

# The Impact of COVID-19 on China's Small and Medium-sized Enterprises and their Response

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**ABSTRACT**—The healthy development of small and medium-sized enterprises is of great significance to stable employment, economic growth, industrial and digital transformation in China. It is a new force for national economic and social development, a critical foundation for building a modern economic system and promoting high-quality economic development, an important support for expanding employment and improving people's livelihood, and an important birthplace of entrepreneurship. The COVID-19 pandemic broke out globally in early 2020, which severely impacted the world economy. Various industries, such as tourism, catering, transportation, entertainment, education and training, have been severely affected, with rising unemployment and rising prices. China's small and medium-sized enterprises have not been spared either, and have suffered a severe impact, leading to a national economic recession. According to the current situation of the pandemic level, although people all over the world are working hard to study the virus and find a cure to eliminate the virus, the process is resolute and long. Therefore, economic development will continue to develop under the hood of the epidemic, which has also given birth to the development of the digital economy. Therefore, as a small and medium-sized enterprise in China, it is necessary to learn how to survive during the pandemic period, what measures should be taken to achieve economic transformation, and continue to provide the driving force for the development of China's national economy.

**Keywords:** SMEs, COVID-19 epidemic, economy, response.

## 1 The development of small and medium enterprises in China

### 1.1 Classification criteria for small and medium-sized enterprises

According to the notice of "Statistics on the Classification of Large, Medium, Small and Micro Enterprises (2017)," Guotong Zi [2017] No. 213. The classification criteria for small and medium enterprises in China are shown in Table 1 (currency type: RMB).

**Table 1:** Classification of Large, Medium, Small and Micro Enterprises

No.	Industry Name	Indicator name	unit of measurement	Medium-sized enterprise	small companies
1	Agriculture, forestry, animal husbandry and fishery	Operating income (Y)	Ten thousand yuan	$500 \leq Y < 20000$	$50 \leq Y < 500$
2	industry	Practitioners (X)	people	$300 \leq X < 1000$	$20 \leq X < 300$

