

Research on the Critical Point of Failure of Travel Agencies with Normal Epidemic Situation

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Abstract: The rapid spread of COVID-19 has caused great losses to China's tourism industry, especially travel agencies. In order to measure the impact of COVID-19 on travel agencies in China, this paper USES the survival analysis model to empirically study the impact of the epidemic on the survival of travel agencies in Shanghai. We will also explore the impact of coVID-19 at different times of the year. Finally, the paper puts forward relevant countermeasures for the government, travel agencies and tourists, and offers Suggestions for China's travel agencies to get rid of the predicament as soon as possible.

1. Introduction

From the perspective of several major domestic events such as SARS in 2003 and Wenchuan earthquake in 2008, it can be seen that the epidemic situation and the impact on tourism after the earthquake are huge, and the impact on tourism after the epidemic is no exception. A sudden outbreak of new pneumonia around the world, the original plan to travel and provide services to travel companies caught off guard. Under the influence of economic downturn and other factors, travel agency enterprises have encountered unprecedented difficulties in operation in recent years. After the outbreak of the epidemic, travel agencies and online travel companies across the country immediately suspended their team travel and "air ticket + hotel" travel products, according to a notice issued by the Ministry of Culture and Tourism, which made the "severe winter" travel agencies even worse. During the Spring Festival, the cultural tourism market was depressed and became a serious disaster area. Travel agencies at the forefront of the epidemic have had the greatest impact on the tourism industry. In particular, very weak small - and medium-sized travel agencies, refund increased substantially. Payments that have been made to suppliers cannot be recovered. The most to lose. Failure or bankruptcy is inevitable.

According to SASAC, flights were largely grounded during the peak travel season. From Jan. 20 to Feb. 13, the three airlines returned 13 million tickets and canceled 78,000 flights, reducing capacity and daily utilization by nearly half. The China Tourism Group has closed 30 tourist sites, 19 hotels, 113 retail outlets and all cruise ships. According to the National Bureau of Statistics, the combined contribution of tourism to GDP from 2014 to 2018 was 10.39 percent, 10.2 percent, 11.0 percent and 11.04 percent, respectively. In 2018, the comprehensive contribution of China's tourism industry to China's GDP was 9.94 trillion yuan, ranking second in the world in terms of its comprehensive contribution to global GDP. The number of jobs contributed by tourism industry was 79.91 million, ranking first in the world.

From the perspective of short-term direct impact, the first is the traffic data: The number of passenger trips in transportation channels dropped sharply. According to the data of the Ministry of Transport, from January 10 to 31, China's railways, roads, waterways and civil aviation transported a total of 1.258 billion passengers, down 20.6 percent from the same period last year. Rail passenger traffic fell by 10.7%; Passenger traffic on the road fell by 22.1%; Passengers sent by water dropped by 34.0%; Passenger traffic dropped by 14.4 percent. Second, the number of trips (New Year's Eve - the sixth day of the New Year) : if a closer look at the data during the Spring Festival Golden week

this year, the decline is greater. The Spring Festival golden week in 2019 (February 4 to February 10) seven days of travel as high as 421 million person-times, and this year's Spring Festival golden week, January 24 solstice January 30, the total number of national travel only 152 million person-times, a year-on-year drop of 63.9%[1]. From the perspective of subsequent indirect impact, from the perspective of tourism supply, the tourism industry as a whole has been affected. At present, the whole travel agency industry is in the state of unemployment, travel agencies have a comprehensive loss, small and medium-sized travel agencies are facing the closure of business; The hotel suffered suspension of business, in the short term, the rental rate fell sharply, business revenue was severely hit, many enterprises even in the basic state of closure; Flights were cancelled or grounded, severely damaging inbound tourism; Scenic spots have also been ordered to close, unable to generate revenue, and may not see an immediate rebound in passenger flow after the outbreak is over. The market value of the tourism sector fell sharply, while the shares of scenic spots, travel agencies, catering and other sub-industries fell sharply. Wages in the travel industry have been slashed. From the demand side, due to the severe situation of the epidemic, the willingness of tourists to travel has decreased sharply. In fact, before the announcement of the General Office of the Ministry of Culture and Tourism, many consumers had already taken the initiative to cancel their travel plans during and after the Spring Festival to avoid crowds and outdoor activities to the greatest extent. Therefore, at the critical moment when people across the country fight against the epidemic, the domestic tourism industry is facing a blank window period, or even an unprecedented industry crisis, and the whole industry chain will suffer huge losses[2-3].

