# The Impact of Fiscal Stimulus on the Economy during COVID-19: Bangladesh Perspective

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# Message from the Director, BIGM

The Government of Bangladesh has been following a vision to bolster the economy and ensure sustainable growth. The Covid-19 pandemic almost shattered that vision, and posed unprecedented challenges, severely impacting economic stability and livelihoods. In response, the Government of Bangladesh implemented a series of fiscal and monetary stimulus packages aimed at mitigating these adverse effects, supporting economic recovery, and ensuring the well-being of its citizens. This report, prepared by the Bangladesh Institute of Governance and Management (BIGM), evaluates the impact of these fiscal packages, providing a comprehensive analysis of their efficacy and outcomes.

This study focused on four key packages, which together represented 71.3% of the total allocation: salary support for export-oriented RMG industries, working capital loans for affected industries and service sectors, working capital loans for CMSMEs, and revitalizing the rural economy and job creation.

BIGM employed rigorous research methodologies to evaluate the impact of these stimulus packages. The study utilized Propensity Score Matching (PSM) for Salary Support for the workers of Export Oriented Industries, revealing higher recipient satisfaction and welfare. Difference in Difference (DID) and Purchasing Manager's Index (PMI) were used for Working Capital Loans for Cottage, Micro, Small, and Medium Enterprises (CMSMEs), indicating higher profitability, employment, and lower debt-to-equity ratios for recipients. Structural Equation Modeling (SEM) was used for Working Capital Loans (CMSMEs), highlighting production and access benefits for recipients. The Revitalizing the Rural Economy program also revealed positive outcomes for recipients utilizing Propensity Score Matching (PSM).

While the research identified positive outcomes for the recipients of the packages, there were also challenges and issues. The Revitalizing the Rural Economy package encountered difficulties in implementation and beneficiary identification. Additionally, the Working Capital Loans for CMSMEs, while beneficial, revealed challenges related to product distribution and infrastructure/documentation. The implementation of these stimulus packages often faced the absence of an appropriate database, the presence of which could have helped quicker and more effective implementation of these packages. These findings provided valuable insights for optimizing future policy interventions.

BIGM stresses that adapting fiscal policies through ongoing evaluation and collaboration between government, financial institutions, and stakeholders is key to fostering economic resilience and growth. This report's findings and recommendations are designed to equip policymakers with the knowledge needed to craft robust economic development strategies, ultimately aiming to be a valuable tool for all stakeholders in building resilience against future challenges.

BIGM extends sincere gratitude to the Finance Division and the Strengthening Public Financial Management Program to Enable Service Delivery (SPFMS) project for their unwavering support and collaboration. We look forward to continued collaboration and success in our collective efforts to drive sustainable economic growth in Bangladesh.

Mohammad Tareque, Ph.D. (Boston)
Managing Director
Bangladesh Institute of Governance and Management Trust
Director, Bangladesh Institute of Governance and Management (BIGM)

# Foreword

During COVID-19, the government of Bangladesh provided fiscal and monetary stimulus support to the workers of the export-oriented industries, service sectors, and cottage, micro, small, and medium enterprises to mitigate the adverse effects of the pandemic and revitalize the economy. As such, stimulus support was delivered among the targeted beneficiaries under 28 packages that, in terms of the gross domestic product (GDP), accounted for 3.7% in FY 2019-2020, 4.2% in FY 2020-2021, 6.23% in FY 2021-22, and 5.98% in FY 2022-23 respectively.

The Finance Division of the Government of Bangladesh commissioned a study, **The Impact of Fiscal Stimulus on the Economy during COVID-19: Bangladesh Perspective,** to assess the impact of stimulus packages on the targeted people and economic sectors. The Bangladesh Institute of Governance and Management (BIGM) was selected to conduct this study. Accordingly, an agreement was signed with the Strengthening Public Financial Management Program to Enable Service Delivery (SPFMS) project of the Finance Division on 1 February 2023.

While conducting the study, four out of 28 stimulus packages were selected based on their share of the total allocation, which was 71.3 percent. These packages were: (i) salary support for the workers of export oriented industries, (ii) working capital loans for affected industries and services sectors, (iii) working capital loans for cottage, micro, small, and medium enterprises, and (iv) revitalizing the rural economy and job creation. The field study was carried out between February 2022 to July 2023. The study covered all eight administrative divisions of the country. A mixed-method research approach was followed, and based on secondary and primary data, each package was examined separately.