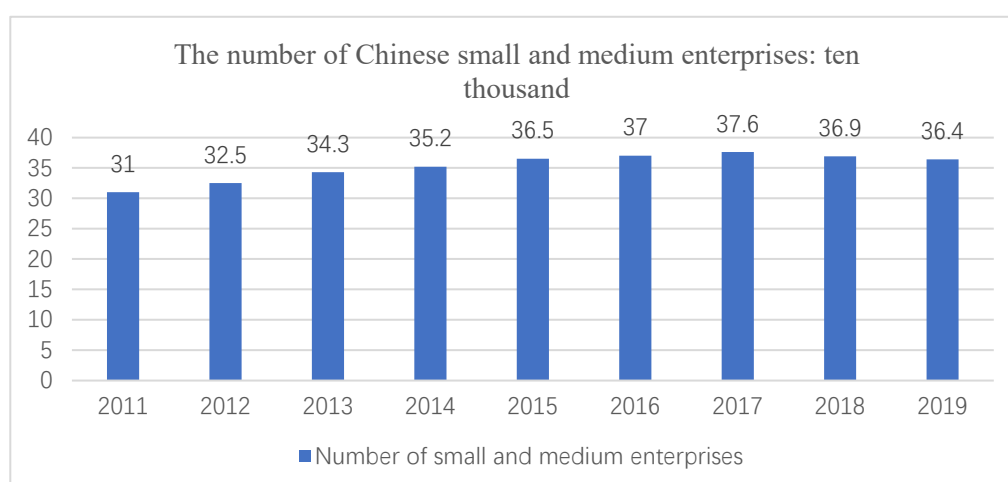
		Operating income (Y)	Ten thousand yuan	$2000 \leq Y < 40000$	$300 \leq Y < 2000$
3	Building industry	Operating income (Y)	Ten thousand yuan	$6000 \leq Y < 80000$	$300 \leq Y < 6000$
		Total assets (Z)	Ten thousand yuan	$5000 \leq Z < 80000$	$300 \leq Z < 5000$
4	Wholesale industry	Practitioners (X)	people	$20 \leq X < 200$	$5 \leq X < 20$
		Operating income (Y)	Ten thousand yuan	$5000 \leq Y < 40000$	$1000 \leq Y < 5000$
5	Retail	Practitioners (X)	people	$50 \leq X < 300$	$10 \leq X < 50$
		Operating income (Y)	Ten thousand yuan	$500 \leq Y < 20000$	$100 \leq Y < 500$
6	Transportation industry	Practitioners (X)	people	$300 \leq X < 1000$	$20 \leq X < 300$
		Operating income (Y)	Ten thousand yuan	$3000 \leq Y < 30000$	$200 \leq Y < 3000$
7	Warehousing industry	Practitioners (X)	people	$100 \leq X < 200$	$20 \leq X < 100$
		Operating income (Y)	Ten thousand yuan	$1000 \leq Y < 30000$	$100 \leq Y < 1000$
8	Postal industry	Practitioners (X)	people	$300 \leq X < 1000$	$20 \leq X < 300$
		Operating income (Y)	Ten thousand yuan	$2000 \leq Y < 30000$	$100 \leq Y < 2000$
9	Accommodation Industry	Practitioners (X)	people	$100 \leq X < 300$	$10 \leq X < 100$
		Operating income (Y)	Ten thousand yuan	$2000 \leq Y < 10000$	$100 \leq Y < 2000$
10	Catering	Practitioners (X)	people	$100 \leq X < 300$	$10 \leq X < 100$
		Operating income (Y)	Ten thousand yuan	$2000 \leq Y < 10000$	$100 \leq Y < 2000$
11	Information Transmission Industry	Practitioners (X)	people	$100 \leq X < 2000$	$10 \leq X < 100$
		Operating income (Y)	Ten thousand yuan	$1000 \leq Y < 100000$	$100 \leq Y < 1000$
12	Software and Information Technology Service Industry	Practitioners (X)	people	$100 \leq X < 300$	$10 \leq X < 100$
		Operating income (Y)	Ten thousand yuan	$1000 \leq Y < 10000$	$50 \leq Y < 1000$
13	Real estate development and management	Operating income (Y)	Ten thousand yuan	$1000 \leq Y < 200000$	$100 \leq Y < 1000$
		Total assets (Z)	Ten thousand yuan	$5000 \leq Z < 10000$	$2000 \leq Z < 5000$
14	Property management	Practitioners (X)	people	$300 \leq X < 1000$	$100 \leq X < 300$
		Operating income (Y)	Ten thousand yuan	$1000 \leq Y < 5000$	$500 \leq Y < 1000$
15	Leasing and business services	Practitioners (X)	people	$100 \leq X < 300$	$10 \leq X < 100$
		Total assets (Z)	Ten thousand yuan	$8000 \leq Z < 120000$	$100 \leq Z < 8000$
16	Other industries not listed	Practitioners (X)	people	$100 \leq X < 300$	$10 \leq X < 100$

According to the above division table, China's small and medium-sized enterprises are divided into 15 industry categories and social work industry categories [1].

