

Original Research Article

Impact of COVID-19 on Small and Medium Enterprises (SMEs) in Some Selected Districts of Bangladesh: An Owner-Centric Study

Abstract

Small and Medium-size enterprises (SME) contribute about 25 % to the Gross Domestic Product (GDP) of Bangladesh. The study aims to investigate the impact of COVID-19 pandemic on owners of SMEs in Bangladesh. To serve this purpose, 103 data have been collected from 103 companies in four districts of Bangladesh using a cross sectional survey questionnaire. We generated different frequency distribution tables based on our inputted data and then the results of the study were presented using descriptive statistics. The results show that 58.3% of the SMEs were completely closed due to COVID-19. We also observe that the demand for goods reduced by 83.5% while production costs increased by 21.4%. As a result, production dropped by 48.5%. At that time, 81.7% of workers had their earnings decreased, while 55.3% had lost their job due to layoffs. Approximately, 78.3% of respondents stated that from 10% to 70% of products remained unsold during the pandemic. The findings suggest that policymakers should advance the SME sector by incorporating e-commerce, more favorable government policies, facilitating bank loans, and establishing new training institutions to solve the existing drawbacks of this sector.

Keywords: COVID-19, SME, SME owners, developing country, Bangladesh

1. Introduction

Small and medium-sized enterprises (SMEs) play a significant contribution in the economic development of developing countries like Bangladesh (Alauddin & Chowdhury, 2015). In Bangladesh, about 17,384 micro, 15,666 small, 6,103 small, and 3,639 large enterprises are engaged in this sector. This sector employs over 5 million people. The contribution of the SME sector to GDP is approximately 20%, which is low when compared to neighboring countries (The Daily Star, 2019). SMEs play an essential role in increasing economic growth, poverty alleviation, and industrialization, but their performance in Bangladesh falls short of global standards (Ahmed & Chowdhury, 2009).

Due to COVID-19, the owners of SMEs were badly affected in Bangladesh. Due to the lockdown period, 52 percent of SMEs were completely shut down, and more than 40 percent of employers were expected to lay off approximately 50 percent of their workforce (Khan & Newaz, 2022). The demand for SME items such as poultry, fisheries, and dairy declined because of the decrease in people's income (Islam et al., 2021). Small and medium-sized enterprises

(SMEs) are primarily private businesses in Bangladesh, and they compete with a wide range of developed and developing countries. COVID-19 has already made an unprecedented negative impact on the SME industry (Lu et al., 2020). The COVID-19 pandemic had a negative impact on the global supply chain, resulting in raw material shortages, decreased production, and transportation disruption (Paul et al., 2021). Capital shortages, greater operating costs, and worker reductions are all affecting SMEs (Karim et al., 2021). As a result, in both urban and rural areas around the country, unemployment and poverty have risen (Hossain, 2021). Bangladesh's economy required assistance from the government, non-governmental organizations, the private sector, and foreign investors to recover. Bangladesh might be back on track for 8–10 percent growth in a year if a well-coordinated comprehensive approach based on excellent governance is implemented (Sobhan, 2020).

The focus on SMEs sectors under our study area are Food and Beverage, Forestry/ wood/ paper products, Information and Communication, Health/Tourism, Oil and Gas, Restaurants, Retails/ Sales, Textile, Lather, Transport, Clothing, Hosiery, Garments, Rice Mills, NakshiKhata, etc. In this study, we should find out the impact of COVID-19 on SMEs owners of Bangladesh. In addition, an assessment of the government's stimulus package in this sector will be made.

The remaining parts of the study are organized as follows: we review literature related to this study. Next, we describe the research methodology, and then we include the results and discussion. Finally, we conclude by explaining the implications, limitations, and future research directions.

