The Impact of COVID-19 Pandemic on Small and Medium Enterprises in Bangladesh

Asadul Islam, Atiya Rahman and Rafia Nisat
The Impact of COVID-19 Pandemic on Small and Medium Enterprises in Bangladesh

Asadul Islam
Director, Centre for Development Economics and Sustainability (CDES)
Professor, Department of Economics, Monash University

Atiya Rahman
Senior Research Associate, BRAC Institute of Governance and Development (BIGD), BRAC University

Rafia Nisat
Research Associate, BRAC Institute of Governance and Development (BIGD), BRAC University

December 2020
Development Economics Series 01
Abstract

Like other economic players, the novel pandemic severely hit small businesses—the larger source of growth and employment but also the most vulnerable sector—by disrupting national and international business networks, supply chain, and demand. To understand the evolving state of small enterprises during pre, par, and post-lockdown periods, BIGD in collaboration with Monash University, Australia conducted a survey on small enterprises, mostly light-engineering firms, and young workers across 18 districts in Bangladesh. The study finds that lockdown measures caused the majority of small enterprises shut down, and during the early period of relaxing the lockdown, one-third of the enterprises were operating at limited capacity. Demand drop and the burden of fixed costs to run the businesses were the prominent reasons behind the drastic fall in profit. As a result, workers were losing jobs and the gender gap was widening, because female labour-intensive work (i.e. beauty parlour, tailoring) was affected harder. Other findings of concern include the emerging vulnerabilities for the enterprises with lower endowment and poor access to government stimulus packages, and other financial support. The study emphasises on the importance of concrete targeting criteria and support delivery platforms to assist more vulnerable enterprises. Finally, it highlights that the enterprises that received BRAC’s intensive training on occupational health and safety (OHS), along with business training and financial linkages, made double profit compared to their counterparts. However, the absolute amount of profit was substantially lower for both groups, compared to their pre-COVID profit, indicating the importance of scaling up such intensive training to create more resilient enterprises in such crises.
Contents

Abstract

Acknowledgment

1. Introduction and Background 1

2. The Survey 3

3 Results from the Enterprise Owners’ Survey 4
   3.1 Respondents’ profile 4
   3.2 Business operations, sales and expenses 4
   3.3 Consequences for hired workers 9
   3.4 Challenges faced during the lockdown 9
   3.5 Coping 10
   3.6 Access to stimulus package by government 11
   3.7 The time required for business recovery 12
   3.8 Health guidelines and COVID-19 symptoms 13
   3.9 How the BRAC intervention recipients are performing compared to their counterparts during this pandemic 13

4. Results from the Workers’ Survey 16
   4.1 Workers’ employment status and income relative to the pre-COVID level 16
   4.2 How the intervention recipient and non-recipient workers are doing during this pandemic 18

5. Conclusion 19

References 20

Annexe 21
Acknowledgment

We would like to express our deepest gratitude to Dr. Narayan Das, Senior Research Fellow, BRAC Institute of Governance and Development (BIGD); Imran Matin, Executive Director, BIGD; Margaret Triyana, and Xing Xia for their continued support, encouragement and valuable suggestions at different stages of the study. We are also indebted to the survey respondents for sharing their time and useful information for the study during this unprecedented time, without which this report could not be generated. The field and data management team of BIGD also deserve special thanks for their strenuous work. We thank Nusrat Jahan, Head of Business Development and Knowledge Management for helping to prepare the report. We acknowledge the generous financial support of GLM|LIC program supported by UK Aid.
1. Introduction and Background

The COVID-19 pandemic has had dramatic ramifications around the world. To limit the spread of the disease, many countries adopted lockdown and social distancing measures. Although vital in containing the virus, these measures have also precipitated an unprecedented economic crisis. At present, many countries have started relaxing the lockdown to restart economic activities, which is expected to remain subdued for some time. Bangladesh started easing lockdown measures in early June, but the movement of people across the country and economic activity is expected to remain restricted, as the number of COVID-19 cases have not yet decreased. Lockdown and social distancing measures have hit Small and Micro Enterprises (SMEs) especially hard. These SMEs account for a large portion of production and employment in developing countries.

