## Impact of COVID－19 on Start－up Enterprises

－Based on the Analysis of the Follow－up Survey on Business Start－ups－

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#### Abstract

Using the panel data set "Follow-up Survey of Business Start-ups" that combines microdata of the "Survey on Business Start-ups in Japan (FY2020)" carried out by Japan Finance Corporation Research Institute (JFCRI) in July 2020 and the "Follow-up Survey on the Impact of COVID-19 on Start-up Enterprises" carried out in July 2021, one year after the former, this paper attempts analysis of the business conditions of the enterprises that started business without anticipating the spread of COVID19.

The results show that sales and the ratio of achievement of the expected monthly sales were not inferior compared with the Panel Survey of Business Start-ups (the 4th cohort) that followed the enterprises that started business in 2016 that was a so-called normal year, but their profitability was relatively inferior and growth in the number of employees tends to be lower. The analysis also revealed impacts of the COVID-19 pandemic, which include lower sales and profits than expected, self-restraint on some operations and piling-up of expenses for infection control measures.

In order to overcome the difficulties, start-up enterprises had implemented various measures related to funds, customers and employees. Utilization of IT was also advanced. Some enterprises introduced new products/services and others changed the way of providing products/services. Nearly $80 \%$ of the respondents received support from the public administrations.

Perhaps partially as an effect of these efforts, satisfaction of entrepreneurs was not very low compared with the Panel Survey and there was no big difference in desire for growth. We hope that the start-up enterprises that have overcome the difficulties caused by the COVID-19 pandemic just after starting their business will grow steadily.


## 1. Introduction

## (1) Purpose

In order to understand the actual conditions of start-up enterprises, Japan Finance Corporation Research Institute (JFCRI) has been conducting the "Survey on Business Start-ups in Japan" every year since FY1991. Survey on Business Start-ups in Japan of FY2020 (hereinafter "the 2020 Survey"), which was conducted in July 2020 when the second wave of COVID-19 was spreading, found various impacts on start-up enterprises, but the pandemic still continues. Therefore, in order to understand the changes in the conditions of the start-up enterprises after the survey, JFCRI conducted the "Follow-up Survey on the Impact of COVID-19 on Start-up Enterprises" (hereinafter "the 2021 Survey") targeting the respondents to the 2020 Survey. In this paper, the panel data set combining the microdata of the two surveys is called the "Follow-up Survey on Business Start-ups" (hereinafter "this Survey").

## (2) Procedures

Table- 1 shows the procedures of this Survey. The scope of the 2020 survey was business enterprises, financed by Japan Finance Corporation's Micro Business and Individual Unit over the period from April to September 2019, which had been in operation for not more than one year at the time of the financial support (excluding real estate lessors). The number of responses was 1,597 , making the response rate $30.9 \%$. Regarding their legal status at the time of the survey, solo proprietors accounted for $60.5 \%$, while corporate enterprises accounted for $39.5 \%$.

The 2021 Survey was carried out in July 2021 exactly one year after the 2020 Survey, when the 5th wave of COVID-19 was expanding. Its targets were 1,290 enterprises out of the respondents to the 2020 Survey. A total of 841 enterprises responded, making the response rate $65.2 \%$. Regarding their legal status at the time of the survey, solo proprietors accounted for $56.7 \%$, while corporate enterprises were $43.3 \%$.

The data set of this Survey that combines the microdata of the two surveys is panel data of the same sample at two points of time. It can grasp the changes in the conditions of the enterprises more correctly compared with questionnaires administered to different samples. For this reason, this paper will show the data of the two questionnaires as far as the data are comparable ${ }^{1}$.

The average number of months from the time of business start-up was 25.8 at the time of the research in July 2021 (Figure-1). Looking at the distribution of the length by 6-month brackets, " 25 to 30 months" ( $47.1 \%$ ) and " 19 to 24 months" ( $37.8 \%$ ) together account for over $80 \%$. These enterprises

[^1]
## Table-1 Procedures for the Survey

|  | Follow-up Survey on Business Start-ups (This Survey) |  |
| :---: | :---: | :---: |
|  | 2020 Survey on Business Start-ups in Japan (the 2020 Survey) | Follow-up Survey on the Impact of COVID-19 on Start-up Enterprises (the 2021 Survey) |
| Period of Survey | July 2020 | July 2021 |
| Scope of Survey | A total of 5,176 business enterprises, financed by Japan Finance Corporation's Micro Business and Individual Unit over the period from April to September 2019, which had been in operation for not more than one year at the time of financial support, including enterprises prior to their start-up, but excluding real estate lessors. | 1,290 enterprises out of the respondents to the 2020 Survey on Business Start-ups in Japan (the 2020 Survey) |
| Survey method | The questionnaires were sent and collected by post. The questi | onnaires were filled out anonymously. |
| Number of responses | 1,597 (response rate: $30.9 \%$ ) | 841 (response rate: $65.2 \%$ ) |
| Management style <br> (at the time of the survey) | Private enterprise: 60.5\% Corporate enterprise: 39.5\% | Private enterprise: 56.7\% Corporate enterprise: 43.3\% |

Figure-1 Number of Months from the Time of Business Start-up of the Responding Enterprises (at the time of the survey in July 2021)


Source: "Follow-up Survey on the Impact of COVID-19 on Start-up Enterprises" by Japan Finance Corporation Research Institute (The same applies hereinafter when the survey year is not indicated).
Note: 1. n is the sample size (the same hereinafter).
2. The component ratios may not sum to $100 \%$ due to rounding off to the first decimal place (the same hereinafter).
3. Dat a may different from the existing publication of the "2020 Survey on Business Start-ups in Japan" (the same hereinafter).
started business during the period from January to December of 2019. "12 to 18 months" (enterprises that started business during the period from January to July 2020) accounts for only $2.5 \%$.

Figure-2 shows the time of starting business of the respondents and the number of new COVID-19 cases in Japan. Because the first infection case in Japan was confirmed in January 2020 and the government issued the first declaration of a state of emergency in April of the same year, it is right to consider that most respondents to this survey started business without anticipating the COVID-19

Figure-2 Relationship Between the Time of Business Start-up and the Number of New COVID-19

## Cases in Japan



Source: The number of new cases of COVID-19 is based on the materials presented by Ministry of Health, Labour and Welfare.
Note: The time of business start-up is represented by number per month ( $\mathrm{n}=841$ ). The number of new cases in Japan is the number by month.
pandemic.
The most frequent industry type of the respondents is "Services" ( $27.2 \%$ ) followed by "Medical, Health Care and Welfare" (18.9\%), "Restaurant and Accommodations" (14.5\%), "Retail Trade" (10.3\%) and "Construction" (9.0\%) (Table-2).

## 2. Changes of Business Conditions

This section confirms the changes in business conditions of the respondents under the spread of COVID-19 based on several indices. In order to check the difference with start-up enterprises in socalled normal times, analysis will be conducted in comparison with the data of the "Panel Survey of Business Start-ups (the 4th cohort)" (hereinafter "the Panel Survey") that followed the enterprises that started business in 2016 as far as possible ${ }^{2}$.

The average number of months from the time of business start-up of the Panel Survey was 5.9 in

[^2]Table-2 Industry Types (as of 2021)
(\%)

| Industry type | Proportion | n |
| :--- | ---: | ---: |
| Construction | 9.0 | 76 |
| Manufacturing | 3.0 | 25 |
| Information and Communications | 2.6 | 22 |
| Transportation | 2.3 | 19 |
| Wholesale | 3.4 | 29 |
| Retail trade | 10.3 | 87 |
| Restaurant and Accommodations | 14.5 | 122 |
| Medical, Health care and Welfare | 18.9 | 159 |
| Education, Learning support | 3.1 | 26 |
| Services | 27.2 | 229 |
| Real estate | 4.8 | 40 |
| Other | 0.8 | 7 |

Note: 1. Because real estate lessors are not covered by the survey, they are not included in "Real Estate" or "Other"
(the same here in after.)
2. "Food takeout/delivery service" is included in "Retail trade" (the same here in after.)
the 1st survey (as of the end of 2016), 17.9 in the 2nd survey (as of the end of 2017), and 29.9 in the 3rd survey (as of the end of 2018). Because these values are different from those of this Survey, the latter's data were recalculated to make them equivalent to the same number of months of the 2020 and the 2021 surveys $^{3}$. Assuming that microdata will change from the first to the second and from the second to the third panel survey at a uniform pace, we calculated their values at the 13.8th month, which is the average of the 2020 Survey, and at the 25.8 th month, which is the average of the 2021 Survey ${ }^{4}$.