2. Literature review

Small and medium enterprises (SMEs) are businesses that maintain revenues, properties, or a number of workers under a certain threshold. The features of small and medium enterprises vary from country to country (Liberto, 2020). In other words, Small and medium enterprise are non-subsidiary, self-regulating firms which employ less than a specific number of employees ("OECD SME and Entrepreneurship Outlook 2005", 2022). Coronaviruses are a huge family of viruses that can cause illnesses ranging from the common cold to more severe diseases ("Coronavirus disease (COVID-19) – World Health Organization", 2022). Ahmed et al. (2022) conducted a study in Cumilla district over 220 Small and Medium enterprises. The study found that COVID-19 has a number of negative effects on SMEs, the most significant of which is economic damage. 93.6 percent of SMEs saw a drop in revenue earnings because of COVID-19, while the remaining 6.4 percent did not. They also looked at the asset level of SMEs, the labor cut rate, the rate of cash reserve reduction, the debt-equity ratio, as well as other issues. Large enterprises, male-owned firms, and older firms opened during the early phases of the pandemic, and firm owners decreased their product prices (Alekseev et al., 2022).

In Bangladesh, majority of small and medium enterprises were closed, and others were partly open during the lockdown. As a result, the production of SMEs declined. Dropped demand and

the burden of fixed costs were the reasons for the fall in profit (Islam et al., 2020). Two thirds of the SME enterprises were facing a reduction of revenue due to COVID-19. Due to the long-term lockdown, the enterprises faced several problems, such as loss of sales, unsold products, unpaid payments, running operating costs, perishable and unsteady raw material (Iqbal et al., 2020). A study by Qamruzzaman (2020) stated that the SME sector in Bangladesh faces numerous issues including credit availability, insufficient capital, accounting deficiencies, poor cash flow, and a lack of advanced technologies, etc. Many businesses do not receive the required government assistance. A study by Lalon (2020), the SME sector faced challenges such as negative trade growth, a high revenue deficit, rising nonperforming loans, falling private sector investment, market interest rate volatility, and capital market discontent.

The adverse effects of COVID-19 on SMEs in Srilanka are material shortages, decreased demand for goods both globally and locally, difficulties repaying loans and interest, order cancellations, cash deficits, and a lack of savings (Robinson & Kengatharan, 2020). In Serbia, COVID-19 decreased liquidity and company capacity utilization, wage payments, insufficient labor utilization, business hours reductions, output disruptions, and limited excess resources. Moreover, most businesses are concerned about the lack of capital to run their businesses effectively, probable market share loss, financial shortages, and worker reductions (Beraha & Đuričin, 2020). Manufacturing and exports in India have decreased by 13.7 to 20.8 percent, while imports have decreased by 17.3 to 25 percent as a result of COVID-19. The impact on the trade, manufacturing, and small and medium-sized enterprise (SME) sectors was severe (Verma, 2021). During the COVID-19 period, social media (Facebook, WhatsApp, Instagram, Twitter, and others) were largely used to buy and sell goods. Changing consumer behavior affects the SME sector badly (Sheth, 2020). Inadequate money, a lack of state support, and inadequately trained and motivated human resources are the biggest impediments to SMEs rebounding from the crisis (Iancu et al., 2022). Xu & Abbasov (2021) studied the effect of the COVID-19 pandemic on the performance of SMEs in Azerbaijan, as well as ideas on how SMEs can develop and work more effectively in the face of the pandemic's severe obstacles. Around 92.96% of the enterprises are negatively affected by the COVID-19 pandemic. A study by Pedauga et al. (2021) identified that during COVID-19, the SME sector in Spain lost 43 percent of its income and two-thirds of its jobs.

Some problems of SMEs can be eradicated by lowering expenses and reducing existing barriers (McLaughlin & Richards, 2020). In Malaysia, the entrepreneurs of micro-enterprises have adopted various strategies to recover their businesses, which include running a business from home, becoming a private runner, internet marketing, multi-channel sales strategy, and creating a new market for selling their products (Fabeil et al., 2020). Knowledge of specific techniques and contacts can be used to make better use of SME's limited resources and to recover businesses after the COVID-19 pandemic by utilizing digital resources such as the Internet and communication platforms. The diversified method is essential for innovation and optimization

(Caballero-Morales, 2021). To recover from the COVID-19 pandemic, small and medium-sized enterprises must adopt e-commerce. Technology perceived compatibility, management support, external pressure and external support are the four essential factors of SMEs' adoption of E-commerce (Hoang et al., 2021). Using digital technology to keep small and medium-sized businesses running during the COVID-19 pandemic (Papadopoulos et al., 2020). Government and state assistance will be required to aid economic recovery in the SME sector after the pandemic (Ukhanov et al., 2020). In China, during COVID-19, the government took some policies to support the SME sector, such as rent reduction, direct subsidies, Social Security deferral, credit guarantee, and loan support (Chen et al., 2022).

