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SMEs During COVID-19

Business Activities, Employability, and Stimulus Package

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Atiya Rahman (Brac University)
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ABSTRACT

SMEs During COVID-19

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The study examines how cottage and microenterprises have been coping with Covid-19. It conducts a large-scale panel survey of about 2300 microenterprises across Bangladesh. In the first round of the survey in July 2020, the study found that the average sales were less than half of that of pre-Covid levels and only about 60% of enterprises were fully open. While laying off workers was not that prevalent, employees in more than 80% of enterprises were facing a cut in working hours and wages. To assess the extent of recovery, the second round was conducted in January 2021 – eight months after the first lockdown. It appears that the enterprises have largely recovered; 97% of the enterprises were fully open for business. But they were still struggling with sales and orders, with sales remained 17% lower than the pre-Covid level, indicating a sluggish demand. Recovery was also uneven across sectors. Businesses that require more close contact have much lower recovery. Female workers were disproportionately affected by COVID-19 as they experienced lower wages and reduced employment prospects following the recovery. They also experienced worse psychological stress during the pandemic. These small and medium firms also hardly received any financial support after nine months of the announcing the initial stimulus by the government of Bangladesh, suggesting barriers to accessing such incentives.

JEL Classification:
J2, J28, J30, J60

Keywords:
COVID-19, business activities, workers, jobs

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1. Introduction and Background

The year 2020 started with panic and apprehension as the novel coronavirus ravaged every corner of the world. One year has passed since the first case of the virus was detected, yet the pandemic is far from over. The virus has taken the lives of over 2.6 million and infected almost 118 million people so far. In a bid to curb the spread, most countries implemented lockdown measures in the early phases of the pandemic. However, such measures have led to detrimental repercussions to the world economy. Bangladesh was no different. The country declared a general holiday effective from March 26, 2020. All private and public sector offices were closed except for emergency services. A travel ban on rail, water, and air routes and a suspension of public transportation on the roads were in effect. In a total of five phases, the lockdown lasted till May 30, 2020. Such measures were necessary but took a toll on the country's key economic sectors. Small and Micro Enterprises (SMEs) suffered severe impacts. Our current study aims to assess the pandemic's impact on the SMEs and their workers in Bangladesh.

We selected the sample from two previous studies of BRAC Institute of Governance and Development (BIGD) on BRAC's interventions with SMEs. Majority of the sample SMEs are light engineering (LE) firms, along with a small sample of other firms like hotels, beauty parlours, tailoring, and clothing businesses. Additionally, a sample of youth—youth who were trained on LE and introduced to the LE firms by BRAC and comparable youth who did not receive training—were also interviewed to measure the impact of the pandemic on their labour market outcomes. The detailed sample description is given in the next section.

We collected data in two rounds. We conducted our first-round survey six weeks after the lockdown ended when the economy was gradually opening up. During our first round, we compared the situation of the SMEs in the pre-COVID period. We found that most enterprises were shut down during the lockdown, and about one-third of the firms were still partially operating as the economy opened up. Moreover, even after the lockdown ended, the firms experienced a 52 per cent drop in sales. Although the government had declared stimulus packages to assist the SMEs, our findings from Round 1 suggest that access to the packages was minimal. Only three per cent of the respondents in Round 1 had applied for the package, and only one firm received the stimulus payment.

We conducted our Round 2 survey in January 2021, six months after the Round 1 survey. We aim to understand how SMEs and workers are recovering as the economy is resuming full operation. In this report, we compare Round 1 and Round 2 results with the pre-COVID situation to see whether the firms are now on a recovery path. We also analyze whether access to credit and government stimulus packages have improved over time for the SMEs.

Moreover, we check if the firms are following COVID-19 health and safety guidelines and maintaining proper hygiene and social distancing measures six months after the lockdown. A part of our sample received decent-work environment training from BRAC before the pandemic. So, we examine whether the firms who received the training perform better in the long run, in terms of business recovery, compared to those who did not receive the training.

From the survey of the youth, we found that that unemployment rate has reduced substantially from the lockdown period, but the rate is still higher than pre-COVID level. We also found that female youth are facing worse labour market outcomes compared to the male youth in both rounds.

Our findings contribute to the recently growing literature on the impacts of COVID-19 on the economy, particularly in the SME sector. Although intensive research on COVID-19 impacts is being undertaken, only a handful of them is on SMEs. A study conducted by Shinozaki and Rao (2020) in the Philippines found that micro, small and medium enterprises (MSMEs) continued to face scarcity in demand and a drop in revenue six months after the lockdown had ended in the country. A similar study by Robinson and Kengatharan (2020) in Sri Lanka revealed grave impacts caused by the COVID-19 mitigating policies on SMEs. Findings from the World Bank's Enterprise Survey in 13 countries also revealed similar detrimental implications of the pandemic on small and medium enterprises (Adian et al. 2020). Beglaryan and Shakhmuradyan (2020), on the other hand, utilized the labour force survey in Armenia and found that SME workers were more affected by the pandemic, with higher rates of lay-offs and pay cuts compared to large-company workers. Our study extends the existing literature by representing the SMEs in Bangladesh. Moreover, since we resurvey firms that were part of an RCT, our results also contribute to the literature on the broader impacts of training for firms and workers in the informal sector (Valdivia 2011, DeMel et al. 2014, Karlan et al. 2015, Fiala 2013, McKenzie and Woodruff 2014, Brooks et al. 2016).

2. The survey

In our current study, we have utilized the databases from two previous studies, as described below:

In 2017, our research team partnered with BRAC to implement a large-scale randomized control trial (RCT) on a project with LE firms, called Pro-poor growth of rural enterprises through sustainable skills development (PROGRESS). In this RCT, we analyzed the impact of an intensive occupational health and safety (OHS) training on 2,238 light engineering (LE) firms. Our RCT had treatment arms: T1: managers/owners of firms receiving the intensive OHS; T2: firms receiving OHS + business training and financial linkages; and C: firms in the control group receiving no training. BRAC also connected these LE firms with young people trained on LE by this initiative. To measure the impact of the youth training on their employment outcomes, BIGD designed another study[6] consisting a sample of these youth[7] and a comparable sample of youth who did not receive the intervention. However, the training was not randomly assigned to these youth. . The baseline was conducted in 2017 with two rounds of follow-up surveys.

In our current study, we utilized the entire SME sample from our RCT to measure the impact of COVID-19 on the LE firms; we also took a small sample of non-LE SMEs provided by BRAC Bank. In addition, we also utilized a sub-sample of the youth—training recipients, referred to as the apprentice, and their non-recipient counterpart—to measure the impact of COVID on youth employment outcomes.

For the current study, we conducted two rounds of surveys, in July 2020 and January 2021. The above-mentioned SMEs and youths have been surveyed in both rounds. In Round 2, an additional sample of various SMEs were added to the survey from another past study on a BRAC apprenticeship program that trains young people with master craft persons (MCPs), who usually own small enterprises.

[6] This study was quasi-experimental.

[7] The intervention for the youth was not randomized. Eligible youth were selected and offered support, which was provide to those who wanted it.

We followed up on all 2,238 LE firms from initial RCT and 126 other enterprises provided by BRAC Bank in the first round. The Round 1 survey took place during 14-23 July 2020. We successfully interviewed 1,990[8] out of the 2,364 SMEs.

We conducted our second-round survey during 21-31 January 2021. Among the successfully interviewed 1,990 firms in Round 1, around eight per cent were attrited in Round 2. As mentioned earlier, in Round 2, we also approached an additional 526 MCPs, and the attrition rate among MCPs was about 17 per cent. Thus, we were able to successfully interview 2,432 firms out of the 2,826 firms we had approached. Overall, we were able to reach 1,840 firms in both rounds.

A switched-off phone was the primary reason behind attrition. We could not reach nearly 44 per cent of the attrited firms [9] in Round 2 because the respondent's phones were turned off.

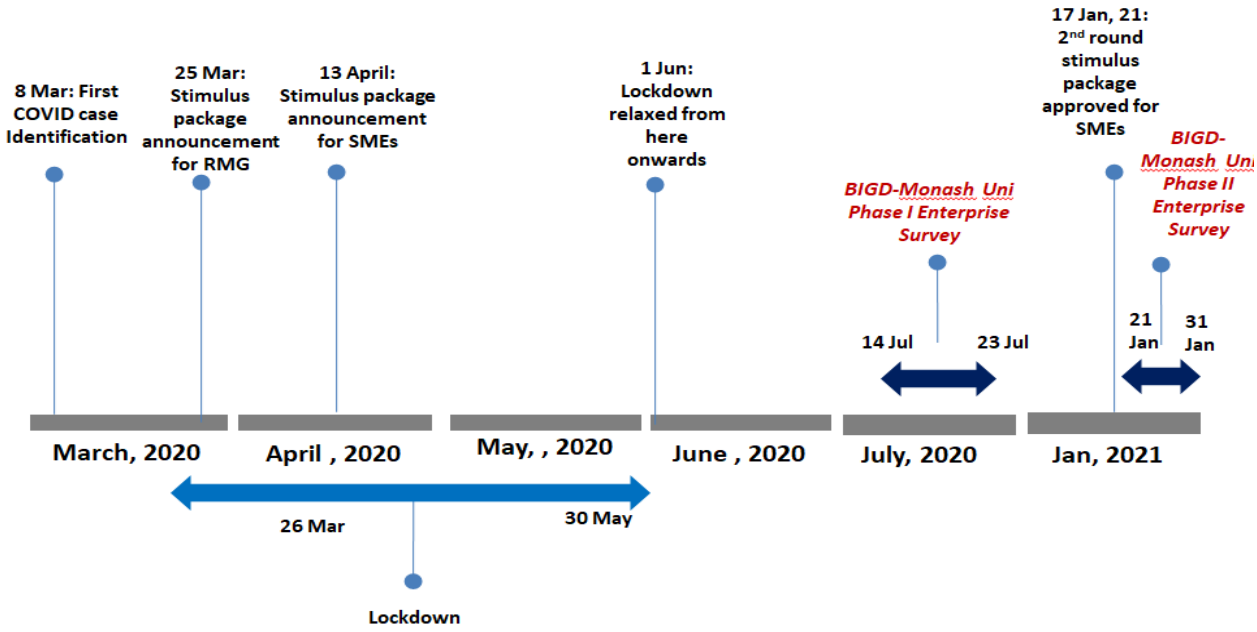

Figure 1: Timeline of Round 1 and Round 2 survey

The survey covers four broad areas: (1) enterprises' economic behaviour and economic outcome six months after the lockdown (e.g., revenue, output, number of days in production, number of workers,

[8] All 1990 firms gave consent to participate in the survey but 30 out of these 1990 firms were permanently shut down. Hence their business information was not recorded in the survey. We define permanently shut down as either the firms have closed permanently or the owner shifted jobs and started working for someone else. Thus, in Round 1, our analysis was based on 1960 firms.

[9] In round 2, we resurveyed those firms whose phone numbers were found to be correct and functional during our Round 1 survey.

etc.); (2) self-reported changes in business operations and expectations; (3) health and safety measures taken by the enterprise to minimize the risk of COVID-19 transmission, and (4) accessibility to the credit market and government initiatives.

Besides measuring the outcomes mentioned above, we also seek to understand how the firms' situation varies with their treatment status. By comparing LE firms that received the training on the decent work environment and those who did not, we try to answer whether the treated firms perform better in terms of business recovery and maintaining health guidelines in the post-lockdown period.

In this report, we consider the 1,840 firms that were successfully surveyed in both Round 1 and Round 2 for our panel analysis on firms' operational status. For our panel analysis on business operations, sales, profits, workers' consequences, and compliance to COVID-19 safety guidelines, we consider 1,744 firms that were operational in both rounds. Finally, for our panel analysis on business concerns and access to stimulus packages, we consider 1,779 firms that were either operating or temporarily closed in both rounds.

For our analysis of occupation and the operational status during Round 2 only, we consider 1,840 surveyed firms in both rounds and 439 successfully surveyed MCPs. For our analysis on business characteristics, hygiene behaviour, self-reported changes in business, and access to credit in only Round 2, we consider 1,782 of the 1840 firms operating during Round 2 and 401 MCPs that were also running.

We have mainly divided our firms into seven categories: (1) automobile spares industry; (2) agricultural machines; (3) accessories and spares industry; (4) grill workshop; (5) clothing/tailoring stores; (6) others (service sectors); (7) others (LE firms). We have categorized based on the enterprises that took up the majority of our sample.

As mentioned earlier, we have also interviewed the apprentices who received BRAC training on LE services and their non-recipient counterparts from the RCT. In this report, we treat them as youths. As we have considered both the apprentices and their non-recipient counterparts regardless of their employment status, these *youth* are actually labour market participants.

In our first round of surveys, we approached 1,652 youths and were able to interview 1,014 successfully. We re-approached 1,570 youths in Round 2, including all those successfully interviewed in Round 1; this time we could successfully reach 951 youths. Among the 1,014 youths successfully interviewed in Round 1, we could not reach 166 in Round 2. Thus, our attrition rate for youth's survey in Round 2 is around 16 per cent (Table A4). Overall, 848 youths were successfully interviewed in both rounds. Of these 848 youths, 680 (about 80 per cent) were employed in February 2020 i.e., before the pandemic.

3. Results from the Enterprise Owners' Survey

3.1. Enterprise Owners' Profile

Almost all respondents (94.43 per cent) were male (Table 1), with an average age of 41. We only have district information for the LE firms that were a part of our initial RCT. Of the 1,840 firms successfully surveyed in both rounds, 1730 are LE firms that also belonged to our initial RCT. These LE firms are spread across 18 districts of Bangladesh, mainly in Bogra (13.06 per cent), Gazipur (9.08per cent), Jessore (7.69 per cent), and Mymensingh (6.24 per cent).

In both rounds of our survey, we observed different SME owners. Eighty-three per cent of our surveyed samples belong to the light engineering sector. In Round 2, about one-fourth of our respondents run automobile spares businesses (25 per cent), while 12 per cent and 20 per cent are agriculture machines, accessories and spares firms, and grill businesses, respectively. The remaining 26 per cent of LE firms include machine tools workshops, engineering and metal industry machine and spares, lead workshop, etc.[10] Of the firms in the service sector, 10 per cent belong to the clothing and tailoring businesses. Finally, the remaining sample includes general stores (one per cent), hotel and restaurants (one per cent), beauty parlours and cosmetics stores (two per cent), and mobile servicing shops (two per cent).