On the whole, the epidemic will pose challenges to China's tourism industry, participants in all links of the industrial chain and international tourism cooperation, which can be summarized as income loss, coping with cash flow difficulties, dealing with the aftermath, and strengthening international cooperation[4]. In terms of lost revenue, the domestic travel market is mainly made by three periods: the Spring Festival holiday, the summer holiday and the National Day holiday. Due to the epidemic, the tourism revenue during the Spring Festival holiday has been greatly reduced, which is equal to the direct loss of one third of the income of the national tourism industry. According to an analysis of the 21st Century Business Herald by Wu Bihu, director of the Center for Tourism Research and Planning at Peking University, "If optimistic estimates of a 60 percent drop in the three-month closing period and a 30 percent drop in the three-month recovery period are calculated, the national tourism industry is expected to lose nearly 3 trillion yuan this year." In terms of cash flow, for tourism enterprises, in addition to the loss of business income, the cash flow gap is also a challenge caused by the epidemic. The cancellation of orders in a short period of time makes the cash flow of upstream suppliers, such as airlines and travel product suppliers, midstream distributors, such as travel agencies, online travel platforms, agents, etc., and even the whole industry very tight. However, if the domestic tourism market remains sluggish for more than 3 months, it means the risk of capital chain rupture. Most small and medium-sized tourism enterprises will find it difficult to maintain their operations and can only face capital chain rupture and bankruptcy[5].

2. Survival analysis related theories

2.1 Basic Concepts

Survival Analysis: Mainly studies the relationship between the occurrence time of a specific event and its influencing factors. Survival analysis solves the following problems through relevant data: estimation of survival status (survival function, risk function, residual life); Comparison of different treatments (treatments) or survival patterns; Identification of prognostic factors; Risk identification; And a prediction of future status. Survival analysis is a dynamic analysis method, which takes into account the characteristics of the occurrence probability of a particular event changing with time. At the same time, due to the introduction of time variables into the survival analysis model, it can better reflect the survival state of the object, and more intuitively reflect the relationship between risk and characteristic factors.

2.2 Survival characteristics estimation

In the absence of an appropriate model but the need to fit the theoretical distribution, we can use the non-parametric estimation method. We give the estimation of the survival function based on right erasure data. The survival function can be used to describe the univariate survival data of different groups. If the event is assumed to occur at D strictly distinguished points in time, $x_1 < x_2 < \dots < x_p$, according to the definition of survival function, if there is no case of data deletion, survival function (as a function of time X) can be estimated by the proportion of individuals whose survival time is longer than.

2.3 Variable selection method of survival data

Survival data, also known as time-of-failure data, are widely available in the fields of medicine, biology, actuarial science, reliability engineering, public health, economics and demography. A major feature of the survival data was that it was lost because some of the participants dropped out of the trial or did not finish until all the participants had died. When the dimension of survival data is very high, how to extract effective information from the high-dimensional data is the premise of our further research. Therefore, the method of variable selection is particularly important. Traditional methods of variable selection, such as AIC, BIC and CP criteria, have been challenged due to the large amount of calculation.

Tibshirani (1997) first combined LASSO method with Cox model in survival analysis model, and started the study on variable selection of Cox model. Fan(2001) conducted extensive applied research on SCAD method, which also involved the variable selection of survival data.

3. Tourism development in China during the coVID-19 prevention and control period

3.1 Characteristic facts of the survival conditions of enterprises in the tourism industry during the epidemic

Enterprises this paper USES the sample data are downloaded in the Wind (Wind) database, the database contains the global financial markets, as well as part of the enterprise data information, we use the tourism related businesses (in the Shanghai area, for example) credit report to refine the data to carry on the empirical analysis, the statistics included in the Shanghai area travel agency and part of the hotel. Among them, it should be noted that the report mainly relies on related statements disclosed by enterprises, and there may be a few cases where the data is not true. The tourism data in Shanghai referred to in this paper are from the official website of Shanghai Municipal Bureau of Statistics (<http://tjj.sh.gov.cn/>), and the statistical deadline is April 2020.

3.1.1 The number of international tourism arrivals has decreased significantly

It has been a whole month since wuhan Health Commission reported the first confirmed coVID-19 case on December 8, 2019, and the National Health Commission formally established the epidemic response team on January 1, 2020. Since January, the state and local governments have introduced policies to control the spread of the epidemic. The domestic economy has almost stopped, and people's living standards have been kept in a state of meeting basic living needs. The domestic tourism industry has zero income.