## 1.2 SMEs economic data

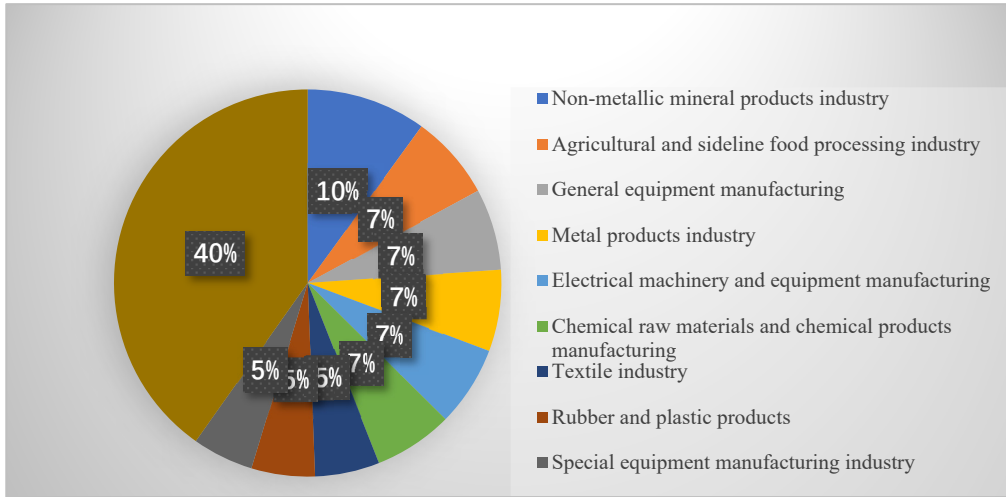
Since the reform and opening up, the Party Central Committee and the State Council have attached great importance to the development of small and medium-sized enterprises. Especially in recent years, my country's small and medium-sized enterprises have developed rapidly, their status and role in the national economy and social development are increasing day by day, and they have become a new growth point for the economy. Since the 1990s, the rapid economic growth has increased the value of industry by 76.7% mainly by means of small and medium enterprises [2], which shows that the status of small and medium enterprises is growing day by day. The dynamics of the SME in China in 2011-2019 is shown on the Figure 1.

Small and medium-sized enterprises are an indispensable part of the development of China's national economy, and are the basic force that promotes the development of the national economy and supports social stability. The support of Chinese policies to SMEs provides a guarantee for the competition of SMEs. Because SMEs have irreplaceable importance in improving economic efficiency, expanding employment, narrowing income gaps, maintaining economic vitality, and maintaining market structure.



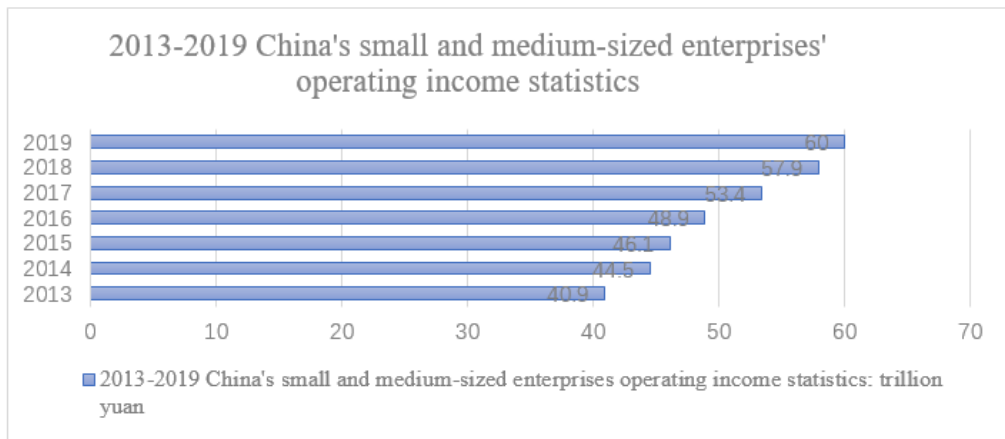
**Figure 1:** The dynamics of the SME in China in 2011-2019. Prepared by the authors.

At the end of 2019, there were 364,000 small and medium-sized enterprises, a decrease of 4,883 from 2018. The number of enterprises has declined for two consecutive years; accounting for 97.8% of all industrial enterprises above designated size. Among them, 43,000 medium-sized enterprises, accounting for 11.8% of the number of small and medium-sized enterprises; 321,000 small enterprises, accounting for 88.2% of the number of small and medium-sized enterprises [3].