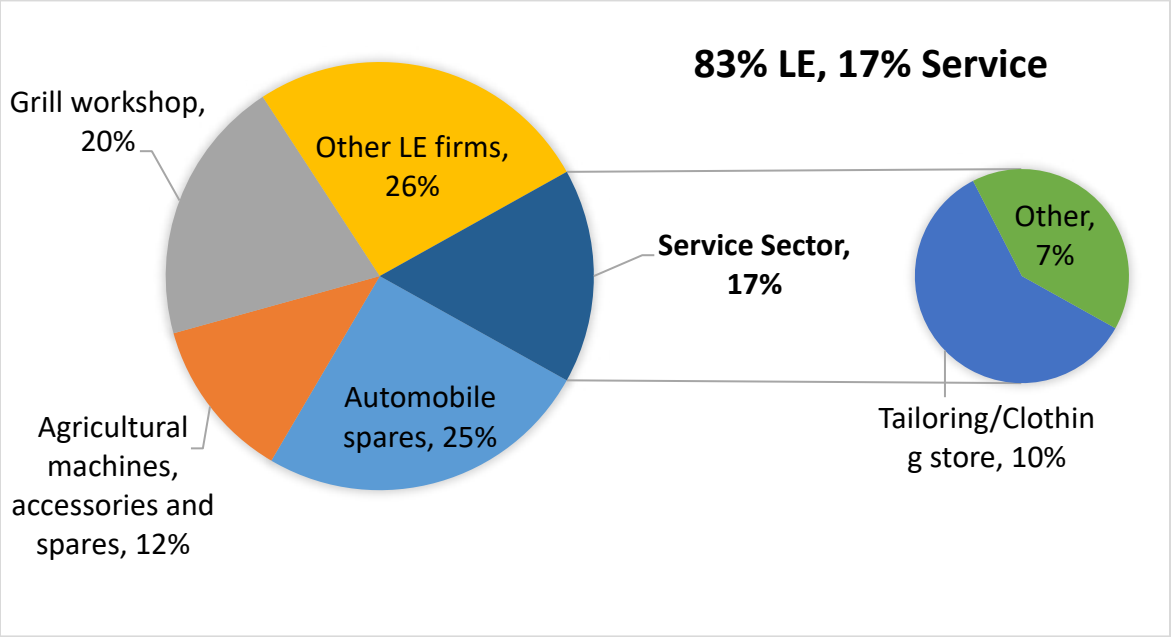

Figure 2: Percentage distribution of samples by enterprise type in Round 2

The Above figure shows the distribution of occupation of 2,279 firms successfully surveyed in Round 2. Of them, 1,840 have also been surveyed in Round 1, and the remaining 439 firms are MCPs.

Table 1: Gender and the average age of workshop owners in Round 2

Male (per cent)	96.43
Female (per cent) in LE sector	3
Female (per cent) in service sector	15
Average age of respondents	41.26

[10] Others include a large category of enterprises such as: bicycle and rickshaw workshops, iron chain workshops, machine tools workshops, jute and textile machine and spares workshops, chemical industry machines and spares workshops, sugar and food industry machine and spares, marine and ship industry spares, plastic products and related machines and spares. Electrical goods and accessories, thai and aluminum workshops, scrap businesses, electrical servicing, parts businesses, lead workshops, hardware and paint stores, furniture, building decoration workshops, auto rice mill, motorcycle repairing shop, van construction workshops, welding workshops, wood workshops, etc.

Average age of male respondents	41.53
Average age of female respondents	34.04
No. of observations	2279

According to the definition provided by Bangladesh Bank, if the value of permanent assets of an enterprise is between BDT 10, 00,000-75, 00,000 or less and workers are between 16-30 or less, then the enterprise can be classified as a micro enterprise (Table A1). 99% of the firms in our sample have permanent assets valued below BDT 75, 00,000. Moreover, 91% of these enterprises had less than 30 workers. Hence our sample mostly comprise of micro enterprises. Only 1% of the firms in our sample can be categorized as small enterprises.

3.2. Business Characteristics of the Firms Surveyed in Round 2

In this section, we present an analysis of the firms we have observed in Round 2. Our sample includes the 1840 firms surveyed in both rounds and the additional 439 MCPs we successfully interviewed. 1782 firms and 401 MCPs remained open during our survey. Table 2 represents the operational status of the enterprises based on category. We find that all enterprises are either fully operational or have shut down. While for most sectors, the percentage of shutting down is less than one per cent, more than two per cent of firms in the clothing and tailoring sector have closed[11].

Table 2: Operational status of firms surveyed in Round 2

Firm category	**Open (% of firms)**	**Partially open (% of firms)**	**Closed (% of firms)**
Automobile spares industry	98.96	0.35	0.69
Agriculture machines and spares industry	99.28	0.00	0.72
Grill business	98.69	0.22	1.09
Clothing/tailoring business	96.35	1.37	2.28
Others (service sector)	98.00	0.00	2.00
Others (LE firms)	98.65	0.96	0.39

Of the 2,183 operating enterprises (1782 firms and 401 MCPs), the service sector is working longer hours than the light engineering workshops (Figure 3 and 4). Firms in the clothing and tailoring sectors work 27 days a month on average, while other service sectors work 28 days a month. They are also working for more than 11 hours a day on average. Despite longer working days and hours, average sales and profit in the clothing and tailoring sectors are lower (Figure 5). In the last one month before the

[11] Here we define 'closed' as the firms that have either temporarily or permanently shut down.

survey, BDT 52,430 was earned in sales, and a profit of only BDT 12,964 was made. On the other hand, other firms in the service sector are making higher profits (BDT 39,343 on average). It is quite interesting to note that the likelihood of incurring a loss in the service sector is lower compared to the LE firms (Figure 6). In the last one month before the survey, 36 per cent of the grill business firms and 27 per cent of the automobile spares industry suffered losses. On the other hand, 23 per cent of the firms in clothing and tailoring industry 19 per cent in the service sector suffered losses. Thus, our findings indicate that although the light engineering sectors have higher profits, on average, they are more likely to incur a loss.

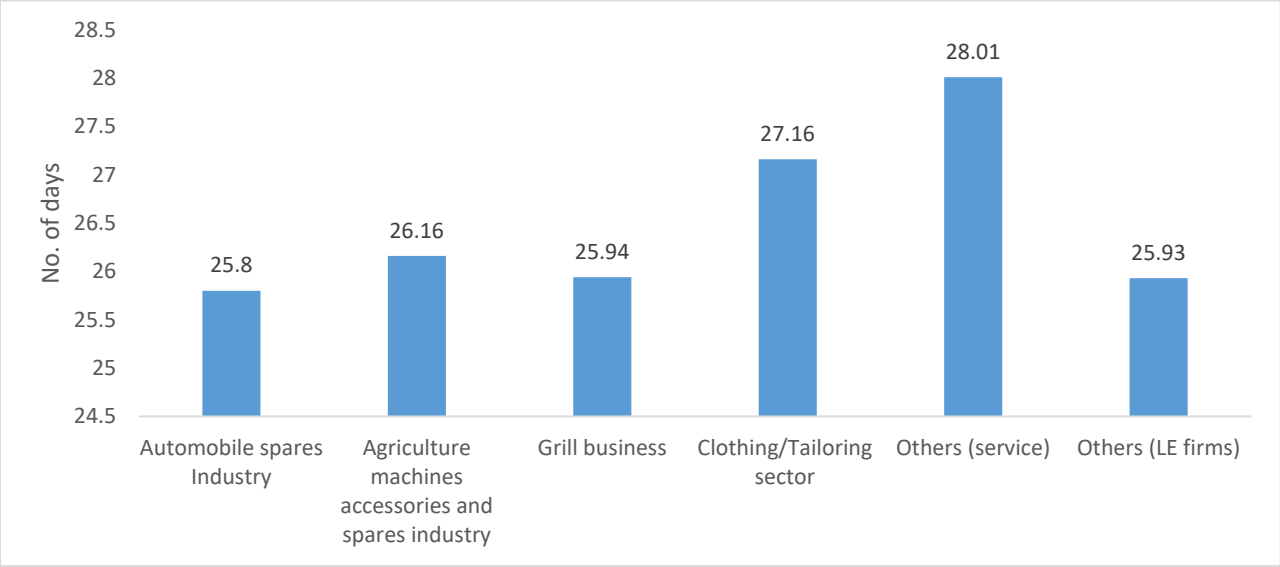

Figure 3: Working days of firms in Round 2 (per month)

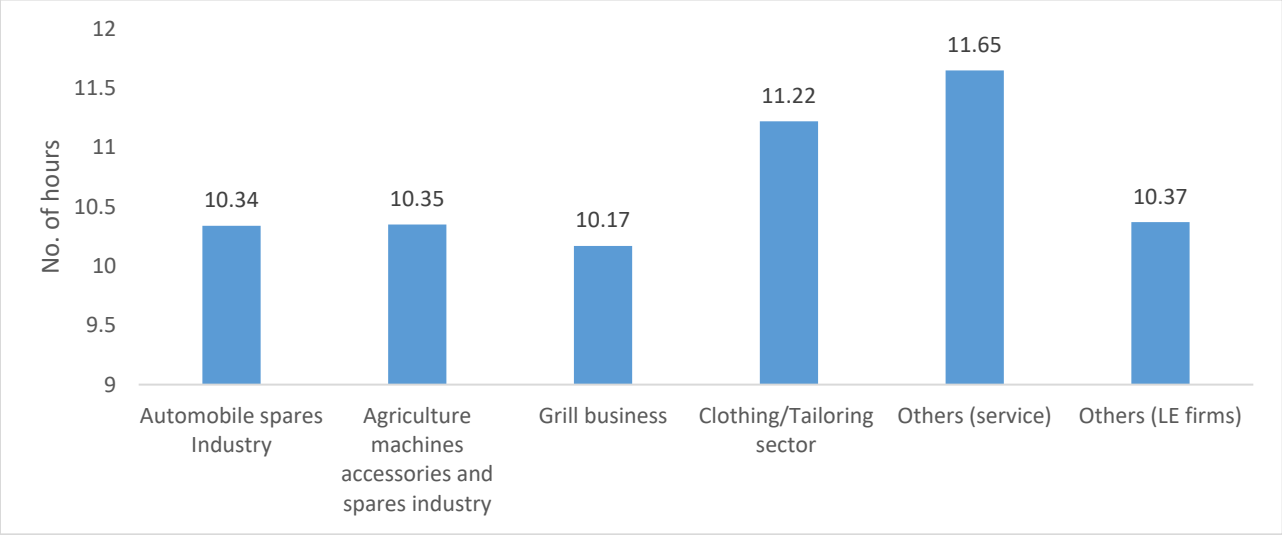

Figure 4: Working hours of firms in Round 2 (per day)

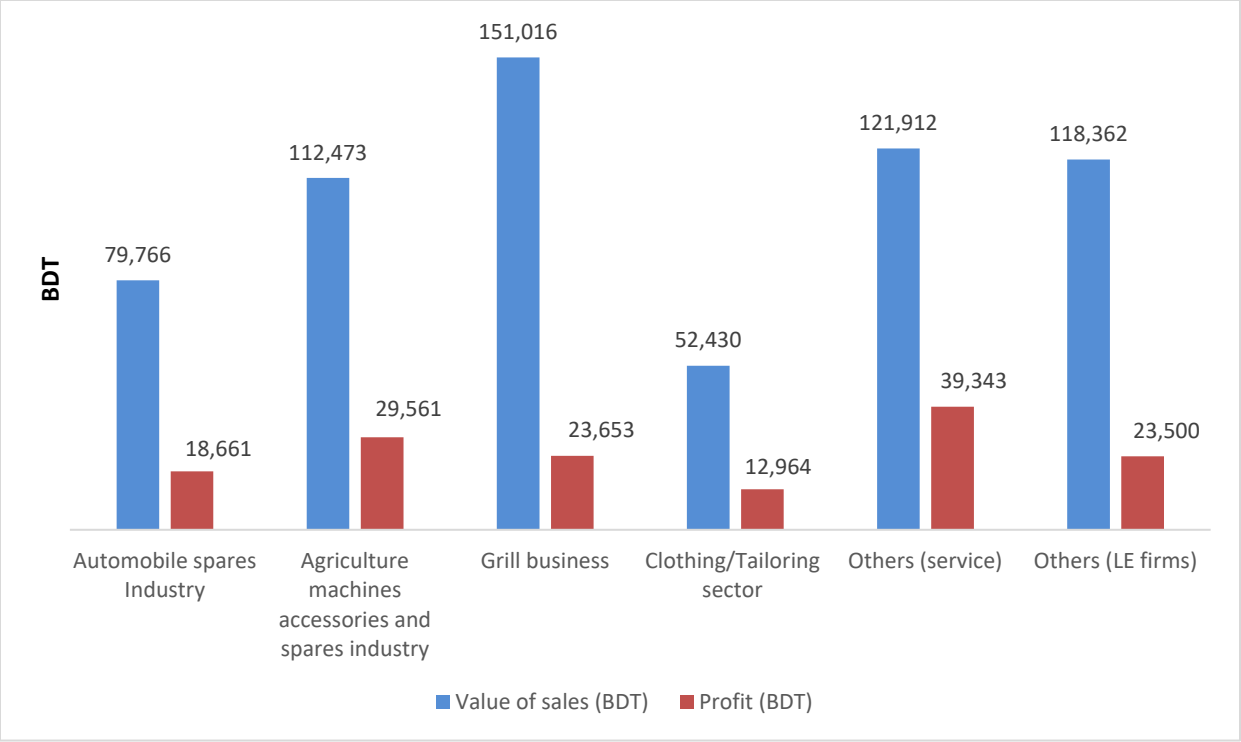

Figure 5: Average value of sales and profit in Round 2

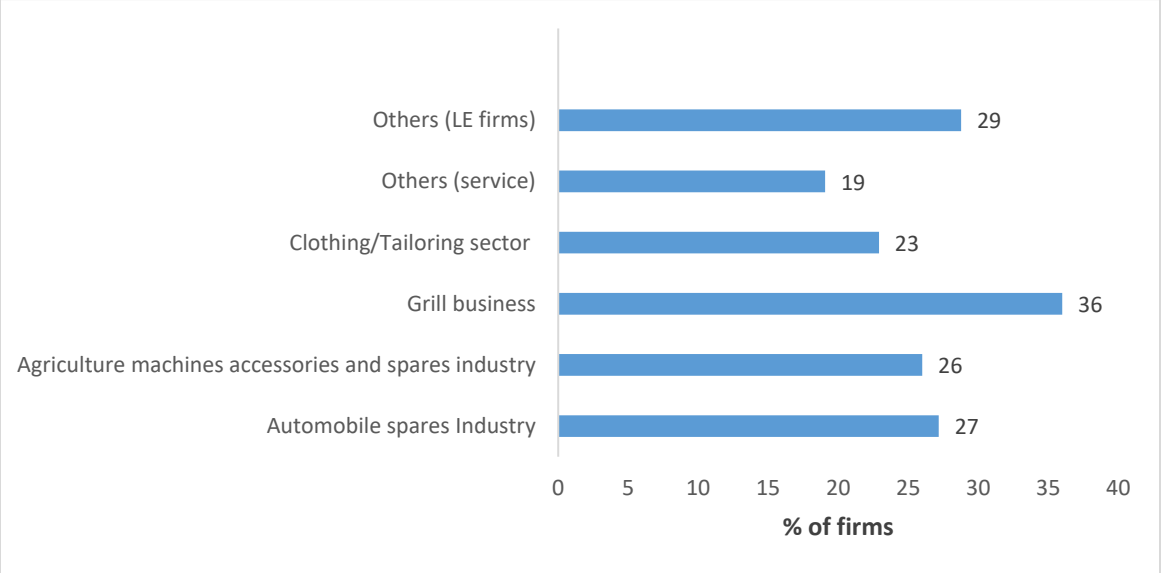

Figure 6: Percentage of firms incurring a loss in the last one month

3.3. Analysis of Firms Surveyed in Both Rounds

3.3.1. Business operations, sales, and expenses

Upon comparing the firms' situation during our first round of surveys, we find that more firms now operate at full scale, six months after the lockdown. Figure 7 describes this in detail. For this comparison

on the operational status, we considered the 1840 firms that were successfully surveyed in both rounds. We find that in Round 2, 97 per cent of these firms are fully open, and none are partially open. About two per cent of the firms that remained open during Round 1 shut down in Round 2. On the other hand, about two per cent of the firms that were closed during Round 1 reopened during Round 2. As a result, the percentage of closed firms remains the same in both rounds on average. Among the firms that shut down in Round 2, about one per cent of the owners are currently unemployed.

