

Analysis of the Current Situation and Factors of Anxiety Among Small and Medium-sized Entrepreneurs Under the Corona Virus Disease 2019

-- Empirical Evidence from China

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Abstract: Micro, small and medium-sized enterprises are an important part of China's market entities, and they are also relatively vulnerable groups under the impact of public health emergencies. Based on the 2020 Peking University "China Enterprise Innovation and Entrepreneurship Survey (ESIEC)" database, this article analyzes the anxiety status and influencing factors of Small and Medium-Sized entrepreneurs under the background of the corona virus disease 2019. The research results show that: (1) In the early stage of the corona virus disease 2019, Small and Medium-Sized entrepreneurs had a high sense of anxiety, fear and worry, and showed differences in anxiety in different industries, regions and business income scales. (2) The sources of anxiety of Small and Medium-Sized entrepreneurs under the impact of the epidemic are mainly manifested in the payment of employee wages, five social insurances and one housing fund, and rent payments. (3) Further studies have found that stable business conditions, stable job resumption policies, financial support and preferential tax policies can significantly alleviate the anxiety, fear or worry of Small and Medium-Sized entrepreneurs.

Keywords: Small and Medium-Sized entrepreneurs, Anxiety, COVID-19.

1. Introduction

According to the "Global Economic Prospects" report released by the World Bank in January 2023, due to the impact of the epidemic, the global economy will shrink by 5.2 percentage points. The uncertainty of the corona virus disease 2019, a public health emergency, has brought great challenges to global economic development (Gorain et al, 2020). As an important force to promote economic development and prosperity, Small and Medium-Sized enterprises play a vital role in the development of China's national economy (Wang et al, 2020). However, under the influence of the epidemic, Small and Medium-Sized enterprises have become relatively vulnerable entities facing development problems (Ashiru et al, 2022). They not only face financial problems such as loan financing difficulties and supply chain shortages, but also suffer from low employee return rates and customer The impact of practical problems such as loss (Zimon et al, 2022), and the development of enterprises under the influence of the epidemic have also brought greater psychological pressure to small and medium-sized entrepreneurs. Specifically, the limitations of small and medium-sized enterprises, such as scale, capital, and risk-resistance capabilities, are likely to cause or intensify their nervousness, anxiety, and worry in the face of the COVID-19 pandemic (Lathabhavan, 2022), forming entrepreneurial anxiety State, which in turn affects entrepreneurial decision-making and behavior. As an important part of China's stable and positive economic development, research on the anxiety status and influencing factors of Small and Medium-Sized entrepreneurs under the corona virus disease 2019 has become one of the hot topics of academic research at home and abroad.

Anxiety, as the most common negative emotion during the COVID-19 pandemic, refers to the state of tension, worry, and

fear that arise when an individual perceives a remote or uncertain threat, and can trigger or induce corresponding defensive behaviors to a certain extent (Kenwood et al, 2022). Studies have shown that the corona virus disease 2019 can significantly increase the risk of entrepreneurs suffering from general anxiety and major depression (Li et al, 2022). From the perspective of economic growth, the epidemic is not an internal factor of production for economic development, but the panic, anxiety and other emotions it brings will change social investment and consumption behavior (Wu, 2020), and then affect the trend of macroeconomic changes (Gozgor, 2021). According to relevant data from the National Bureau of Statistics, in the first quarter of 2020, the operating income of Small and Medium-Sized enterprises fell by 51% year-on-year, and the number of jobs recruited fell by more than 30%. The 14th Five-Year Plan pointed out that Small and Medium-Sized enterprises are a new force for national economic and social development, an important foundation for building a modern economic system and promoting high-quality development, and an important support for expanding employment and improving people's livelihood. Paying attention to the anxiety status of Small and Medium-Sized entrepreneurs during the COVID-19 pandemic is related to the normal survival and healthy development of enterprises.

Based on the "China Enterprise Innovation and Entrepreneurship Survey (ESIEC)" database of Peking University, this paper conducts research on the anxiety status and influencing factors of Small and Medium-Sized entrepreneurs under the background of the corona virus disease 2019. The main marginal contributions are as follows: First, this paper focuses on different operating income, regions and industries The current situation of anxiety of Small and Medium-Sized entrepreneurs is analyzed at the level of entrepreneurs, which expands and enriches the

literature research basis of psychological anxiety at the entrepreneur level. Second, this paper empirically analyzes the factors affecting the anxiety of Small and Medium-Sized entrepreneurs, focusing on the influence of factors such as stable business conditions, stable employment and resumption policies, financial support, and preferential tax policies. Chinese empirical evidence.

2. Literature Review

The macroeconomic effects of major public health emergencies such as the corona virus disease 2019 have always been a hot topic of concern to scholars at home and abroad. One type of view holds that during the epidemic period, the damage to labor force health capital and the restrictions on mobility lead to a decline in labor productivity (Haacker, 2002; Zainal et al, 2022), and economic pressures such as low social consumption and investment caused by public anxiety and panic, and increased disease prevention costs will all be have negative effects on macroeconomic development (Lee & McKibbin, 2004; Uzir et al, 2022). Another view is that major public health emergencies such as the epidemic have brought impetus to resource allocation updates and technological innovation. After long-term formal or informal institutional reforms, the society's ability to deal with crises and the efficiency of resource allocation have been improved. Macroeconomic development has a certain positive impact (Li Z, 2003; Voigtländer & Voth, 2013).