[^3]
## Figure-3 Monthly Sales



Source: "2020 Survey on Business Start-ups in Japan" by Japan Finance Corporation Research Institutefor the 2020 Survey; "Follow-up Survey on the Impact of COVID-19 on Start-up Enterprises" by Japan Finance Corporation Research Institutefor the 2021 Survey (The same applies hereinafter unless otherwise noted).
Note: Aggregated the dat a of the enterprises that responded both to the 2020 Survey and the 2021 Survey (the same applies hereinafter when the dat a of the two points of time are shown).

## (1) Sales

First, let us look at indices of sales. Enterprises with monthly sales (sales per month) "less than 1 million yen" account for $43.3 \%$ and enterprises with " 1 million to under 5 million yen" account for $42.1 \%$ in the 2021 Survey. Though the proportions have slightly decreased from $44.8 \%$ and $42.7 \%$ of the 2020 Survey, more than $80 \%$ of the respondents are relatively small companies with monthly sales under 5 million yen (Figure-3). On the other hand, the proportion of " 5 million to under 10 million yen" has increased from $8.5 \%$ in the 2020 Survey to $8.7 \%$ in the 2021 survey. Similarly, the proportion of "10 million yen or more" has increased from $4.1 \%$ to $5.9 \%$ and average monthly sales have increased from 2.612 million to 3.066 million yen. Average monthly sales of the Panel Survey are 2.418 million yen at 13.8 months after the business start-up (equivalent to the 2020 survey), and 2.809 million yen at 25.8 months after the business start-up (equivalent to the 2021 survey). The results of this Survey are slightly higher than the results of the Panel Survey ${ }^{5}$.

Next, regarding sales conditions at the time of the survey, the proportion of "on the increase" decreased from $43.3 \%$ in the 2020 Survey to $30.8 \%$ in the 2021 Survey (Figure-4) ${ }^{6}$. The Proportion of "marginal change" was $33.6 \%$ and $38.7 \%$, and the proportion of "on the decrease" was $23.1 \%$ and $30.8 \%$.

How do the achieved sales compare with the expectation at the time of business start-up? Here, the achievement ratio of the expected monthly sales is defined as the percentage of the actual monthly sales at the time of the 2020 Survey and the 2021 Survey to the monthly sales expected at the time of business start-up, which was asked in the 2020 Survey. In the 2020 Survey, the proportions of " $125 \%$

[^4]
## Figure-4 Sales Conditions



Figure-5 Achievement Ratio of the Expected Monthly Sales


Note: Calculated using the following formulas based on the expected monthly sales at the time of the 2020 Survey
Achievement Ratio of the Expected Monthly Sales (2020 Survey)
$=\{$ monthly sales (the 2020 Survey) $/$ expected monthly sales (2020 Survey) $\} \times 100$
Achievement Ratio of the Expected Monthly Sales (2021 Survey)
$=\{$ monthly sales (the 2021 Survey) $/$ expected monthly sales (2020 Survey) $\} \times 100$
or more" and " $100 \%$ to under $125 \%$ " account for $32.3 \%$ and $22.3 \%$, respectively: combined, the proportion of respondents achieving their expected monthly sales is $54.7 \%$ (Figure-5).

In the 2021 Survey, the proportion of the respondents achieving their expected monthly sales increased to $59.3 \%$ combining $41.2 \%$ of " $125 \%$ or more" and $18.1 \%$ of " $100 \%$ to under $125 \%$." However, the proportion of "less than $50 \%$ " rose from $10.0 \%$ in the 2020 Survey to $16.5 \%$ in the 2021 Survey, showing a tendency of polarization. In the Panel Survey, the proportion of the respondents achieving their expected monthly sales was $33.1 \%$ at the time equivalent to the 2020 Survey and $46.1 \%$ at the time equivalent to the 2021 Survey $^{7}$. The values of this Survey are higher. However, this may be a result of low estimation of the expected monthly sales in the face of the COVID-19 disaster.

[^5]
## Figure-6 Profitability



## (2) Profitability

Looking at profitability at the time of the survey, the proportion of "in surplus" remained almost unchanged from $59.9 \%$ in the 2020 Survey to $60.9 \%$ in the 2021 Survey (Figure-6). The proportions of "in surplus" of the Panel Survey equivalent to the 2020 Survey and the 2021 Survey are $63.9 \%$ and $73.5 \%$, respectively ${ }^{8}$. In comparison with start-up enterprises in so-called normal times, the respondents to this Survey may have taken more time to become profitable.

## (3) Number of staff members

Looking at the change in the number of staff members, the proportion of " 1 " that means the entrepreneur is operating the business alone has decreased from 36.6\% at the time of start-up to 31.8\% in the 2020 Survey (Figure-7). However, the proportion remains almost unchanged at $32.3 \%$ in the 2021 Survey. The proportion of " 2 " has changed from $22.6 \%$ to $21.1 \%$ and then to $20.1 \%$, " 3 " from $10.4 \%$ to $11.7 \%$ and then to $10.9 \%$, and " 4 " from $8.3 \%, 7.0 \%$ to $7.2 \%$.

As shown above, the proportion of small enterprises with staff members not over four accounts for about $70 \%$ also in the 2021 Survey, but the number of staff members tends to gradually increase after starting the business. The proportion of " 10 or more" has increased from $4.9 \%$ at the time of start-up to $8.9 \%$ at the time the 2020 Survey and $11.8 \%$ of the 2021 Survey.

The average number of staff members has also increased from 3.3 at the time of start-ups to 4.0 of the 2020 Survey and 4.6 of the 2021 Survey. The increase of the average is 0.7 from the time of startups to the 2020 Survey and 0.6 from the 2020 Survey to the 2021 Survey. Looking at the results of the Panel Survey that shows the situation of normal times, the number of staff members at the time of the start-ups is $3.0 ; 3.9$ at the time that corresponds to the 2020 survey ( 13.8 months after the start-ups) and 4.4 at the time that corresponds to the 2021 Survey ( 25.8 months after the start-ups) ${ }^{9}$. The values are not much different from the values of this Survey. However, the increase from the time of start-up

[^6]
## Figure-7 Changes in the Number of Staff Members



Source: "2020 Survey on Business Start-ups in Japan" by Japan Finance Corporation Research Institute for at the time of start-up.
Note: 1. Aggregated the dat o of the enterprises that responded at all three points of time: at the time of start-up, the 2020 Survey and the 2021 Survey (the same applies hereinafter when the dat a of the three points of time are shown).
2. Number of staff members is the total of "the entrepreneur," "family employees," "full-time executives," "full-time employees," "part time/temporary employees" and "dispatched/contract employees" (the same applies hereinafter).
to the time corresponding to the 2020 Survey is 0.9 , and the increase from the time of start-up to the time corresponding to the 2021 Survey is 0.5 . This Survey's increase in the number of staff members from the time of start-up to the 2020 Survey is slightly smaller than that of the Panel Survey.

Next, the proportion of the enterprises whose number of staff members increased is $30.7 \%$ from the time of start-up to the 2020 Survey, and $26.1 \%$ from the 2020 Survey to the 2021 Survey. In the Panel Survey, the proportion is $29.5 \%$ from the time of start-up to the time corresponding to the 2020 Survey and $30.1 \%$ from the time corresponding to the 2020 Survey to the time corresponding to the 2021 Survey. The proportion in the 2020 Survey is almost the same as that of the Panel Survey, while the proportion of the 2021 Survey is slightly lower ${ }^{10}$.

## (4) Working style of entrepreneurs

Regarding weekly hours entrepreneurs used for the business, the proportion of "less than 35 hours" has increased from $18.5 \%$ in the 2020 Survey to $19.5 \%$ in the 2021 Survey, and the proportion of " 35 hours to less than 50 hours" has increased from $29.9 \%$ in the 2020 Survey to $33.1 \%$ in the 2021 Survey, whereas " 50 hours or more" has decreased from $51.5 \%$ to $47.3 \%$ (Figure-8). Overall, the hours have been slightly decreasing. Average hours have slightly decreased from 48.5 hours to 46.6 hours. In the

[^7]
## Figure-8 Hours that Entrepreneurs Used for Their Business (per week)



Panel Survey, the value corresponding to the 2020 Survey is 55.7 hours and the value corresponding to the 2021 Survey is 55.4 hours. The average hours used for the business is shorter in this Survey ${ }^{11}$. This may be attributed to shorter business hours and temporary closure due to the COVID-19 pandemic.