Among these 1,840 firms, 1744 have operated either fully or partially in both rounds. We compare the data of the 1,744 firms in Round 1 and 2 to understand whether the SMEs' business conditions have improved over time. In terms of working days and hours, we see that the firms have reverted to their pre-COVID situation (Figure 8). Firms are now working around 26 days a month for about 10 hours a day, just like they did before the lockdown was enforced.

The average sales of firms have also increased over time, nearly doubling in Round 2 (94 per cent increase) compared to Round 1 (June 2020). The profit level has also improved (Figure 9). While firms were operating at a loss during the lockdown phase, there was a significant increase in profit six months after the lockdown. Average profit increased almost four times compared to the profit level right after lockdown. These data suggest that firms are slowly recovering as the economy has begun operating at full scale.

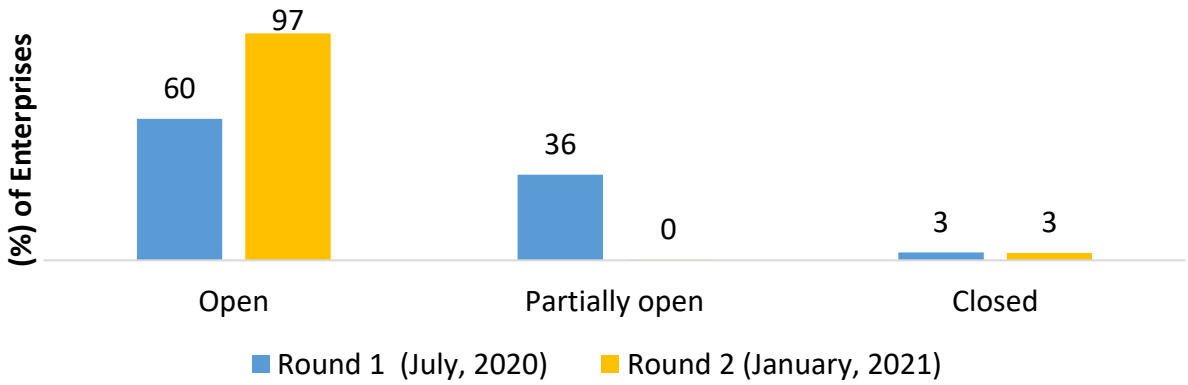

Figure 7: Business operational status (Round 1 vs. Round 2)

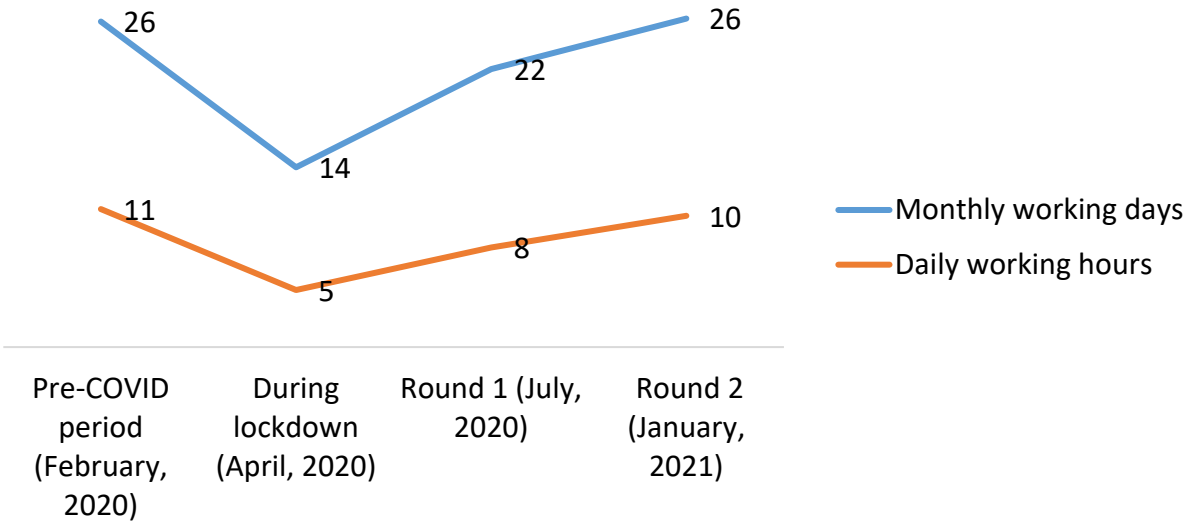

Figure 8: Business days per month and working hours per day (Round 1 vs. Round 2)

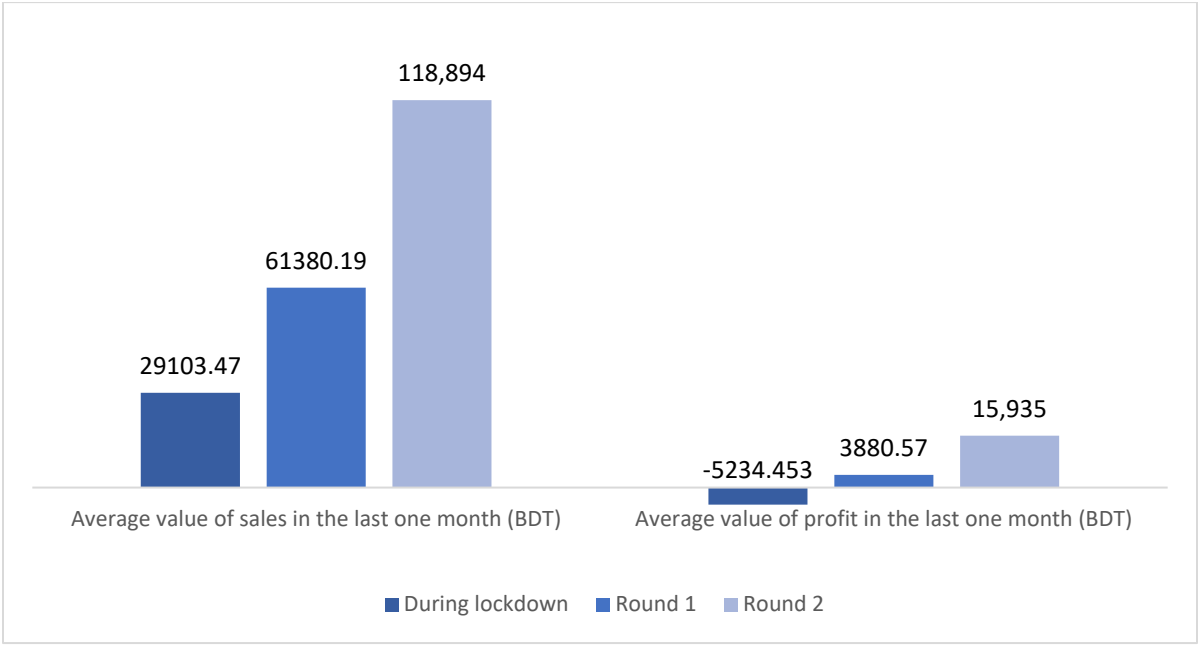

Figure 9: Sales and profit over time

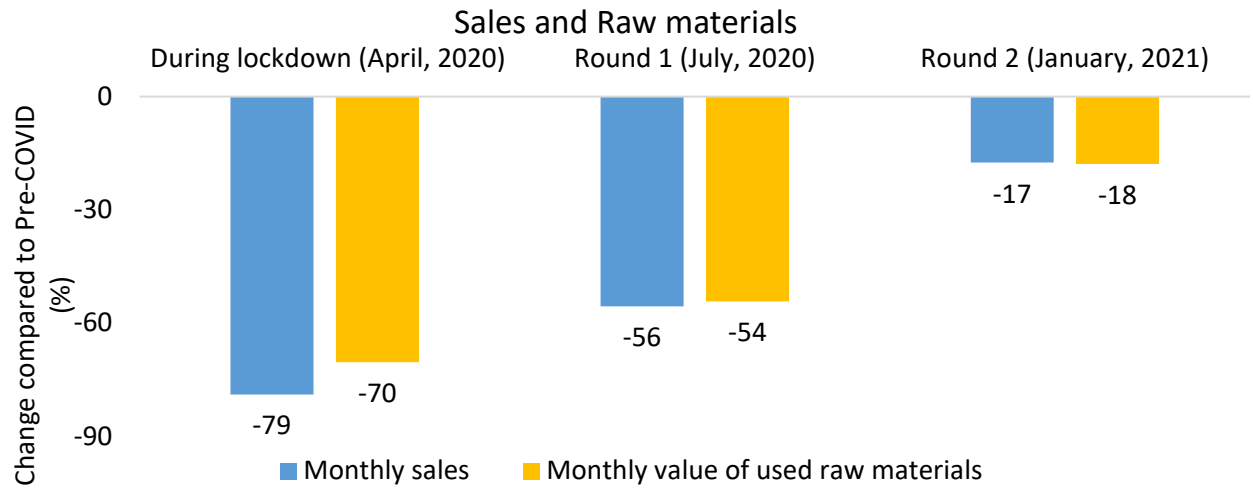

Figure 10: Drop in sales and value of raw materials used compared to the pre-COVID period

Moreover, a drop in sales and value of used raw materials are about 39 and 36 percentage points lower in Round 2 than in Round 1 (Figure 10). In Round 2, monthly sales are around 17 per cent lower, and the value of used raw materials is about 18 per cent lower compared to pre-COVID levels. These data indicate that although firms are moving closer to their pre-COVID circumstances over time, they are not quite there yet.

3.3.2. Consequences of workers

We now try to understand the situation of the firms' employees. For this, we also consider the 1744 firms that were open/partially open in both rounds. Upon comparing their wages with pre-COVID level wages, we find that in Round 1, workers received 22.12 per cent less in average salary compared to the pre-COVID level. The wage gap decreased in Round 2. Workers are now receiving 4.38 per cent less than they used to (Figure 11). It can be implied that despite the gradual increase in sales and profit, firms are still paying their workers less than they used to, six months after the end of the lockdown.

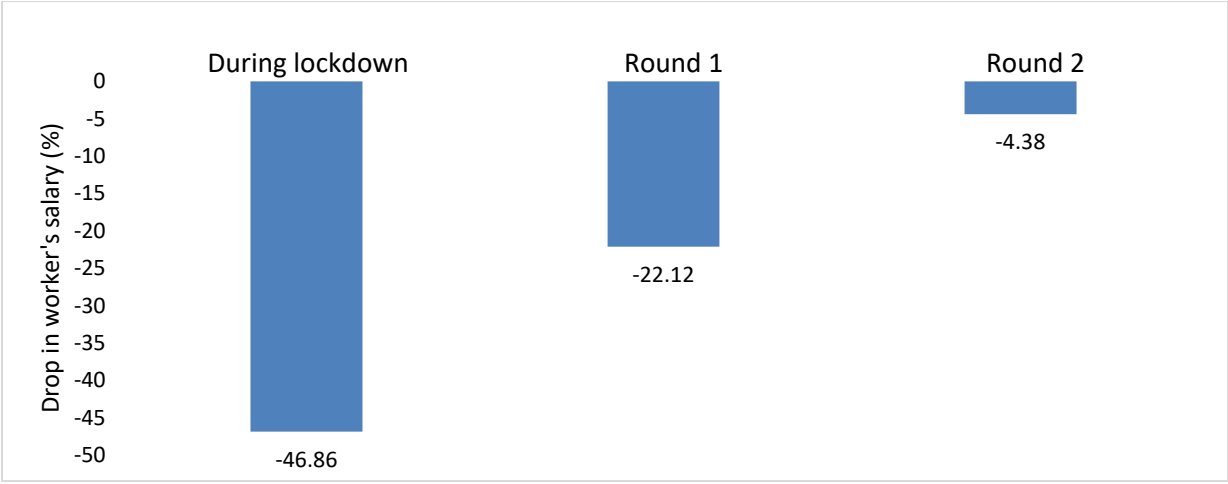

Figure 11: Drop in worker's salary compared to pre-COVID levels

On a positive note, firms have started to hire workers as the economy has fully opened up. Among the 1744 firms, around 36 per cent hired new workers in Round 2, while 30 per cent fired workers (Figure 12). Moreover, firms that let go of workers in Round 2 had 29% lower sales than pre-COVID. But for firms who hired new workers, it is just 3% lower. This indicates growing employment opportunities for workers in SMEs and an increased ability of firm owners to hire new workers with increasing income.

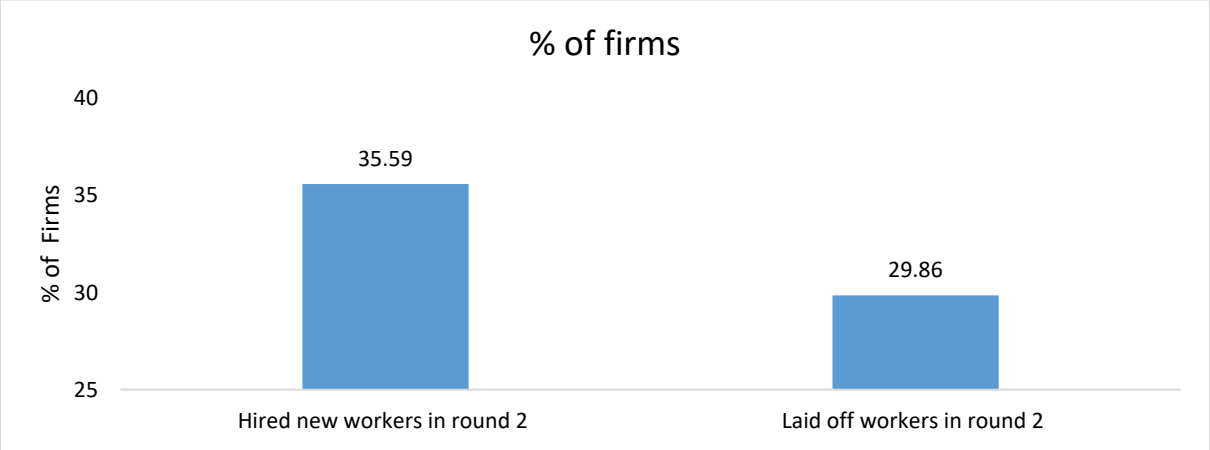

Figure 12: Hiring and firing workers in Round 2

3.3.3. Major concerns of firms

We compare the responses of the 1,840 firms successfully interviewed at both rounds regarding their business concerns to see if there has been any shift in their concerns as the economy has started to operate fully (Figure 13). We find that firms are still concerned about the reduced quantity of orders six months after the lockdown. Compared to Round 1, more firms are worried about raw materials becoming expensive in Round 2. On the other side, firms are now less concerned about paying their workers and maintaining business operations, credit-related complexities, and their clients not paying the bills.