Public health emergencies such as the corona virus disease 2019 not only have an impact on the economy, but also continue to impact the public's psychological defenses, leading to negative emotions such as anxiety and depression (Uzir et al, 2022). During the epidemic, more than 70% of Small and Medium-Sized entrepreneurs expected to experience a loss in income, and 19% of Small and Medium-Sized entrepreneurs would face bankruptcy due to poor management within three months of the outbreak (Lima et al, 2020). Compared with large enterprises, the outbreak of the corona virus disease 2019 has brought more negative emotions such as anxiety and panic to the survival and operation of Small and Medium-Sized entrepreneurs (Xu & Jia, 2022). Huang and Chen (2021) pointed out that economic pressure, uncertainty, business operating pressure, and social pressure are the main sources of anxiety and pressure for Small and Medium-Sized entrepreneurs to feel the epidemic. In addition, problems such as sharp drop in market demand, increased difficulty in loan financing, and insufficient human resource allocation have become important factors for the poor management of enterprises during the epidemic (Wang Z et al, 2020; Zainal et al, 2022), to a certain extent Exacerbated the anxiety of Small and Medium-Sized entrepreneurs.

From the perspective of industry distribution, the corona virus disease 2019 has the greatest negative impact on the secondary industry, followed by the tertiary industry, and the primary industry is relatively small. Among them, Small and Medium-Sized entrepreneurs mainly engaged in the education industry, catering industry, and cultural entertainment industry have suffered. The epidemic has the greatest impact (Wang, 2020), showing differences in anxiety among different industries. In addition, Small and Medium-Sized entrepreneurs in areas with a lower level of economic development have suffered greater losses from the impact of the epidemic, and the anxiety brought about by the corona

virus disease 2019 on Small and Medium-Sized entrepreneurs shows regional heterogeneity (Wang Z et al, 2020) .

As an important birthplace of entrepreneurship, how to alleviate the anxiety of Small and Medium-Sized entrepreneurs during the epidemic has become an important way for the high-quality development of the national economy (Zhang X et al, 2021). Cai et al (2021) proposed that fiscal and taxation support policies are an effective way for the government to support Small and Medium-Sized entrepreneurs to resume normal operations. Liu et al (2021) believe that in order to alleviate the negative impact of the epidemic on small and medium-sized entrepreneurs, the government and relevant departments should adopt more direct financing measures, such as zero-interest loans and financial subsidies. In addition, the government's direct or indirect support policies such as enterprise job stabilization subsidies or postponement of social security payments will help Small and Medium-Sized entrepreneurs clear the obstacles to resuming work and production (Ma W et al, 2021), and further alleviate the anxiety of enterprises.

The existing literature has laid a good foundation for further research in this paper, but there are also the following deficiencies: First, the existing literature needs to pay more attention to the anxiety status of Small and Medium-Sized entrepreneurs, especially under the impact of the epidemic. Psychological anxiety problem about business development problems. Secondly, there are few studies on the influencing factors of the anxiety of Small and Medium-Sized entrepreneurs under the impact of the epidemic, especially from the perspectives of enterprise operating conditions, policies for job stabilization and resumption of work, financial support, and preferential tax policies. In view of this, this article takes the status quo of small and medium-sized micro-epidemic anxiety as a breakthrough, and deeply explores the impact of enterprise operating conditions, policies for stabilizing jobs and resuming work, financial support, and preferential tax policies on the anxiety, fear or worry of small, medium-sized and micro entrepreneurs, so as to warm up in the post-epidemic era Economic trauma and building a high-quality economic operation system provide China's experience.

3. Analysis of the Current Situation of Anxiety Among Small and Medium-sized Entrepreneurs Under the Corona Virus Disease 2019

3.1. Data source and processing

The data used in this article comes from the "Follow-up Data of the Epidemic Special Survey" conducted in May 2020 by the 2020 Enterprise Survey for Innovation and Entrepreneurship in China (ESIEC for short) released by Peking University. The data is mainly jointly implemented by the National School of Development of Peking University, the Chinese Social Science Survey Center, the Peking University Committee of the Communist Youth League and the alliance universities. It is carried out through telephone interviews supplemented by online questionnaires. A total of 8,750 samples were distributed, and 259 samples were completed. The visit rate is as high as 44.5%. The survey objects are Small and Medium-Sized enterprises in seven provinces and cities including Liaoning, Gansu, Henan, Guangdong, Zhejiang, Shanghai, and Beijing. Policy evaluation,

entrepreneur confidence and other aspects of the survey, the recovered samples are highly representative of the industry. After eliminating samples with certain key information, 2513 enterprise samples were finally retained. In addition, in the original database, the degree of anxiety, fear and worry of Small and Medium-Sized entrepreneurs under the corona virus disease 2019 is expressed from "0-10 points" in turn from "not at all" to "very". In order to make the research clearer and easier, this article reassigns the samples that answer "0-1 points, 2-4 points, 5-7 points, 8-10 points" as "1, 2, 3, 4", corresponding to "low, general, high, High" four levels, and related data analysis.

