of employees in the company, there is no significant difference in the aspect of cost control, but there are significant differences in the aspects of talent management, labor force, employee retention, and enterprise management.

### Correlation analysis and mediation effect test

Through Pearson's product-difference correlation analysis, this study examines whether there is a positive relationship between crisis management practices, willingness of employee retention, and business operations. The results show that the Pearson correlation coefficient between the aspect of crisis management practice and business operation is 0.691, and the significance is 0.000 ( $p < 0.05$ ). It can be inferred that crisis management practice has a positive impact on business operation. Therefore, the research hypothesis H1 is supported. The Pearson correlation coefficient between the aspect of talent management of crisis management practice and business operation is 0.713, and the significance is 0.000 ( $p < 0.05$ ). It can be inferred that the aspect of talent management of crisis management practice has a positive impact on business operation. Therefore, the study hypothesis H1a is supported. The Pearson correlation coefficient between the aspect of labor force of crisis management practice and business operation is 0.816, and the significance is 0.000 ( $p < 0.05$ ). It can be inferred that the aspect of labor force in crisis management practice has a positive impact on business operation. Therefore, the hypothesis H1b is supported. The Pearson correlation coefficient between the aspect of cost control of crisis management practice and business operation is 0.084, and the significance is 0.138 ( $p > 0.05$ ). It can be inferred that the the aspect of cost control of crisis management practice has no significant positive impact on business operation. Therefore, Research

hypothesis H1c does not supported. The Pearson correlation coefficient between the aspect of crisis management practice and willingness of employee retention is 0.691, and the significance is 0.000 ( $p < 0.05$ ). It can be inferred that crisis management practice has a positive impact on willingness of employee retention, so the research hypothesis H2 is supported. The Pearson correlation coefficient between talent management in crisis management practice and willingness of employee retention is 0.713, and the significance is 0.000 ( $p < 0.05$ ). It can be inferred that talent management in crisis management practice has a positive impact on willingness of employee retention. Therefore, the research hypothesis H2a is supported. The Pearson correlation coefficient between the labor force of crisis management practice and willingness of employee retention is 0.806, and the significance is 0.000 ( $p < 0.05$ ). Therefore, the research hypothesis H2b is supported. The Pearson correlation coefficient between the cost control of crisis management practice and willingness of employee retention is 0.122, and the significance is 0.031 ( $p < 0.05$ ). It can be inferred that the cost control of crisis management practice has a positive impact on willingness of employee retention. Therefore, the research hypothesis H2c is established.

Next, we will discuss the relationship between willingness of employee retention and business management. The Pearson correlation coefficient between willingness of employee retention and business operation is 0.781, and the significance is 0.000 ( $p < 0.05$ ). It can be inferred that willingness of employee retention is positively related to business operation. Table 2 is the summary of correlation analysis.

**Table 2.** Correlation Analysis

Research Hypothesis	Correlation Coefficient	Test Result
H1 : There is a positive effect between crisis management practices and business operations.	.656**	support
H1a : There is a positive effect between talent management in crisis management practices and business operations	.713**	support
H1b : There is a positive effect between labor force in crisis management practices and business operations.	.816**	support
H1c : There is a positive effect between cost control in crisis management practices and business operations	.084	not support
H2 : There is a positive effect between crisis management practices and willingness of employee retention.	.691**	support
H2a : There is a positive effect between crisis management practices and willingness of employee retention.	.770**	support
H2b : There is a positive effect between labor force in crisis management practices and willingness of employee retention.	.806**	support
H2c : There is a positive effect between cost control in crisis management practices and willingness of employee retention.	.122*	support
H3 : There is a positive effect between willingness of employee retention and business operation.	.781**	support

\*. Correlation is significant at the 0.05 level (two-tailed).

\*\* . At the 0.01 level (two-tailed).

Finally, it discusses whether the aspect of willingness of employee retention has a mediating effect on the relationship between the aspect of crisis management practice and business operation. Through regression analysis, with business operation as the dependent variable, crisis management practice and willingness of employee retention as independent variables, the results are as follows: with business operation as the dependent variable, crisis management practice as the independent variable, the coefficient of determination  $R^2$  of the regression model is 0.428, The standardized regression coefficient was 0.656. Taking business operation as the dependent variable and willingness of employee retention as the independent variable, the coefficient of determination  $R^2$  of the regression model is 0.609, and the standardized regression coefficient is 0.781. Taking business operation as the dependent variable, crisis management practice and willingness of employee retention as independent variables, the willingness  $R^2$  of the regression model is 0.634, and the standardized regression coefficients are 0.221 and 0.628, respectively. The relevant aggregated data are shown in Table 3. Although the standardized coefficient of willingness of employee retention decreased from 0.781 to 0.628, the decrease was not significant, but according to the research of Baron and Kenny (1986), it was shown that willingness of employee retention still had mediating effect on crisis management practice and business operation.



**Table 3.** Regression Analysis

Dependent Variable	Independent Variables	Coefficient Of Determination R <sup>2</sup>	Standardized Regression Coefficient
business operation	crisis management practice	0.428	0.656
business operation	willingness of employee retention	0.609	0.781
business operation	a.crisis management practice b.willingness of employee retention	0.634	a. 0.221 b. 0.628

### Conclusion

The pandemic has changed the way people live around the world, and it has also changed the way economies work. Since the outbreak of the new crown epidemic in late 2019, the travel industry has become the most affected group of the epidemic, and the company's business and revenue have instantly returned to zero. So far, few research reports have cared about the voice of travel industry practitioners. Therefore, this study explores the differences in the implementation of crisis management practices by the employees of travel agencies facing the crisis caused by the COVID-19 pandemic, and then to understand the employees in the travel industry regarding the implementation of crisis management practices, the willingness of employees retention, and the business operations. The results of this study are summarized as follows:

1. The impact of demographic variables on crisis management practices, with or without children, has significant differences in the aspect of talent management, labor force, cost control, and willingness of employee retention. They are more active in facing participation. The company's affairs are closely related to their own rights and interests. People with families are relatively older in age and have more mature ideas. As for different educations, there are significant differences in the practice of crisis management. According to the results of this research, the proportion of people with a college degree is as high as 41%, indicating that the education of employees in the tourism industry is moderately high, so they are very concerned about the company's crisis management practice and will work hard to fight for your own welfare. In addition to the aspect of cost control has no significant differences, but in the aspects of companies with different numbers of employees, talent management, labor force, willingness of employee retention, and business operations, there have significant differences. The results of the study show that the larger the travel agency and the larger the number of employees, the representative employees have different views on the relevant crisis management practices implemented by the company.
2. The research results show that crisis management practices have a positive impact on business operations. Talent management, labor utilization and cost control in crisis management practice also have a positive impact on business operations. This conclusion is similar to the study of Kukan ja & Planinc (2013), their findings indicate that the small and medium-sized tourism industry mainly responds to external crises by implementing labor force and cost reduction.
3. The findings also show that crisis management practices have a positive impact on the aspect of employee retention willingness. Talent management, labor force and cost control in crisis management practice also have a positive impact on willingness of employee retention. From this conclusion, it can be seen that the correct implementation of crisis management practices by enterprises has a positive impact on employee retention. As Alonso-Almeida and Bremser (2013) suggested in the travel industry research, managers should focus on improving employee competitiveness and efficiency so as to effectively assist managers in crisis management practice.

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