This study examines the impact of the pandemic on SMEs and their workers in Bangladesh. It takes advantage of an ongoing project, implemented by BRAC, with funding support from the European Commission. The research team previously collaborated with BRAC to design and evaluate an intervention in light engineering (LE) firms, using a large scale randomised controlled trial (RCT) that started in 2017. Most firms in the LE sector are small and informal, with high dependence on low-skilled labour and little occupational health and safety (OHS) measures. Most of their production process involves welding or working with hazardous substances, which can result in frequent work-related injuries and fatalities. The sector acts as a support industry to other industries at various stages of the supply chain. The LE sector is one of the largest sub-sectors of SMEs with two million workers, contributing to 2% of GDP.

In our initial project, we analyse the impact of intensive decent-work-environment training on 2248 light engineering (LE) firms. The RCT consists of the following treatment arms: T1: Managers/owners of firms receiving intensive training on OHS; T2: OHS + business training and financial linkages; and C: firms in the control group with no training. For the evaluation, we conducted a firm survey in November-December, 2019.

In this study, we seek to understand the current situation of these SMEs and their workers, and compare it with the pre-COVID period. We examine whether the effects of the lockdown measures vary by firms’ decent-work-environment training status. We examine whether and how decent-work-environment training helped to maintain a healthy work environment for workers during the pandemic. We hypothesise that the treated firms are more likely to adopt safety measures to minimise the transmission of COVID-19. The first round of the survey has been completed. In the follow-up surveys, we will examine the longer-term impact of the COVID-19 pandemic on firm survival, growth, investment, and profitability.
We will also examine the longer-term effects of the pandemic on workers’ wellbeing and labour market outcomes. We will compare these outcomes with information already collected in 2019, before the pandemic.

The rich literature on microenterprise development in LMICs has largely focused on either credit or formal business training, while we incorporate OHS to promote worker wellbeing. Our findings will contribute to the literature on the broader effects 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) and the importance of providing a decent work environment in LMICs (Fields 2003). The interaction between our intervention and the pandemic will allow us to examine the role of OHS and business training on firms’ ability to survive and protect their workers.

In addition to these light engineering firms, our sample also includes a small sample of other enterprises such as hotels, beauty parlours, clothing/tailoring, and general stores. This report documents the condition of the surveyed small and medium enterprises (hence after SMEs) at three stages—pre, par, and post lockdown. We also aim to explore the condition of the firms that received BRAC intervention, (hence after treatment) compared to those which did not receive any intervention (hence after control).
2. The Survey

We (re)surveyed all 2238 LE firms in our RCT and 126 other enterprises provided by BRAC Bank. The survey was conducted by BRAC Institute of Governance and Development (BIGD), Brac University. Despite the withdrawal of the lockdown, there is still limited mobility in Bangladesh. Hence, we contacted survey respondents over the phone. The length of each interview in both rounds was kept to a minimum to ensure data quality and reliability. Each interview took 20-25 minutes. We plan to conduct more waves of surveys to understand the situation at different intervals.

The survey covers four broad areas: (1) enterprises’ economic behaviour and economic outcome during and after the lockdown (e.g. enterprise revenue, output, number of days in production, number of days shut down, and the number of workers retained during); (2) physical wellbeing, particularly COVID-19 symptoms carried by the workers and their family members; (3) health and safety measures taken by the enterprise or enterprise manager that aims at minimising the risk of COVID-19 transmission, and (4) accessibility to government initiatives.

In addition to measuring these important outcomes, we also aim to study how each of these differ by the initial treatment status. We compare LE firms that received decent-work-environment training to those that did not, and answer questions such as: Do treated firms fare better economically during and after the pandemic? Are treated firms more likely to adopt safety measures that minimise the transmission of COVID-19? Do workers in treated firms experience better physical wellbeing during the pandemic?

Besides this survey, we also interviewed the apprentices who received training from BRAC on the LE services and their non-recipient/control counterparts. As a part of the RCT mentioned earlier, these apprentices were previously surveyed twice. We treat them as workers in this report.