## 3. Proportion of the Respondents Achieving Expected Sales by Industry Type

This section identifies the industry type that were strongly influenced by COVID-19 by looking at the proportion of the enterprises achieving their expected monthly sales based on the data of business conditions in Section 2. As mentioned in the introduction, because most of the enterprises covered by this Survey had already started business in January 2020 when the first infection case in Japan was confirmed, it is considered that the monthly sales expected at the time of start-up did not reflect the impact of the COVID-19 pandemic. For this reason, it is thought that comparison between the expected and actual monthly sales can reflect the impact of COVID-19 disaster more directly. However, because changes in performance after start-up vary depending on the industry type even at normal times that are not influenced by COVID-19 or other disasters, analysis is made also using the data by industry type of the Panel Survey that followed changes to start-ups over time similarly as we did in the previous section.

As described above, the proportion of respondents achieving their expected monthly sales was $54.7 \%$ in the 2020 Survey and $59.3 \%$ in the 2021 Survey (Figure- 5 posted earlier). In the Panel Survey, the proportion corresponding to the 2020 Survey is $33.1 \%$ and the proportion corresponding to the 2021 Survey is $46.1 \%$. Because the proportion in this Survey is higher, difference of the levels is difficult to understand through direct comparison. For this reason, in order to determine industry type

[^8]Table-3 The Proportion of the Respondents Achieving Their Expected Monthly Sales (by industry type)

| (\%, points) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Follow-up survey on Business Start-ups |  | Difference with the Panel Survey results |  | Panel Survey |  | n |
|  | 2020 Survey | 2021 Survey | 2020 Survey | 2021 Survey | 2020-survey equivalent | 2021-survey equivalent |  |
| Construction | (2) 69.6 | (2) 72.5 | (4) 29.7 | (5) 16.6 | (3) 39.9 | (3) 55.9 | 69 |
| Manufacturing | 47.6 | 57.1 | 4.8 | 7.1 | (1) 42.8 | (4) 50.1 | 21 |
| Information and Communications | (1) 70.0 | (4) 65.0 | (2) 36.8 | (1) 21.7 | (6) 33.2 | 43.3 | 20 |
| Transportation | 26.3 | 31.6 | -11.8 | -2.9 | (4) 38.1 | 34.4 | 19 |
| Wholesale | 30.8 | 42.3 | -1.2 | -16.9 | 31.9 | (1) 59.2 | 26 |
| Retail trade | 50.0 | 52.6 | (5) 24.1 | (4) 17.6 | 25.9 | 35.0 | 78 |
| Restaurant and Accomodations | 28.7 | 24.1 | 4.9 | -5.6 | 23.8 | 29.7 | 108 |
| Medical, Health care and Welfare | (5) 61.4 | (1) 77.9 | 21.3 | (2) 20.7 | (2) 40.1 | (2) 57.2 | 140 |
| Education, <br> Learning support | 31.8 | 54.5 | 5.8 | (7) 14.2 | 26.0 | 40.4 | 22 |
| Services | (3) 65.0 | (3) 67.5 | (3) 30.3 | (3) 18.6 | (5) 34.8 | (5) 48.9 | 206 |
| Real estate | (4) 63.9 | 58.3 | (1) 44.2 | (6) 14.8 | 19.7 | 43.5 | 36 |
| All industries (repost) | 54.7 | 59.3 | 21.5 | 13.2 | 33.1 | 46.1 | 752 |

Note 1. The proportion of the enterprises who achieved more than $100 \%$ of their expected monthly sales. The definition of the expected monthly sales is the same as the definition of Figure-5.
2. For the data calculation method of the Panel Survey, see Footnote 4.
3. The industry types exceeding the average of all industries are shaded and their order is shown by circled numbers (the same hereinafter).
4. "Other" industry types are omitted because of their small sample size, but "All industries" includes "Other" (the same hereinafter).
5. n is the value of the Follow-up survey of business start-ups.
with a proportion higher than that of the Panel Survey, this paper uses the difference of the proportion between this Survey and the Panel Survey.

## (1) Industries with Higher Proportion of Enterprises Achieving Expected Sales

First, let us look at the industry type whose proportion of the respondents achieving their expected monthly sales is relatively high in this Survey. In the 2020 Survey, five industry types: Information and Communications ( $70.0 \%$ ), Construction ( $69.6 \%$ ), Services ( $65.0 \%$ ), Real Estate ( $63.9 \%$ ) and Medical, Health Care and Welfare (61.4\%) exceeded the average of all industries (Table-3). In the 2021 Survey, the top five industry types were the same though in a different order: Medical, Health Care and Welfare ( $77.9 \%$ ), Construction ( $72.5 \%$ ), Services ( $67.5 \%$ ), Information and Communications (65.0\%) and Real Estate (58.3\%).

Looking at each industry type, Information and Communications, which took first place in the 2020 Survey and 4th place in the 2021 Survey, greatly exceeds the results of the Panel Survey: the second ( 36.8 points) and the first ( 21.7 points) in terms of the difference with the Panel Survey.

Considering that its proportion of the enterprises achieving their expected monthly sales is close to the average of all industries in the Panel Survey, it is inferred that the sales became higher than expected thanks to the increased need for COVID-19 countermeasures, with the increase in the number of enterprises introducing systems for working from home and remote conference, for example.

Construction, which took 2nd place both in the 2020 and 2021 surveys, is 4th ( 29.7 points) and 5th ( 16.6 points) in terms of the difference with the Panel Survey. The industry won 3rd place in the Panel Survey and its proportion of respondents achieving their expected monthly sales was high from the first. This may be attributed to smaller impact of the COVID-19 disaster due to less human contact compared with other industry types.

Services that took 3rd place both in 2020 and 2021 are also 3rd ( 30.3 points and 18.6 points) in terms of the difference with the Panel Survey. The industry was 5th, exceeding the average of all industries in both years of the Panel Survey. This may be attributed to steady business of architectural design, building cleaning and other services for offices, though some individual services including hairdressing and cleaning could have experienced decreased demand due to the "stay-at-home" campaign.

Real Estate, which took 4th place in the 2020 Survey, exceeded the value of the Panel Survey by as much as 44.2 points and took 1st place in terms of the difference. In the 2021 Survey, the industry has dropped to 5th and its level is slightly lower than the average of all industries. Difference with the Panel Survey is a little higher than average at 14.8 points. The reason for these changes in the data is not clear. These may have been influenced by the lowest level of the Panel Survey results among all industries. Other factors may include increase in real estate transactions for places of working from home, though transactions related to restaurants decreased due to the COVID-19 disaster.

Medical, Health Care and Welfare, which took 5th place in the 2020 Survey and 1st place in the 2021 Survey, was the 2nd in both years of the Panel Survey. The industry's proportion of respondents achieving their expected monthly sales is high from the first. Difference with the Panel Survey is 21.3 points in the 2020 Survey, which is almost the same as the average of all industries, and 20.7 points (the 2nd place) in the 2021 survey. As the demand for this industry is unlikely to decrease even under the COVID-19 disaster, it is assumed that its sales also steadily increased.

## (2) Industries with Lower Proportion of Enterprises Achieving Expected Sales

Next, let us look at the industries lower than 6th place, the values of which are below the average of all industries both in the 2020 and 2021 Surveys. The proportion of Retail Trade was $50.0 \%$ (the 6th) in the 2020 Survey and $52.6 \%$ (the 8th) in the 2021 Survey, but the difference with the Panel Survey is 24.1 points and 17.6 points, which are higher than the all-industry average partly due to the low proportion of achieving enterprises in the Panel Survey. Stay-at-home, reduced inbound demands and other factors may have had a major impact on many enterprises. However, it is thought that the
impact of the COVID-19 disaster was mitigated by the existence of a large number of companies handling necessities and strong efforts in mail order.

Manufacturing is 7th at $47.6 \%$ in the 2020 Survey and 6th at $57.1 \%$ in the 2021 Survey. Its rank in the Panel Survey is the 1st and the 4th with values exceeding the all-industry average, while the differences with the Panel Survey are below the average at $4.8 \%$ and $7.1 \%$ respectively. Contributing factors may include a decrease in demand for some products such as food for restaurants and the disruption of supply chains for raw materials and components from Japan and abroad due to the COVID-19 disaster.

The ratio of Education, Learning Support was 31.8\% (the 8th place) in the 2020 Survey and 54.5\% (the 7th place) in the 2021 Survey. The industry's ratio of achieving enterprises is low from the first. Difference with the Panel Survey is 5.8 points in 2020, which is greatly lower than the average, but exceeded the average at 14.2 points in 2021. The results show that, in July 2020 when the 2020 Survey was conducted, there was a strong impact from temporal closures and the decline in students under the COVID-19 disaster, but their business considerably recovered after one year in July 2021 thanks to the introduction of remote lessons, strengthening of infection control in classrooms and other measures.