3.2. Analysis of the characteristics of the anxiety of Small and Medium-Sized entrepreneurs

3.2.1. Distribution of negative attitudes of Small and Medium-Sized entrepreneurs

Table 1 shows the anxiety, fear and concern of Small and Medium-Sized entrepreneurs about the corona virus disease 2019 in the early stage of the corona virus disease 2019. From the perspective of degree stratification, the anxiety, fear and worry brought by the corona virus disease 2019 to Small and Medium-Sized entrepreneurs continue to rise, and the relatively high and high levels account for a large proportion; from the average score, the values are close to 3, indicating that Small and Medium-Sized entrepreneurs generally feel anxious, afraid and worried during the epidemic. And this distribution shows to a certain extent that the corona virus disease 2019 can have a relatively large negative emotional impact on the operation and survival of Chinese Small and Medium-Sized enterprises. Entrepreneurs are unable to formulate comprehensive measures to deal with the economic shock and survival risks brought about by the corona virus disease 2019 in the short term, resulting in their inability to complete their cyclical entrepreneurial goals and exacerbating entrepreneurs' anxiety, worry and fear (Li et al, 2022).

Table 1. Distribution of Negative Attitudes Among Small and Medium-Sized Entrepreneurs

Degree	Anxiety	Fear	Worry
Low	8.87%	14.41%	9.11%
Average	15.88%	24.32%	17.04%
Above average	41.59%	38.13%	39.75%
High	33.67%	23.16%	34.10%
Mean score	3.00	2.70	2.99

3.2.2. Distribution of Entrepreneur Anxiety in Different Industries, Operating Income and Regions

In order to understand the differences in the anxiety brought by the corona virus disease 2019 to Small and Medium-Sized entrepreneurs, this study investigates from three aspects: industry, operating income and region. According to the basic classification of the national standard "National Economic Industry Classification and Code", the industry is divided into five major industries according to the industrial structure, and "agriculture, forestry, animal husbandry, and fishery" are classified as the first industry, and

the second industry is mainly manufacturing. Inner heavy and light industries are the main industries, the third industry is mainly the service industry, including commerce, finance, transportation and other non-material production sectors, the fourth industry is mainly public industries that have no profit themselves but can increase the profits of other industries, and the fifth industry The industry is also called the cultural industry, including education, literature and art, advertising, science and other industries. At the same time, divide the company's 2019 operating income into three grades of "less than 1 million, 1-5 million, and more than 5 million" to understand the differences in anxiety brought about by the corona virus disease 2019 to Small and Medium-Sized entrepreneurs.

As shown in Table 2, from the perspective of industry distribution, the five major industries have a high level of anxiety caused by the epidemic. industry is relatively low. The third industry, which is dominated by the service industry, is a derivative industry of the first and second industries. Compared with the basic agricultural industry, the Small and Medium-Sized enterprises engaged in this industry suffer relatively higher risk shocks and economic losses, resulting in higher Anxiety. Looking at the distribution of different operating income, it is found that with the increase of income, the proportion of Small and Medium-Sized entrepreneurs who are at a higher level of anxiety is also slightly increasing.

Table 2. Anxiety Differences Among Entrepreneurs with Different Industries and Operating Income

Anxiety degree	Low	Average	Above average	High
Industry Types:				
First Industry	11.44%	18.22%	44.49%	25.85%
Second Industry	7.41%	16.76%	39.96%	35.87%
Third Industry	9.50%	14.07%	41.60%	34.83%
Fourth Industry	6.90%	19.54%	47.13%	26.44%
Fifth Industry	8.39%	16.78%	39.74%	35.10%
Business Income:				
Less than 1 million	9.39%	15.51%	41.11%	33.99%
1-5 million	7.54%	13.73%	41.97%	36.75%
Above 5 million	4.62%	15.13%	40.26%	40.00%

In addition, this study also focuses on the differences in the anxiety of Small and Medium-Sized entrepreneurs among the seven sample provinces and cities of Beijing, Liaoning, Shanghai, Zhejiang, Henan, Guangdong, and Gansu. The statistical results in Table 3 show that the mean values of anxiety in different regions are all higher than 2.7, indicating that Small and Medium-Sized entrepreneurs in various regions are generally in high anxiety during the corona virus disease 2019, and the anxiety levels from low to high are: Liaoning<Henan<Zhejiang<Beijing<Gansu<Shanghai<Guangdong. Among them, the anxiety level of Small and Medium-Sized entrepreneurs in Guangdong Province is relatively higher, which may be because the destructiveness of public health emergencies in the past may have caused a relatively deep "historical memory" for entrepreneurs in this area, resulting in higher anxiety.