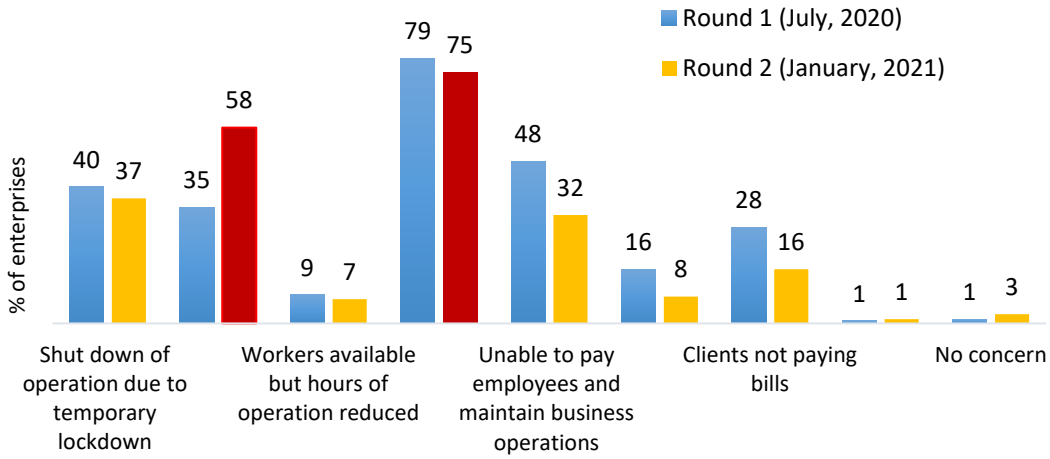

Figure 13: Shift in concerns (Round 1 vs. Round 2)

Majority of the firms concerned about the increase in price of raw materials are light engineering firms (56 per cent) (Figure 14). The concern is highest among the grill workshop owners (68 per cent). Although concerns regarding the price of raw materials are relatively low in the service sector, 56 per cent of the general store owners have this concern.

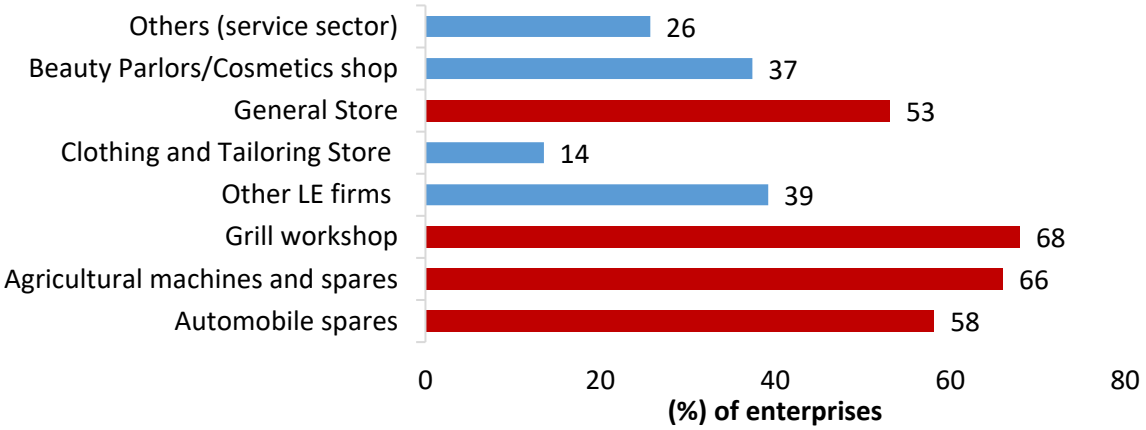

Figure 14: (%) of firms expressing high price of raw materials as a concern in Round 2

3.4. Compliance With COVID-19 Safety Guidelines:

This section assesses if firms are still maintaining COVID-19 safety guidelines six months after the lockdown has ended. Among the 1,744 firms open in both rounds, 94-96 per cent of firms have responded to washing their hands more than they did pre-COVID; however, the prevalence of social distancing has decreased. 67 per cent of the firms responded to maintaining social distance in Round 2, while in Round 1, it was 90 per cent (Figure 15). This suggests that the fear of the pandemic is gradually decreasing among firms as they have started their operations at full scale.

We have also analysed the hygiene behaviour of the 2,183 (1782+401 MCPs) firms open/partially open in Round 2. Figure 16 describes the results in detail. We find that the majority of the enterprises have handwashing facilities at their workshop. However, workers use the facilities regularly in around 60 per cent of the firms. 83 per cent of the service sector respondents reported that their workers regularly use the facilities to wash their hands. Almost all firms responded to providing masks for their workers, but only a few firms offer gloves. Provision of gloves to the workers has the highest rate in the service sectors (55 per cent). The prevalence of guidelines on mask usage and social distancing is also the highest in the clothing/tailoring shops and other services sectors. From these findings, it can be implied that compared to LE firms, those in the service sector are more cautious of health guidelines. This could be because people working in the service sector come in more frequent and closer contact with their customers.

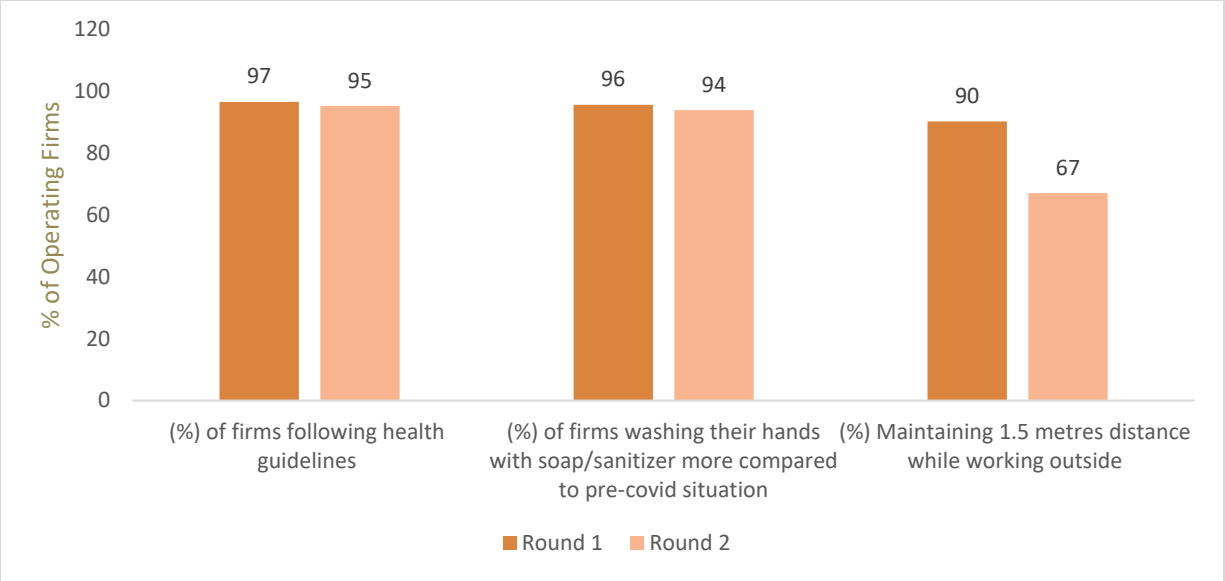

Figure 15: Compliance with health guidelines (Round 1 vs. Round 2)

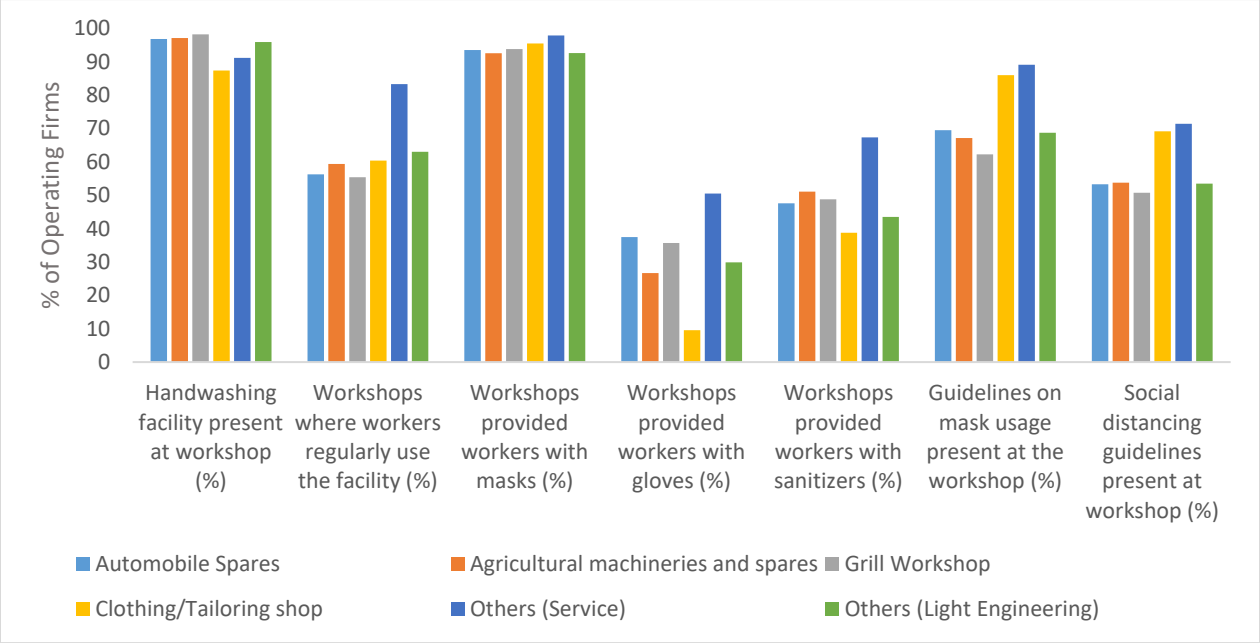

Figure 16: Hygiene behaviour among firms surveyed in Round 2 by enterprises

3.5. Self-Reported Changes in Business in Firms Surveyed in Round 2

In Round 2, we asked the respondents about any changes and their expectations of changes in sales, selling prices, and the health of the supply chain. For our analysis on the self-reported changes of firm characteristics in Round 2, we consider the 2,183 (1,782+401 MCPs) that were open/partially open during our Round 2 survey. Figure 17 reports the changes in sales. About 45 per cent of the firms said their sales decreased compared to pre-COVID times, and 54 per cent reported that their sales had

significantly reduced three months ago. Firms are also hopeful about the future, as 70 per cent of the firm's owners expect their sales to increase in the next six months.

We also asked firms if they consider their current sales to be above or below normal[12]. Figure 18 represents the responses by enterprise categories. The majority of the firms reported that their current sales were below normal. Quite expectedly, the number of firms reporting sales to be below normal is the highest in the clothing and tailoring sector (86 per cent). As we mentioned earlier, their average value of sales and profit in the past one month before the survey is also the lowest.

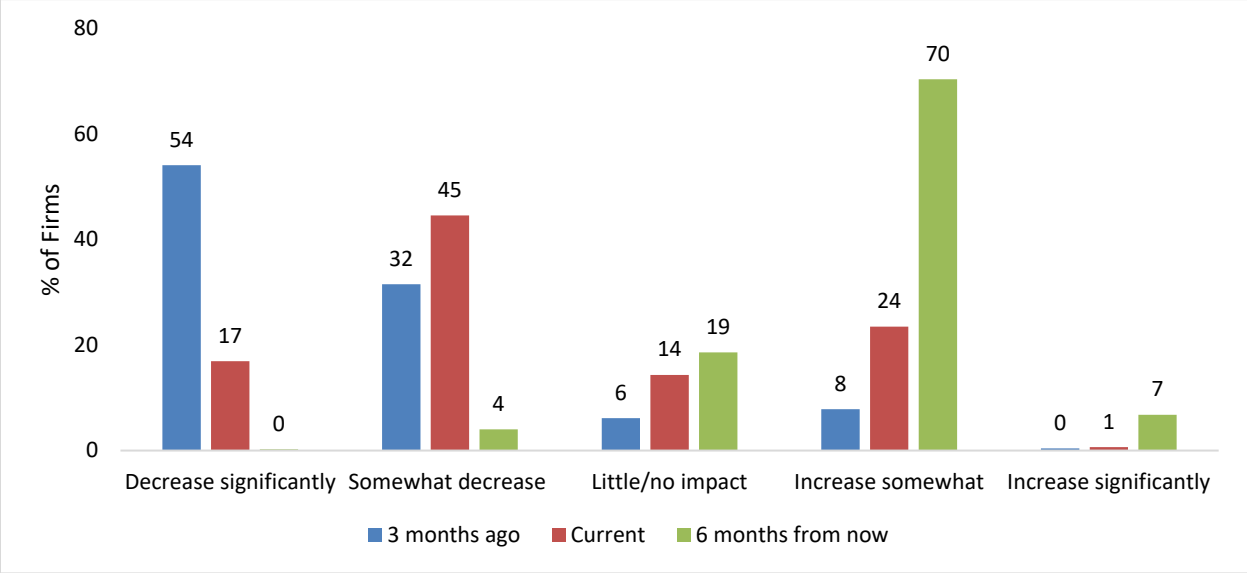

Figure 17: Self-reported changes in sales level compared to the previous period

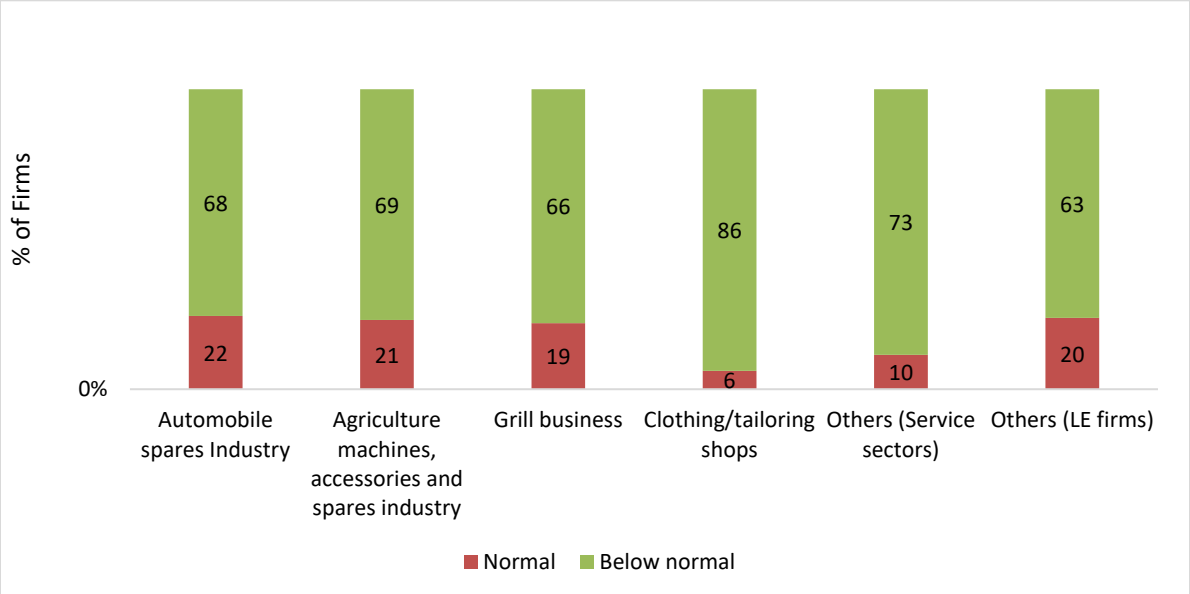

Figure 18: Self-reported changes in sales level compared to pre-COVID period by enterprises

[12] We define normal as the sales level during the pre-COVID period.