---

1There are few characteristics of these firms before the pandemic. About 12% of these enterprises are run by women. The average age of these owners is about 38 years. These enterprises were comprised of six workers and on average their profit was 56 thousand before the pandemic.
3. Results from the Enterprise Owners’ Survey

3.1 Respondents’ Profile

We successfully interviewed 1960\(^2\) out of 2364 SMEs from 14\(^{th}\) to 23\(^{rd}\) July, 2020. Almost all respondents were male (99.13\%) with an average age of 42 years. Only 4\% of them moved to their current residences after lockdown. Our surveyed enterprises are widely spread out across 18 districts of Bangladesh, mostly Bogra (13\%), Gazipur (8.4\%), Jessore (7.9\%), Mymensingh (6.2\%), and Cumilla (6.1\%).

Different SME owners were the respondents of this survey. As mentioned earlier, most of our surveyed samples (95\%) belong to the LE sector, and we have three-round panel survey information for the pre-COVID (2017, 2018, and 2019) period for these firms. About one-third of the respondents (32\%) run automobile spares businesses, while 25\% and 16\% were grills and agriculture machines, accessories, and spares firms, respectively. 22\% of LE enterprises were jute and textile machine and spares; engineering and metal industry machines and spares; lathe firms; etc.

\(^2\)In total, 1990 respondents gave consent to participate in the survey, of which, 30 respondents did not run any enterprise. Thus, the survey did not record any information on their business before, during and after lockdown period.

Finally, the remaining samples represent hotels (1\%), beauty parlours (1\%), clothing and tailoring stores (2\%), and general or variety stores (1\%).

Figure 1. Distribution of samples by enterprise type

3.2 Business Operations, Sales and Expenses

Sixty-nine percent of the surveyed enterprises were closed during two months of lockdown (March 26-May 31, 2020). Only 2\% were fully operational and 29\% were partially open. After the economy reopened, the scenario reversed. 61\% of the enterprises were fully open and 37\% were partially open. Only 2\% were closed after the lockdown lifted.
Figure 2. Business Operation Status

Before lockdown, these firms used to operate 26 days a month, with an average of 11 working hours a day. During lockdown, these enterprises operated only 14 days a month, with an average of four working hours a day. After the end of the lockdown, the working day increased to 22 and the working hours increased to eight. These figures are still lower than pre-lockdown, because slightly more than one-third (37%) of the enterprises were not fully operational after the lockdown was lifted.

Figure 3. Working days and hours
Looking into the operation status by the types of enterprises, we find that the distinctive service sector enterprises i.e. beauty parlours, tailoring, etc., where maintaining social distance is quite difficult, were almost completely shut down during the lockdown and were less likely to reopen afterwards.

Now, the question is what the sales status and expenses are. Compared to February, (before the lockdown period) sales dropped by 76% during lockdown and 52% in July (after the end of lockdown). The drop in expenses are lower than that in sales, both during and after lockdown. As a consequence, we find that the enterprises are running at break-even point even after the economy opened up.

Figure 4. Business Operation Status by Enterprise Type

Figure 5. Sales, Operating Cost and Total Profit
Looking into the drop in sales by the enterprise type, we find that the distinctive services sectors such as clothing/tailoring shops, and beauty parlours are facing a severe decline in their sales, indicating a lower demand for non-essential services. Moreover, there might be two-fold drivers. First, people are aware that it would be difficult to maintain physical distance while receiving these services. Second, another BIGD study (Rahman et al. 2020) shows that a significant number of vulnerable non-poor households—who represent a large body of customers of the service sectors—fell below the poverty line during the lockdown and remain there even after the economy reopened.

After the lockdown was lifted, we find that the owners are reopening their enterprises. They are, however, facing difficulties paying rent and utility bills. 22% and 13% of the owners were unable to pay rent and utility bills, respectively. This may be due to two reasons. First, the owners are now paying for variable costs to run their businesses. Second, they may be able to negotiate with their landlords and pay rent later, since they are back in business.

![Figure 6. Drop in Sales by Enterprise Type relative to pre-COVID](image)

![Figure 7. Rent and Utility Bill Payment Status](image)
Exploring which enterprises are more likely to reopen after the end of lockdown, we find that those which had higher initial capital in 2017 are more likely to operate fully at present.

Moreover, the relatively rich enterprise owners faced a lower drop in sales, compared to their pre-COVID levels. While the poor enterprises experienced a 49% drop, the rate is 25% among the richest enterprises. Such figures point out that the poorer entrepreneurs are at higher risk.