Wholesale was 9th at $30.8 \%$ in the 2020 Survey and at $42.3 \%$ in the 2021 Survey. Differences with the Panel Survey are -1.2 points and -16.9 points (below the level of the Panel Survey). In the Panel Survey, the value equivalent to the 2020 Survey is around the average, but the value equivalent to the 2021 Survey is ranked 1st. In this Survey, the decrease of the 2021 Survey is particularly big. Contributing factors may include stagnation of international physical distribution due to the COVID19 disaster and prolonged depression of restaurants and accommodations, which are their customers.

Lastly, the two industries that are most seriously influenced by COVID-19 are Restaurants and Accommodations, and Transportation. The proportion of Restaurant and Accommodation was $28.7 \%$ in the 2020 Survey and $24.1 \%$ in the 2021 Survey, 10th and the 11 th, respectively, among the 11 industry types. The proportion of Transportation was $26.3 \%$ (the 11th) in the 2020 Survey and $31.6 \%$ (the 10th) in the 2021 Survey. Difference with the Panel Survey is also at low levels with 4.9 points and - -5.6 points for Restaurant and Accommodation and -11.8 points and -2.9 points for Transportation. It is thought to have been difficult for enterprises of these industry types to increase sales due to a large decrease in demand related to travel and eating/drinking, requested temporary closure/shorter business hours and other factors. In Transportation, demand for freight transport may have increased with the increase in home delivery services. Overall, however, the data reflects the slump of owner-driven taxis that account for the majority of the sample ${ }^{12}$.

[^9]
## Figure-9 Negative Effects of COVID-19



Note: 1.2020 Survey: Effects during the period from the time of the business start-up to the time of the survey in July 2020
2021 Survey: Effects during the period from August 2020 to the time of the survey in July 2021
2. "Affected" represents the respondents who chose any of "a large negative effect before but currently none," "some negative effects before but currently none," "a large negative effect currently" and "some negative effects currently." "Not affected" represents the respondents who chose any of "no negative effect currently but likely to be affected in future" and "no negative effect currently and likely to be unaffected in future."

Despite the fact that most enterprises covered by this Survey started business without anticipating the spread of COVID-19, the proportion of the respondents achieving their expected monthly sales exceeds that of the Panel Survey in many industry types.

Considering that the monthly sales slightly exceed the same of the Panel Survey as we have seen in the previous section, the impact of the COVID-19 disaster on sales was unexpectedly small taken all together. However, the analyses by industry type in this section show that there is significant difference in the level of impact depending on the industry type, and that the pandemic seriously affected not a few industries including Restaurant and Accommodation and Transportation, where the proportion of respondents achieving their expected monthly sales is as low as around $30 \%$.

## 4. Impact of COVID-19

## (1) Negative Impact

In this section, we look at the answers to the questions directly asking about the impact of COVID19. The proportion of the enterprises answering that COVID-19 "affected" negative effects was $77.7 \%$ in the 2020 Survey (from the time of business start-up to July 2020 when the survey was conducted) and $80.1 \%$ in the 2021 Survey (from August 2020 to July 2021 when the survey was conducted) (Figure-9). The proportion of the enterprises that were "affected" at both points of time is $68.9 \%$, while the proportion of the enterprises "not affected" at either point is only $11.3 \%$. The results show that a large majority of start-up enterprises were negatively affected by the spread of COVID-19.

## Table-4 Negative Effects of COVID-19 (by industry type)

|  | 2020 Survey | 2021 Survey | n |
| :---: | :---: | :---: | :---: |
| Construction | 65.8 | 72.6 | 73 |
| Manufacturing | 76.0 | (1) 96.0 | 25 |
| Information and Communications | 59.1 | (5) 81.8 | 22 |
| Transportation | (1) 100.0 | (3) 89.5 | 19 |
| Wholesale | 62.1 | 79.3 | 29 |
| Retail trade | 73.3 | (6) 80.2 | 86 |
| Restaurant and Accomodations | (3) 95.9 | (2) 95.9 | 122 |
| Medical, Health care and Welfare | 72.8 | 73.4 | 158 |
| Education, Learning support | (2) 96.2 | (4) 88.5 | 26 |
| Services | 76.1 | 76.5 | 226 |
| Real estate | (4) 80.0 | 72.5 | 40 |
| All industries (repost) | 77.7 | 80.1 | 833 |

Note: The same as Figure-9.

By industry type, the proportion of "affected" was high in Transportation ( $100.0 \%$ ), Education, Learning Support ( $96.2 \%$ ), Restaurants and Accommodations ( $95.9 \%$ ) and Real Estate ( $80.0 \%$ ) in the 2020 Survey, and Manufacturing (96.0\%), Restaurants and Accommodations (95.9\%), Transportation ( $89.5 \%$ ), and Education, Learning Support ( $88.5 \%$ ) in the 2021 Survey (Table-4). It is conspicuous that the proportion of Restaurants and Accommodations is as high as upper-90\% in both Surveys. Strong urge for infection control measures as described below may be a contributing factor in addition to the decrease in demand related to travel and eating/drinking and requested temporary closure, shorter business hours, as described in the preceding section.

In the 2020 Survey, over $60 \%$ of the respondents answered "affected" in all industry types excluding Information and Communications at $59.1 \%$, and more than $70 \%$ in all industries in the 2021 Survey. It is safe to say that the impact of the COVID-19 disaster extended to a broad range of industries.

Looking at the contents of the negative effects, "sales were lower than expected" was $83.5 \%$ in the 2020 Survey and $78.8 \%$ in the 2021 Survey; "profit was lower than expected" was $62.6 \%$ and $58.9 \%$, respectively; "self-restraint on a part of the business" was $38.4 \%$ and $34.5 \%$, respectively (Figure-10), followed by "expenses for measures to prevent infection piled up" at $27.8 \%$ and $26.1 \%$. Some enterprises indicated sluggish demand by choosing "lower demand of domestic general consumers" ( $18.4 \%$ in the 2020 Survey and $17.3 \%$ in the 2021 Survey) and "lower demand of domestic business partners" ( $16.4 \%$ and $16.6 \%$ ), respectively. Also, "Temporarily closed the business" is $18.3 \%$ and $16.3 \%$, respectively. The results show that COVID-19 has had various other effects. In comparing

Figure-10 Contents of the Negative Effects of COVID-19 (multiple answers)


Note: 1. The same as Figure-9.
2. The question is asked to the entrepreneurs who choose any of "a large negativeeffect befor but currently none" "some negative effect befor but currently none" "a large negative effect currently" "some negative effect currently"
the 2020 Survey and the 2021 Survey, no answer choice shows an extremely different proportion.
Next, we estimated the percentage of sales decrease due to the impact of COVID-19.

## Figure-11 Percentage of Sales Decrease Due to the Impact of COVID-19



Note: We calculated the percentage of decrease in the actual monthly sales from the monthly sales that could have been achieved at the time of the 2021 Survey if the COVID-19 pandemic had not occurred.
Percentage of monthly sales decrease
$=$ (the monthly sales that could have been achieved if the COVID-19 pandemic had not occurred - Actual monthly sales) /the monthly sales that could have been achieved if the COVID-19 pandemic had not occurred $\times 100$

The questionnaire asked the monthly sales that could have been achieved at the time of the 2021 Survey if the COVID-19 pandemic had not occurred. Here, we calculated the percentage of decrease by comparing the assumed monthly sales and the actual monthly sales, as shown in Figure-11.

As to the percentage of sales decrease, " $0 \%$ to under $25 \%$ " is $23.0 \%$, " $25 \%$ to under $50 \%$ " is $25.1 \%$, " $50 \%$ to under $75 \%$ " is $10.6 \%$ and " $70 \%$ to under $100 \%$ " is $4.1 \%$. Combined, the proportion of "decreased" is $62.8 \%$. The average percentage of decrease of the enterprises whose sales decreased is $34.3 \%$ and the average amount of decrease is 0.936 million yen ${ }^{13}$. It is observed that a significant number of enterprises experienced a big sales decrease. On the other hand, sales decreased " $0 \%$ (no change)" for $31.7 \%$ of the enterprises and "less than $0 \%$ (increased)" for $5.4 \%$ of the enterprises. The average percentage and amount of monthly sales increase of these enterprises in comparison with the scenario without COVID-19 is $62.0 \%$ and 1.890 million yen, respectively.

Next, looking at the proportion of the enterprises the sales of which decreased by industry type, the proportion is high for Restaurants and Accommodations (93.3\%), Manufacturing (81.0\%), Transportation (77.8\%) and Wholesale (65.4\%) (Table-5). Even the lowest proportion of Medical, Health Care and Welfare is $48.8 \%$, which shows the impact on a wide range of industries. Looking at the proportion of the enterprises whose sales "decreased $50 \%$ or more," the proportion in Transportation is by far the highest at $55.6 \%$ followed by $36.5 \%$ in Restaurants and Accommodations, whereas the proportions in Medical, Health Care and Welfare and Services are relatively low at 3.9\% and $6.2 \%$, respectively.