Based on the findings described above, there has been a limited amount of research conducted in Bangladesh's SME sectors. Most of the researchers used secondary data to find out the problems of the SME sector. A small portion of the areas of SMEs are under the research program. According to the above literature review, the main objective of the research is to fill gaps by investigating the SME sectors in four districts of Bangladesh, such as Mymensingh, Jamalpur, Tangail, and Rajshahi. To the best of our knowledge, there is no work being done in the SME sector in these four regions together. The study tries to achieve the targeted objectives within the context of the selected areas. The following research question is developed for this study:

- What are the impacts of COVID-19 on owners of SMEs in Bangladesh?

3. Methodology

3.1. Study area and sample selection: This study is carried out in four districts of Bangladesh, such as Mymensingh, Jamalpur, Tangail, and Rajshahi. The data were collected during the time between 14th March 2022 and 13th May 2022. A sample size of 103 respondents was selected purposively for this study. Among these respondents, 103 data were collected from owners of SMEs.

3.2. Survey area and questionnaire formulation: In this study, a cross-sectional survey questionnaire method was used to collect data. We asked respondents to provide information about demography in part A. Part B includes 35 items regarding the impact of COVID-19 on production, wage, and profit related issues. Before starting the data collection, the questionnaires were given to 10 respondents to evaluate the appropriateness of language and understanding of the item. We then conducted a pilot survey for testing the questionnaire. Based on the pilot survey, the questionnaire was modified to correct weaknesses. The questionnaires were distributed by the researchers and enumerators, and the respondents were made aware of their rights to withdraw their participation at any time during the study. The study distributed 103 questionnaires, and all the returned responses were found to be valid for further analysis. In this study, the participation of the respondents was completely voluntary, and no payment was given.

3.3. *Analytical Technique:* The qualitative research method was used in this study. To conduct the required statistical analysis, the collected data were inputted into the IBM statistical package for Social Science (SPSS) 20.0 software (Armonk, NY, USA) to generate different frequency distribution tables based on the objective of the study. The results of the study were presented using descriptive statistics.

4. Results and discussion

4.1. Types of the institution

The types of institutions of the respondents are shown in table 1 where 27.2% of institutions were medium-sized and 72.8 percent of institutions were small Types of the institution of the respondents.

Table 1

Types of the institution

| | Frequency | Percentage |
|--------|-----------|------------|
| Small | 75 | 72.8 |
| Medium | 28 | 27.2 |
| Total | 103 | 100.0 |

4.2. Duration of running the business

According to Table 2, most of the institutions 70 (68.0 percent) were formed between 11 and more than 20 years ago. Only 12 (11.7%) of the institutions have been operating for less than five years.

Table 2

Duration of running the business

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Less than 5 years | 12 | 11.7 |
| 5 to 10 years | 21 | 20.4 |
| 11 to 15 years | 24 | 23.3 |

| | | |
|--------------------|-----|-------|
| 16 to 20 years | 14 | 13.6 |
| More than 20 years | 32 | 31.1 |
| Total | 103 | 100.0 |

4.3. Number of workers working in the institutions

The number of employees employed by the respondents' various institutions is represented in Table 3. From 1 to 50 employees were employed in the great majority of institutions 75 (72.8 percent). In the 26 institutions (25.3%) 51 to 200 workers were employed and rest 2(2%) constitute 201 to 300 workers.

Table 3

Number of workers working in the institutions

| | Frequency | Percentage |
|--------------------|-----------|------------|
| 1 to 50 workers | 75 | 72.8 |
| 51 to 100 workers | 18 | 17.5 |
| 101 to 200 workers | 8 | 7.8 |
| 201 to 250 workers | 1 | 1.0 |
| 251 to 300 workers | 1 | 1.0 |
| Total | 103 | 100.0 |

4.4. Duration (days per week) of running the institutions during COVID-19

Table 4 shows that 60 (58.3 percent) institutions were completely closed during the COVID-19 period, and just 6 (5.7 percent) institutions were fully operational in the whole week.