**Figure 2:** Distribution of China's small and medium-sized enterprises. Prepared by the authors based on [4].

Among the 31 manufacturing industries, there are 9 industries where the number of small and medium-sized enterprises accounts for more than 5% of the total number of small and medium-sized enterprises in the manufacturing industry. They are: non-metallic mineral products industry (10.0%), agricultural and sideline food processing industry (7.1%), General equipment manufacturing (6.8%), metal products (6.8%), electrical machinery and equipment manufacturing (6.7%), chemical raw materials and chemical products manufacturing (6.6%), textile industry (5.4%), rubber and Plastic products industry (5.3%), special equipment manufacturing industry (5.1%) [4].



**Figure 3** China's small and medium-sized enterprises' operating income statistics. Prepared by the authors based on [5].

As of 2019, SMEs have achieved operating income of 60.0 trillion yuan, accounting for 56.7% of corporate operating income, an increase of 4.1% year-on-year. Among them, the operating

income of medium-sized enterprises was 23.9 trillion yuan, an increase of 4.2% year-on-year; the operating income of small enterprises was 36.1 trillion yuan, an increase of 4.1% year-on-year [5].

Small and medium-sized enterprises are an important force in China's economy and the backbone of modern economic construction. According to statistics from the State Council in 2018, my country's SMEs have the typical characteristics of "Five Six Seven Eight Nine": "They contribute more than 50% of tax revenue, more than 60% of GDP, more than 70% of technological innovation, and more than 80% of urban labor employment. , The number of enterprises more than 90%"[6].

## **2 The impact of COVID-19 on small and medium enterprises**

The current status of SMEs is believed to be obvious to all. As an important part of the national economy, they are now facing difficulties in survival. The outbreak of COVID-19 in 2020 has caused great anxiety to people and a heavy blow to society, especially small and medium-sized enterprises. In the past few months, nearly 240,000 SMEs have disappeared from our lives. Stick with it, there are many companies still adhere to teeth in the.

### **2.1 Survey results**

After the outbreak, the ESIEC project alliance [7] carried out the "special survey on the survival status of small and medium-sized enterprises under the new crown pneumonia epidemic", collecting data and collecting data from five provinces and two cities (Beijing, Shanghai, Guangdong, Zhejiang, Henan, Liaoning and Gansu).

The survey shows that the COVID-19 epidemic itself and its prevention and control policies have had a negative impact on the normal operations of nearly 80% of enterprises, but most of them are expected to resume operations in March. Due to the occurrence of COVID-19, most companies have a relatively pessimistic attitude towards revenue in 2020, and 30% of companies have unclear expectations for the future. Among the 2344 companies participating in the survey and representative of ESIEC, nearly 80% (79.8%) of the companies have not resumed work before February 10, and nearly 40% of the companies (1871) that have not yet resumed work (39.5%) of the companies are expected to resume work within one month, and nearly 50% (47%) of the remaining companies are unable to determine their specific resumption time.

Under the influence of the epidemic, more than half (51.3%) of the companies have negative expectations for their overall operating income in 2020, and only 10% of the companies expect their revenue to increase over the previous year. Among them, 40.8% of companies are expected to reduce their revenue by more than 10% compared to 2019, and about 30.2% of companies are still unable to judge this year's revenue.

COVID-19 is expected to have a negative impact on half (50.11%) of export-oriented companies. Among them, companies whose export value is expected to decrease by more than 20% from the previous year account for about 31.32% of all export-oriented companies; at the same time, about 34.23% of companies cannot Determine the impact.

## 2.2 The main impact of COVID-19 on small and medium enterprises

1) The prevention and control of COVID-19 and the delay in resuming production and work have brought a great crisis to many small and medium-sized enterprises, which has seriously affected the survival and development of small and medium-sized enterprises. Some companies have already closed down, which will lead to more serious unemployment and employment problems. The operating income of many small and medium-sized enterprises has fallen sharply, but various expenditures will not be reduced, and the cash flow cannot guarantee normal operation. Many enterprises that are familiar in daily life have become difficult due to the shortage of funds and are facing the dilemma of bankruptcy.