When asked about any changes in selling prices, 37 per cent reported that there is currently no change, and 46 per cent reported that their selling prices are now higher than pre-COVID levels (Figure 19). In terms of future expectations, firms are hopeful, with 50 per cent expecting a rise in selling prices in the next six months. In terms of the supply chain, 36 per cent reported that their supply chain has become weaker, while 40 per cent reported no change (Figure 20). However, six months from now, around 55 per cent expect their supply chain to become stronger.

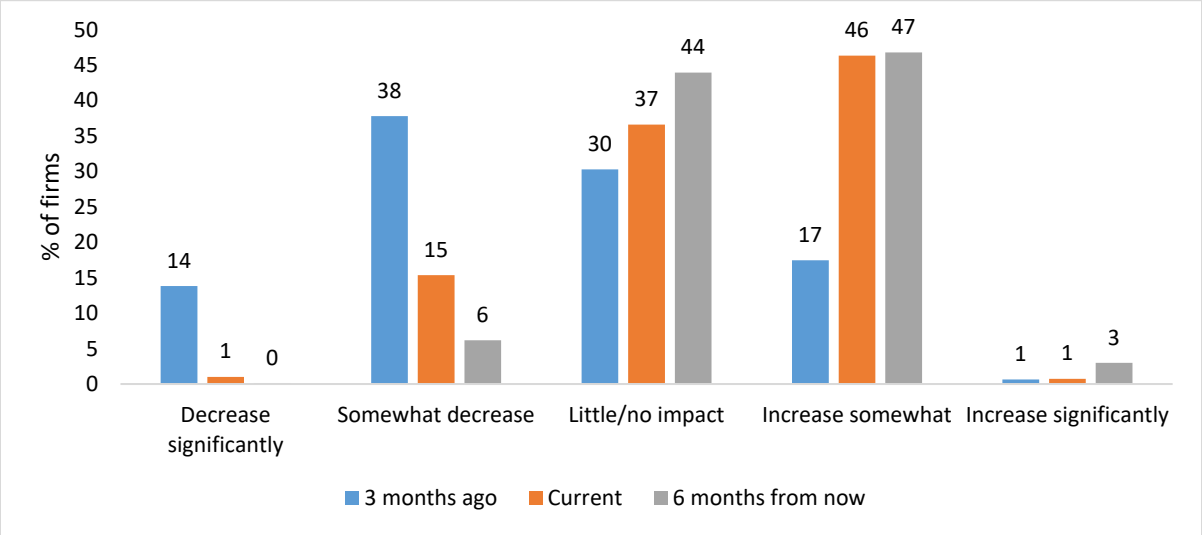

Figure 19: Self-reported changes in selling prices compared to the previous period

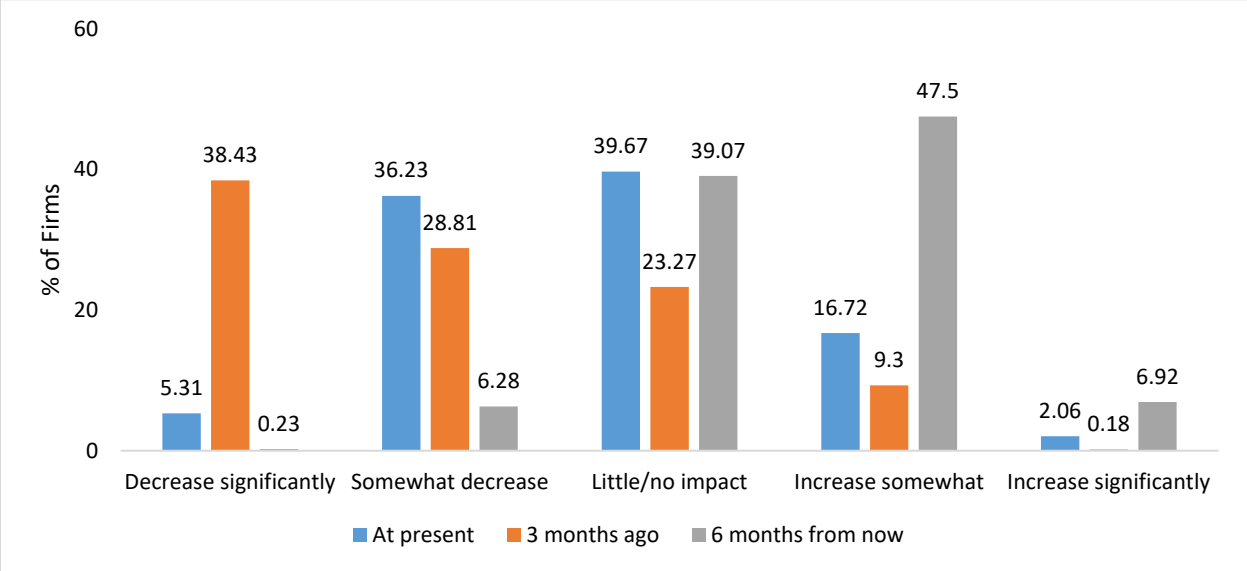

Figure 20: Self-reported changes in the health of supply chain compared to the previous period

3.6. Access to Credit by Firms Surveyed in Round 2

In Round 2, we asked firms if they had taken any loans since lockdown until now[13]. Our results show that around 44 per cent of the firms took loans or grants within this time to support their businesses (Figure 21). We also found that taking loans from NGOs is quite prevalent among SMEs. Almost a quarter of the firms (25 per cent) have taken loans from NGOs (Figure 22). Taking loans from government sources is among the least favoured methods, and only four per cent of the respondents did so.

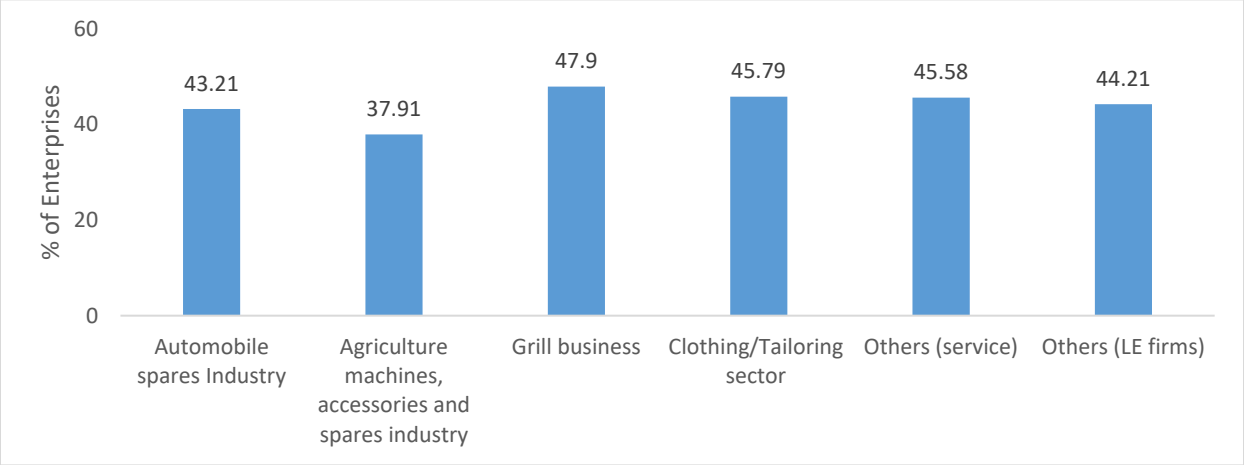

Figure 21: Percentage of firms with access to any kinds of loans by enterprise

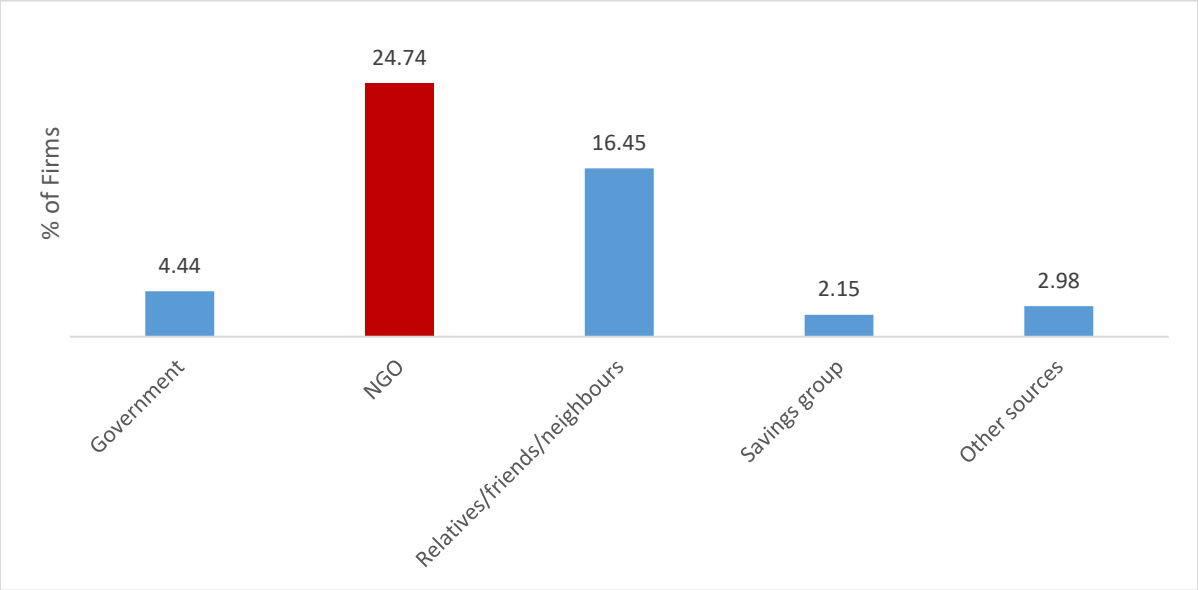

Figure 22: Source of loan

The primary purpose of loans is to use them to pay for raw materials. Around 78 per cent of the firms who took loans used them to buy raw materials (Figure 24). As we mentioned earlier, most firms are

[13] For our analysis on loans, we consider the 1782 firms among the 1840 successfully interviewed firms in both rounds that were open/partially open in Round 2 plus the additional 401 MCPs that were fully/partially operating during our Round 2 survey.

worried that raw materials will become expensive, which might indicate that firms are now required to tap into external sources of funding to afford raw materials. The next key purpose of loans is to pay workers' salaries and to pay rent. And around 16 per cent of the firms took new loans to repay their existing loans.

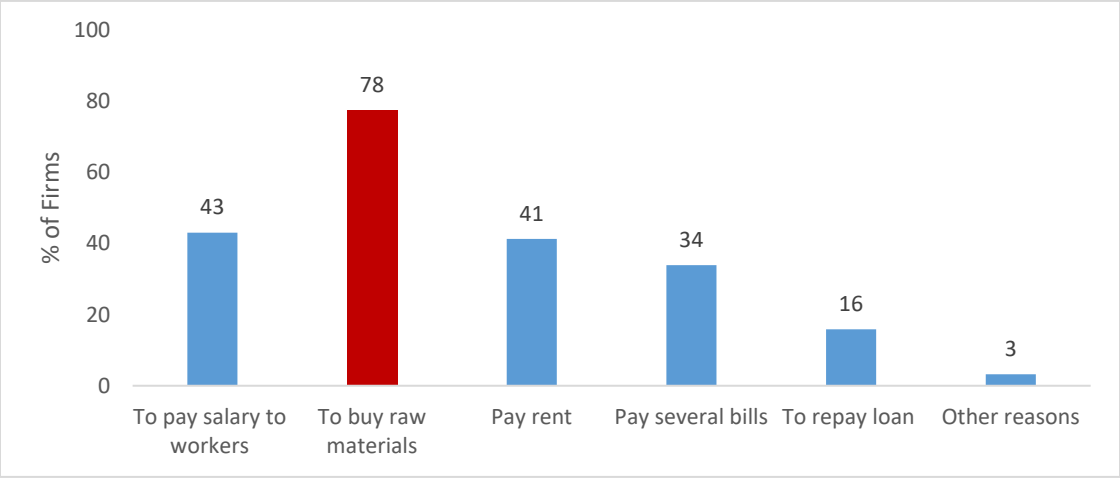

Figure 23: Use of loan

3.7. Access to Stimulus Package by the Government

On April 13, the Government of Bangladesh declared a stimulus package to support the SMEs. According to the guidelines of the packages, SMEs could access loans from commercial banks at an interest rate of nine per cent, and the government would bear up to five per cent interest. Three months after the announcement, only 62 per cent of the 1840 firms surveyed in both rounds knew about the package. Only 4 per cent applied for the package in Round 1. Knowledge of the package increased in Round 2. Around 82 per cent of the firms are aware of the stimulus package now but the rate of application was only 6 per cent (Figure 24).

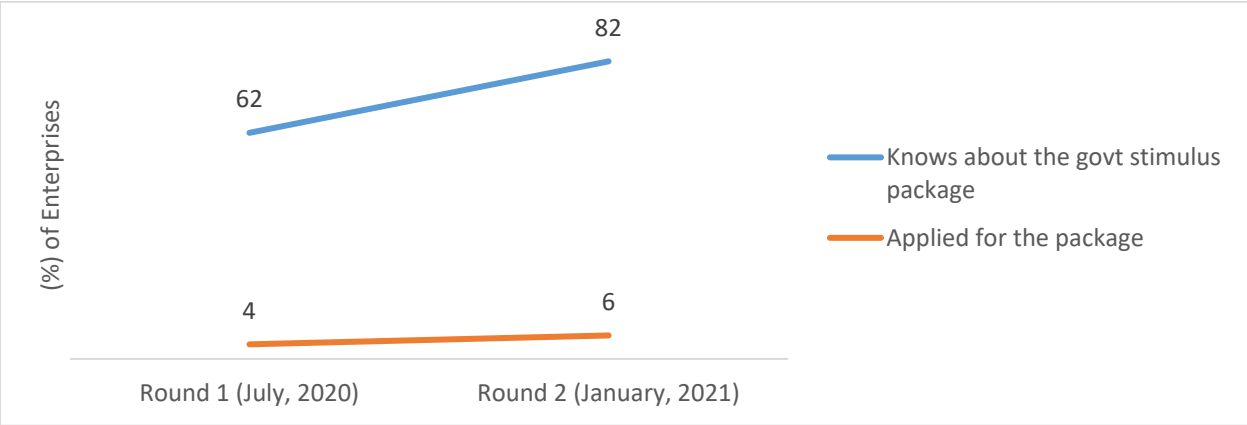

Figure 24: Knowledge and application for the government stimulus package

Access to the package is still very low. Only one firm received the stimulus package in Round 1. And among the firms who were resurveyed in round 2, 16 received the package which is just 1 per cent. On a

positive note, 55 percent of the respondents who were aware of the package but had not applied, expressed their willingness to apply in the future.