Table 4

Duration (days per week) of running
the institutions during COVID-19

| | Frequency | Percentage |
|------------|-----------|------------|
| 7 days | 6 | 5.8 |
| 5 days | 6 | 5.8 |
| 4 days | 8 | 7.8 |
| 3 days | 23 | 22.3 |
| Was closed | 60 | 58.3 |
| Total | 103 | 100.0 |

4.5. Current total capital of the business

This percentage of the current total business capital is shown in Table 5. In our survey, 93 respondents (90.2%) reported having capital up to Tk. 75 lakh. Other survey participants 10 (9.7%) had capital ranging from Tk. 76 lakh to Tk.15 crore.

Table 5

Total current capital of business

| | Frequency | Percentage |
|---------------------|-----------|------------|
| Less than 10 lakh | 43 | 41.7 |
| 10 to 75 lakh | 50 | 48.5 |
| 76 lakhs to 2 crore | 8 | 7.8 |
| 2 crore to 15 crore | 2 | 1.9 |
| Total | 103 | 100.0 |

4.6. Challenges which were faced during COVID

Data in table 6 shows that the respondents (46.6%) mainly faced problems with selling their institutional products. The other 53.3% of respondents faced issues at the time, such as rising production costs, reduced raw material supply, rising transportation costs, and so on.

Table 6

Challenges which were faced during COVID

| | Frequency | Percentage |
|----------------------------------|-----------|------------|
| Production cost has increased | 22 | 21.4 |
| Raw materials supply has reduced | 17 | 16.5 |
| Wages of worker has increased | 2 | 1.9 |
| Wages of worker has reduced | 1 | 1.0 |
| Transport cost has increased | 4 | 3.9 |
| Sell of products has reduced | 48 | 46.6 |
| Export of product has shut down | 9 | 8.7 |
| Total | 103 | 100.0 |

4.7. Whether state sponsored incentive opportunity received or not to reduce loss in COVID period

Data in Table 7 shows that most of the respondents 88 (85.4%) did not get any incentive opportunity from the state sponsored. Only 15 (14.6%) confirmed that they had received incentive opportunities from the state sponsored.

Table 7

Whether the state sponsored incentive opportunity received or not to reduce loss in COVID period

| | Frequency | Percentage |
|-------|-----------|------------|
| Yes | 15 | 14.6 |
| No | 88 | 85.4 |
| Total | 103 | 100.0 |

4.8. If the previous answer is “no”, what is the reason behind not getting government sponsored incentive

Data in Table 8 shows the reason why the respondents were not getting the government incentives. Here, 30 respondents (29.1%) claimed that nepotism prevented them from receiving incentives. Of the 25 (24.3%), said the government incentive distribution scheme was not good. Other respondents were accused of having political motives (19.5%), not knowing about incentive knowledge (21.4%), and other things (5.7 %).

Table 8

The reason for not getting government sponsored incentive

| | Frequency | Percentage |
|---|-----------|------------|
| Nepotism | 30 | 29.1 |
| Political cause | 20 | 19.5 |
| Having no knowledge about incentive package | 22 | 21.4 |
| Fault in distribution system | 25 | 24.3 |
| others | 6 | 5.7 |
| Total | 103 | 100.0 |

4.9. Time required to get back businesses like before COVID

Data in table 9 represents that 95 (92.2%) of the respondents need 1 to 2 years or more to get back to their business like before COVID. The remaining 8 (7.7%) of 8 (7.7%) of the respondents need 1 year or less than 1 year.

Table 9

Time required to get back businesses like before COVID

| | Frequency | Percentage |
|----------------|-----------|------------|
| 1 to 3 months | 3 | 2.9 |
| 4 to 6 months | 2 | 1.9 |
| 7 to 12 months | 3 | 2.9 |
| Over 1 year | 45 | 43.7 |

| | | |
|-------------------|-----|-------|
| more than 2 years | 50 | 48.5 |
| Total | 103 | 100.0 |

4.10. The ways of reducing loss during COVID-19

Table 10 data reveals that 48 (46.6%) respondents had thoughts about lowering bank interest. Others shared their opinions on various opportunities to mitigate the COVID-19 pandemic's losses, including expanding bank credit time (13.6%), selling goods that went unsold during the pandemic (2.9%), lowering import tariffs (4.9%), lowering transportation and raw material costs (11.7%), expanding exporting opportunities (4.9%), and managing government subsidies (15.5%).