Data from the Shanghai Municipal Bureau of Statistics shows that since the outbreak of the epidemic in January 2020, the number of overseas tourists entering Shanghai from Shanghai ports and the number of overseas tourists coming to Shanghai from other ports of China have dropped sharply. Especially after the outbreak of foreign epidemic in February, the number dropped to 17,000 in April, a decrease of 97.9% compared with the same period in 2019. The specific data of international tourist arrivals since May 2019 are shown in Table 1. Figure 1 provides a more intuitive picture of the dramatic decline in international tourist arrivals affected by the epidemic.

Table 1 The specific data of international tourist arrivals since May 2019

| Time | International Tourist Arrivals (10,000 person-times) | Increase from the same month last year (%) | foreigners | Increase from the same month last year (%) | Hong Kong and Macao compatriots | Increase from the same month last year (%) | Taiwan compatriots | Increase from the same month last year (%) |
|-------------------|------------------------------------------------------|--------------------------------------------|------------|--------------------------------------------|---------------------------------|--------------------------------------------|--------------------|--------------------------------------------|
| In May 2019 | 77.72 | -3.4 | 60.28 | -3.3 | 6.5 | 0.6 | 10.94 | -6 |
| In June 2019 | 74.9 | 2.4 | 56.99 | 2.4 | 6.78 | 4.4 | 11.13 | 1.4 |
| In July 2019 | 70.65 | -1.2 | 51.64 | -1.5 | 7.33 | 8 | 11.68 | -4.8 |
| In August 2019 | 71.03 | -0.8 | 54.03 | 0.8 | 6.04 | -1.6 | 10.96 | -7.5 |
| In September 2019 | 77.12 | -1.5 | 61.66 | -0.5 | 5.66 | -6.2 | 9.8 | -4.6 |
| In October 2019 | 87.02 | -0.5 | 68.18 | -0.1 | 6.84 | -3.3 | 12 | -1 |
| In November 2019 | 84.48 | -0.3 | 66.94 | 0.8 | 6.7 | -5.4 | 10.84 | -3.5 |
| In December 2019 | 73 | 2.3 | 56.81 | 5.8 | 6.75 | -7.8 | 9.44 | -8.8 |
| In January 2020 | 48.98 | -19.6 | 37.71 | -20.7 | 4.3 | -17 | 6.97 | -15.2 |
| In February 2020 | 8.25 | -85 | 4.81 | -87.7 | 0.62 | -87 | 2.82 | -75 |
| In March 2020 | 6.6 | -92 | 4.2 | -93.5 | 0.38 | -94.1 | 2.02 | -81.9 |
| In April 2020 | 1.7 | -97.9 | 0.86 | -98.7 | 0.21 | -97.3 | 0.63 | -94.1 |

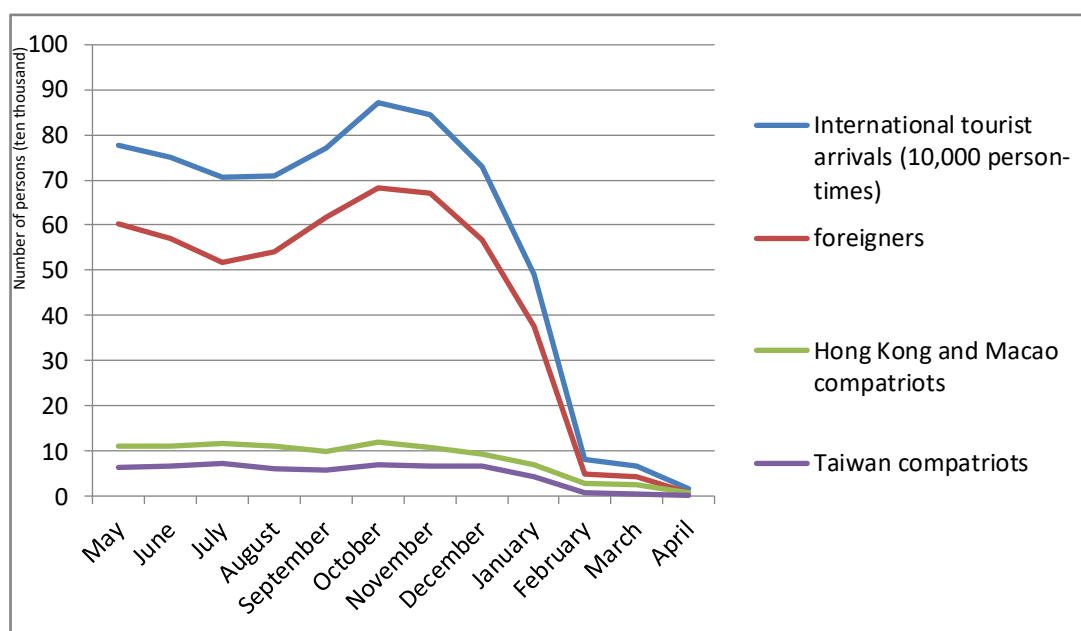


Figure1 Number of international tourist arrivals (from Shanghai) from May 2019 to April 2020