The study found positive impacts of the selected stimulus packages on the beneficiaries at different levels, which implied that the government intervened timely for economic recovery and the well-being of citizens. The study identified the key implementing challenges of the packages. All the findings will be helpful for further interventions and formulation of policies for the economic development of the country, as well as future research. Based on the study findings, research papers will be prepared, with the aim of being published in international peer-reviewed journals.

Our sincerest gratitude goes to the concerned authority of the Finance Division and SPFMS project for selecting BIGM to conduct such an important study. Thanks to the concerned officials of the Finance Division, Bangladesh Bank, Financial Reporting Council, and all other institutions for providing support, valuable information, and data for the study. Special thanks to the Key Informants for providing insights and suggestions, all the enterprises/entrepreneurs and individuals for their valuable information and inputs, and the enumerators for their support in collecting data from the field.

I sincerely thank Dr. Mohammad Tareque, Director, BIGM, and Team Leader of this study project, for his overall guidance and inspiration to conduct this study. I would also like to express my gratitude to the research team members for their excellent work in successfully conducting this study. I am grateful to all the members of the BIGM family for their all-out cooperation. We look forward to continued collaboration with the Finance Division of Bangladesh.

Dr. Krishna Gayen

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# *The Impact of Fiscal Stimulus on the Economy during COVID-19: Bangladesh Perspective*

## Team Composition


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# Acronyms & Abbreviations

| | |
|---|---|
| ADR | Advanced Deposit Ratio |
| ATE | Average Treatment Effect |
| ATT | Average Treatment Effect on the Treated |
| AVE | Average Variance Estimator |
| BB | Bangladesh Bank |
| BGMEA | Bangladesh Garment Manufacturers and Exporters Association |
| BNF | Bangladesh Ngo Foundation |
| BRDB | Bangladesh Rural Development Board |
| BSCIC | Bangladesh Small and Cottage Industries Corporation |
| CFA | Confirmatory Factor Analysis |
| CFI | Comparative Fit Index |
| CGE | Computable General Equilibrium |
| CIDA | Canadian International Development Agency |
| CMSME | Cottage, Micro, Small and Medium Enterprise |
| CPD | Center for Policy Dialogue |
| CR | Composite Reliability |
| CRR | Cash Reserve Ratio |
| DER | Debt-to-Equity Ratio |
| DID | Difference-in-Difference |
| DoL | Directorate of Labor |
| EPS | Earnings Per Share |
| FDI | Foreign Direct Investment |
| FGD | Focus Group Discussion |
| FY | Fiscal Year |
| GDP | Gross Domestic Product |
| GoB | Government of Bangladesh |
| IDI | In-Depth Interview |
| IDR | Investment Deposit Ratio |
| IMF | International Monetary Fund |
| KIIs | Key-Information Interviews |
| KYC | Know-Your-Customer |
| MFS | Mobile Finance Service |
| MoF | Finance Division, Ministry of Finance, Govt. of Bangladesh |
| NAT | Net Profit After Tax |
| NBT | Net Profit Before Tax |
| NE | Number of Employee |
| NGO | Non-governmental organization |
| OMS | Open Market Sale |
| PDBF | Polli Daridro Bimochon Foundation |
| PMI | Purchasing Manager's Index |
| PSM | Propensity Score Matching |
| RMG | Ready Made Garments |
| RMSEA | Root Mean Square Error of Approximation |
| ROA | Return On Asset |
| SDF | Social Development Foundation |
| SEM | Structural Equation Model |
| SFDF | Small Farmer Development Foundation |
| SME | Small and Medium Enterprise |
| SMEF | Small and Medium Enterprise Foundation |
| SRMSEA | Standardized Root Mean Square Error of Approximation |
| TA | Total Asset |
| TLI | Turker-Lewis Index |
| UN | United Nations |
| UNIDO | United Nations Industrial Development Organization |

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# Executive Summary

With the unanticipated emergence of COVID-19, governments across the world responded with a range of preventive measures, including the imposition of lockdowns. While these lockdowns proved to be effective to varying extents in addressing public health concerns, they also gave rise to a new challenge: jeopardizing the economic stability and welfare of their citizens. To mitigate the adverse effects of lockdowns arising from supply chain shocks and employment loss, governments worldwide chose to implement policies to stimulate their economies and keep them working.