The proportion of the enterprises whose sales increased as an effect of COVID-19 is higher in

[^10]Table-5 Sales Decrease Due to the Influence of COVID-19 (by industry type)

|  | Decreased |  | Decreased 50\% or more |  | n |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Construction |  | 52.2 |  | 13.4 | 67 |
| Manufacturing | (2) | 81.0 |  | 14.3 | 21 |
| Information and Communications |  | 55.0 | (5) | 15.0 | 20 |
| Transportation | (3) | 77.8 | (1) | 55.6 | 18 |
| Wholesale | (4) | 65.4 | (3) | 19.2 | 26 |
| Retail trade |  | 61.8 |  | 14.5 | 76 |
| Restaurant and Accomodations | (1) | 93.3 | (2) | 36.5 | 104 |
| Medical, Health care and Welfare |  | 48.8 |  | 3.9 | 129 |
| Education, Learning support |  | 54.5 |  | 13.6 | 22 |
| Services |  | 59.8 |  | 6.2 | 194 |
| Real estate |  | 53.1 | (4) | 15.6 | 32 |
| All industries (repost) |  | 62.8 |  | 14.7 | 716 |

Note: The same as Figure-11.

Retail Trade ( $14.5 \%$ ), Wholesale ( $7.7 \%$ ), and Services ( $6.2 \%$ ) compared with other industries. Contributing factors may include rising demand for products and services related to infection control measures and appearance of new demands caused by changes in lifestyles of consumers.

## (2) Expenses for Measures to Prevent Infection

Enterprises are required to take various measures to control COVID-19. As described above, 27.8\% and $26.1 \%$ of the enterprises answered "expenses for measures to prevent infection piled up" as contents of negative effects of COVID-19 in the 2020 and 2021 Surveys, respectively (Figure-10, repost). Then, how much were the expenses?

The questionnaire asked the purchase cost of facilities/fixtures/furniture and the purchase cost of consumables per month ${ }^{14}$. The total expenses for measures to counter COVID-19 were calculated by adding the purchase cost of consumables for 16 months (from April 2020 when the government issued the first declaration of the state of emergency up to July 2021 when the survey was conducted) to the purchase cost of facilities/fixtures/furniture. The results are shown in Figure-12.

Regarding the distribution of the amount of the cost, the proportion of " 0 yen" which represents enterprises that did not made such expenses is only $15.0 \%$, "over 0 to less than 0.1 million yen" accounts for $20.9 \%$, " 0.1 to less than 0.5 million yen" accounts for $37.8 \%$, " 0.5 to less than 1 million yen" accounts for $11.5 \%$, and " 1 million yen or more" accounts for $14.8 \%$. Combining these, the

[^11]
## Figure-12 Expenses for Measures to Prevent COVID-19



Note: The total amount of the facilities/fixtures/furniture purchase costs and the consumable purchase cost for the 16 months (from April 2020 when a declaration of a state of emergency was issued to July 2021 when the survey was conducted).

Table-6 Expenses for Measures to Prevent COVID-19 (by industry type)

|  | Paid for countermeasures | 1 million yen or more | n |
| :---: | :---: | :---: | :---: |
| Construction | 79.5 | 4.1 | 73 |
| Manufacturing | 75.0 | 8.3 | 24 |
| Information and Communications | 61.9 | 9.5 | 21 |
| Transportation | (3) 94.7 | (4) 15.8 | 19 |
| Wholesale | 60.7 | 3.6 | 28 |
| Retail trade | 82.6 | 11.6 | 86 |
| Restaurant and Accomodations | (2) 95.8 | (3) 15.8 | 120 |
| Medical, Health care and Welfare | (4) 92.7 | (2) 33.1 | 151 |
| Education, Learning support | (1) 100.0 | (1) 36.0 | 25 |
| Services | 82.5 | 7.6 | 223 |
| Real estate | 78.9 | 10.5 | 38 |
| All industries (repost) | 85.0 | 14.8 | 815 |

Note: The same as Figure-12.
proportion of the enterprises that "paid for countermeasures" is $85.0 \%{ }^{15}$. Considering that the average number of staff members and average monthly sales of the respondents of the 2021 Survey were 4.6 persons and 3.066 million yen, which means most of them are small enterprises, it is supposed that the burden on individual enterprises was considerable.

By industry type, the proportion of the enterprises that "paid for countermeasures" is over $90 \%$ in Education, Learning Support ( $100.0 \%$ ), Restaurant and Accommodations (95.8\%), Transportation ( $94.7 \%$ ), and Medical, Health Care and Welfare (92.7\%) (Table-6). The proportion exceeds $60 \%$ even

[^12]in Wholesale ( $60.7 \%$ ) and Information and Communications ( $61.9 \%$ ) where the proportion is relatively low. The results show that expenses for countermeasures were necessary in many industry types. The proportion of " 1 million yen or more" is high in the same industry types: it is higher than the average of all industries in Education, Learning Support (36.0\%), Medical, Health Care and Welfare ( $33.1 \%$ ), Restaurants and Accommodations (15.8\%), and Transportation including ownerdriven taxis $(15.8 \%)$. Because these industries have relatively more contact opportunities with customers, the resulting need for facilities/fixtures/furniture such as acrylic partitions, instruments for automatic body temperature measurement and facilities for online response, and need for masks, alcohol-based sanitizer and other consumables may have contributed to the high cost of countermeasures.

## 5. Measures against COVID-19

## (1) Contents of Countermeasures

Enterprises took various measures in response to the spread of COVID-19. First, major fundrelated measures taken to counter the impact of COVID-19 are "new loan(s) from a financial institution(s)" (29.2\%) and "withdrawal of savings of the entrepreneur/family member" (23.5\%) (Figure-13). Other fund-related measures include "the entrepreneur started to take an additional job" (5.3\%) and "change in the conditions of repayment to the financial institution" $(5.2 \%)$.

The top customer-related measure is "acquired new customers" at $20.0 \%$. The measures also include change in prices such as "raised selling prices" (6.5\%) and "reduced selling prices" (6.2\%), but the proportions are not high.

Regarding employee-related measures, "had employees laid off" is $13.4 \%$, but "cut employees" is very low at $1.9 \%$. Though many of the enterprises have only a small number of employees or are operated by the entrepreneur alone, the results may indicate that start-up enterprises are making efforts to maintain employment. Answering "none of the above applies" were $35.4 \%$ of the respondents ${ }^{16}$.

Other than the options shown in Figure-13, new digital technologies may have played a part in the measures against COVID-19. Looking at the IT use situation, the proportions of "introduction of accounting software" (55.9\%), "utilization of website" (55.4\%), and utilization of SNS" $(53.7 \%)$ were over $50 \%$ in the 2021 Survey, and higher than $51.2 \%, 49.0 \%$ and $46.5 \%$, which are the proportions at the time of business start-up (Figure-14) ${ }^{17}$. The proportions of "internet banking" and "cashless payment" have also increased from $41.8 \%$ to $47.9 \%$ and from $33.8 \%$ to $45.2 \%$, respectively. Not a few enterprises are utilizing IT. The proportions of other measures that follow the above have greatly

[^13]Figure-13 Measures Taken in Response to the Effects of COVID-19 (multiple answers)

increased: "remote conference" from $10.1 \%$ at the time of business start-up to $35.9 \%$ of the 2021 Survey, "marketing/sales on the internet" from $16.6 \%$ to $26.9 \%$, and "working from home (telework)" from $10.6 \%$ to $26.7 \%$, possibly due to the profound impact of the spread of COVID-19.

## (2) Changes in products/services

Now, let us look at changes related to products/services caused by the impact of COVID-19. The questionnaire asked about new products/services and changes in the method to provide products/services during the period from the business start-up to the 2021 Survey ${ }^{18}$. The results are as follows: $13.9 \%$ of the enterprises answered they "have" new products/services, $10.8 \%$ answered they "have" products/services for which the method of provision was changed, and $19.5 \%$ answered that they "have" either or both of them (Figure-15).

[^14]Figure-14 IT Use Situation (multiple answers)


[^15]Note: The proportion of the enterprises that gave answers at both points of time.