3.1.2 Domestic tourism industry enterprise dynamics

According to shangguan News, from January to May this year, 25,402 enterprises with the word "travel" in their names or business scope were cancelled or cancelled nationwide, up from 39,645 in the same period last year. At the same time, 82,515 new tourism enterprises were added, 3.25 times the number of cancelled enterprises, compared with 3.11 times in the same period last year. However, it takes a certain amount of time for companies to go through the process of cancellation, so the cancellation and revocation data have a certain lag in reflecting the operation status of the industry. Due to the short time, the micro-impact of the epidemic on tourism-related enterprises cannot be fully reflected in such data. In order to reflect in more detail the impact of the epidemic on the operating conditions of travel agencies, this paper further analyzes the corporate information of travel agencies (taking Shanghai as an example). 1-2020 in Shanghai travel agency enterprise cancellation in May 12, is still remaining 28 travel agencies, including cancellation of enterprise's survival duration of distribution as shown in figure 2, shorter survival life enterprise cancellation is more, companies such as general foundation instability, affected by the epidemic is bigger, so the cancellation number accounts for more, on the contrary, the more the longer fixed number of year of the existence of the company's strength is strong, after it is impacted by the outbreak of money resistance ability is stronger, so the survival time in 8 years companies did not collapse.

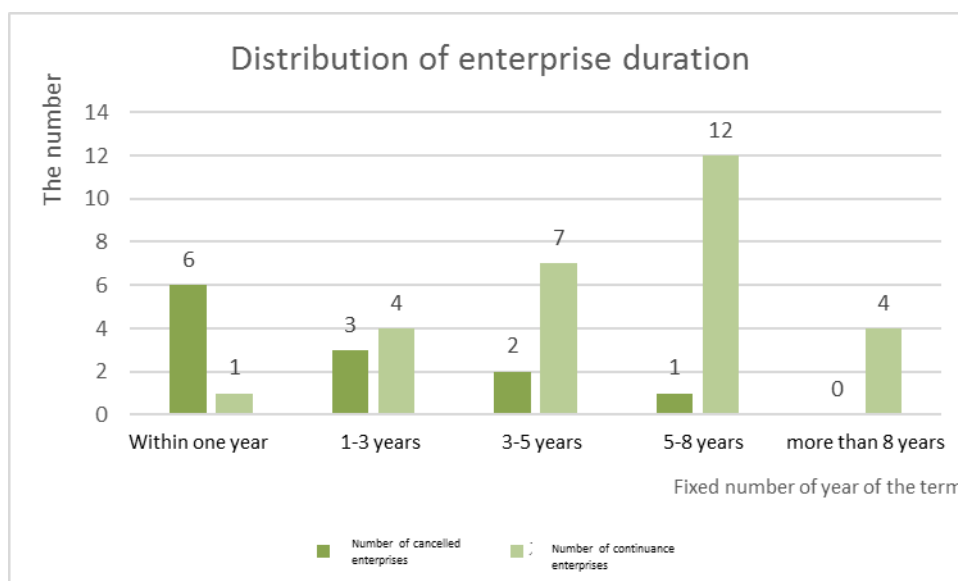


Figure 2 Distribution of enterprise duration

3.2 Policies and measures of China's tourism industry in response to coVID-19

On the whole, with the further control of the epidemic, the continuous effects of the government's strong measures, and the expectation of retaliatory consumption after the epidemic, the industry is expected to usher in a relatively fast growth next year from a low base. In addition, the return of overseas Chinese caused by the epidemic will objectively accelerate the recovery of the tourism industry after the epidemic. The country issues relevant policy to support, industry interior also develops actively self-help. The central and local governments have introduced strong policy guarantees (see table below). It is expected that under the guidance of national policies, various regions will also organize and carry out promotional activities such as "Peace of mind Travel Festival" in an orderly manner in the future, and promote the recovery of cultural and tourism industry by issuing tourism consumption vouchers and "e-passport for Cultural and Tourism". The catering industry has been orderly restored, and scenic spots and hotels are also expected to gradually achieve performance improvement [6].