Table 10

The ways of reducing loss during COVID-19

| | Frequency | Percentage |
|--|-----------|------------|
| Reduction of bank interest | 48 | 46.6 |
| Increasing the credit time of bank or credit institution | 14 | 13.6 |
| Sell of products that remain unsold in corona period | 3 | 2.9 |
| Reducing tariff in importing raw materials | 5 | 4.9 |
| Reducing transportation and raw material cost | 12 | 11.7 |
| Increasing exporting opportunity | 5 | 4.9 |
| Managing government subsidy properly | 16 | 15.5 |
| Total | 103 | 100.0 |

4.11. Whether the wages were paid or not during COVID time

According to data in table 11, 58 (56.3 percent) of respondents paid the worker, while the remaining 45 (43.7 percent) did not pay any salaries to the worker. When we relate this, we can see that a large number of workers were not paid during that time period.

Table: 11

Whether the wages were paid or not during COVID time

| | Frequency | Percentage |
|-------|-----------|------------|
| Yes | 58 | 56.3 |
| No | 45 | 43.7 |
| Total | 103 | 100.0 |

4.12. The status of the businesses during COVID time (22nd March 2020 to 30th May 2020)

The condition of business during the COVID-19 period is portrayed by the data in Table 12. 65 respondents (63.1%) stated that their institutions were completely closed. Only 2 (1.9%) of the institutions were fully operational at that time, and 36 (34.9%) institutions were only partially open.

Table: 12

The status of the businesses during COVID time (22nd March 2020 to 30th May 2020)

| | Frequency | Percentage |
|----------------|-----------|------------|
| Closed | 65 | 63.1 |
| Partially Open | 36 | 34.9 |
| Open | 2 | 1.9 |
| Total | 103 | 100.0 |

4.13. The reduction of sales during COVID time

Table 13 shows that most of the institutions' 77 (74.8%) sales declined which ranged from 50 to 100 percent. Only the sales of two institutions (1.9%) did not fall.

Table 13

The reduction of sales during COVID time

| | Frequency | Percentage |
|-------------|-----------|------------|
| 10% | 7 | 6.8 |
| 20% | 1 | 1.0 |
| 30% | 4 | 3.9 |
| 40% | 12 | 11.7 |
| 50% | 21 | 20.4 |
| 80% | 28 | 27.2 |
| 100% | 28 | 27.2 |
| Not reduced | 2 | 1.9 |
| Total | 103 | 100.0 |

4.14. The reduction of profit during COVID time

The profit reduction range is shown in Table 14. According to the table, 93 (90.3 percent) of respondents estimated their profit to drop by 50 to 100 percent over the COVID-19 period, indicating a significant loss in earnings. Only 1.9 percent of respondents said they did not lose profits because of COVID.

Table 14

The reduction of profit during COVID time

| | Frequency | Percentage |
|-----|-----------|------------|
| 10% | 3 | 2.9 |
| 20% | 1 | 1.0 |
| 30% | 3 | 2.9 |
| 40% | 1 | 1.0 |
| 50% | 30 | 29.1 |

| | | |
|-------------|-----|-------|
| 80% | 46 | 44.7 |
| 100% | 17 | 16.5 |
| Not reduced | 2 | 1.9 |
| Total | 103 | 100.0 |

4.15. Whether E-Commerce platform was used or not for selling products during COVID time

According to data in Table 15, just 21 (20.4%) of respondents used an e-commerce platform to sell their products, while 82 (79.6%) did not use any e-commerce platform.

Table 15

Whether E-Commerce platform was used or not for selling products during COVID time

| | Frequency | Percentage |
|-------|-----------|------------|
| Yes | 21 | 20.4 |
| No | 82 | 79.6 |
| Total | 103 | 100.0 |

4.16. The best way of increasing income during COVID time and afterwards

Data in table 16 shows that owners were the best way to increase income during and after COVID-19, with 31 (30.1%) of the respondents stating that they should lower the cost of their goods. Other answers included launching new goods or services 24 (23.3%), selling goods on an internet marketplace 20 (19.4%), promoting market diversity 13 (12.6%), collaborating with other organizations 2 (1.9%), and learning new skills 13 (12.6%).