The Bangladesh Government adopted and introduced a total of 28 stimulus packages which amounted to 3.7%, 4.2%, 6.23 % and 5.98% of the Gross Domestic Product (GDP) for the fiscal years (FY) 2019-20, 2020-21, 2021-22 and 2022-23 respectively, with the objectives of ensuring faster economic recovery, easing business operations, supporting lives and livelihoods, retaining employment, and overall, ensuring a functioning economy. The strategies used by the government were

- increasing public expenditure for job creation
- providing low-interest loan facilities to industrial and business enterprises through the banking system
- expanding the scope of social protection programs, and
- ensuring optimum money supply while containing inflation at the desired level.

While there has been both praise and criticism of the packages implemented, an in-depth impact assessment has yet to take place. The study "Impact of Fiscal Stimulus on The Economy during COVID-19: Bangladesh Perspective" attempts to evaluate the effect of the stimulus packages during this time on the economy. The project looks into 4 out of the 28 stimulus packages, which made around 71.34 percent of the total amount allocated to the packages. The packages and their allocated amount as a percentage of the total stimulus allocation and GDP are as follows:

i. Salary Support for the workers of Export Oriented Industries: BDT 5,000 crore, 3.89% of the stimulus allocation and 0.16% of GDP for FY2020-21; BDT 5,000 crore, 2.66% of the stimulus allocation and 0.13% of GDP for FY2021-22; BDT 5,000 crore, 2.10% of the stimulus allocation and 0.11% of GDP for FY2022-23.
ii. Working capital loan to the affected industries and service sectors: BDT 40,000 crore, 31.14% of the stimulus allocation and 1.30% of GDP for FY2020-21; BDT 73,000 crore, 38.90% of the stimulus allocation and 1.84% of GDP for FY2021-22; BDT 103,000 crore, 43.34% of the stimulus allocation and 2.23% of GDP for FY2022-23.
iii. Working capital loan to the cottage, micro, small, and medium enterprises: BDT 20,000 crore, 15.57% of the stimulus allocation and 0.65% of GDP for FY2020-21; BDT 40,000 crore,

21.31% of the stimulus allocation and 1.01% of GDP for FY2021-22; BDT 60,000 crores, 26.24% of the stimulus allocation and 1.35% of GDP for FY2022-23.

iv. Revitalizing the rural economy and job creation[1]: BDT 1500 crore, 1.17% of the stimulus allocation and 0.05% of GDP for FY2020-21; BDT 1500 crore, 0.80 % of the stimulus allocation and 0.04% of GDP for FY2021-22; and BDT 1500 crore, 0.63 % of the stimulus allocation and 0.03% of GDP for FY2022-23.

Due to their weight in the allocation, and impact and implication to the large target population and beneficiaries, these are arguably the most important packages implemented.

The objectives of the study are therefore to:

a) provide an objective assessment of the impact and effectiveness of the fiscal stimulus measures;
b) understand the linkages between announced fiscal stimulus and the recovery process from the pandemic;
c) analyze the challenges in the implementation process of stimulus packages, and
d) provide relevant operational recommendations for improving future stimulus measures in cases of similar shocks.

The study uses multiple quantitative and qualitative methods to investigate and appraise the stated objectives. Each package was studied separately as the beneficiary group, implementation method and objectives were different for each package. Stakeholders ranging from policy implementers, Bangladesh Bank officials, policy analysts and academics, workers, and most importantly beneficiaries were extensively consulted to assess the outcome of the interventions.