This epidemic is also a big test for enterprises. In addition to some direct economic losses, it will also bring a lot of thinking and precipitation to enterprises. Although most enterprises are facing huge impact, some of them have been actively practicing their internal skills in the face of the epidemic, accelerating the process of transformation and upgrading. For example, Ctrip, Tongcheng, Elong and other companies launched the "Cloud Tourism in Scenic Spots" campaign, which provided free access to nearly 7,000 voice guided Tours in more than 3,000 scenic spots. The number of users has increased by more than 600% since the campaign began one week ago. Historical scenic spots such as the Forbidden City, Yellow Crane Tower, Du Fu Thatched Cottage, Shaanxi History Museum and Humble Administrator's Garden have also launched various forms of "digital" tourism, including live webcasts, short videos, cloud-watching exhibitions and cloud tourism. These "smart tourism" enables the majority of users to enjoy a rich and colorful cultural life without leaving home, and also accelerates the transformation and upgrading process of the industry [7-8].

3.3 The future of China's tourism in the context of the epidemic

Three major changes are likely to occur in the industry landscape after the outbreak. One is that the industry landscape may be reshaped. The impact of the epidemic will inevitably affect the short-term revenue of the tourism industry. In the long run, it will be a shakeout for the travel industry. The epidemic is accompanied by a process of survival of the fittest. Enterprises with good cash flow, technology and service capacity will recover more quickly in the adversity, and then continue to lead in the subsequent rebound stage [9-10]. Second, innovation in the industry has

accelerated, with some distinctive and creative tourism products emerging. Under the background of "cultural and tourism integration", cultural creativity will enable the development of tourism industry, and some phenomena-level cultural and creative tourism products such as the Forbidden City, Plum Qi and Zhang Yimou's "Impression" series appear. These cultural and creative tourism products can enhance the public's life aesthetic, cultural confidence, and enhance China's cultural soft power. For example, "Cultural creation of the Palace Museum" combines the profound Traditional Chinese culture with fashionable aesthetics, makes it more close to modern life through re-innovation and re-expression, and makes use of modern communication means such as Internet marketing to make the representative of the ancient culture of the Palace Museum regain new vitality. China is moving from middle income level to high income level, and in the process, cultural and creative demand is expected to emerge in large Numbers. "Cultural and tourism integration" will become a new trend and opportunity of tourism development in the next 10 years, and will also become an enabling tool for tourism to overcome the crisis and accelerate its development. Third, the development of information technology will help the tourism industry draw a new blueprint of "smart tourism". In this year's government work report, The prime minister proposed "comprehensively promote the Internet plus, build the advantage of the digital economy", and "strengthen the construction of new infrastructure, develop a new generation of information network, and expand 5G application", which also points out the direction for the next development of the tourism industry. The "new infrastructure" will comprehensively promote the in-depth integration of the cultural and tourism industry with the digital economy, guide and cultivate new consumption service models such as network consumption, experience consumption and intelligent consumption, promote the development of the cultural and tourism industry to be digitalized, networked and intelligent, and equip it with a "core of wisdom" for the development of tourism. For example, use e-commerce technology to transform traditional enterprises, expand new marketing channels, optimize business processes, and strengthen quality control. Use artificial intelligence, big data, cloud computing, Internet of Things and other technologies to improve operational efficiency; We will promote online and offline interaction and create a model of "Internet + cultural innovation + tourism"[11].

4. Index selection and model setting

In order to deeply explore the impact of the epidemic on the survival of enterprises and try to predict the survival time of enterprises, this paper USES the detailed data of Shanghai travel agencies combined with the survival analysis model to explore the impact of the epidemic on the survival time of travel agencies and make predictions.

4.1 Introduction of survival analysis model

Survival analysis is a type of statistical method that combines the outcome of an event with the time it took for the outcome to occur. This type of method is also called event time analysis because it takes into account not only whether an event occurs, but also how long it has occurred. Survival analysis differs from other multivariate analyses in that it takes into account the length of time for each observation to produce a certain outcome. The survival analysis method contains many models, and Cox proportional hazard model is adopted because of the deletion data in the data in this paper.

This model assumes that enterprises will be impacted by various risk factors in the process of survival. Its basic equation is as follows:

$$\ln \left[\frac{h(t)}{h_0(t)} \right] = \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_p x_p$$

Among them:

$\beta_1 \cdot \beta_2 \cdot \dots \cdot \beta_p$ — Partial regression coefficient;

$h(t)$ — The risk rate of failure at time T under the influence of a certain risk factor;

$h_0(t)$ —— The risk rate of failure at time T not affected by a certain risk factor;

$\frac{h(t)}{h_0(t)}$ —— Failure risk rate.