95 per cent of the 16 firms who received the package in Round 2 used it to buy raw materials (Figure 25). Firms had to wait 36 days after applying, on average, to receive the package and those who applied pay interest at a rate of 4.5 per cent on average.

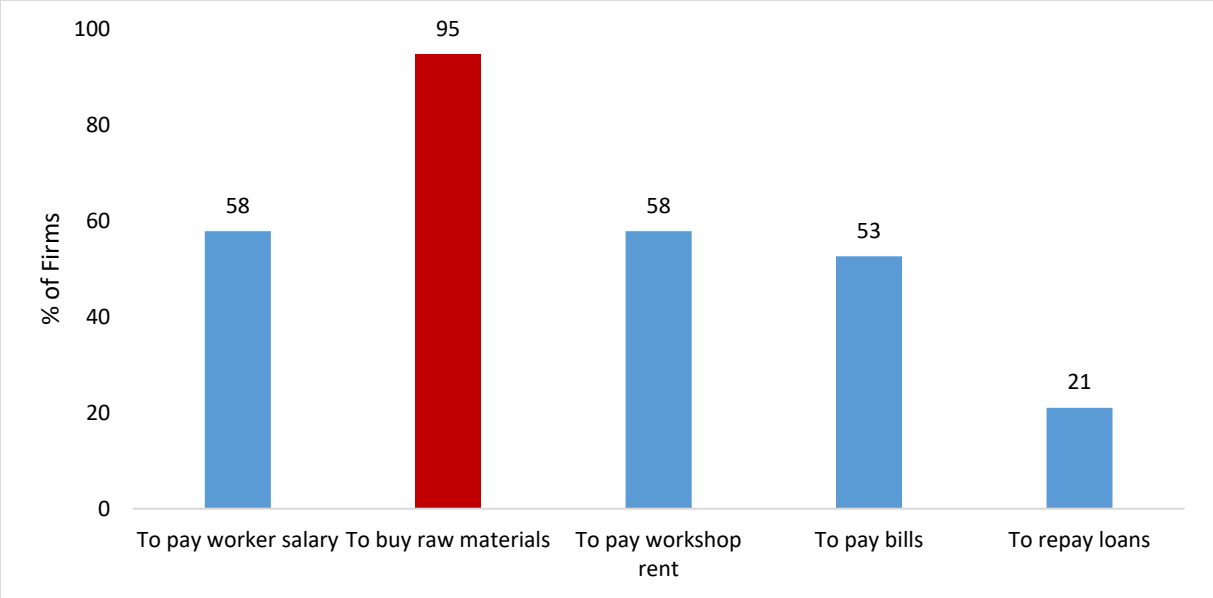

Figure 25: Purpose of using the stimulus package

Raihan (2020) attributed this low access to the lack of a systematic process of disbursing credit through banking channels and the tremendous pressure faced by the banking sector due to non-performing loans. This deduction is validated by our findings as well. Among the 16 firms who received the package in Round 2, 53 per cent reported the long process, and 37 per cent reported bank-related hurdles to be the main problems faced while accessing the package (Figure 25).

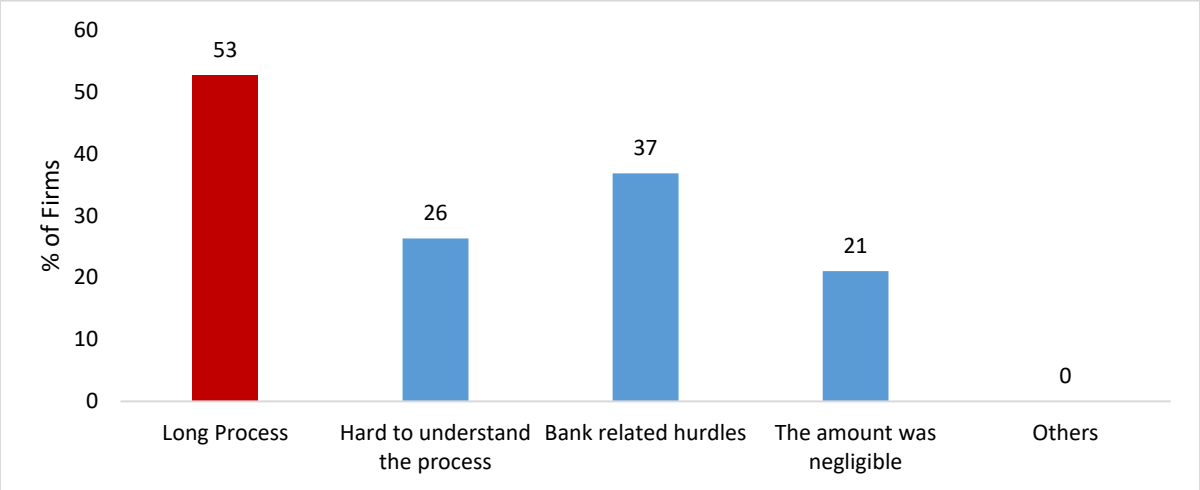

Figure 26: Difficulties faced while applying for the package

3.8. How BRAC's Training Recipients Performed in Round 2 Compared to Their Counterparts

Among the 1744 firms that were open in both Round 1 and 2, 1,637 are LE firms that belonged to our initial RCT. Of these 1,637 firms, 785 belonged to the treatment group who received the intervention, and 852 belonged to the control group, respectively. We compared the value of sales and profit levels of treatment and control groups across both rounds. Figure 27a represents the average value of sales in the last one month before the survey for treatment and control groups. We find that although both treatment and control groups had similar sales values in Round 1, in Round 2, the treatment group's sales levels are higher. Although the treatment group earned higher profits during Round 1, in Round 2, we see that the profit levels of both groups are almost the same (Figure 27 b). This is because, in Round 2, firms in the treatment group are incurring more costs on average. They are paying more in workers' salaries, rent, utility bills, and using a larger volume of raw materials than the control counterparts (Table 3). One explanation behind this could be that since the treatment groups received training on a decent work environment, they are spending more on salary, raw materials, etc., to ensure a better quality of their products, work environment, and the overall well-being of their workers. It is also evident that the treatment group has coped better with the effects of the lockdown by cutting their costs, as their profits are higher in Round 1.

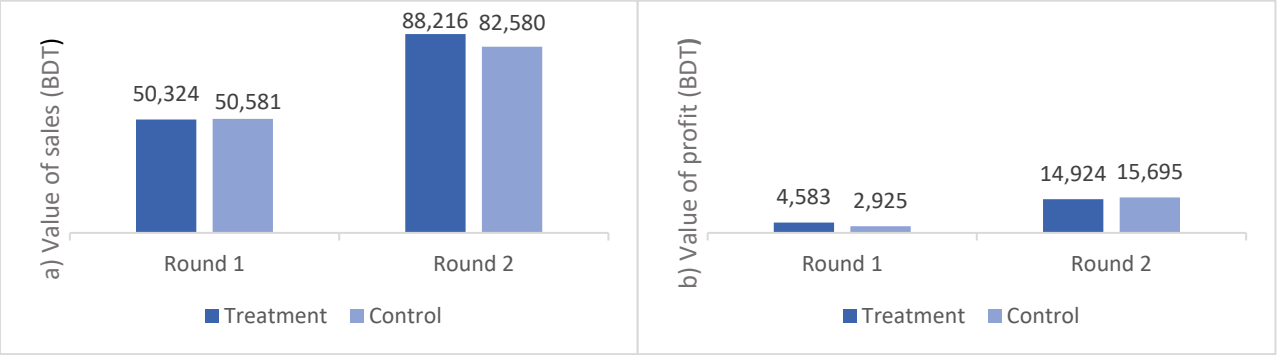

Figure 27: a) Average value of a) sales and b) profit in the last one month (Treatment vs. Control)

Table 3: Breakdown of costs of treatment and control groups (Round 1 vs. Round 2):

Indicator	***Round 1***			***Round 2***		
	Treatment	**Control**	**Difference**	**Treatment**	**Control**	**Difference**
	(1)	**(2)**	**3=(1-2)**	**(4)**	**(5)**	**(6)=(4-5)**
Average value of raw materials used in the last one month	21901.07	23277.42	-1376.35 [-0.69]	42682.1	38319.19	4362.91 [1.64]
Average amount paid in workers' salary in the last one month	18946.65	19323.52	-376.87 [-0.40]	23965.45	22427.74	981.21* [1.65]
Average value paid in rent in the last one month	4127.97	4477.42	-349.46* [-1.84]	5079.79	4981.53	293.02* [1.74]
Average amount paid in utility bills in the last one month	2068.91	2074.84	-5.93 [-0.06]	2805.27	2620.63	184.65* [1.82]

*Note: Figures in square brackets are t-statistics. ***, **, and * denote statistical significance at 1per cent, 5per cent, and 10per cent*

We have also compared the work environment of light engineering firms surveyed in Round 2 with their baseline status in 2017. For this, we consider the 1,673 LE firms open/partially open in Round 2. The results are described in Table 4. Compared to the control group, the percentage of firms in the treatment group using a wastebasket is higher by almost 11 percentage points in 2021. Compared to baseline, a higher number of firms reported cleanliness in both treatment and control groups. However, we find that the percentage of firms cleaning their workshop daily has decreased slightly across both groups.

Table 4: Work Environment

Indicator	2017			2021			Difference-in-difference
	Treatment (1)	Control (2)	Difference (3)=(1-2)	Treatment (4)	Control (5)	Difference (6)=(4-5)	(7)=(6-3)
Uses wastebasket	32.58	37.03	-4.45* [-1.91]	69.17	58.40	10.77*** [4.60]	15.22*** (3.31) [4.60]
Workshop clean/very clean	76.19	82.86	-6.67*** [-3.39]	99.25	98.74	0.51 [1.03]	7.17*** (2.02) [3.54]
Sufficient light airflow (per cent)	36.47	28.34	8.13*** [3.56]	82.83	82.97	-0.14 [-0.08]	-8.26*** (2.93) [-2.82]
Cleans workshop daily (per cent)	76.44	79.31	-2.87 [-1.42]	74.19	77.83	-3.64* [-1.75]	-0.77 (2.91) [-0.26]
Cleans workshop weekly (per cent)	6.01	5.37	0.64 [0.57]	13.41	11.54	1.87 [1.16]	1.22 (1.97) [0.62]
Cleans workshop monthly (per cent)	5.51	7.66	-2.14* [1.76]	9.52	7.89	1.64 [1.19]	3.78** (1.84) [2.06]
Cleans workshop bi-yearly (per cent)	6.89	2.97	3.92*** [3.75]	2.13	1.49	0.64 [0.99]	-3.28*** (1.23) [-2.66]
Cleans workshop Yearly (per cent)	4.89	3.54	1.34 [1.37]	0.75	0.91	-0.16 [-0.36]	-1.51 (1.08) [-1.40]

*Note: Figures in the parentheses are standard errors, and figures in square brackets are t-statistics. ***, **, and * denote statistical significance at 1 per cent, 5 per cent, and 10 per cent.*

Figure 28 describes the use of disinfectants across treatment and control groups in Round 2. We find that the use of disinfectant is significantly higher in treatment groups. Almost 43 per cent of the firms in treatment groups use an antiseptic liquid such as Dettol/Savlon. The use of hand sanitizers and soapy water is also higher in treatment groups. Moreover, while 27 per cent of the firms in the treatment group reported not using any disinfectants, the percentage of firms not using any disinfectants is much higher in the control group (37.5 per cent). Our findings indicate the effectiveness of decent work environment training to ensure proper hygiene in workshops during a global pandemic.

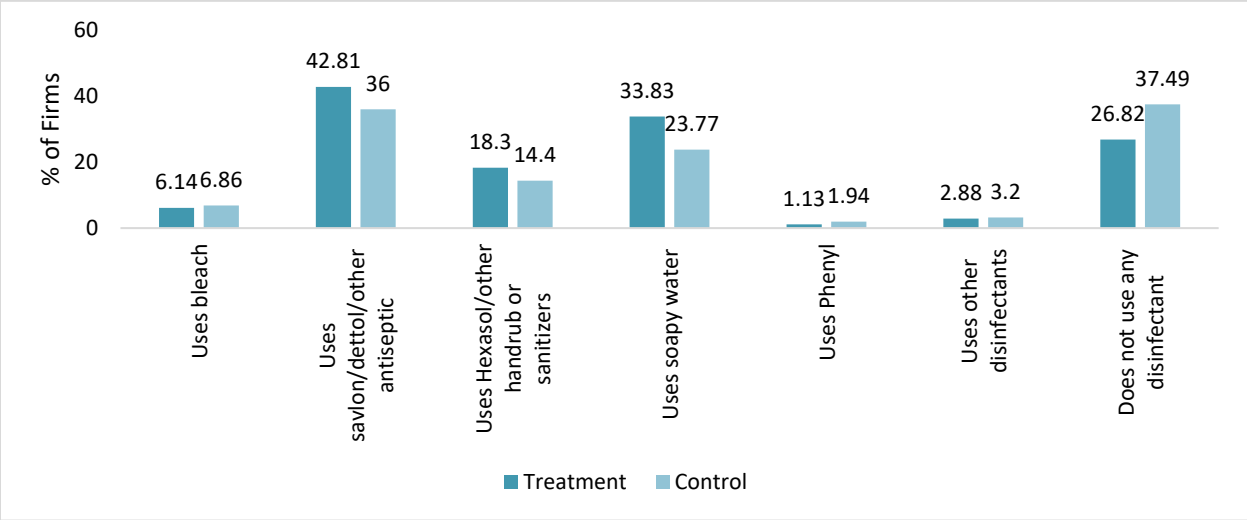

Figure 28: Use of disinfectant (Treatment vs. Control)

4. Results From the Workers' Survey

We successfully surveyed 848 youths in both rounds. 680 of these youth were employed during the pre-COVID period (February, 2020). We consider these 680 youths from our sample as workers. Our analysis in this section is based on these 680 workers.

Of the 680 workers in our sample for the survey, about 79 per cent are males, while 21 per cent are females. The workers were 23 years on average during pre-COVID period.

In both rounds, a majority of the youths are involved in salaried/wage labour as their primary/secondary jobs (Figure 29). Unemployment rate is slightly higher in Round 2 with 21 per cent in Round 1 and 23 per cent in Round 2. The proportion of youths involved in day labour has increased by three percentage points in Round 2.

Although overall unemployment rates are the same in both rounds, there is a considerable difference in male and female unemployment rates. From Figure 30, we can see that the female unemployment rate was already much higher in Round 1. In Round 2, the male unemployment rates decreased from 16 per cent to 15 per cent, but the female unemployment rate increased from 40 per cent to 54 per cent.