The **Salary Support for the workers of Export Oriented Industries** focused on ready-made garments workers who received the packages through mobile financial services. In order to evaluate the effects of the stimulus package on various socio-economic aspects, the study included both beneficiaries and non-recipients in three industrial zones Savar, Narayanganj and Gazipur recognized for their garment industry. Propensity score matching (PSM) was employed in these analyses. Assessing the impact of fiscal stimulus on socio-economic variables requires addressing selection bias. The Propensity Score Matching (PSM) method, popularized by Becker and Ichino in 2002, is widely used to mitigate bias in evaluating economic policy interventions. The study showed a significantly higher level of satisfaction and welfare for the recipient group than the non-recipient group, indicating a positive outcome for the package. Key Informant Interviews (KIIs) were conducted with experts in the respective field. They highlighted the difficulties encountered when formulating this package as well as the implementation

[1] This was carried out by 8 publicly owned organizations (Joyeeta Foundation, NGO foundation, Social Development Foundation, Polli Daridro Bimochon Foundation, Bangladesh Small Cottage Industries Corporation, Small Farmer Development Foundation, and Bangladesh Rural Development Board)

issues they faced. Opinions from experts also showed that not only was this a timely intervention but the initiative that greatly boosted the financial access of the recipients.

To figure out the impact of **working capital loan for the affected industries and services sector,** both Difference in Difference (DID)[2] has been used to measure the impact of the stimulus package on recipients and non-recipients across the country. Moreover, Purchasing Manager's Index (PMI)[3] was done to assess the performance of the affected industries[4] and service sectors[5] among pre-COVID, during COVID and post-COVID scenario. The study revealed positive results for the recipient group compared to the non-recipient group. The study measured multiple aspects and showed a higher level of profitability and employment for the recipient's group. It also showed a lower debt to equity ratio for the recipients, showing that the benefits of the package were significant at all levels. Many also stated that despite the inherent difficulties of choosing the appropriate beneficiaries, the initiative aided the industrial sector at the time.

The study on **working capital loans for the cottage, micro, small and medium enterprises (**CMSMEs) using Structural Equation Modeling (SEM)[6] assessed the effect that the package had on certain aspects of the business's operations such as knowledge, access, production, product distribution and employment. The study showed positive benefits and impacts for all of the components, but only the effect on production and access was significant. Interviews with both entrepreneurs and experts revealed that the lockdowns made product distribution exceedingly difficult. Further interviews helped to identify the problems faced by CMSMEs during the pandemic.

The study on **Revitalizing the rural economy and job creation** used Propensity Score Matching (PSM)[7] to assess the welfare of the recipients compared to non-recipients in terms of socio-economic indicators as this method helps to find the relative Average Treatment Effect (ATE)[8] between them. The findings indicated that those who received the initiative experienced positive outcomes compared to those who did not, marking the program as successful. The research extensively employed qualitative approaches to assess the program's impacts, benefits, and challenges. The qualitative analysis highlighted that the difficulties encountered during implementation necessitate an immediate adjustment to the implementation process. The results and experiences of each institution were distinctive and showed significant areas for development.

[2] This is done to identify the impact of the package between recipients and non-recipients over time.
[3] Purchasing Manager's Index (PMI) is employed for impact assessment due to its ability to gauge economic trends and provide insights into the overall health of a sector or economy.
[4] RMG, Plastic, Leather, and Manufacturing Industries
[5] Pharmaceutical Ltd companies
[6] It is conducted to analyze and validate complex relationships among multiple variables in a comprehensive and integrated manner."
[7] to reduce selection bias and estimate causal effects between recipients and non-recipients of the loan
[8] It measures the difference in mean outcomes between units assigned to the treatment and units assigned to the control.

**Table E1: Summary of the key findings**

| ***Package*** | ***Key Findings*** |
|---|---|
| Salary Support for the workers of Export Oriented Industries | • Timely intervention.<br>• Job retention and new job opportunities.<br>• Increased access to MFS and financial inclusion.<br>• Higher household expenditure by recipients.<br>• Recipients paid utility bills more regularly and prioritized healthcare/ sanitary issues more, better mental well-being.<br>• Difficulties were in finding the beneficiaries. |
| Working capital loan for the affected industries and services sector | • Recipients have higher total assets, net profit before and after tax, employees, and earnings per share. These had positively significant impact by stimulus support<br>• Return on asset, and debt equity ratio were also positively impacted for the recipients, but no significant relationship was found.<br>• Lower debt-to-equity ratio and better PMI for recipients.<br>• Both commercial and central banks need a strong monitoring and evaluation system. |
| Working capital loan for the cottage, micro, small and medium enterprises | • Production and Access of the CMSME. was significantly benefitted due to stimulus<br>• Employment level, product distribution has positive but nonsignificant effect.<br>• Distribution of goods and services faced difficulties. due to lockdowns.<br>• Stimulus package loans was received only by the known customers of banks.<br>• Lack of infrastructure and marketing facilities, low technological use, difficulties in documentation, and scrutiny of applicants delayed the loan disbursal. |
| Revitalizing the rural economy and job creation | • Disbursal and recovery of microloans was nearly 100% for all institutions.<br>• Some institutions performed better than others; this was largely dependent on internal policies and the ability to independently disburse funds.<br>• Recipients had better economic welfare[9] than non-recipients.<br>• Beneficiary identification was a challenge.<br>• Coverage was limited due to the low allocation. |