The model can also be expressed as:

$$h(t) = h_0(t)\exp(\beta_1x_1 + \beta_2x_2 + \dots + \beta_px_p)$$

4.2 Model setting in this paper

Variables involved in the established survival model in this paper include the following categories:

Explained variable: the failure risk rate of travel agencies during the epidemic. First of all, this paper unified all travel agencies according to January 1, solstice, May 31, 2020 as the survey period, to investigate the relationship between the survival time of travel agencies and other variables under the situation of the normalized epidemic situation. At the same time, a control group was set up to intercept the survival data of travel agencies on January 1, 2019 solstice and May 31, 2019. The conditions were set as the operating state of travel agencies under the influence of the epidemic, and the survival curves of the two groups were compared.

Core explanatory variables: the operating time of travel agencies before the survey point (January 1, 2020), and the survival status of travel agencies. This paper assumes that the travel agency will be affected by the epidemic factors from January 1, 2020, so the accumulation of operational results of the travel agency before that will inevitably affect the results. In addition, the survival state of travel agencies is the endpoint event observed in this paper.

Control variables: average annual profit of travel agencies, registered capital of travel agencies, fixed assets, corporate liabilities, number of employees, average salary of employees, and rent. The survival time of travel agencies is affected by many factors. In this paper, the above variables are selected as control variables to enter the model according to the existing literature, so as to reduce the large deviation impact of other factors on the result estimation.

Based on the above variables, the model set in this paper is as follows:

$$\ln \left[\frac{h(t)}{h_0(t)} \right] = \beta_1x_1 + \beta_2x_2 + \beta_Tx_T$$

Among them:

x_1 ——Operating time;

x_2 ——The state of being;

x_T ——Control variable groups.

5. Empirical analysis

This paper USES stata15 to input data into the system and substitute it into the model validation. The first step is to use the K-M analysis method to draw the survival curve of travel agencies in the two situations and intuitively analyze the differences between them. The second step is to apply Cox model to analyze whether the epidemic situation has an impact on the survival of travel agencies.

5.1 Survival curve of travel agencies under the influence of coVID-19 and without coVID-19

This paper selected on January 1, 2019 to May 31, 2019, January 1, 2020 to 2020 on May 31 as observation time observation in the Shanghai area travel agency's survival situation, Kaplan Meier - method is used to calculate the survival rates of travel agencies, make full use of the delete incomplete information provided by the loss of data, plot of the survival in the travel agencies under the influence of the outbreak is shown in figure 3. As the observation went on, the survival rate of travel agencies became lower and lower. In FIG. 4, the two groups of survival curves are plotted in the same graph, so as to see the difference between the two groups with and without epidemic

impact more intuitively. The blue curve is the survival curve of travel agencies with epidemic impact, and the red curve is the survival curve of travel agencies without epidemic impact. As can be seen from Figure 4, under the two circumstances, there is no obvious difference in the survival curve of travel agencies, so the next log-rank test is needed to get a more rigorous conclusion.

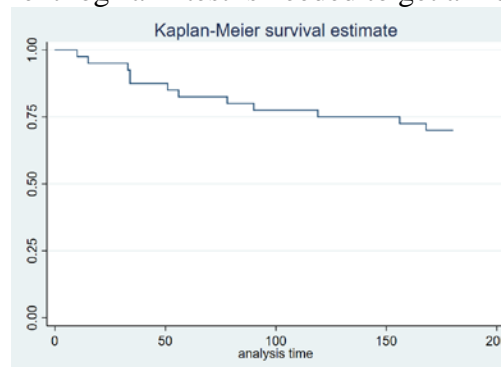


Figure 3 The survival curve of travel agencies impact of the epidemic

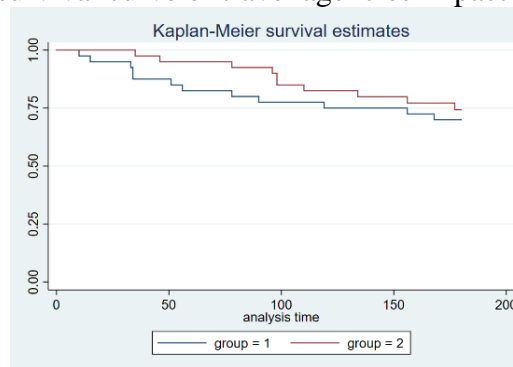


Figure 4 The survival curve of travel under the agencies without the impact of the epidemic

5.2 Log-rank test whether the epidemic has an impact on the survival rate of travel agencies

The survival curve above shows intuitively that there is no obvious difference between the two groups. The log-rank test method will be used to prove statistically whether the impact of the epidemic on the survival of travel agencies. The hypothesis test results showed that p value was 0.540, which obviously failed to pass the test, that is, there was no significant difference between the results of the two groups, which was consistent with the results reflected in the survival analysis chart above. Cox model regression results:

Single factor analysis (K-M analysis) was used above to preliminarily analyze the impact of the epidemic on the survival status of travel agencies, and the results showed that there was no significant difference between the two groups. However, other control variables that may affect the results are not included in the model, such as number of employees, working capital, etc., which may lead to bias in the results. Multivariate analysis (Cox analysis) is adopted to introduce the remaining variables into the survival analysis model, and the results are shown in Table 2 below. As can be seen from the results in the table, the statistical difference between the experimental group and the control group is not significant, which indicates that there may be two situations to some extent. First, from January to May 2020, the impact of the epidemic on the survival time of travel agencies is lagging. Second, the impact of the epidemic on travel agencies has no impact on their survival time.

Table 2 The impact of epidemic situation on the survival state of travel agencies under multi-factor analysis

| grouping | Coefficient of observation | Standard values | x | significant | 95% confidence interval | |
|-------------------------------|----------------------------|-----------------|------|-------------|-------------------------|-------|
| Experimental group (affected) | -0.2576 | 0.428 | -0.6 | 0.548 | -1.097 | 0.582 |

| | | | | | | |
|----------------------------------------------------------------|--|--|--|--|--|--|
| by epidemic) Control group (not affected by epidemic) | | | | | | |
|----------------------------------------------------------------|--|--|--|--|--|--|

5.3 Robustness test

In order to test the robustness of the above analysis results, two methods are proposed in this paper. First, the samples of the two periods are selected again by the propensity score matching method for k-M analysis (Model 3) and COX analysis (model 4) regression, and the new results are compared with the original results. Second, a new LogIT survival model (Model 5) is adopted to re-estimate the survival status of travel agencies under the impact of the epidemic and compare with the original results. The estimated results are shown in Table 3. The estimated results of the five models showed that the regression coefficients of models ii, IV and V were stable at around -0.2000, and all of them failed the significance test, indicating that the model results were robust and the epidemic had no significant impact on the survival time of travel agencies in Shanghai within the observation period of 180 days.

Table 3 The estimated results of the five models

| | Mode 1 | Model 2 | Model 3 | Model 4 | Model 5 |
|-----------------------------------------------------------------------------------------------|-----------------------|---------------------------------------|-----------------------|---------------------------------------|---------------------------------------|
| Coefficient of the model | — | -0.2576 (Failed significance test) | — | -0.2265 (Failed significance test) | -0.1967 (Failed significance test) |
| Model results (Whether the epidemic has an impact on the survival time of travel agencies) | No significant effect | No significant effect | No significant effect | No significant effect | No significant effect |

6. Research conclusions and policy Suggestions

6.1 Research Conclusion

6.1.1 Factors affecting enterprise survival time

During the five-month (180-day) observation period, the survival rate of travel agencies was decreasing regardless of whether they were affected by the epidemic. Among them, the observation before the start of the longer business survival, and its risk factors impact on the outside and the stronger ability to resist, namely the longer survival time, the enterprise operating time represents the travel agency market foundation, the longer operating time, average market recognition and customer preference is higher, compared with the new enterprise, to resist the ability of the impact the more powerful; Among the control variables, the average annual profit, registered capital, fixed assets and working capital of travel agencies are positively correlated with the enterprise's survival time. In other words, the higher the average annual profit, the more registered capital, the more fixed assets and the more working capital, the longer the enterprise will survive under the impact of risk factors. There is a negative correlation between corporate liabilities and corporate survival time, that is, the more external liabilities an enterprise has, the shorter its survival time will be. The relationship between the number of employees, rent and living time is not significant.

6.1.2 In the short term, the impact of the epidemic has no impact on the survival time of travel agencies

According to the results of empirical analysis, since the epidemic prevention and control began

in January 2020, there is no statistically significant difference between the living conditions of travel agencies in Shanghai and the same period in 2019. The reasons may be as follows: First, the observation time of the epidemic is short, and it takes a period of time for an enterprise to go bankrupt from the impact of the epidemic to the crisis, which makes the effect lag behind. The observation period of 180 days cannot fully reflect the impact of the epidemic on the survival time of travel agencies. Second, the impact of the epidemic will not only have an impact on tourism, but also on other industries. The impact of all aspects in the whole production process will offset each other, resulting in no significant impact on the survival time of travel agencies. The specific reason remains to be further studied after the data is updated to select a longer observation period.