Table 3. Comparison of Anxiety Mean Values in Different Regions

Region	Beijing	Liaoning	Shanghai	Zhejiang	Henan	Guangdong	Gansu	Other Regions
Mean	3.04	2.75	3.13	2.9	2.82	3.22	3.09	3.14

3.2.3. Distribution of Anxiety Sources of Small and Medium-Sized entrepreneurs in Different Industries, Operating Income, and Regions

In addition to the distribution of the anxiety of Small and Medium-Sized entrepreneurs, the analysis of the causes of entrepreneurs' anxiety is also worthy of attention. Some studies have pointed out that the economic difficulties and financial pressure suffered by enterprises during the epidemic are the main reasons for anxiety and depression (Lathabhavan, 2022). Therefore, employees' five social insurances and one housing fund, wages, rent, loans, and corporate accounts payable are important financial expenses for the stable operation of the company, and are an important source of anxiety and stress for the company during the epidemic. In the statistics of this article (see Table 4), except for the first industry, corporate rental expenses accounted for more than 50% of the anxiety caused by all industries, while employee

wages (including five insurances and one housing fund) accounted for more than 40% , and the proportion of anxiety caused by these two parts of expenditures in various industries ranks firmly in the top two. The proportion of other expenditures that caused business anxiety from high to low is: repayment of loans > other expenses > payment of accounts payable. The safe and efficient operation of an enterprise is inseparable from the active participation of its employees. As the main components of the enterprise's survival and development, the enterprise's business operations and assets, wages and rents, as the external material manifestations of the two, have become the key factors for Small and Medium-Sized enterprises during the COVID-19 epidemic. A major source of financial stress and anxiety. In addition, comparing the pressure on the total financial expenditure of the five major industries, the economic pressure of the first industry is significantly lower than that of other industries, which may be one of the reasons for its relatively low anxiety.

Table 4. Distribution of Anxiety Sources in Different Industries Social insurance and wages

	Social insurance and wages	Rent	Mortgage repayment	Payable accounts payable	Other expenses
First Industry	17.31%	25%	25.48%	11.54%	25.96%
Second Industry	43.67%	52.74%	21.73%	8.44%	15.19%
Third Industry	47.01%	64.58%	18.92%	8.11%	11.20%
Fourth Industry	66.45%	64.52%	13.55%	10.32%	12.26%
Fifth Industry	50.12%	69.38%	15.80%	6.67%	9.88%

Table 5 analyzes the distribution of anxiety sources in different regions. The results show that all regions (except Gansu Province) show a relatively high proportion of anxiety caused by employee wages (including five social insurances and one housing fund) and corporate rents for Small and Medium-Sized entrepreneurs. Among them, Beijing and Shanghai are significantly higher than other provinces and cities. In addition, a regional comparison of various sources

of anxiety found that employee wages (including five insurances and one housing fund) brought the highest level of anxiety to Small and Medium-Sized entrepreneurs in Beijing, and corporate rents brought anxiety to Small and Medium-Sized entrepreneurs in Zhejiang Province The highest degree, while repaying loans, paying accounts payable and other expenses caused the Small and Medium-Sized entrepreneurs in Gansu Province to show a high level of anxiety.

Table 5. Distribution of sources of anxiety among small and medium-sized entrepreneurs in different regions

Province	Social security and wage	Rent	Loan repayment	Payment of accounts payable	Other expenses
Beijing	67.89%	58.72%	13.76%	11.01%	11.01%
Liaoning	38.94%	50.88%	20.80%	5.31%	15.04%
Shanghai	62.31%	73.29%	10.68%	9.79%	9.50%
Zhejiang	48.84%	60.00%	9.77%	5.58%	8.84%
Henan	30.57%	45.05%	25.80%	7.07%	17.31%
Guangdong	57.78%	75.56%	12.12%	8.89%	12.53%
Gansu	29.35%	49.35%	35.16%	11.94%	12.90%

Table 6 shows the distribution of anxiety sources of Small and Medium-Sized entrepreneurs under different operating income. As shown in the figure, we found that employee wages (including five insurances and one housing fund) and corporate rents caused a high proportion of anxiety among Small and Medium-Sized entrepreneurs under different revenue conditions. In addition, with the increase in operating

income, the anxiety caused by employee wages (including five social insurances and one housing fund) and payment of accounts receivable to Small and Medium-Sized entrepreneurs has gradually increased, and the two parts of rent and loan repayment have shown a slight decrease. Inverted U-shaped changes, other expenses showed slight U-shaped changes.

Table 6. Distribution of Anxiety Sources for Different Business Income Levels

Revenue range	Social security and wage	Rent	Loan repayment	Payment of accounts payable	Other expenses
<1 million	36.13%	60.97%	19.14%	5.91%	12.58%
100-500 万	57.45%	61.57%	22.94%	8.82%	10.39%
500 万以上	65.21%	52.32%	17.01%	14.69%	13.92%

3.2.4. Trends in operating costs and operating income of micro, small and medium-sized enterprises

In order to more intuitively reflect the extent of the corona virus disease 2019's trauma to the operation of Small and Medium-Sized entrepreneurs, this study also selected the questionnaire "Please expect your company's total operating income and total operating costs in 2020 to increase, remain the same or decrease compared with 2019?" This question was used for data analysis. The results in Figure 1 show that nearly half of the entrepreneurs said that the corona virus

disease 2019 will increase business operating costs, and more than half of the entrepreneurs said that when talking about expected operating income, they will show a downward trend. In addition, by comparing the data with the expectations of peers, we also found that most of the peers are more pessimistic about the data of this expected judgment. It can be seen that the corona virus disease 2019 has caused serious economic trauma to Small and Medium-Sized entrepreneurs, and this phenomenon It can also be used as one of the reasons for the negative emotions of entrepreneurs.