In conclusion, the packages were successful in their objectives of providing socio-economic relief to the beneficiaries of the package. The research thoroughly looked into how the four plans not only had positive effects but also faced challenges during their implementation. The study suggests that all four packages successfully met goals, such as, helping people socially and economically, supporting livelihoods, addressing the needs of marginalized groups, ensuring the survival of both large industries and small businesses, and promoting employment. However, these programs faced some key issues such as difficulties in management, implementation, organization and scarcity of data information. In order to handle similar shocks in the future, we need to develop some measures such as developing the

[9] Tax and expenditure had positive impacts, new sources of income, access to raw materials and employment was generated,

database of the beneficiaries so that it could be incorporated with the national database for more effective and efficient implementation of these kind of policy measures. Despite acknowledged limitations, such as beneficiary identification challenges, data availability, and time constraints, the study's unbiased estimations offer valuable insights for guiding future policy directions in the face of similar situations.

# Basic Information

| | | |
|---|---|---|
| 1. | Study Title | The Impact of Fiscal Stimulus on the Economy during COVID-19: Bangladesh Perspective. |
| 2. | (a) Sponsoring Ministry/Division<br><br>(b) Conducted by | Finance Division, Ministry of Finance<br><br>Bangladesh Institute of Governance and Management (BIGM) |
| 3. | Study Objectives | The objective of this study is<br><br>a) To provide an objective assessment of the impact and effectiveness of the fiscal stimulus measures.<br><br>b) To understand the linkages between announced fiscal stimulus and the recovery process from the pandemic.<br><br>c)To analyze the challenges in the implementation process of stimulus packages.<br><br>d) To provide relevant policy and operational recommendations for improving the design and delivery of future stimulus measures. |
| 4. | Agreement Signed | 01 February 2023 |
| 6. | Study Duration | Start Date: 01 February, 2023<br><br>End Date: 30 November, 2024<br><br>Submission of -<br>(i) Final Report: 30th November, 2023<br>(ii) Accepted Article to Peer Reviewed Journal: 24 April, 2024<br>(Amin, Ruhul, Nahian Rahman, Samira Tasnim, Sima Rani Dey, and Mohammad Tareque. 2024. "The Impact of the Stimulus Packages on the Economy during COVID-19 in Bangladesh: A Mixed-Method Approach" Economies 12, no. 5: 108. https://doi.org/10.3390/economies12050108) |

# Chapter 1: Introduction

## 1.1 Background of the study

COVID-19 caused the largest economic downturn that the world had ever seen. Upon facing this enormous challenge, governments and the international community necessitated rapid actions to secure adequate financing, ensuring resilience against the collapse in public revenues and the escalating demand for health and social expenditures. Therefore, economies worldwide, including Bangladesh, faced a difficult compromise between COVID-deaths and economic recession, which can be described as a tradeoff between 'lives and lives': lives to be saved from the virus and lives to be saved from hunger (Finance Division, 2020).

The initial phase of lockdown, spanning from March 26, 2020 to April 4, 2020, was subsequently extended to May 27, 2020, in response to confirmed COVID-19 cases. During this initial phase, only the essential sectors such as food, healthcare, and associated transport and distribution networks remained operational, triggering a supply-side recession. As the economy gradually started to re-open at post-lockdown, encompassing both essential and non-essential sectors became operational, and a demand-side recession ensued. The workforce, having lost livelihoods in the non-essential sectors, encountered diminished purchasing power, exacerbating the economic challenges.