While only around nine per cent of males lost their jobs six months after the lockdown, the percentage of females losing their jobs is almost double at 28 per cent (Table 5). The percentage of unemployed females finding new jobs is lower than the percentage of losing jobs. Almost 29 per cent of males were

able to shift their main jobs six months after the lockdown, but only about 13 per cent of females could do so. The findings imply that females are more likely to be unemployed even after the economy is operating at the full capacity since it is comparatively more difficult for them to shift their primary jobs.

Workers are also less likely to hold more than one job six months after the lockdown has ended (Figure 31). This could be because workers are finding stability in one job as the economy has begun to operate at full scale.

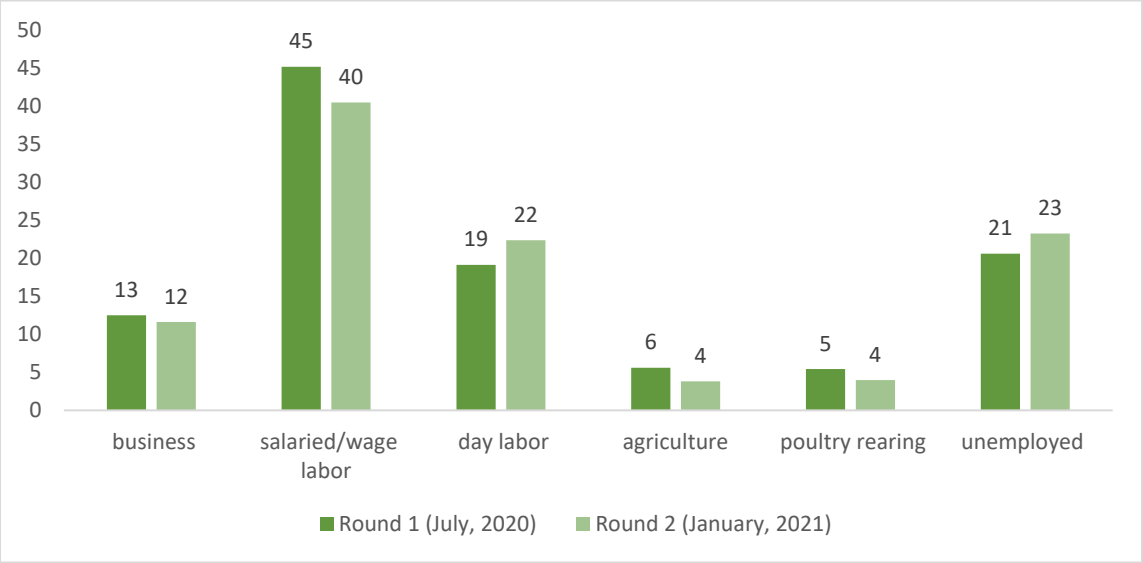

Figure 29: Occupation of workers (Round 1 vs. Round 2)

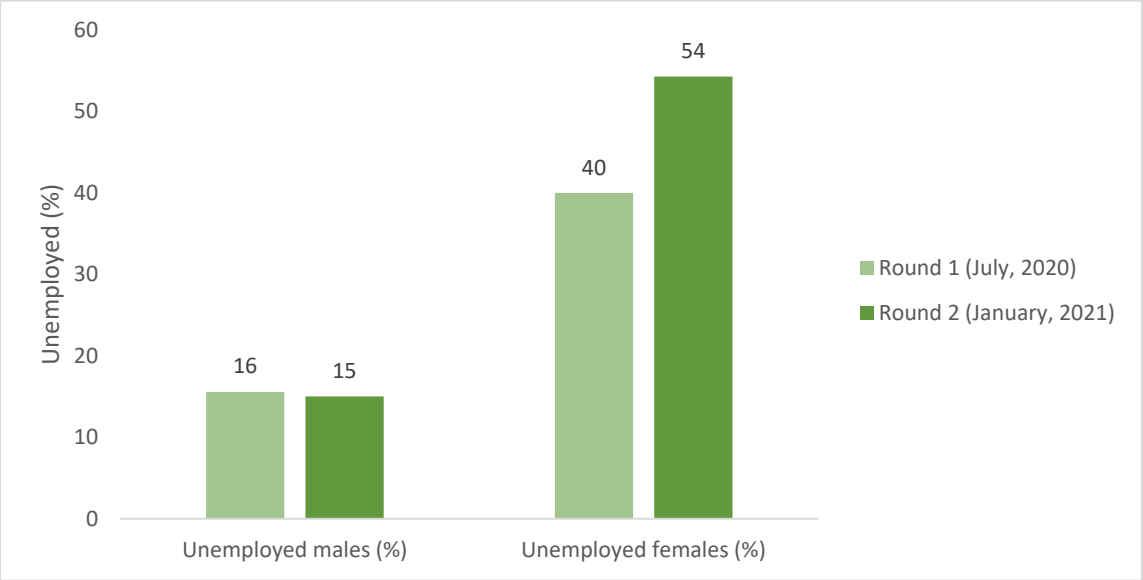

Figure 30 *Unemployment rates (Male vs. female)*

Table 5: Job shift overtime (Male vs. female)

Indicator	Value (%)	No. of observations
Percentage of males employed in Round 1 but unemployed in Round 2	9.09	539
(per cent) of females employed in Round 1 but unemployed in Round 2	27.86	140
(per cent) of males unemployed in Round 1 but employed in Round 2	9.65	539
(per cent) of females unemployed in Round 1 but employed in Round 2	13.57	140
(per cent) of male employed in Round 1 and shifted their main job in Round 2	28.76	539
(per cent) of female employed in Round 1 and shifted their main job in Round 2	12.86	140

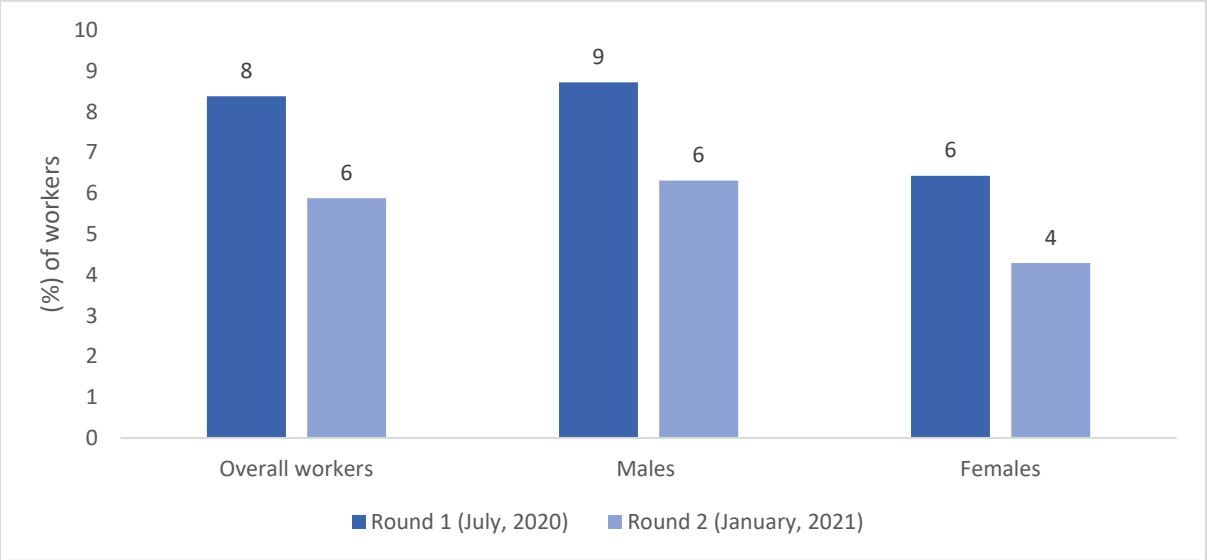

Figure 31: Percentage of workers with two jobs (Round 1 vs. Round 2)

Despite starting to work at full scale, the income of workers have increased just slightly Round 2 and is still far from the pre-COVID income level (Figure 32). The overall drop in income compared to the pre-pandemic period was 39 per cent in Round 1, and it is now 27 per cent. The female workers are more affected and saw no improvements in their income during Round 2. In both rounds, the income of females were 56 per cent lower than the pre-COVID levels. The recovery rate for females remain stagnant due to the high unemployment rate. Working days and hours have also increased in Round 2 (Figures 33 and 34). Although females are working more days a month compared to their male counterparts, their income remains lower.

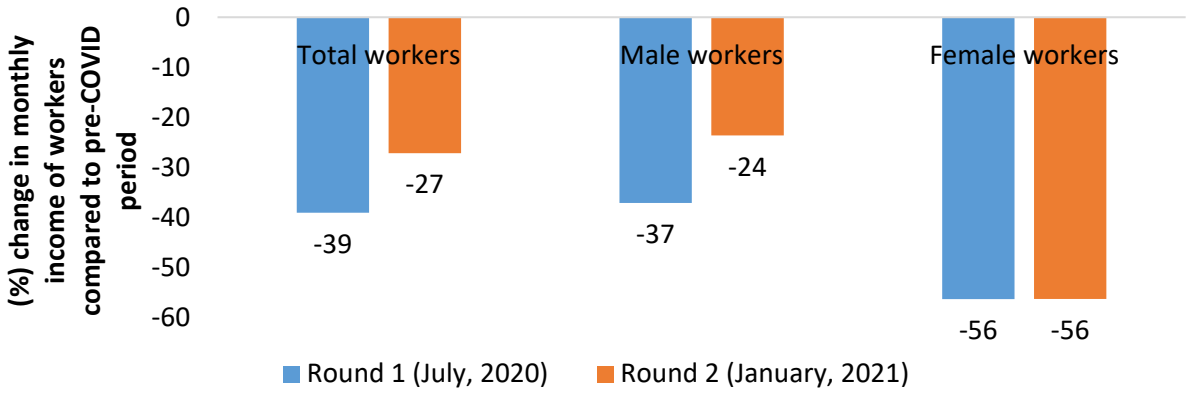

Figure 32: Drop in income of workers compared to the pre-COVID situation (Round 1 vs. Round 2)

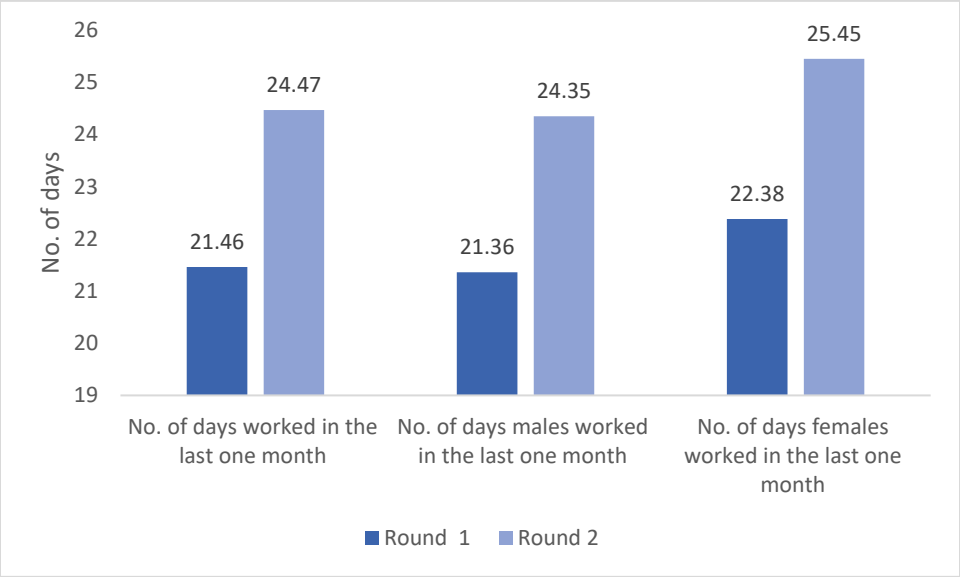

Figure 33: No. of days worked in the last one month

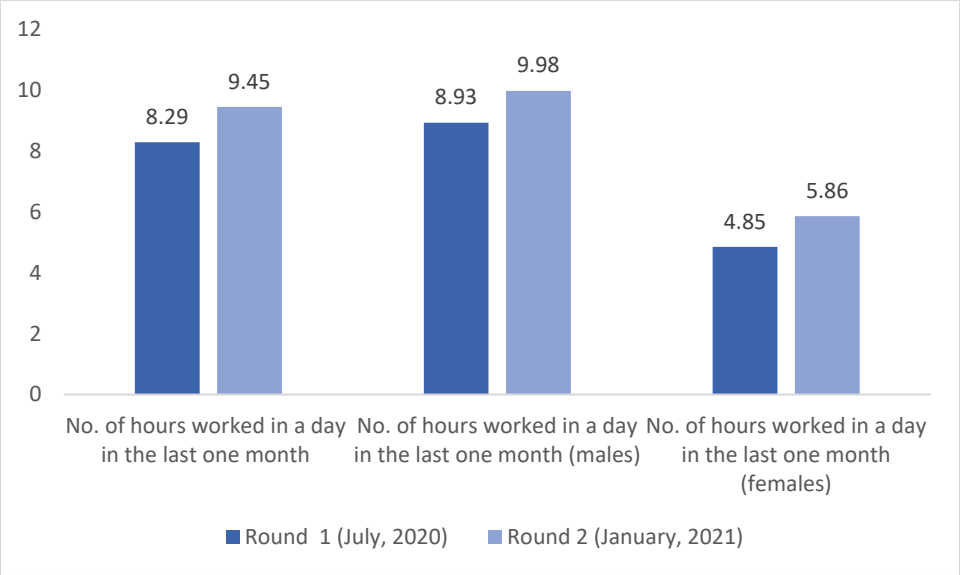

Figure 34: No. of hours worked per day in the last one month (Round 1 vs. Round 2)

As the economy returns to its normal state, compliance with health guidelines among workers has decreased (Figure 35). While 83 per cent of the workers who were employed at the time of the surveys responded to wearing a mask while working in Round 1, only 67 per cent wore masks to work in Round 2. Handwashing with soap/sanitizers have also decreased compared to Round 1. This indicates that the fear of being infected by COVID-19 has gradually reduced over time.