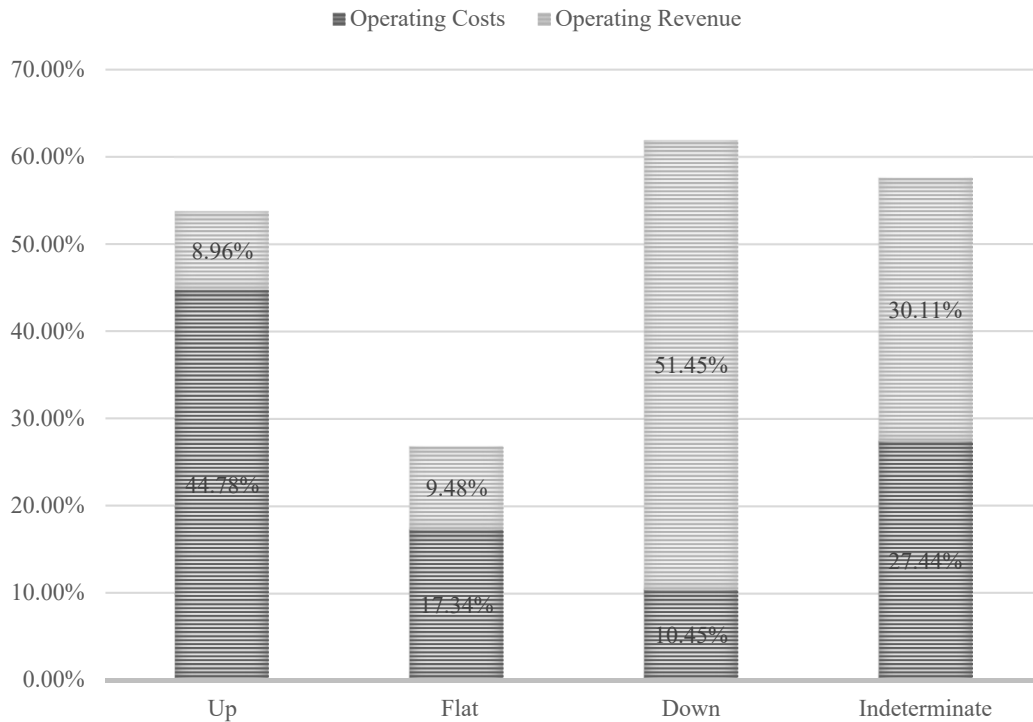


Figure 1. Distribution of Trends in Operating Costs and Business Revenues

4. Analysis of Factors Affecting the Anxiety of Small and Medium-sized Entrepreneurs Under the Corona Virus Disease 2019

4.1. Measurement model setting and variable description

The explained variable that this paper focuses on is the anxiety level of Small and Medium-Sized entrepreneurs under the corona virus disease 2019. Combined with ESIEC data, select the three questions of "anxiety about new coronary pneumonia, fear of new coronary pneumonia, and worry about new coronary pneumonia", and answer "0-1 points, 2-4 points, 5-7 points, 8-10 points" "Score" samples are reassigned as "1, 2, 3, 4", corresponding to the four levels of "low, general, relatively high, and high" respectively. The Ordered Probit model is used for analysis, and the model settings are as follows:

$$AFW_i = t, \text{ 当 } \sigma_{t-1} < AFW^* \leq \sigma_t, t = 1, \dots, 4 \quad (1)$$

$$AFW_i^* = \alpha + \beta_i X_i + \varepsilon_i \quad (2)$$

Among them, AFW_i is the anxiety, fear and worry level of sample i , and σ is the cut point to be estimated. AFW_i^* is the latent variable of sample i 's anxiety, fear and worry level, X_i represents a series of variables affecting the explained variable; ε_i is a random interference item.

In order to explore the influencing factors of the anxiety of Small and Medium-Sized entrepreneurs during the COVID-19 epidemic, this study conducts regression analysis from the aspects of enterprise operating conditions, job stabilization measures, financial support, and preferential tax policies. Taking into account regional differences, this paper also controls The province dummy variables are omitted, and the descriptive statistics of each variable are shown in Table 7. Operating Cash Flow Time Total Number of Employees Business Operating Conditions:

Table 7. Descriptive Statistics

VarName	Definition	Mean	SD
Explained Variable:			
Level of Anxiety	Ordinal variable: Low=1; Normal=2; Moderate=3; High=4	3.0004	0.9223
Level of Fear	Ordinal variable: Low=1; Normal=2; Moderate=3; High=4	2.7004	0.9806
Level of Worry	Ordinal variable: Low=1; Normal=2; Moderate=3; High=4	2.9885	0.9360
Business Operating Conditions			
Total Number of Employees	Number of employees in 2019: Less than 10=1; 11-50=2; 51-100=3; 101-500=4; More than 500=5	2.0227	1.5039
Operating Cash Flow Time	Cash flow can sustain business operation for less than a month=1; 1-3 months=2; 4-5 months=4; More than 6 months=5	2.9820	1.4015
Percentage of Absenteeism	due to the impact of the epidemic, percentage of absent employees: 0%=1; 1-10%=2; 10%-20%=3; 20%-30%=4; More than 30%=5	3.9925	1.8321
Inadequate Protective Equipment	Existence of inadequate protective equipment=1, Non-existence=0	0.2195	0.4140
Decrease in Orders	Existence of a decrease in orders=1, Non-existence=0	0.4996	0.5001
Stable Employment and Resumption of Work Policies:			
Salary Increase	Increase employee salaries=1, No=0	0.1291	0.3353
Equipment Optimization	Use advanced equipment=1, No=0	0.1018	0.3025
Raising Purchase Price	Raise purchase price=1, No=0	0.0522	0.2226
Updated Procurement Channels	Look for new procurement channels=1, No=0	0.1611	0.3677
Reduce Financing Costs	Reduce financing costs for enterprises=1, No=0	0.2463	0.4309
Resume Production as Soon as Possible	Resume production as soon as possible=1, No=0	0.0151	0.1221
Financial Support:			
Bank Loans	Enterprises apply for bank loans=1, No=0	0.3139	0.4642
Financial Loans	Enterprises apply for Internet financial loans=1, No=0	0.0672	0.2504
Private Loans	Enterprises apply for loans from small loan companies or private individuals=1, No=0	0.1225	0.3279
Tax Incentive Policies:			
Lower Tax Rates	Lower tax rates, exemption, or deferred payment=1, No=0	0.3165	0.4652
Optimized Tax Refund Service	Optimized export tax refund service=1, No=0	0.0079	0.0886

4.2. Demonstration results and analysis

Table 8 is the estimated result of the factors affecting the anxiety of Small and Medium-Sized entrepreneurs under the background of the corona virus disease 2019 based on the Ordered Probit model. The analysis of the regression results of the enterprise's operating conditions found that the coefficient value of the total number of employees in the enterprise is negative, indicating that the greater the number of employees, the anxiety, fear and worry of Small and Medium-Sized entrepreneurs will show a downward trend, but this result is not statistically significant. Significantly; and the longer the current cash flow of small and medium-sized enterprises maintains the company's normal operation, the anxiety and worry caused by the corona virus disease 2019 will be significantly reduced; And the reduction in order volume has significantly increased the anxiety, fear and worry of Small and Medium-Sized entrepreneurs under the corona virus disease 2019. To sum up, in the early stage of the corona virus disease 2019, the better the overall operating conditions of the enterprise, the lower its anxiety about the epidemic, and to a certain extent, it can increase the ability of Small and Medium-Sized enterprises to resist sudden risks.

At the same time, in the measures of stabilizing jobs and resuming work, the coefficient value of the impact of increasing employee wages on anxiety is significantly negative, indicating that increasing employee wages can significantly increase the anxiety of Small and Medium-Sized entrepreneurs. At the same time, Small and Medium-Sized entrepreneurs seeking new procurement channels during the epidemic can significantly increase entrepreneurs' anxiety, fear and worry. During the epidemic, the sudden replacement

of enterprises with new procurement channels may break the original production mode, which in turn increases the uncertainty of the survival and operation of enterprises, and increases the survival anxiety of Small and Medium-Sized entrepreneurs. However, the measure of increasing the purchase price has a negative coefficient value on the anxiety, fear and worry of small and medium-sized enterprises, indicating that raising prices can reduce negative emotions such as enterprise anxiety, but this result is not statistically significant. In addition, urging employees to return to work as soon as possible can significantly reduce the fear and worry of Small and Medium-Sized entrepreneurs about the epidemic. The production and operation of enterprises are inseparable from people. During the epidemic, employees can resume work and production as soon as possible, which will help enterprises to speed up the recovery from the trauma of the epidemic and reduce the anxiety of enterprises about the epidemic. An analysis of financial support policies found that Small and Medium-Sized entrepreneurs who have bank loans, Internet financial loans, and private or small loan company loans have higher levels of anxiety, fear, and worry in the early stages of the corona virus disease 2019. This may be due to the sluggish macroeconomic operation of the market caused by the corona virus disease 2019, which has increased the pressure on loan financing for Small and Medium-Sized enterprises, which in turn aggravated their negative emotions such as anxiety and worry. Among the preferential tax policies implemented, the government can significantly alleviate the worries of Small and Medium-Sized entrepreneurs by reducing tax rates, reducing or deferring tax payments. Micro-entrepreneurs feel anxious and worried about the epidemic.

Table 8. Factors Influencing Anxiety among Small and Medium-sized Entrepreneurs under the COVID-19 Pandemic (Oprbit Model)