The disruptive effects of COVID-19 were evident on both the demand and supply sides across several sectors and sub-sectors and thus, struck at the heart of the Bangladesh economy and its people in the second half of FY 2019-20, intensifying the challenges faced by various stakeholders. As a result, real GDP growth decreased sharply to 3.5 percent in FY 2019-20 from 7.9 percent growth recorded in the pre-pandemic FY 2018-19 (Finance Division, 2023). Due to this unprecedented shock of the pandemic, the global economy witnessed a fall in output and a rise in price level. The pandemic was disastrous to the lives and livelihoods of the people of Bangladesh like other countries and caused severe public health crises. It adversely affected not only domestic businesses but also cross-border businesses (Prusty et al., 2021). Table 1.1 provides a tangible representation of the economic upheaval, offering a comprehensive overview of key macroeconomic indicators for Bangladesh from FY 2015-16 to FY 2022-23.

**Table 1.1 Key Macroeconomic Indicators of Bangladesh**

| Sectors | Indicators | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23* |
|---|---|---|---|---|---|---|
| **Real Sector** | Real GDP Growth (%) | 07.90 | 03.50 | 06.94 | 07.10 | 06.03 |
| | CPI Inflation (%) | 05.50 | 05.70 | 05.56 | 06.15 | 07.50 |
| | Investment (% GDP) | 32.20 | 31.30 | 31.00 | 32.00 | 27.80 |
| **Fiscal Sector (% GDP)** | Tax Revenue | 08.50 | 08.40 | 09.30 | 08.50 | 09.80 |
| | Public Expenditure | 13.30 | 13.00 | 13.00 | 13.10 | 15.20 |
| | Budget Deficit | -04.70 | -04.70 | -03.70 | -04.60 | -05.20 |

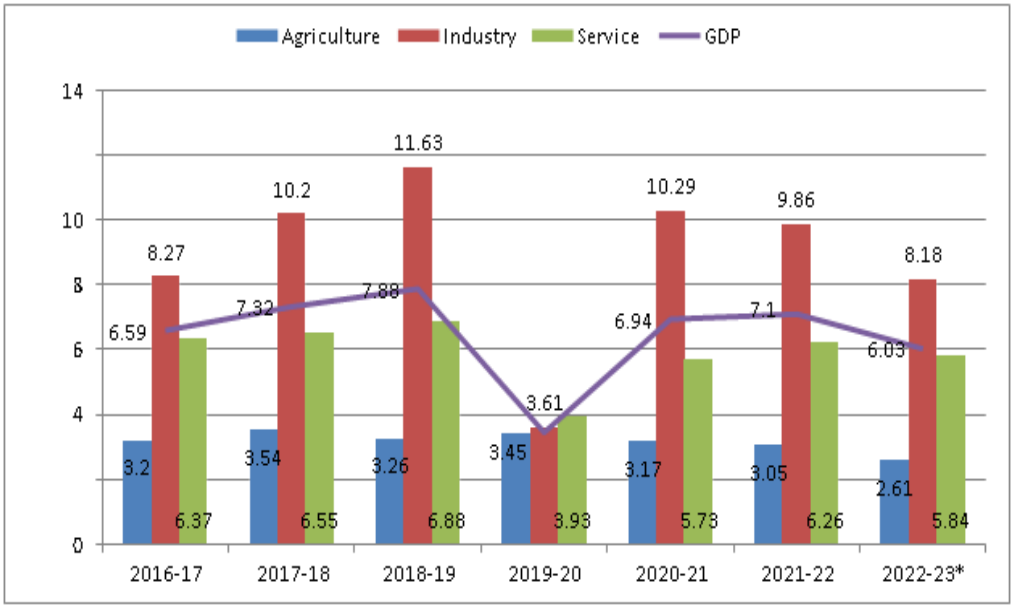
**Table 1.1 Key Macroeconomic Indicators of Bangladesh**

| Sectors | Indicators | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23* |
|---|---|---|---|---|---|---|
| **Money and Credit (Year-on-year % change)** | Domestic Credit | 12.30 | 14.00 | 10.10 | 16.20 | 18.50 |
| | Credit to Private Sector | 11.30 | 08.60 | 08.30 | 13.70 | 14.10 |
| | Broad Money | 09.90 | 12.60 | 13.60 | 09.50 | 11.50 |
| **External Sector (% change)** | Export, f.o.b[10] | 09.10 | -17.10 | 12.40 | 33.40 | 10.00 |
| | Import, f.o.b | 01.80 | -08.60 | 19.70 | 35.90 | -09.00 |
| | Remittance | 10.20 | 12.40 | 36.10 | -15.10 | 04.00 |
| | Current Account Balance (% GDP) | -01.45 | -01.26 | -01.10 | -04.06 | -01.48 |