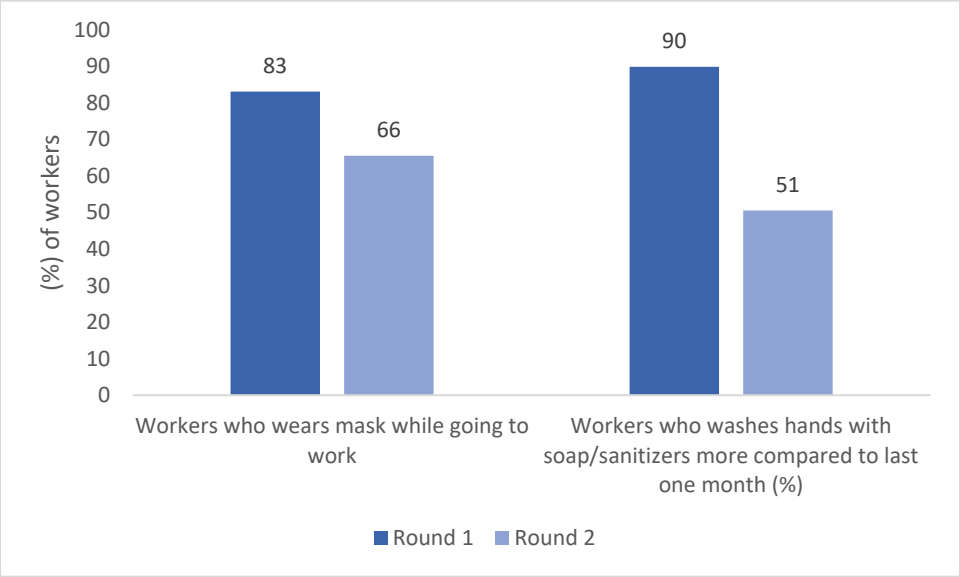

Figure 35: Compliance with health guidelines among youths (Round 1 vs. Round 2)

In Round 2, we asked the respondents whether they received any support from the government. The findings are presented in Figure 36. Only Three per cent of the males none of the females responded to receiving cash support. It appears that those who received support from the government mostly received food support. 12 per cent of the males and 17 per cent of the female workers received food support. On average, they received a support package worth BDT 813. Overall, the percentage of

females receiving support is higher than males (18 per cent vs. 14 per cent). This could be because female workers are financially more vulnerable compared to their male counterparts.

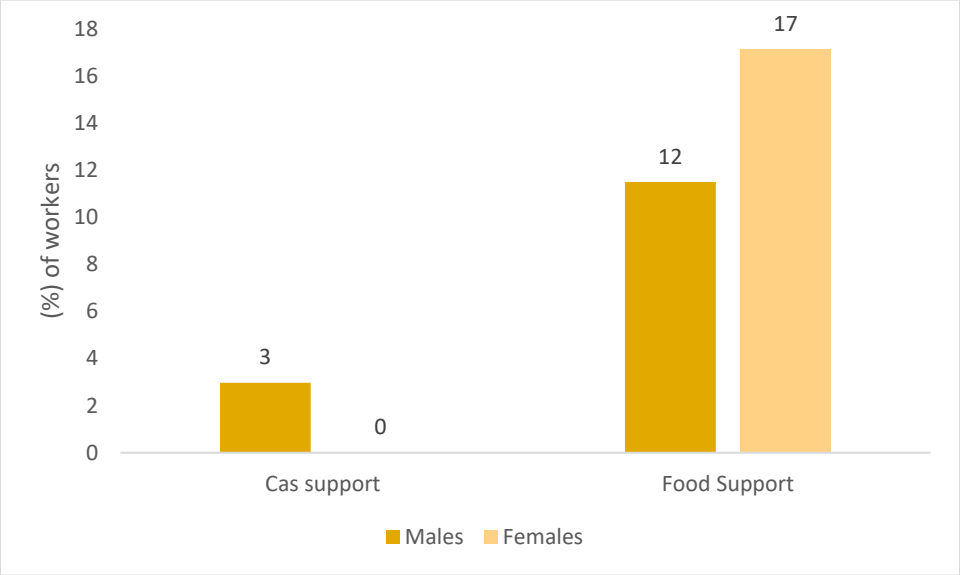

Figure 36: Access to government support

To assess how the pandemic may have impacted the mental health of the workers, we have calculated the perceived stress score. We followed the PSS-10 score method by Cohen, Kamarck, & Mermelstein (1983). Thus in both rounds we asked 10 questions relating to mental health. Our score has a minimum value of 0 and a maximum value of 40. The closer the score is to 40, the higher the perceived stress among the workers. We compare the score for employed and unemployed workers across both rounds and we find that the unemployed workers are more likely to be stressed in both rounds (Figure 37). Upon comparing between male workers and female workers we find that female workers are more likely to be stressed in both rounds (Figure 38).

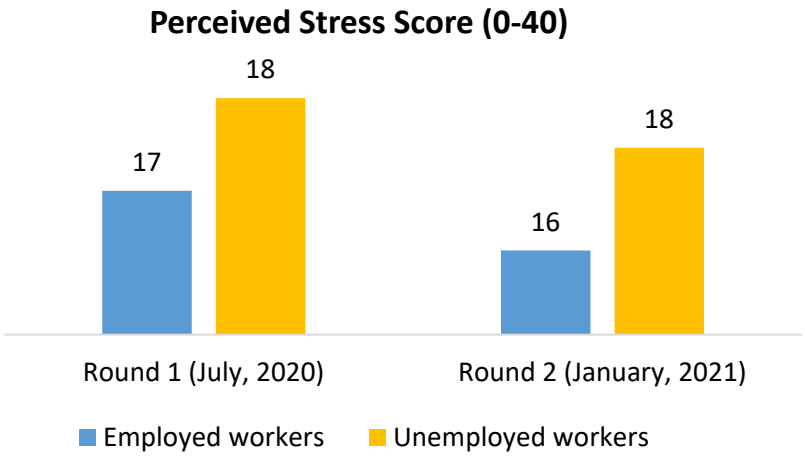

Figure 37: Perceived Stress Score (Employed workers VS Unemployed workers)

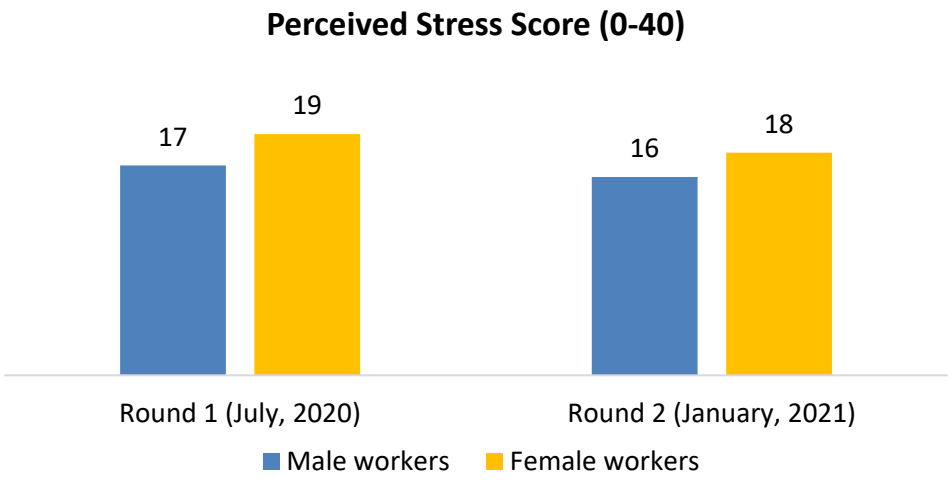

Figure 38: Perceived Stress Score (Male workers VS female workers)

In our 2nd round of surveys, we provided a few statements indicating how the employed youths feel about their respective jobs and asked them to score them on a scale of 10. A higher score indicates that they agree with the statement, while a lower score indicates that they do not. The results are described in Table 6. Overall, it seems that on average, the workers employed during Round 2 are satisfied with their current jobs. We also provided the workers engaged in salaried/wage/day labour with a few statements about their respective bosses at work and asked them whether they agree/disagree with the statements. The results are provided in Table 7. Almost 87 per cent of the workers find their bosses trustworthy, and 81 per cent believe that their bosses have the best interests of their employees in mind.

Table 6: Scores given by respondents to statement about their work-life (out of 10)

Average score given by employed youths to the following statements	**Score**	**(per cent) Scoring higher than 5**
I feel satisfied with my job	8.09	91
Most days, I am enthusiastic about my job	7.99	91.38
Each day of work seems like it will never end	4.55	33.52
I find real enjoyment in my work	8.52	94.25
I consider my job rather unpleasant	2.65	9
No. of observation	522	522

Table 7: Percentage of salaried/wage/day labourers agreeing/strongly agreeing with the following statements about their bosses

Statement	**Percentage agreeing/strongly agreeing**
Conducts his/her personal life in an ethical manner	83.49
Defines success not just by the results but how they are obtained	67.22
Listens to what employees have to say	85.37
Disciplines employees who violate ethical standards	88.21
Makes fair and balanced decisions	87.74
Can be trusted	86.56
Discusses business ethics or values with employees	70.99
Sets example of how to do things the right way in terms of ethics	75.47
Has the best interest of employees in mind	80.9
No. of observations	424

5. Concluding Remarks

Our study aimed to analyze the impact of the ongoing COVID-19 pandemic on SMEs in Bangladesh. We conducted two rounds of surveys to understand the long-run impact of the pandemic. To examine the effects in the long run and see if the SMEs are on a path to recovery, we compare the firms' operational status, sales, expenses, profits, etc., across both rounds. Since our sample is collected from our RCT evaluation on decent-work-environment training intervention on LE firms implemented by BRAC, we make further comparisons between the firms who received the intervention and those who didn't.

Our results highlight a few important points. Firstly, although businesses are open, recovery is below pre-COVID six months after the lockdown. Moreover, it is the lowest in the female labour-intensive sectors and sectors with higher health risks. Secondly, we find that the prevalence of maintaining social distance has decreased now compared to Round 1. This could be because maintaining social distance can be quite difficult in the SME sector while operating at full scale. Thirdly, light engineering firms, particularly grill workshop has shown greater concern over the increasing price of raw materials. Fourthly knowledge about the government stimulus packages have increased overtime but uptake still remains low. However, there seems to be latent demand for it. From our workers' survey we find that female unemployment has increased substantially due to the lockdown and this has led to higher levels of stress among female workers.

Upon comparing enterprises that received the BRAC intervention and those that did not, we find that firms in the treatment group had higher profits and lower costs right after the lockdown had ended. But six months after the end of the lockdown, their profit is the same as their control counterparts despite having higher sales since their costs are higher. The treatment group is also more likely to use wastebaskets and disinfectants. This indicates the effectiveness of the intervention in maintaining proper hygiene, especially during the pandemic.

Based on our findings, it is now essential that the MSMEs receive adequate financial support in order to assist recovery. Cash flows must be increased and loans must be made more accessible to these businesses. Since banks are already under tremendous pressure due to high non-performing loans, loan disbursement through the banking channel has become challenging. In addition, the existing clientelist culture has made it difficult for micro and small industries to receive credit from this channel. Since NGOs are a popular source of credit for the CMSMEs, NGOs could be involved. The stimulus packages need to be redesigned specifically catering to the needs and characteristics of the CMSMEs. While designing demand patterns, geographic distribution, logistics, infrastructural issues, etc. should be considered. The loan application process also need to be made easier. Since the female labour-intensive enterprises are more vulnerable, they need a productive safety net (comprehensive package of training and finance) to come out of this unemployment trap. Practical health guidelines are also required for workers and enterprises to safely open their businesses.

Our study is not devoid of methodological limitations. There can be reporting biases during these unprecedented times, seasonality, and lack of heterogeneity in our sample. Since our sample mainly comprises the light engineering sector, we cannot concretely say that our findings are representative of the entire SME sector. We plan to conduct one more round of surveys to further explore the coping and recovery dynamics of these firms.

The informal sector of Bangladesh is a significant economic driver, with more than 80 per cent of the labour force employed in this sector. To increase employment rates, reduce inequality, and ensure sustainable growth, small and medium enterprises can play a crucial role. We, therefore, need to formulate adequate policies to support these firms to ensure their recovery and equip them with the tools to develop resilience to future economic shocks.

6. References

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7. Annex

Table A 1: Attrition rates for owner's survey

	Panel sample	MCP sample
Attrition rate in round 1	13.48 per cent	---
Number of observations	2300	
Attrition rate in round 2	7.54 per cent	16.54 per cent
Number of observations	1990	526

Note: In round 1, we did not survey MCP samples, so attrition rate is nil.

Table A 2: Reasons for attrition for firms in Round 2

Indicator	Percentage
Phone off	**43.91**
Wrong number	2.28
Did not pick up	18.27
Respondent was not found	0.76
The mobile number is not functional	12.44
Respondent did not give consent	19.8
Respondent lives abroad	0.25
This number does not belong to the respondent	2.28
No. of observations	394

Table A 3: Balancing tests between attrited and non attrited firms in Round 2

Balancing test between attrited and non-attrited firms					
		(1)		(2)	t-test
		Attrited firms in Round 2		Successfully interviewed firms in Round 2	Difference
Variable	No. of observation (attrited)	Mean/SE	No. of observation (non-attrited)	Mean/SE	(1)-(2)
Open in July, 2020	150	55.333 [4.073]	1840	60.163 [1.142]	-4.830
Partially open in July, 2020	150	40.667 [4.024]	1840	36.467 [1.122]	4.199
Temporarily/Permanently closed in July, 2020	150	4.000 [1.605]	1840	3.370 [0.421]	0.630
No. of days worked in June, 2020	144	21.813 [0.500]	1778	21.981 [0.147]	-0.169
No. of hours worked in a day in June, 2020	144	7.597 [0.171]	1778	7.872 [0.055]	-0.275
Average sales amount in June, 2020 (BDT)	144	67604.861 [9619.402]	1778	60401.887 [2209.812]	7202.974
Average amount paid in raw materials in June, 2020	144	36375.139 [6513.929]	1778	31692.968 [1537.787]	4682.171
Average no. of workers in June, 2020	144	2.319 [0.217]	1778	2.780 [0.073]	**-0.461***

Average amount paid as workers' salary in June, 2020 (BDT)	144	16803.403 [1563.226]	1778	21007.672 [546.753]	**-4204.269****
Average amount paid in rent in June, 2020 (BDT)	132	3303.788 [356.061]	1582	3663.840 [116.891]	-360.052
Average amount paid in utility bills in June, 2020	144	1963.660 [158.435]	1778	2288.186 [66.763]	-324.526
Average value of profit in June, 2020	144	9434.188 [3197.447]	1778	2153.110 [1333.298]	7281.078
Average value of cost in June, 2020	150	55843.847 [7190.979]	1840	56286.047 [1857.455]	-442.200
(per cent) of firms incurring a loss in June, 2020	144	34.722 [3.981]	1778	40.664 [1.165]	-5.941
The value displayed for t-tests are the differences in the means across the groups. ****, **, and * indicate significance at the 1, 5, and 10 percent critical level.*					

Table A 4: Attrition rates in worker's survey

	Workers' sample
Attrition rate in round 1	35.41 per cent
Number of observations	1570
Attrition rate in round 2	16.37 per cent
Number of observations	1014

Table A 5: Definition of CMSMEs provided by Bangladesh Bank

Type of Industry	Industry	Total value of permanent assets in the industry (excluding land and building but including establishment costs)	No. of workers

Cottage	Manufacturing	< BDT 10 lakhs	include family members but not more than 15
Micro	**Manufacturing**	**BDT 10 lakhs - 75 lakhs**	**16 - 30 or less**
	Service	< 10 lakhs	Maximum 15
Small	Manufacturing	BDT 75 lakhs to BDT 15 crore	31 - 120
	Service	BDT 10 lakhs - BDT 2 crore	16 - 50
Medium	Manufacturing	> 15 crore and < 50 crore	120 - 300. Max 1000 for clothing and tailoring
	Service	BDT 2 crore - BDT 30 crore	51 - 120