By industry type, the proportions of the enterprises that answered they "have" "new products/services," "products/services for which the method of provision was changed" or "either or both of the two" are highest in Restaurants and Accommodations at $29.4 \%, 31.1 \%$ and $47.7 \%$, respectively (Table-7), which are followed by Education, Learning Support (28.0\%, 24.0\% and 32.0\%), and Retail Trade ( $21.2 \%, 14.1 \%$ and $25.9 \%$ ). It is supposed that many enterprises in Restaurants and Accommodations introduced home delivery and takeout as described later, many enterprises in Education, Learning Support introduced remote lessons, and many in Retail Trade introduced mailorder business.

Looking at the proportion of the enterprises that have "either or both of the two" by sales situation,

Figure-15 Changes in Products/Services


Note:1. Measures implemented in response to the spread of COVID-19 during the period from the business start-up to July 2021 when the 2021 Survey was carried out
2. Cases of having either or both of "New products/services" and "Products/services for which the method of provision was changed" are shown as "Either or both of the two."

Table-7 Changes in Products/Services (by industry type)

|  | New products/services | Products/services for which the method of provision was changed | Either or both of the two | n |
| :---: | :---: | :---: | :---: | :---: |
| Construction | 5.4 | 4.1 | 6.8 | 74 |
| Manufacturing | 12.5 | 8.3 | (4) 20.8 | 24 |
| Information and Communications | 9.1 | 0.0 | 9.1 | 22 |
| Transportation | 0.0 | 0.0 | 0.0 | 18 |
| Wholesale | 10.3 | (4) 13.8 | (5) 20.7 | 29 |
| Retail trade | (3) 21.2 | (3) 14.1 | (3) 25.9 | 85 |
| Restaurant and Accomodations | (1) 29.4 | (1) 31.1 | (1) 47.1 | 119 |
| Medical, Health care and Welfare | 7.1 | 5.2 | 10.3 | 155 |
| Education, Learning support | (2) 28.0 | (2) 24.0 | (2) 32.0 | 25 |
| Services | 12.5 | 6.3 | 15.2 | 224 |
| Real estate | 7.7 | 7.7 | 15.4 | 39 |
| All industries (repost) | 13.9 | 10.8 | 19.5 | 821 |

Note: 1. Proportion of the enterprises that answered they "have" respectively
2. Same as Note 1 and 2 of Figure-15
the proportion is $18.0 \%$ for enterprises with increasing sales and $22.7 \%$ for enterprises with decreasing sales in the 2020 Survey ${ }^{19}$. The proportions are $16.9 \%$ and $24.8 \%$, respectively, in the 2021 Survey. By profitability, the proportion is $16.6 \%$ for enterprises in surplus and $24.6 \%$ for enterprises in deficit

[^16]Table-8 Proportion of the Changed Products/Services to the Sales (by industry type)

|  | New products/services | Products/services for which the method of provision was changed | Either or both of the two |
| :---: | :---: | :---: | :---: |
| Construction | 25.0 | 13.3 | 28.0 |
| Manufacturing | (4) 30.0 | (1) 60.0 | (1) 42.0 |
| Information and Communications | 10.0 | - | 10.0 |
| Transportation | - | - | - |
| Wholesale | (3) 33.3 | (3) 26.3 | (2) $\quad 34.2$ |
| Retail trade | (2) 34.9 | (5) 24.0 | (3) 33.5 |
| Restaurant and Accomodations | 16.9 | 13.2 | 18.2 |
| Medical, Health care and Welfare | 9.8 | (2) 28.4 | 20.9 |
| Education, Learning support | (6) 22.9 | 16.7 | 22.5 |
| Services | (5) 24.3 | (4) 24.4 | (4) 29.1 |
| Real estate | (1) 36.7 | 16.7 | (5) 26.7 |
| All industries (repost) | 22.7 | 19.8 | 25.0 |

Note: 1. Average value of the enterprises who implemented change. ( - ) indicates that the item is not implemented by any of the respondents.
2. Description of $n$ is omitted.
in the 2020 Survey. The proportions are 16.3 and $25.3 \%$, respectively, in the 2021 Survey. Because the time of change to products/services is not asked, their causal relation is not necessarily clear. However, we can see that enterprises with severer business conditions tend to introduce new products/services and/or change the method of providing products/services. However, it seems that these efforts did not show clear improvement effects on the business ${ }^{20}$.

Next, the proportion of these new efforts to the sales amount is $22.7 \%$ for "new products/services," $19.8 \%$ for "products/services for which the method of provision was changed" and $25.0 \%$ for "either or both of the two" in the average of all industries (Table-8).

By industry type, the proportion of "new products/services" is highest in Real Estate at 36.7\%, while the proportions of "products/services for which the method of provision was changed" and "either or both of the two" are highest in Manufacturing at $60.0 \%$ and $42.0 \%$, respectively. On the other hand, the proportions to sales are relatively low at $16.9 \%, 13.2 \%$ and $18.2 \%$ in Restaurants and Accommodations, the implementation rate of which is high.

Now, focusing on Restaurants and Accommodations, which showed the highest proportion of changing products/services under the impact of COVID-19 among all industries, we look at the

[^17]
# Figure-16 Implementation Status of Home Delivery and Takeout 

(Restaurants and Accommodations)


Source: The same as Figure-14.
Note: Proportions of theenterprises who answered both questions at the two points of time.
implementation status of home delivery and takeout. At the time of business start-up, the implementation rates of home delivery and takeout were $4.3 \%$ and $35.0 \%$, respectively. The proportions greatly increased to $22.2 \%$ and $67.5 \%$, respectively, in the 2021 Survey (Figure-16) ${ }^{21}$.

## (3) Support from the Governments

The central and local governments have provided various supports for SMEs affected by the spread of COVID-19. What supports have start-up enterprises received? The most frequent answer is "Subsidy Program for Sustaining Businesses" at $56.0 \%$ (Figure-17) ${ }^{22}$. The governments provided various other subsidies including "subsidy for rent support" ( $25.9 \%$ ) and "subsidy for temporary closure/ voluntary restraint on business" ( $13.3 \%$ ). A total of $72.7 \%$ of the enterprises received "one or more of the subsidies." Loans including "unsecured loan with virtually no interest by government financial institutions" ( $22.3 \%$ ) and "unsecured loan with virtually no interest by private financial institutions" ( $13.3 \%$ ) are also provided. A total of $30.0 \%$ of the enterprises received "one or more of the loans," $78.6 \%$ of all respondents received "some support" from governments, and only $21.4 \%$ "did not receive any support."

By industry type, the proportion of the enterprises that received "one or more of the subsidies" is

[^18]
## Figure-17 Contents of Supports from Governments (multiple answers)



Note: Various "Go To" campaigns are included in subsidies.
highest in Restaurants and Accommodations (98.3\%), followed by Transportation (94.7\%), Manufacturing ( $80.0 \%$ ), and Education and Learning Support ( $80.0 \%$ ) in this order (Table-9). Even in Information and Communications (54.5\%) and Retail Trade (59.8\%) the proportion of which is lower, the majority of enterprises received subsidy. The proportion of enterprises that received "one or more of the loans" is $50.0 \%$ in Real Estate, $48.3 \%$ in Wholesale, $43.0 \%$ in Restaurants and Accommodations, and $36.8 \%$ in Transportation. The proportion of the enterprises that received "one or more of the supports" is $98.3 \%$ in Restaurants and Accommodations, $94.7 \%$ in Transportation, $84.0 \%$ in Manufacturing, and $82.8 \%$ in Wholesale. Even the lowest proportion, which is $63.6 \%$, of Information and Communication is over $60 \%$. Conversely, the proportion of "not received support" is $36.4 \%$ in Information and Communications, $30.8 \%$ in Services and $29.9 \%$ in Retail Trade.