Table 16

The best way of increasing income during COVID time and afterwards

| | Frequency | Percentage |
|--|-----------|------------|
|--|-----------|------------|

| | | |
|---------------------------------------|-----|-------|
| Introducing new product or service | 24 | 23.3 |
| Reducing price of Product or services | 31 | 30.1 |
| Selling in Online Platform | 20 | 19.4 |
| Diversity in market system | 13 | 12.6 |
| Partnership with other institution | 2 | 1.9 |
| Learning new skills | 13 | 12.6 |
| Total | 103 | 100.0 |

4.17. The impact of COVID-19 on income tax in 2020 compared to 2019

Data in Table 17 shows the impact of COVID-19 on income tax in 2020 compared to 2019. There was no change in income tax for 33 (32.0%) respondents, while 43 (41.7%) respondents thought it was reduced by 25 to 50%.

Table 17

The impact of COVID-19 on income tax in 2020 compared to 2019

| | Frequency | Percentage |
|----------------------------|-----------|------------|
| Nearly 25% reduced | 26 | 25.2 |
| Nearly 25 to 50% reduced | 6 | 5.8 |
| More than 50% reduced | 11 | 10.7 |
| Nearly 25% increased | 1 | 1.0 |
| Nearly 25 to 50% increased | 2 | 1.9 |
| More than 50% increased | 3 | 2.9 |
| No increase or decrease | 33 | 32.0 |
| I don't know about it | 21 | 20.4 |
| Total | 103 | 100.0 |

4.18. The best way to reduce cost during COVID time

Table 18 shows the steps taken by the institutions to reduce costs during COVID time. The majority of the respondents (49.5%) did not appoint any new workers. Some of the respondents (10.7%) reduced wages, retrenched workers (11%), and so on.

Table 18

The best way to reduce cost during COVID time

| | Frequency | Percentage |
|--|-----------|------------|
| Not appointing new worker | 51 | 49.5 |
| Reducing wages | 10 | 9.7 |
| Retrenchment of worker | 11 | 10.7 |
| Obligatory leave without paying wages | 1 | 1.0 |
| Reducing development allowance of worker | 2 | 1.9 |
| Reducing maintenance cost of the institution | 17 | 16.5 |
| Reducing travel allowance | 1 | 1.0 |
| No exact calculation data | 10 | 9.7 |
| Total | 103 | 100.0 |

4.19. The number of workers who worked from home during COVID time

According to data in Table 19, the majority of respondents (69.9%) claimed that there was no option for employees to work from home since SME sectors are the places where individuals use a number of different technologies. Only 14 (13.6%) of the respondents said that between 80 and 100% of their employees worked from home.

Table 19

The number of workers who worked from home

| | Frequency | Percentage |
|--------------------|-----------|------------|
| Not work from home | 72 | 69.9 |
| Nearly 10% | 1 | 1.0 |
| Nearly 10 to 20% | 1 | 1.0 |
| Nearly 20 to 40% | 4 | 3.9 |
| Nearly 50 to 60% | 5 | 4.9 |
| Nearly 60 to 80% | 6 | 5.8 |
| Nearly 80 to 100% | 14 | 13.6 |
| Total | 103 | 100.0 |

4.20. Whether the respondent is affected by COVID 19 or not

Table 20 shows that 99 (96.1%) of the respondents did not experience any COVID-19 causes. Only 4 (3.9%) of the respondents were affected by COVID-19 causes and that interrupted their work.

Table 20

Whether the respondent is affected by COVID 19 or not

| | Frequency | Percentage |
|-------|-----------|------------|
| Yes | 4 | 3.9 |
| No | 99 | 96.1 |
| Total | 103 | 100.0 |

4.21. The range of effects of the corona pandemic on the demand of the products that are produced in the institution

The ranges of effects of the coronavirus pandemic on the demand of the products are shown in Table 21. The majority of those respondents (83.5%) claimed that COVID-19 reduced the demand for their product. Only 8 (7.8%) of the respondents said that there had no change in the demand of their items, while 9 (8.8%) claimed they were able to increase it.