Figure 8. Operating Status by initial capital categories

Figure 9. Drop in sales relative to pre-COVID by initial capital categories
3.3 Consequences for hired workers

About 24% of business owners laid off their workers during the lockdown, while the rate has reduced to 11% after the end of lockdown. Interestingly, almost all enterprises (98%) had their employees work and get paid for fewer hours during lockdown, and the current rate (81%) is also quite high in this regard. This is similar to the finding we showed earlier, that a significant portion of the firms are partially reopening. They are operating for fewer hours, resulting in workers facing a loss of income.

3.4 Challenges faced during the lockdown

Three-quarters of the owners reported that they faced disruption or extreme disruption in terms of receiving orders. 39% of the surveyed owners said that they had to shut down operations due to temporary lockdown. Similarly, 40% noted that they were unable to pay employees and maintain business operations.

Figure 10. Consequences for hired workers

Figure 11. Disruption during the lockdown
Correspondingly, 76% reported having no income, due to receiving no orders, as one of the main problems they faced during the lockdown period, and 50% reported paying salaries to employees as one of the main issues.

### 3.5 Coping

Sixty-one percent of the surveyed owners reported having a shortage of raw materials. Subsequently, 25% of the owners reported that they are reducing production to cope with the shortage. Other prominent strategies are increasing product prices (17%), seeking new procurement channels (14%), and delaying goods delivery (13%).

![Figure 12. Major problems faced during the lockdown](image1.png)

![Figure 13. Coping mechanisms for the shortage of raw materials](image2.png)
Slightly less than half of the owners (47%) have access to business loans or grants to support business recovery and 66% of the surveyed owners are taking measures or planning to respond to business disruption due to the pandemic.

Looking into loan access by the enterprise type, we find that the distinctive service sectors are at greater risk with the lowest access to a loan for business recovery (23%).

We look into the combination of access to loans and recovery plans and find that one-fourth of our surveyed enterprises do not have access to loans and do not have any plan to recover their businesses (Figure A1 in Annexe). This is alarming and highlights the importance of introducing business training for enterprises.

3.6 Access to stimulus package by Government

On 13th April, the Bangladesh Government announced stimulus packages to support SMEs. Three months after this declaration, only 63% of the surveyed workers knew about the stimulus package.

Eighty-one percent of those who know about this package reported that it is quite or very difficult to get the support and 17% reported that they know how to get the support. Interestingly, 31% of those who know, noted that they have already applied for the package. Unfortunately, only one owner received it. There arises the question of efficiency.

Data shows that only 65 out of 1960 enterprises have applied for support. Exploring the differences between the firms which have and have not applied, we find that resilient ones are more likely to do so. More than a third of the enterprises that have applied for this package were open during lockdown, while 30% were not. Moreover, the amount of current sales of those who have applied is about 4% higher than that of those who have not.
During the pandemic, government support is of utmost importance. Like other formal financial institutes, microfinance institutes are also experiencing a distressing period. Thus, the Government should reach out to these small and micro-entrepreneurs in a more efficient manner. Fewer formalities to receive the Government support package might make the path easier for entrepreneurs.

3.7 The time required for business recovery

About three-fourths of the owners are extremely worried about the future of their business. Moreover, 45% of the owners are uncertain about when they will be able to operate their business at full capacity.

Figure 15. Government Support

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t know/Uncertain</td>
<td>46.33</td>
</tr>
<tr>
<td>&gt; 6 months</td>
<td>19.18</td>
</tr>
<tr>
<td>3-6 months</td>
<td>10.41</td>
</tr>
<tr>
<td>2-3 months</td>
<td>8.62</td>
</tr>
<tr>
<td>1-2 months</td>
<td>7.14</td>
</tr>
<tr>
<td>2-4 weeks</td>
<td>1.48</td>
</tr>
<tr>
<td>Less than 2 weeks</td>
<td>0.15</td>
</tr>
<tr>
<td>Currently on full operation</td>
<td>6.68</td>
</tr>
</tbody>
</table>

Figure 16. Time required to fully recover
3.8 Health guidelines and COVID-19 symptoms

Owners’ reported data reveals that the workers of the distinctive service sectors, where it is difficult to maintain social distance, are more likely to have COVID-19 symptoms i.e. fever, cough, shortness of breath, or muscle pain. Furthermore, we explore whether businesses are being closed because their workers are running a higher risk of getting infected. We find that there is no correlation between the businesses opening and the workers showing any COVID-19 symptoms.