2) Due to the COVID-19 epidemic, about 40% (38.5%) of the companies have labor shortages, and nearly half (45.5%) of the companies have more than 30% of employees unable to work due to the epidemic; nearly 90% (86.9%) of the company is facing cost pressure, and nearly 70% (69.7%) of the company has a cash flow shortage; over 40% (42%) of the company has a shortage of raw materials; nearly half (50.47%) of the company has problems with the performance of contracts [8].

3) Due to restrictions on the movement of people, the COVID-19 epidemic has suffered the most damage to the tertiary industry, especially the retail and wholesale, catering and accommodation, passenger transportation and logistics industries. In the first quarter of 2020, the value added of the wholesale and retail industry fell 17.8% year-on-year, the value added of the transportation, storage and post industry fell 14%, and the value added of the accommodation and catering industry fell 35.3%, both showing a double-digit decline.

**Table 2:** SME losses due to COVID-19 by industries

No.	industry	Description losses	Data Sources
1	Tourism	During the 2019 Spring Festival travel with the income scale projections, the 2020 Spring Festival Golden Week due to the outbreak of tourism revenue loss is expected to more than 500 billion yuan, equivalent to about 2% in the first quarter gross domestic product.	National Bureau of Statistics
2	Film and Television Entertainment Industry	It was originally estimated that the box office revenue of the Spring Festival in 2020 was 7 billion yuan. Affected by the COVID-19 epidemic, movie box office revenue for the whole year of 2020 has shown zero growth.	National Film Bureau
3	Catering retail industry	Within 7 days of the Spring Festival in 2020, the COVID-19 epidemic has caused a loss of about 500 billion yuan in retail sales in the catering industry.	Hengda Institute data
4	Transportation industry	From the perspective of subdivisions, the number of passengers sent by railway, highway, waterway, and civil aviation has all fallen sharply. Among them, the number of passengers sent by railway decreased by 41.5%; the number of passengers sent by road decreased by 47.4%; the number of passengers sent by water decreased by 54.6%; and the number of passengers sent by civil aviation decreased by 41.4%.	State Department of Transportation

4) During the COVID-19 pandemic, small and medium-sized enterprises have been affected to varying degrees in procurement, production, and sales, and the resulting financial pressure has a serious impact on small and medium-sized enterprises. After the outbreak of the epidemic, due to the need for protection, measures such as isolation, prevention and control and restrictions on population movement were adopted in various regions. It was difficult for raw materials to be delivered in time, personnel resumption of work was delayed, and production capacity utilization decreased. Corporate income cannot be guaranteed, but employee wages, social security, taxes, rents, etc. are all rigid expenditures, and corporate funding gaps have widened. The survey results show that 62.78% of companies believe that employee wages and five social insurances and one housing fund are the main expenditure pressures.