Here, let us look at the relationship between corporate performance and public support. First, the proportion of receiving "one or more of the supports" is $72.5 \%$ of the enterprises with sales "on the increase," $76.5 \%$ of the enterprises with sales "not changed" and $93.5 \%$ of the enterprises with sales

Table-9 Receiving or not Receiving Supports from Governments (by industry type)

|  | One or more subsidies |  | One or more loans |  | One or more supports |  | Did not receive any support |  | n |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Construction | (5) | 76.0 | (7) |  |  | 77.3 | (4) | 22.7 | 75 |
| Manufacturing | (3) | 80.0 | (5) | 36.0 | (3) | 84.0 |  | 16.0 | 25 |
| Information and Communications |  | 54.5 |  | 22.7 |  | 63.6 | (1) | 36.4 | 22 |
| Transportation | (2) | 94.7 | (4) | 36.8 | (2) | 94.7 |  | 5.3 | 19 |
| Wholesale |  | 69.0 | (2) | 48.3 | (4) | 82.8 |  | 17.2 | 29 |
| Retail trade |  | 59.8 |  | 25.3 |  | 70.1 | (3) | 29.9 | 87 |
| Restaurant and Accomodations | (1) | 98.3 | (3) | 43.0 | (1) | 98.3 |  | 1.7 | 121 |
| Medical, Health care and Welfare |  | 68.6 |  | 21.6 |  | 78.4 | (5) | 21.6 | 153 |
| Education, Learning support | (3) | 80.0 | (5) | 36.0 | (6) | 80.0 |  | 20.0 | 25 |
| Services |  | 63.4 |  | 22.9 |  | 69.2 | (2) | 30.8 | 227 |
| Real estate | (6) | 75.0 | (1) | 50.0 | (5) | 82.5 |  | 17.5 | 40 |
| All industries (repost) |  | 72.7 |  | 30.0 |  | 78.6 |  | 21.4 | 830 |

"on the decrease" in the 2020 Survey. In the 2021 Survey, the proportions are $73.0 \%, 76.6 \%, 87.2 \%$, respectively. The proportion of receiving support is higher among the enterprises with sales on the decrease. Similarly, the proportion of receiving support is $74.2 \%$ of the enterprises "in surplus" and $84.9 \%$ of the enterprises "in deficit" in the 2020 Survey. In the 2021 Survey, the proportions are $75.5 \%$ and $83.2 \%$, respectively. The proportion of receiving support is higher among the enterprises with poor performance.

Then, how effective were these supports? The proportion of the enterprises that turned to "in surplus" in the 2021 Survey among the enterprises that were "in deficit" in the 2020 survey was $33.0 \%$ for the enterprises that received "one or more of these supports" and $27.1 \%$ for the enterprises that did not $^{23}$. In this way, enterprises receiving support are more likely to improve their profitability.

The questionnaire also asked whether or not all supports received from the governments combined had been effective to stabilize business management. About $60 \%$ of respondents found sufficient effects combining "very much effective" (23.4\%) and "effective as necessary" ( $35.7 \%$ ). $34.4 \%$ chose "effective but not sufficient," but only $6.4 \%$ chose "hardly effective." We can say that the series of public supports for start-up businesses under the COVID-19 pandemic had certain effects.

## 6. Satisfaction with the Business Start-up and Future Plan

## (1) Satisfaction with the Business Start-up

As shown above, start-up enterprises are exposed to various stresses under the COVID-19 disaster,

[^19]
## Figure-18 Satisfaction with Income


which are different from the stresses of ordinary times. Then, how are entrepreneurs satisfied with the business start-up?

Regarding the satisfaction in terms of income, the proportion of "satisfied" combining "very satisfied" (4.1\%) and "somewhat satisfied" (17.9\%) was $22.1 \%$ (Figure-18) in the 2021 Survey, whereas the proportion of "dissatisfied" combining "very dissatisfied" (26.3\%) and "somewhat dissatisfied" $(27.9 \%)$ was $54.2 \%$. Overall, satisfaction with income is not high. In the 2020 Survey, "satisfied" was $27.2 \%$ and "dissatisfied" was $48.7 \%$. The level of satisfaction declined during the course of one year; however, the level is not much lower than the proportion of "satisfied" of the Panel Survey that is a follow-up survey of start-up enterprises in so-called normal times as described above ( $24.0 \%$ corresponding to the 2020 Survey and $24.5 \%$ corresponding to the 2021 Survey) $)^{24}$.

As to job worthwhileness, the proportion of the respondents who are "satisfied" was very high at $80.9 \%$ in the 2020 Survey, while $5.7 \%$ are "dissatisfied" (Figure-19). In the 2021 Survey, the proportion of "satisfied" declined to $63.2 \%$ while that of "dissatisfied" increased to $13.3 \%$, but overall, satisfaction with the job is at a high level. In the Panel Survey, the proportion of "satisfied" was $82.2 \%$ (the 2020 Survey equivalent) and $78.7 \%$ (the 2021 Survey equivalent) which shows the same declining trend, but the proportion in the 2021 Survey of this Survey is lower than that of the Panel Survey ${ }^{25}$.

Next, as to satisfaction with work-life balance, the proportion of "satisfied" declined from $48.3 \%$ in the 2020 Survey to $35.2 \%$ in the 2021 Survey (Figure-20). On the other hand, the proportion of "dissatisfied" rose from $22.5 \%$ to $29.9 \%$ coming closer to $35.2 \%$ of "satisfied." The proportion of this Survey is higher than $41.4 \%$ of the 2020 Survey equivalent of the Panel Survey ${ }^{26}$. It is slightly lower than $38.5 \%$ of the 2021 Survey equivalent but this may not be a major difference.

[^20]
## Figure-19 Satisfaction with Job



Figure-20 Satisfaction with Work-Life Balance


Lastly, as to overall satisfaction with the business start-up, the proportions of "very satisfied" and "somewhat satisfied" of the 2021 Survey were $23.4 \%$ and $40.6 \%$ respectively: the proportion of "satisfied" combining the two is $63.9 \%$ (Figure-21). The proportion of "dissatisfied" combining the proportions of "very dissatisfied" (3.8\%) and "somewhat dissatisfied" (9.4\%) is at a low level of $13.2 \%$. Compared with the 2020 survey where "satisfied" was $73.6 \%$ and "dissatisfied" was $10.8 \%$, the level of satisfaction slightly declined. The proportion of this Survey is higher than $71.4 \%$ of the 2020 equivalent of the Panel Survey, but lower than $69.4 \%$ of the 2021 survey equivalent ${ }^{27}$. However, this is not a major difference. Because there are not many dissatisfied people, it is right to say that overall satisfaction is at an acceptable level.

As described above, satisfaction with business start-up of this Survey is not lower than the same

[^21]
## Figure-21 Overall Satisfaction with Business Start-up



Figure-22 Worries for Future

of the Panel Survey in terms of the 2020 Survey. The overall level declined in the 2021 Survey and the difference with the Panel Survey expanded, but we cannot say that the satisfaction is extremely low compared with normal times even under the COVID-19 pandemic.

## (2) Future Plans

What are the future plans of new enterprises under the continuing COVID-19 pandemic? As to worries about future life, the proportion of "worried" is $56.1 \%$ combining "greatly worried" ( $14.7 \%$ ) and "feel worried" $(41.4 \%)$ in the 2021 survey (Figure-22) ${ }^{28}$. The proportion is much higher than $17.5 \%$ of "not worried" combining "almost never feel worried" $(5.7 \%)$ and "not much worried" $(11.8 \%)$. In the 2020 Survey, the proportion of "worried" is $51.4 \%$, while that of "not worried" is $21.6 \%$. Worries about the future are increasing under the prolonged COVID-19 pandemic.

[^22]
## Figure-23 Future Sales



Next, regarding the intention about future sales, $89.7 \%$ and $87.6 \%$ of the entrepreneurs want to "expand" the sale scale in the 2020 Survey and the 2021 Survey, respectively (Figure-23). The proportions slightly decreased by $2.1 \%$. In the Panel Survey, too, the proportion of the respondents who want to expand the business declined 1.9 points during the same period ${ }^{29}$. It is unlikely that entrepreneurs' desire for expansion has been reduced due to the COVID-19 pandemic.

## 7. Conclusion

This paper used the panel data set "Follow-up Survey on Business Start-ups" combining the microdata of the " 2020 Survey on Business Start-ups in Japan" conducted by JFCRI in July 2020 and the "Follow-up Survey on the Impact of COVID-19 on Start-up Enterprises" implemented one year later for the enterprises that responded to the 2020 Survey and attempted to analyze the business conditions of the enterprises that started business without anticipating the COVID-19 pandemic.

The results show that sales and the ratio of achievement of the expected monthly sales are not inferior to the Panel Survey of Business Start-ups that followed the enterprises that started business in 2016 that was a so-called normal year, but their profitability is relatively inferior and growth in the number of employees tends to be lower in some part. Furthermore, both surveys revealed that about $80 \%$ of the enterprises had faced negative impacts from the COVID-19 pandemic, which include sales and profits lower than expected, self-restraint on a part of the business and piling up expenses for infection control measures. These impacts are especially strong in some industries including Restaurants and Accommodations, Transportation, and Education and Learning Support.