VARIABLES	(1) Level of Anxiety	(2) Level of Fear	(3) Level of Worry
Business Operating Conditions:			
Total Number of Employees	-0.0101 (0.0199)	-0.00687 (0.0198)	-0.0269 (0.0201)
Operating Cash Flow Time	-0.0620*** (0.0189)	-0.0241 (0.0183)	-0.0514*** (0.0186)
Percentage of Absenteeism	0.0733*** (0.0131)	0.0417*** (0.0131)	0.0394*** (0.0132)
Inadequate Protective Equipment	0.179*** (0.0610)	0.204*** (0.0594)	0.200*** (0.0601)
Decrease in Orders	0.191*** (0.0503)	0.234*** (0.0493)	0.250*** (0.0504)
Stable Employment and Resumption of Work Policies:			
Salary Increase	0.171** (0.0789)	0.116 (0.0766)	0.0945 (0.0753)
Equipment Optimization	-0.0408 (0.0850)	-0.0646 (0.0839)	0.0296 (0.0843)
Raising Purchase Price	-0.0170 (0.108)	-0.0537 (0.114)	-0.0287 (0.108)
Updated Procurement Channels	0.165** (0.0682)	0.132** (0.0670)	0.200*** (0.0702)
Reduce Financing Costs	-0.0372 (0.0607)	-0.0882 (0.0603)	0.0210 (0.0600)
Resume Production as Soon as Possible	0.0166 (0.215)	-0.316* (0.184)	-0.447** (0.193)
Financial Support:			
Bank Loans	0.118** (0.0573)	0.159*** (0.0545)	0.105* (0.0560)
Financial Loans	0.210** (0.0985)	0.201** (0.0983)	0.186** (0.0936)
Private Loans	0.315*** (0.0759)	0.157** (0.0753)	0.374*** (0.0845)
Tax Incentive Policies:			
Lower Tax Rates	-0.0266 (0.0531)	-0.0763 (0.0514)	-0.0874* (0.0529)
Optimized Tax Refund Service	0.437* (0.262)	0.150 (0.251)	0.405* (0.209)
Provincial effect	YES	YES	YES
Observations	2,278	2,278	2,278

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

5. Conclusion and Enlightenment

As of the end of 2020, the number of Small and Medium-Sized entrepreneurs accounted for 95.68% of all enterprises above designated size, their operating income accounted for 60.83% of all enterprises above designated size, and their total assets accounted for 55.01%. However, the outbreak of the epidemic has caused anxiety among Small and Medium-Sized entrepreneurs and economic losses have negatively affected the survival and operation of Small and Medium-Sized enterprises. Based on Peking University's "China Enterprise Innovation and Entrepreneurship Survey (ESIEC)" database, this article analyzes the anxiety status and influencing factors of Small and Medium-Sized entrepreneurs under the background of the corona virus disease 2019. The research results show that: (1) The COVID-19 epidemic has brought a higher sense of anxiety, fear and worry to Small and Medium-Sized entrepreneurs. The industry has the lowest sense of anxiety; in addition, with the increase in operating income, the proportion of Small and Medium-Sized entrepreneurs with a high level of anxiety is also slightly increasing. (2) Paying employee salaries, five social

insurances and one housing fund, and paying rent are the main sources of stress and anxiety for Small and Medium-Sized entrepreneurs. (3) The stable operating conditions of enterprises, policies for job stabilization and resumption of work, financial support, and preferential tax policies can significantly alleviate the psychological problems of Small and Medium-Sized entrepreneurs such as anxiety, fear, or worry.

This paper has the following research implications: First, attach importance to the development of Small and Medium-Sized enterprises to help high-quality economic development. Compared with large-scale enterprises, Small and Medium-Sized enterprises are more affected by uncertain risks. The government should allocate support resources reasonably, such as inclination to the appropriateness of resources, and the introduction of special support policies. At the same time, in view of the differences in the epidemic anxiety of Small and Medium-Sized entrepreneurs in different regions and operating income, relevant departments should make specific analysis based on specific situations, so as to provide key support and reasonable allocation to help high-quality

economic development. Second, pay attention to the reasons for the anxiety of Small and Medium-Sized entrepreneurs, and reduce the pressure on enterprises to survive. An analysis of the sources of anxiety about the epidemic among Small and Medium-Sized entrepreneurs found that employee wages (including five insurances and one housing fund) and corporate rents are the main sources of pressure for enterprises to survive and operate. The government has implemented necessary measures such as reducing the proportion of five insurances and one housing fund and delaying payment of social security; In addition, in response to the problem of excessive rent pressure, the municipal government should make a reasonable overall plan, introduce housing rental market control policies as soon as possible, and take measures such as corporate rent subsidies and limited rent ranges to stabilize rents and reduce the pressure on the survival and operation of Small and Medium-Sized entrepreneurs. Third, ease the survival anxiety of enterprises and promote the efficient development of Small and Medium-Sized entrepreneurs. Micro, small and medium-sized enterprises can properly consider reducing labor costs and improving business flexibility in the course of their operations. At the same time, the government should strengthen financial policies and empowerment support, such as preferential policies such as reducing tax rates or deferring tax payments to help Small and Medium-Sized entrepreneurs overcome their anxiety about development.