3.9 How the BRAC intervention recipients are performing compared to their counterparts during this pandemic

Before comparing the pre, par, and post-lockdown situations of treatment and control groups, we aim to understand the characteristics of the attrited firms during the current phone interview. We could not reach 395 out of 2238 LE firms to interview over the phone. Of the attrited firms, 43% could not be reached, as their provided contact numbers were switched off, while 24% did not provide their consent to be interviewed (Figure A3). Moreover, 41% of these firms belonged to the treatment group and the rest were in the control group. As mentioned earlier, we surveyed these LE firms in December 2019-January 2020 as a part of the evaluation design using an RCT. Utilising that dataset, we intend to understand what type of firms were attrited during the current survey. Out of these 395 attrited firms, 252 were successfully interviewed in December 2019-January 2020. While analysing their characteristics at that time, we find that 64% of them were engineering and metal industry machine, and spares workshops (Figure A4).

Furthermore, their initial capital was BDT 245 thousand and the amount of sales was BDT 103 thousand at the end of 2019/early 2020.
Table 1 delineates the differences between treatment and control groups during pre, par, and post-lockdown. While comparing the treatment firms with their control counterparts, we did not find significant differences between these groups, in terms of the relevant indicator (Table 1). The difference between treatment and control firms, in terms of the pre-COVID profit level is 14.7% of the control group’s mean, with a higher level for the treatment group. In addition, the profit level of treatment firms is higher during and after the lockdown period (Figure 18). However, the absolute amount of profit for the treatment firms was lower post-lockdown, compared to during pre-lockdown. Given the higher profit levels of the treatment firms compared to their counterparts across all periods, it is also logical that they are more capable of hiring workers. Consequently, Figure A5 suggests that the number of employees working in the treatment firms is indeed higher, even during lockdown. We also find that compared to the treatment firms, control firms are working more days and longer hours (Figure A6 and A7).

Although the percentage of control firms who know about the Government’s recently declared stimulus package is slightly higher, more treatment firms have applied for support (Figure A8). Furthermore, as reported by the owners, the workers of the treatment firms are less likely to carry COVID-19 symptoms. The training on OHS might play a role to enhance their awareness (Figure A9).

**Table 1. Intervention recipient vs. non-recipient enterprises**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Treatment</th>
<th>Control</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit before lockdown (BDT)</td>
<td>30003.29</td>
<td>26150.69</td>
<td>3852.6 (2216.32)</td>
</tr>
<tr>
<td>Profit during lockdown (BDT)</td>
<td>1333.5</td>
<td>-163.403</td>
<td>1496.90 (1351.49)</td>
</tr>
<tr>
<td>Profit after lockdown (BDT)</td>
<td>2456.37</td>
<td>1916.23</td>
<td>540.13 (4089.5)</td>
</tr>
<tr>
<td>Know about government initiative (%)</td>
<td>62.24</td>
<td>63.66</td>
<td>0.0142 (0.0225)</td>
</tr>
<tr>
<td>At least one worker has COVID-19 symptoms (% of Workshops)</td>
<td>23.67</td>
<td>26.92</td>
<td>0.0233 (1.447)</td>
</tr>
</tbody>
</table>

Note: Standard errors in parentheses. We have used t-test to test the differences.
To assess whether BRAC’s intervention program has any significant effects on the profit levels during and after lockdown, we run an ordinary least squares regression controlling for basic firm characteristics and profit, during the follow-up survey conducted in the December-January period. We also cluster the errors at the market level. The results are given in Table A1. The coefficient for the intervention parameter is positive for profit, both during and after lockdown, but significant only for profit during the lockdown period. This suggests that the intervention aided the participants in coping better during such a difficult time.
4. Results from the Workers’ Survey

Out of 1652 samples, we successfully interviewed 1014 youths. Out of 1014, 798 (79%) were employed before the pandemic. This report focuses on these 798 workers.