In order to overcome these conditions, enterprises took various measures related to funds,

[^23]customers and employees，and advanced use of IT．Some enterprises introduced new products／services and／or changed the method to provide products／services．It was also shown that nearly $80 \%$ of the respondents received support from the central and／or local governments．

Perhaps thanks to these efforts，satisfaction of the entrepreneurs is not extremely lower than the results of the Panel Survey and there is not much difference in their desire to expand．The COVID－19 pandemic does not allow optimism，but we hope that the start－up enterprises that survived major difficulties just after starting business will steadily grow in the future．

## ＜Reference＞

Inoue Kouji（2022）＂Five－year Trend of Enterprises that Started Business in 2016 －based on the Panel Survey of Business Start－ups（the 4th cohort）＂（2016 年に開業した企業の 5 年間の動向—「新規開業パネル調査（第4コーホート）」結果から—）Japan Finance Corporation Research Institute JFCRI Quarterly Research Report（日本政策金融公庫論集）No．54，pp．1－25．［in Japanese］

Note：As there is no official English title，the authors of this paper provide a tentative translation．


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[^1]:    ${ }^{1}$ Regarding the data of the "2020 Survey on Business Start-ups in Japan," the authors used only the data of the enterprises that also responded to the "Follow-up Survey on the Impact of COVID-19 on Start-up Enterprises" (for comparison of answers to the same question, it covers only enterprises that answered the question in both surveys). For this reason, the results of this paper disagree with the already published results of the "2020 Survey on Business Start-ups in Japan."

[^2]:    ${ }^{2}$ The first survey of the Panel Survey was implemented for 10,122 enterprises that were assumed to have started business in 2016 financed by Japan Finance Corporation's Micro Business and Individual Unit. 3,517 respondents (excluding real estate lessors) that were confirmed to have started business in 2016 were chosen as subject to the follow-up surveys. In 2016 and after, the end of December was set as the survey time every year and questionnaires were sent to the follow-up subjects in February of the next year. Five questionnaire surveys were carried out by mail until the end of December 2020. This paper uses the first to the third surveys: the number of responses were: 3,517 to the first survey (end of 2016), 2,104 to the second survey (end of 2017) and 1,962 to the third survey (as of the end of 2018). For the summary of the results, please see Inoue (2022).

[^3]:    ${ }^{3}$ Relationship between the average number of months from the time of business start-up of the survey and the same of the Panel Survey is as follows:
    
    ${ }^{4}$ Values equivalent to the 2020 and 2021 surveys were obtained by the following calculation formulas:
    Data equivalent to the 2020 survey
    $=$ The 1st data of the Panel Survey + difference between the 1st and 2nd data of the Panel Survey
    / 12 months $\times$ difference in the number of months between the 2020 Survey and the 1 st Panel Survey
    $=$ The data of the 1st Panel Survey + (data of the 2nd Panel Survey - the data of the 1st Panel Survey $)$ $/ 12 \times(13.8-5.9)$
    Data equivalent to the 2021 survey
    =The 2nd data of the Panel Survey + difference between the 2nd and 3rd data of the Panel Survey
    $/ 12$ months $\times$ difference in the number of months between the 2021 Survey and the 2nd Panel Survey
    $=$ The data of the 2nd Panel Survey + (data of the 3rd Panel Survey - the data of the 2nd Panel Survey)
    $/ 12 \times(25.8-17.9)$

[^4]:    ${ }^{5}$ Average monthly sales of the Panel Survey were 1.816 million yen at the end of 2016, 2.730 million at the end of 2017, and 2.849 million at the end of 2018.
    ${ }^{6}$ Sales conditions were not asked in the Panel Survey.

[^5]:    ${ }^{7}$ The proportion of respondents achieving their expected monthly sales in the Panel Survey was $17.4 \%$ at the end of $2016,41.3 \%$ at the end of 2017 , and $48.6 \%$ at the end of 2018.

[^6]:    ${ }^{8}$ The proportion of respondents "in surplus" in the Panel Survey was $50.9 \%$ at the end of $2016,70.7 \%$ at the end of 2017 , and $75.0 \%$ at the end of 2018.
    ${ }^{9}$ The average number of staff members of the Panel Survey was 3.5 at the end of 2016, 4.1 at the end of 2017, and 4.5 at the end of 2018.

[^7]:    ${ }^{10}$ In the Panel Survey, the proportion of the enterprises whose number of staff members increased was $24.1 \%$ from the time of starting the business to the end of 2016, 32.3\% from the end of 2016 to the end of 2017, and $28.9 \%$ from the end of 2017 to the end of 2018.

[^8]:    ${ }^{11}$ The average hours per week used for the business of the Panel Survey were 55.6 at the end of 2016, 55.7 at the end of 2017 , and 55.3 at the end of 2018.

[^9]:    1213 enterprises of the 19 respondents of Transportation were common taxicab operators (all were owner-driven taxis); four were small-size motor truck transportation business; one general reserve passenger bus/hired car business, and one general motor truck transportation business (trucking).

[^10]:    ${ }^{13}$ The amount of decrease was " 0 to under 0.5 million yen" for $54.7 \%$ of the enterprises with sales decrease, " 0.5 million to under 1 million yen" for $17.3 \%$, and "more than 1 million yen" for $28.0 \%$ of the same.

[^11]:    14 The questionnaire asked the total amount of the facilities/fixtures/furniture purchase costs (in the unit of 10,000 yen) and the monthly amount of consumable purchase cost (in the unit of 1,000 yen).

[^12]:    15 Average amount "paid for countermeasures" by these enterprises is 0.821 million yen.

[^13]:    ${ }^{16}$ Because this question did not provide the option of "other," the enterprises implementing measures that were not included in the options may have answered "none of the above applies."
    ${ }^{17}$ The data at the time of business start-up is from "Follow-up Survey on the Impact of COVID-19 on Start-up Enterprises."

[^14]:    18 The question described new products/services as "diversification to different industry types, provision of products/services that you have not handled before, for example"; "products/services for which the method of provision was changed" is explained as "introduction of takeout, internet sales, visiting service and other methods that do not change the products/services themselves." The 2020 Survey did not include this question.

[^15]:    Source: "Follow-up Survey on the Impact of COVID-19 on Start-up Enterprises" by Japan Finance Corporation Reseach Institute (for both points of time)

[^16]:    ${ }^{19}$ The proportion of "no change" was $19.6 \%$ in the 2020 Survey and $17.7 \%$ in the 2021 Survey.

[^17]:    ${ }^{20}$ The proportion of the enterprises whose sales were on the decrease in the 2020 Survey and remained "on the decrease" also in the 2021 Survey was $65.9 \%$ when the enterprises have "Either or both of the two," which is higher than $62.1 \%$ of the enterprises having none of them. Similarly, the proportion of the enterprises who were "in deficit" in the 2020 Survey and remained "in deficit" also in the 2021 Survey was $74.0 \%$ when the enterprises have "Either or both of the two," which is higher than $65.3 \%$ of the enterprises having none.

[^18]:    ${ }^{21}$ Representing the implementation rate, these values cannot be directly compared with the values of Table 7 that show changes after the business start-up.
    22 "Subsidy Program for Sustaining Businesses" (business continuity benefit) refers to the subsidy provided to businesses affected by the spread of COVID-19 (through voluntary restraint on business, for example) to be used for a broad range of business purposes. Applications were accepted from May 1, 2020, to February 15, 2021. The maximum amount of the subsidy was one million yen for private businesses including freelancers and 2 million yen for small business corporations, etc. excluding companies with capital of 1 billion yen or more.

[^19]:    ${ }^{23}$ The proportion of the enterprises continuing "in deficit" in the 2021 survey was $67.0 \%$ for the enterprises that received "one or more of these supports and $72.9 \%$ for the enterprises that did not.

[^20]:    ${ }^{24}$ In the Panel Survey, the proportion of "satisfied" with income was $25.1 \%$ at the end of $2016,23.5 \%$ at the end of 2017 and $25.1 \%$ at the end of 2018.
    ${ }^{25}$ In the Panel Survey, the proportion of "satisfied" with job worthwhileness was $87.3 \%$ at the end of 2016, $79.6 \%$ at the end of 2017, and $78.3 \%$ at the end of 2018.
    ${ }^{26}$ In the Panel Survey, the proportion of "satisfied" with work-life balance was $49.2 \%$ at the end of $2016,37.3 \%$ at the end of 2017 , and $39.1 \%$ at the end of 2018.

[^21]:    ${ }^{27}$ In the Panel Survey, the proportion of "satisfied" in terms of overall satisfaction was $74.1 \%$ at the end of 2016, $69.9 \%$ at the end of 2017 , and $69.2 \%$ at the end of 2018.

[^22]:    28 Worries about the future were not asked in the Panel Survey.

[^23]:    ${ }^{29}$ Because the Panel Survey asked about the business scale instead of sales, the proportion of "want to expand" tends to be lower, and the values cannot be directly compared with the values of Figure 23. In the Panel Survey, the proportion of "want to expand" the business was $65.3 \%$ at the end of $2016,64.0 \%$ at the end of 2017 and $61.8 \%$ at the end of 2018. The values equivalent to the 2020 and 2021 Surveys are $64.5 \%$ and $62.6 \%$, respectively.