Table 21

The range of effects of the corona pandemic on the demand of the products

| | Frequency | Percentage |
|-------------------------|-----------|------------|
| 25 to 50% reduced | 82 | 79.6 |
| Nearly 25% reduced | 4 | 3.9 |
| Nearly 25% increased | 1 | 1.0 |
| 25 to 50% increased | 3 | 2.9 |
| More than 50% increased | 5 | 4.9 |
| No change | 8 | 7.8 |
| Total | 103 | 100.0 |

4.22. The range of retrenchment of workers in the institution due to the corona pandemic

Table 22 shows that 71 (68.9%) of respondents retrenched their institution's workers, while the remaining 32 (31.1%) did not.

Table 22

The range of retrenchment of workers in the institution due to the corona pandemic

| | Frequency | Percentage |
|------------------|-----------|------------|
| Nearly 1 to 10% | 17 | 16.5 |
| Nearly 11 to 20% | 21 | 20.4 |
| Nearly 21 to 30% | 16 | 15.5 |
| Nearly 31 to 40% | 17 | 16.5 |
| No retrenchment | 32 | 31.1 |
| Total | 103 | 100.0 |

4.23. Whether the government incentive was effective or not

In Table 23, data shows that 35 (34.0%) of the respondents thought government incentives were effective, whereas 31 (30.1%) of respondents stated that government incentives were ineffective, and the remaining 37 (35.9%) had no idea.

Table 23

Whether the government incentive was effective or not

| | Frequency | Percentage |
|---------|-----------|------------|
| Yes | 35 | 34.0 |
| No | 31 | 30.1 |
| No idea | 37 | 35.9 |
| Total | 103 | 100.0 |

5. Implications for research and practice

This research contributes greatly to the SMEs research in Bangladesh. Regarding the theoretical point of view, this research assesses the impact of COVID-19 on SMEs and evaluation of SME's stimulus package in four districts of Bangladesh. This study also contributes to theory by exploring the overall scenarios of SME sectors during COVID-19.

The empirical findings of the study provide valuable information regarding the development of practical guidelines for the expansion and development of SMEs in Bangladesh. This analysis revealed that the business owners lay off employees in order to cut costs and deal with the crisis. But this is detrimental to the workers. So the study recommends them to launch an e-commerce marketplace or minimize their salary for the crisis period so that they can handle these types of crisis situations more easily. The majority of business owners, according to this research, did not receive the required incentives to maintain their operations during the pandemic. Therefore, they require additional incentives, subsidies, etc. to run their businesses smoothly, just like before the corona pandemic. Our study examined the fact that the majority of workers were unemployed during COVID-19.

The respective authority of SMEs should focus on creating alternative job opportunities to address the pandemic crisis. Most of the employees, we discovered, are men. Due to the greater availability of female workers, hiring them in SMEs sectors will be more profitable and cost-effective. As a result, in our study, we analyze the difficulties faced by the SME sector during the pandemic and attempt to formulate some policies to overcome the adverse situation in order to sustain their businesses after the pandemic period has passed.

6. Limitations and future research directions

This research article has some limitations that should be mentioned here. The sample size in this study is small which can be increased in future study to have more reliable results. Because of the inadequate funding, researchers were not able to collect much data. The study was conducted in only four districts of Bangladesh. Therefore, the budget should be increased for future research to collect large number of data and cover many areas of Bangladesh. The study was carried out during peak time of COVID-19 when the data collection was particularly difficult. Besides, there were fewer female respondents than male respondents. To understand the actual condition of women in these areas, more women entrepreneurs should be included in the future research. Moreover, more econometric models can be used in future studies to increase the accuracy of the results.

7. Conclusions

This study investigated the impact of COVID-19 on SME output, production, turnover, employment. To serve the purpose, 103 data have been collected from four districts of Bangladesh purposively. The results show that production reduced by more than 50% in around 70% of SMEs and the demand reduced by 25 to 50 % in 80% of SMEs. The study found that 58.3% of the institutions were completely closed. The study also found that the demand for goods reduced by 83.5% while production costs increased by 21.4%. As a result, production dropped by 48.5%. Approximately, 78.3% of respondents stated that from 10% to 70% of products remained unsold during the pandemic. According to our research, 85.4% of participants said that they were excluded from incentive opportunities because of nepotism, political motivations, a faulty distribution system, and other issues. Therefore, the study suggests that the policymakers should concentrate on taking necessary steps to solve the existing problems in SMEs of Bangladesh.

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