4.1 Workers’ employment status and income relative to the pre-COVID level

Fifty-eight percent of the employed males were hired during the lockdown, while the rate increased to 85% post-lockdown. As shown in figure 19, female workers were more likely to lose their jobs during the lockdown and less likely to be rehired afterwards. As shown earlier, female labour intensive enterprises, i.e. clothing, tailoring, and beauty parlours experienced a larger drop in their sales, even after the economy opened up (figure 6). As a result, female labour force participation is also being hampered.

Figure 19. Distribution of workers employed in February

Twenty-two percent of the employed workers in February were female. The average age of these surveyed workers is 23 years.

Figure 20. Workers’ employment status at par and post-lockdown

Compared to the pre-COVID level, income dropped 60% and 65% for male and female workers, respectively. Income recovery for male workers is higher, compared to their female counterparts. Female workers are facing a 52% drop in income after the end of the lockdown and their income recovery rate is very poor.
There is always a gap between the wages of male and female workers. Male workers get higher pay compared to females. During this pandemic, the gap is widening. Female workers were working more hours during and after lockdown to survive, but, the earning per day gap was higher, compared to the pre-COVID status (Figure 21).

Slightly more than 80% of current workers reported that they regularly wear masks on the job, and 70% maintain social distance. However, there are no significant differences between male and female workers in terms of these compliances.

Interestingly, about 24% of the workers noted that no one at their workplaces had COVID-19 symptoms in the last three months. This rate is quite close to the percentage reported by the enterprise owners (26%).

Almost 40% of the workers reported that they might get infected by COVID-19, but they cannot stop working for a living (Figure A2 in annexe).

**Figure 21. Drop in workers’ income**

**Figure 22. Per day earning gap between male and female workers**
4.2 How the intervention recipient and non-recipient workers are doing during this pandemic

As mentioned earlier, these workers received intensive decent-work-environment training from BRAC. Due to this training, the intervention recipients (i.e. treatment) might be less likely to work during the lockdown. However, after the lockdown lifted, about 80% of them returned to work, making the employment recovery rate after lockdown higher among the intervention recipients. In terms of compliance with COVID-19 related health guidelines, i.e. wearing masks, gloves, and maintaining social distance, both intervention recipients and non-recipients reported similar rates.

Table 2. Intervention recipient vs. non-recipient workers

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Treatment</th>
<th>Control</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed in April (% of employed workers in Feb)</td>
<td>52.49</td>
<td>62.03</td>
<td>-9.549*** (3.629)</td>
</tr>
<tr>
<td>Employed in July (% of employed workers in Feb)</td>
<td>80.32</td>
<td>78.64</td>
<td>1.674 (2.953)</td>
</tr>
<tr>
<td>Monthly income in April (BDT)</td>
<td>2827.58</td>
<td>3392.10</td>
<td>-564.5 (352.9)</td>
</tr>
<tr>
<td>Monthly income in July (BDT)</td>
<td>5404.58</td>
<td>4986.43</td>
<td>418.1 (456.4)</td>
</tr>
<tr>
<td>Regularly wear a mask during work (% of current workers)</td>
<td>84.55</td>
<td>81.22</td>
<td>3.335 (3.287)</td>
</tr>
<tr>
<td>Regularly wear gloves during work (% of current workers)</td>
<td>36.86</td>
<td>22.34</td>
<td>14.52*** (4.071)</td>
</tr>
<tr>
<td>Regularly maintain 1.5 meters distance from co-workers during work (% of current workers)</td>
<td>71.75</td>
<td>71.91</td>
<td>-0.159 (4.142)</td>
</tr>
</tbody>
</table>

Note: Standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01. We have used t-test to test the differences.
5. Conclusion