References

- [1] Gorain B, Choudhury H, Molugulu N, et al. Fighting strategies against the novel coronavirus pandemic: impact on global economy[J]. *Frontiers in public health*, 2020, 8(12): 606129. DOI: 10.3389/fpubh.2020.606129.
- [2] Wang Z, Li T, Liao L, Yuan W, Li P. The Current Situation and Rescue Measures of SMEs under the Epidemic Shock [J]. *The Journal of Quantitative & Technical Economics*, 2020,37(08):3-23.DOI:10.13653/j.cnki.jqte.2020.08.001.
- [3] Ashiru F, Adegbite E, Nakpoda F, et al. Relational governance mechanisms as enablers of dynamic capabilities in Nigerian SMEs during the COVID-19 crisis[J]. *Industrial Marketing Management*, 2022, 105(8): DOI:18-32. 10.1016/j.indmarman.2022.05.011.
- [4] Zimon G, Tarighi H, Salehi M, et al. Assessment of Financial Security of SMEs Operating in the Renewable Energy Industry during COVID-19 Pandemic[J]. *Energies*, 2022, 15(24): 9627. DOI: 10.3390/en15249627.
- [5] Lathabhavan R. COVID-19 and Mental Health Concerns Among Business Owners: a Cross-Sectional Study from India[J]. *International Journal of Mental Health and Addiction*, 2022: 19(8):1-11. DOI:10.1007/s11469-022-00824-y.
- [6] Kenwood M M, Kalin N H, Barbas H. The prefrontal cortex, pathological anxiety, and anxiety disorders[J]. *Neuropsychopharmacology*, 2022, 47(1): 260-275. DOI:10.1038/s41386-021-01109-z.
- [7] Li Y, Chen H, Liu C, et al. How does COVID-19 pandemic affect entrepreneur anxiety? The role of threat perception and performance pressure[J]. *Frontiers in Psychology*, 2022, 13(11). DOI:10.3389/fpsyg.2022.1044011.
- [8] Wu S. Effects of pandemics-related uncertainty on household consumption: evidence from the cross-country data[J]. *Frontiers in Public Health*, 2020, 8(9): 615344. DOI:10.3389/fpubh.2020.615344
- [9] Gozgor G, Lau C K M. Economic effects of COVID-19 related uncertainty shocks[J]. *Frontiers in Public Health*, 2021, 9(9): 760619.DOI: 10.3389/fpubh.2021.760619
- [10] Haacker M. The Economic Consequences of HIV/AIDS in Southern Africa[J]. *IMF Working Papers* 2002.038 (2002), A001. DOI:10.5089/9781451845709.001.
- [11] Zainal M, Bani-Mustafa A, Alameen M, et al. Economic anxiety and the performance of SMEs during COVID-19: A cross-national study in Kuwait[J]. *Sustainability*, 2022, 14(3): 1112.DOI: 10.3390/su14031112.
- [12] Lee J W, McKibbin W J. Globalization and disease: The case of SARS[J]. *Asian economic papers*, 2004, 3(1): 113-131.DOI: 10.1162/1535351041747932.
- [13] Uzir M U H, Bukari Z, Jerin I, et al. Impact of COVID-19 on psychological distress among SME owners in Ghana: Partial least square–structural equation modeling (PLS-SEM) approach[J]. *Journal of Community Psychology*, 2022, 50(3): 1282-1314.DOI: 10.1002/jcop.22716.
- [14] Li Z. A Short-term and Long-term Analysis of the impact of SARS on the national economy [J]. *Economic Science*, 2003(03):25-31.DOI:10.19523/j.jjkk.2003.03.004.
- [15] Voigtländer N, Voth H J. The three horse men of riches: Plague, war, and urbanization in early modern Europe[J]. *Review of Economic Studies*, 2013, 80(2): 774-811.DOI: 10.1093/restud/rds034.
- [16] Lima C K T, de Medeiros Carvalho P M, Lima I A A S, et al. The emotional impact of Coronavirus 2019-nCoV (new Coronavirus disease)[J]. *Psychiatry research*, 2020, 287(5): 112915.DOI: 10.1016/j.psychres.2020.112915.
- [17] Xu Z, Jia H. The influence of COVID-19 on entrepreneur's psychological well-being[J]. *Frontiers in psychology*, 2022, 12(1): 6409.DOI: 10.3389/fpsyg.2021.823542.
- [18] Huang D, Chen Q. Stress and coping among micro-entrepreneurs of peer-to-peer accommodation[J]. *International Journal of Hospitality Management*, 2021, 97(8): 103009.DOI: 10.1016/j.ijhm.2021.103009.
- [19] Wang Y. Impact of COVID-19 Pneumonia Epidemic on High-quality Development of
- [20] Private Economy and Countermeasures [J]. *Management Review*, 2020,32(10):11-21.DOI:10.14120/j.cnki.cn11-5057/f.2020.10.002.
- [21] Zhang X, Sun T et al. Economic Recovery and Outlook of Chinese Micro- and Small-Businesses during COVID-19 [J]. *Review of Industrial Economics*, 2021,No.43(02):5-24. DOI:10.19313/j.cnki.cn10-1223/f.2021.02.002.
- [22] Cai W, Lv H, Shen X, Chen Y. Research on the Effectiveness of Fiscal and Taxation Policy under the Impact of the Epidemic—Analysis Based on the Types of Policies and the Operating Conditions of Small and Medium-Sized Enterprises [J]. *Public Finance Research*, 2021(09): 71-84. DOI:10.19477/j.cnki.11-1077/f.2021.09.009.
- [23] Liu Y, Zhang Y, Fang H, et al. SMEs' line of credit under the COVID-19: evidence from China[J]. *Small Business Economics*, 2022,58(3): 807–828. DOI: 10.1007/s11187-021-00474-9.
- [24] Ma W, He C, Chen X. The Impact of Supportive Policies and Their Combination on Micro, Small, and Medium-sized Enterprises' Resumption of Work and Production: A PS M Analysis in the Context of COVID-19 [J/OL]. *Soft Science*:1-18[2023-02-09].http://kns.cnki.net/kcms/detail/51.1268.g3.20220718.1437.010.html.