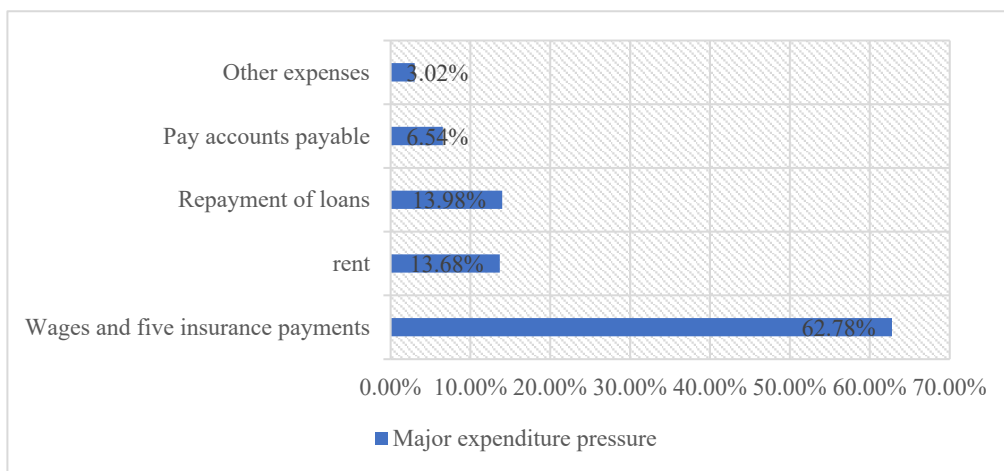


Figure 4. Main expenditure pressure. Prepared by the authors based on [9].

5) In the manufacturing industry, small and medium-sized enterprises, as important participants in the manufacturing industry chain, often participate in production as supporting suppliers or service providers of large enterprises, and are a key link in the manufacturing industry. Under the general environment of economic downturn and industry development itself, small and medium-sized enterprises have relatively weak survivability due to industry access, limited financing, technological innovation, and upstream and downstream constraints. Due to the impact of the COVID-19 epidemic, their products are relatively single. The relatively backward equipment and technology, the shortage of talents, the increasing exposure of market orders and the increase of raw material costs have brought greater difficulties to small and medium-sized manufacturing enterprises.

### 3 Response measures for small and medium-sized enterprises in the face of COVID-19

#### 3.1 Policy support

1) Adjust the tax policy to reduce the statutory tax burden. Since the wages of SME employees and the five insurances and one housing fund together account for the bulk of the cost, it is

necessary for the government to promptly pass refunds, reductions, subsidies or extensions, and allow companies to negotiate remuneration with employees during the COVID-19 epidemic prevention and control period. In this way, small and medium enterprises can directly reduce their taxes, rents, administrative fees, and social security expenditures. According to the losses suffered by the company during the COVID-19 epidemic and the ability to maintain employment, specific solutions are proposed. For example, the government has adopted a reduction in the amount of tax payment or exemption of individual taxes and fees. If the government's ability to reduce or exempt subsidies is limited, it can allow companies to deduct pre-tax deductions for rent and staff salaries during the COVID-19 epidemic and during the recovery period.

2) The state has formulated a package of assistance programs to help small and medium-sized enterprises in fighting the impact of the COVID-19 epidemic and promoting the resumption of work. The fiscal, financial, labor and other supporting policies adopted in response to the shock have been refined into tailor-made and precise measures suitable for small and medium-sized enterprises, and strengthened the confidence of small and medium-sized enterprises in fighting the impact of the COVID-19 epidemic. Provide maximum support through tax cuts, fee cuts, subsidies, etc., to promote the resumption of work and production of small and medium-sized enterprises, reduce layoffs, reduce wage cuts, and stabilize employment.

3) Establish a national SME assistance or revitalization fund. This is because once a large number of small and medium-sized enterprises cannot resume operations for more than half a year, corporate shareholders may not be willing to increase capital, and private finance and formal commercial financial institutions will also be afraid, and there will be an overall shortage of funds. At this time, the financial assistance program needs to be further upgraded. It is possible to consider financial contribution or even the issuance of special treasury bonds to establish national and local SME assistance or revitalization funds.

4) Encourage capable non-state-owned enterprises to reduce or exempt small and medium-sized enterprises, and encourage social donations. For example, rent, logistics and distribution fees, advertising fees, etc. In China, more than 500 commercial property owners, such as Dalian Wanda, have announced the initiative to reduce or exempt commercial tenants' rents[10].

5) Strengthen innovation support. Including the organization of technology and product innovation related to the prevention and control of the COVID-19 epidemic, supporting the digital transformation of enterprises, supporting enterprises to improve the level of intelligent manufacturing, and promoting the innovative development of large and small enterprises.