6.2 Policy Suggestions

6.2.1 Active government support

Introduce corresponding supportive policies. The primary goal is to enable enterprises to obtain the maximum possible cash flow, such as interest-free or discount loans, quality deposit refund, corresponding tax reduction, tax refund, funds, subsidies, financial support, as well as do a good job in financial services for distressed enterprises, encourage all sectors to actively donate and so on. National literature brigade headquarters should be introduced to research and relevant supporting policies, "SARS" during some of the practice is worthy of reference, such as quality deposit 60% return each big travel agency, the tourist hotel, catering, entertainment, travel, transportation and other industries, the reduction of 42 administrative charges and 15 government funds, shall be exempted from business tax, city maintenance and construction tax and other tax, and to provide subsidised loans and a series of powerful currency financial policy support.

To build a modern tourism management system to deal with emergencies. Constantly improve the level of tourism governance, party and government coordination, multi-party joint construction, cultural and tourism and health departments linkage monitoring, cultural and tourism enterprise joint prevention and control management, residents and tourists supervision support, think tanks and media scientific research and judgment.

Develop a tourism revitalization plan. The state and local governments must find ways to support and aid the tourism industry, reward those who have contributed, and increase publicity. The Government should actively consider preparing plans to promote tourism in summer or autumn. At the same time, increase tourism development funds, give more financial support, to stimulate consumption and promote economic development. A series of promotional activities, such as halving the charges of scenic spots and reducing prices of restaurants, hotels and retail stores, can be organized in stages to encourage tourism activities close to the outdoor nature, such as self-driving Tours, outdoor camp Tours, and study Tours. Eliminate psychological influence and rebuild the image of safe tourist destination. Considering that it is unlikely to attract a large number of foreign tourists to China in the short term, we should focus on developing the domestic market from the beginning of the second quarter and stabilize the popularity from the inside out to stimulate the whole tourism and consumption market. It is necessary to carry out a series of new major promotional actions, increase the external promotional funds, and rebuild the image of China's safe tourist destination [12].

6.2.2 Travel agencies change their business model

First of all, it is necessary to stabilize the platform. Every travel agency enterprise has its own platform to ensure that the platform traffic is not easily lost, maintain the platform traffic, and maintain the interaction of the platform traffic is particularly critical. Before there is a new and old lines and related activities are pushed to platform consumers, temporarily can't do push, also can through the platform planning some online interactive projects, for instance, market access, visitors interest hobby, little game platform, interactive small gifts, such as public welfare donations, increase the platform interactive interest, ensure customer viscosity, also can through the platform in advance, make an appointment to destination, booking travel goods, etc. By making use of the viscosity of my platform to be a familiar direct customer, "the familiar is at ease" is easy to be

trusted and easily understood in every process management. The direct customer market focuses on core attractions and theme types of activities. The epidemic has had a huge impact on the tourism industry, but it is also an opportunity for travel agencies. After the epidemic, travel agency managers will think more about how to get rid of the single profit model, how to expand channels in a diversified way, and how to combine online OTA platform with offline platform. These problems will certainly promote the development of travel agencies in the future, so that travel agencies to a higher level. "Cloud tourism" is only a short-term behavior, travel is still the premise of tourism. During the duration of the epidemic, the tourism industry has not stopped thinking, but is constantly exploring some new attempts and development ideas, such as the development of "online tourism" business. At present including flying pigs, with cheng, hornet's nest, Caesar and other Internet OTA and travel agency, and a lot of scenic spots are broadcast "cloud tourism" project, launched hope can continue to keep the scenic area during outbreak heat and attention, at the same time by means of the Internet channel data, but also to strengthen the deeper understanding between tourists and the scenic area, thus providing tourism products more accurately and effectively.

In 2020, urgent optimization should be made on traditional line products to ensure survival and steady growth. It is suggested that line products in the following aspects be optimized. Mainly reflected in, rural travel, northwest travel, popular science travel, distant international travel. Rural tourism destinations: The epidemic is expected to start from March to September, and most tourists are still restricted to travel far, but rural tourism in the region will be very popular. After the quarantine period and the improvement of preventive measures, the flower sea, rural areas and special species breeding within the region will be favored, and pastoral tourism is the main attraction for these tourists. Grassland and desert tourism destinations: A general survey of the epidemic distribution map shows that northwest China has prominent advantages, with a small number of infected people, good ecological environment, and wide territory. It is a perfect choice for leisure and holiday experience. Tourist destinations of friendly countries: Despite the outbreak of the epidemic, truly friendly countries are not always banned from entering the country. In some African countries, there will be a large number of tourists willing to go there.

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