Our study attempts to assess the conditions of SMEs in Bangladesh in the context of the ongoing COVID-19 pandemic. As our sample is from an ongoing project implemented by BRAC, where we collaborated to analyse the impact of their decent-work-environment training on light engineering (LE) firms, we can make further comparisons between enterprises who received the intervention and those who did not. Results suggest that these small and informal enterprises are encountering massive drops in their sales, which is about 55% relative to the pre-COVID level. Given the relatively lower drop in expenses, the findings imply that the firms are operating at their break-even point despite the economy being open. Quite alarmingly, we find that relatively poorer enterprises, i.e. those with lower initial capital, are less likely to operate at full capacity after the reopening of the economy and more likely to face a severe drop in sales. Furthermore, information on government stimulus package does not reach the SMEs adequately. In this case, enterprises with a higher profit before the pandemic are more likely to apply for such support. Such figures raise the risk of relatively smaller firms being left behind. Finally, by comparing enterprises who received the intervention from BRAC to their non-recipient counterparts, we find that the profit level of the treatment enterprises is higher than that of the control enterprises, par and post-lockdown, despite being more likely to remain closed or operate partially during lockdown. COVID-19 symptoms of workers in treatment enterprises are also lower. This insight from our descriptive analysis indicates that enterprises who received training are better able to cope with the lockdown and the pandemic as a whole. Moreover, from analysing our data on the workers, we see that the female workers are at a higher risk.

Our study has some methodological limitations including reporting biases during these unprecedented times, seasonality, and lack of heterogeneity in our sample. As our data puts more focus on the light engineering sector, we cannot concretely say that our results are representative of the entire SME sector. We plan to conduct two more rounds of surveys to explore the coping and recovery dynamics of these firms. The informal sector is one of the major drivers of our economy and small and medium enterprises are of immense significance, in the long run, to sustain our growth momentum and reduce inequality. Thus, we require comprehensive and inclusive strategies to aid such firms in post-pandemic business recovery and ensure that none of firms fall behind.
References


Annexe

Figure A1. Access to loan and recovery plan

Figure A2. Workers’ perception of being infected by COVID-19
Figure A3. Reasons Behind Attrition

- Phone was switched off: 43%
- Wrong number: 7%
- Respondent did not pick up: 10%
- Respondent did not give consent: 9%
- Respondent did not own any business in February: 24%
- Other reasons: 7%

Figure A4. Business type of attrited firms according to follow up survey (% of firms)

- Engineering & metal industry machine and spare: 63.89%
- Plastics and related product machines and spares: 0.79%
- Agricultural machines, accessories and spares: 8.73%
- Marine and ship industry spares: 1.19%
- Sugar & food industry machine and spare: 0.4%
- Jute and textile machines and spares: 1.19%
- Machine tools: 6.35%
- Bicycle and cycle rickshaw: 1.19%
- Automobile spares: 16.27%
Figure A5. Average no. of workers (Treatment vs. control)

Figure A6. Average no. days worked in a month (Treatment vs. control)
Figure A7. Average no. of hours worked in a day (Treatment vs. control)

Figure A8. Percentage of firms applying for government support (Treatment vs. control)
Figure A9. Percentage of firms with at least one worker showing COVID-19 symptoms (Treatment vs. control)
Table A1. OLS regression results to assess BRAC intervention impact on profit