6) Encourage national consumption. During the COVID-19 epidemic, preferential activities are adopted to encourage people to consume online. After the COVID-19 epidemic prevention and control takes effect, consider increasing the number of holiday days for important festivals such as May Day, Dragon Boat Festival, National Day Holiday, and New Year's Day to make up for part of the consumption lost due to the COVID-19 epidemic and stimulate economic recovery and growth.

### **3.2 Small and medium-sized enterprises respond by themselves**

1) Innovation-driven, transformation and upgrading. The COVID-19 epidemic will promote changes in business logic and the evolution of business models to a certain extent. Small and



medium-sized enterprises need to build a new value chain through model innovation and find new profit margins; for example, the manufacturing industry develops new products and processes through technological innovation to improve product quality and reduce product costs; through the integration of digital technology and network technology, improve quality and efficiency, build the core competitiveness of products, and promote the transformation and upgrading of enterprises.

2) Strengthen the body and improve immunity. The health of the enterprise determines the lifespan of the enterprise. Small and medium-sized enterprises need to further control risks, focus on the sustainable development of the enterprise, pay attention to the enterprise's capital chain, production safety and employee health; further reduce costs and increase efficiency, find a proper foothold, and optimize Product structure and customer groups, shorten the product line, reduce unnecessary costs, and better respond to possible future crises.

3) Optimize the team and gather talents. People are the core productivity of business development. During the COVID-19 epidemic and for a period of time thereafter, the shortage of talents and labor will continue, and the phenomenon of "grabbing people" has already appeared in many places. All small and medium-sized enterprises must do a good job of human resource planning, design incentive mechanisms and promotion systems, and create a good employment environment for enterprises and a good growth environment for employees. Pay attention to the creation and optimization of the core team, do a good job in staff training, and improve the overall quality and skills of the staff.

4) Continuous improvement and flexible operation. As one of the core concepts of lean production, continuous improvement requires vigorous promotion and implementation by small and medium-sized enterprises. All employees of the enterprise should put continuous improvement in an important position, be good at discovering and solving problems, and comprehensively improve the "immunity" of the enterprise. Manufacturing enterprises should have the ability to produce a variety of products, reduce their initial investment costs, and improve their production line utilization. Give full play to its own advantages, improve its ability to respond to risks through flexible operation methods, and avoid small enterprises from committing large-scale enterprise diseases.

5) Look for the correct positioning, repair both internally and externally. Under the COVID-19 epidemic, small and medium-sized enterprises must make effective use of external digital resources and government resources. With the rise of a new round of technological and industrial revolutions, the development trend and competitive landscape are facing major adjustments. In particular, small and medium-sized enterprises that provide key technical services and produce and supply key parts and components play a key role that cannot be ignored in many aspects such as the industrial market, personnel employment, and social development. Companies should refocus their positioning, actively engage with industry associations and competent authorities, and strive for support from supporting policies, funding channels, legal risk control, and many other aspects, so as to promote their own development.

## **4 conclusion**

The COVID-19 epidemic hit the world in 2020, bringing disasters and immeasurable losses to

people all over the world. The economic downturn has been severe, people's travel and activities have been blocked, and their living standards have declined. All enterprises are facing the pressure of survival and development. Coupled with the market economy competition itself is very cruel. Especially small and medium enterprises are facing more serious challenges. As for today, the biggest difficulty for small and medium-sized enterprises is funding. Although they are the most important force in the national economy, the state is constantly giving corresponding support policies in order to let everyone get through the difficulties smoothly, but there are still many companies which could not survive in front of this difficulty. So we want to get China's small and medium-sized enterprises back on track. On the one hand, the state must provide more policy support; on the other hand, it also requires the efforts of small and medium-sized enterprises themselves. Only when these two measures work together can we get rid of the predicament, get on the right track, and continue to exert strong energy.

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