<table>
<thead>
<tr>
<th>OLS coefficients</th>
<th>Profit after lockdown</th>
<th>Profit during lockdown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whether PROGRESS beneficiary</td>
<td>0.19 (0.17)</td>
<td>0.23* (0.10)</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.02 (0.64)</td>
<td>3.62*** (0.22)</td>
</tr>
<tr>
<td>No. of workers in the last one month</td>
<td>-0.00 (0.00)</td>
<td>-0.11** (0.03)</td>
</tr>
<tr>
<td>Profit during December-January</td>
<td>0.09*** (0.01)</td>
<td>-0.02 (0.05)</td>
</tr>
<tr>
<td>Initial capital according to follow up survey</td>
<td>-0.01* (0.00)</td>
<td>-0.00 (0.00)</td>
</tr>
<tr>
<td>Agriculture, machines, accessories and spares</td>
<td>0.04 (0.11)</td>
<td>0.15* (0.06)</td>
</tr>
<tr>
<td>Grill business</td>
<td>-0.03 (0.19)</td>
<td>0.52** (0.14)</td>
</tr>
<tr>
<td>Service sectors</td>
<td>2.09*** (0.39)</td>
<td>0.00 (.)</td>
</tr>
<tr>
<td>Other enterprises</td>
<td>0.16 (0.12)</td>
<td>0.06 (0.25)</td>
</tr>
<tr>
<td>Feni</td>
<td>-1.03*** (0.20)</td>
<td>-1.00** (0.34)</td>
</tr>
<tr>
<td>Brahmanbaria</td>
<td>-0.39 (0.74)</td>
<td>-0.26* (0.11)</td>
</tr>
<tr>
<td>Noakhali</td>
<td>-1.70** (0.47)</td>
<td>-0.76** (0.21)</td>
</tr>
<tr>
<td>Bogra</td>
<td>-0.91** (0.21)</td>
<td>-0.97** (0.28)</td>
</tr>
<tr>
<td>Jessore</td>
<td>-1.36* (0.53)</td>
<td>-0.94* (0.40)</td>
</tr>
<tr>
<td>Shatkhira</td>
<td>-1.74** (0.45)</td>
<td>-1.69** (0.41)</td>
</tr>
<tr>
<td>Barisal</td>
<td>-0.18 (0.24)</td>
<td>-0.82 (0.64)</td>
</tr>
<tr>
<td>Moulavibazar</td>
<td>-0.66** (0.18)</td>
<td>-0.35* (0.16)</td>
</tr>
<tr>
<td>Habiganj</td>
<td>-1.82** (0.61)</td>
<td>0.80** (0.20)</td>
</tr>
<tr>
<td>Gazipur</td>
<td>-2.66*** (0.51)</td>
<td>-1.23*** (0.22)</td>
</tr>
<tr>
<td>Narayanganj</td>
<td>0.02 (0.26)</td>
<td>-0.94 (0.46)</td>
</tr>
<tr>
<td>Kishoreganj</td>
<td>-2.77*** (0.88)</td>
<td>-1.70*** (0.26)</td>
</tr>
<tr>
<td>Faridpur</td>
<td>-0.82*** (0.15)</td>
<td>-1.61*** (0.06)</td>
</tr>
<tr>
<td>Nilphamari</td>
<td>-0.81 (0.38)</td>
<td>-0.91*** (0.13)</td>
</tr>
<tr>
<td>Gaibandha</td>
<td>-0.65 (0.59)</td>
<td>-1.14* (0.46)</td>
</tr>
<tr>
<td>Rangpur</td>
<td>-0.65* (0.27)</td>
<td>-0.9 (0.55)</td>
</tr>
<tr>
<td>Mymensingh</td>
<td>-0.32** (0.11)</td>
<td>-0.36 (0.30)</td>
</tr>
<tr>
<td>Village/local shops</td>
<td>-0.14 (0.10)</td>
<td>-0.43** (0.11)</td>
</tr>
<tr>
<td>Sub district market</td>
<td>-0.28 (0.18)</td>
<td>-0.21 (0.11)</td>
</tr>
<tr>
<td>District level market</td>
<td>-0.56*** (0.12)</td>
<td>-0.34 (0.18)</td>
</tr>
<tr>
<td>Divisional market</td>
<td>-0.66** (0.16)</td>
<td>-0.45 (0.40)</td>
</tr>
<tr>
<td>Constant</td>
<td>1.65* (0.70)</td>
<td>-2.34*** (0.15)</td>
</tr>
<tr>
<td>Observations</td>
<td>1665</td>
<td>532</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.074</td>
<td>0.090</td>
</tr>
</tbody>
</table>
BRAC Institute of Governance and Development

By influencing policy and practice using rigorous research and by building fit-for-future capabilities through quality educational programs, BIGD aims to promote innovation and improvement in governance and development processes, leading to a just and prosperous society.

The Author(s)

Asadul Islam is a Director, Centre for Development Economics and Sustainability (CDES) Professor, Department of Economics, Monash University.

Atiya Rahman is a Associate Research Fellow at BRAC Institute of Governance and Development (BIGD), BRAC University. She has completed her BSS and MSS in Economics from University of Dhaka.
<atiya.rahman@bracu.ac.bd>

Rafia Nisat is a Research Associate at BRAC Institute of Governance and Development (BIGD), BRAC University. She has completed her Bachelor and Masters degree in Economics from University of Dhaka.
<rafia.nisat@bracu.ac.bd>