*Revised Budget (Source: Bangladesh Economic Review 2023)

Despite the efforts to boost the economy by pursuing expansionary fiscal and monetary policy and spite of increasing money supply, the credit to the private sector faced a decrease and the overall investment did not increase as much. Simultaneously, the inflation rate remained relatively constant. The persistence of lockdown measures led to an automatic decline in international trade, as illustrated in Table 1.1. Globally, and Bangladesh being no exception, the prolonged lockdown engendered challenges such as reduced consumption, inventory shortages, and disruptions in the supply chain across a broad spectrum of both formal and informal business sectors (Buffie et al., 2023; FD, 2023).

**Figure 1.1 Sector-wise Growth and GDP**

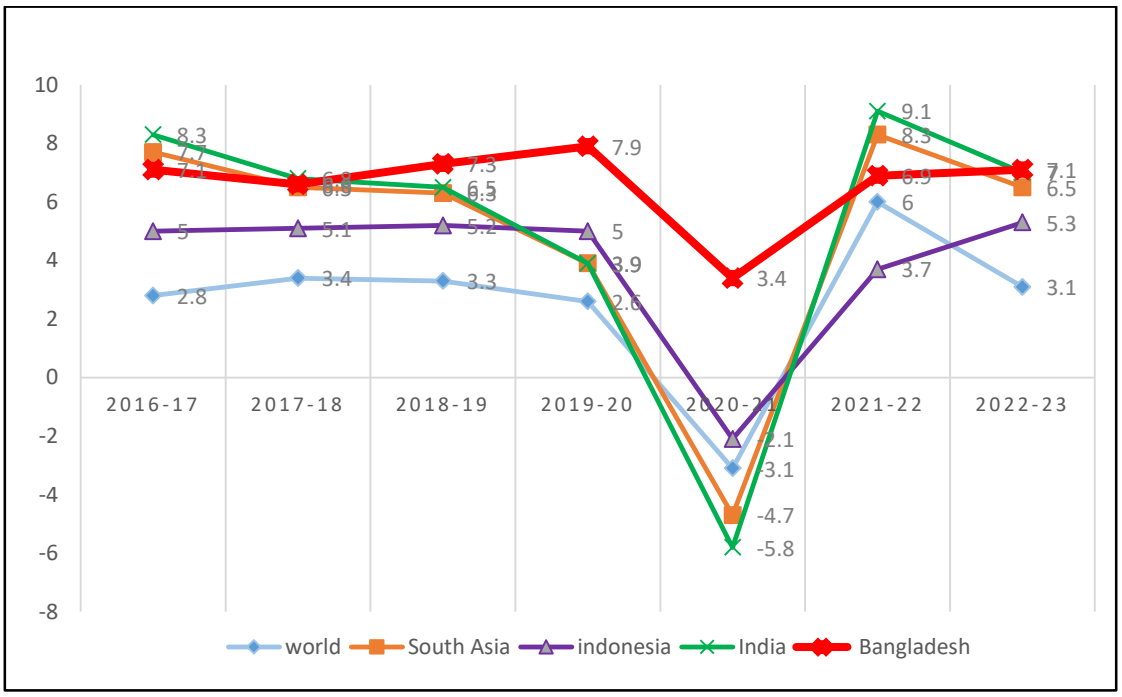



Source: Bangladesh Economic Review 2023

From the Figure 1.1, we can observe that there is a significant fall in growth rate of industry and service sector during FY2019-20. However, there is a gradual rebound in the growth rate of the sectors emphasizing the recovery of the economy, especially in the industry sector from 3.61% to 10.29% of GDP.

[10] Free of budget

**Figure 1.2 GDP Growth of Bangladesh compared to India, Indonesia, South Asia, and World**




Source: World Bank,2023

During the fiscal year 2020-21, while the global economy, with a GDP growth rate of -3.1%, and several other developing countries like India and Indonesia faced negative growth trends, Bangladesh exhibited a notable and positive V-shaped pattern in its GDP growth, recording an impressive rate of 3.4%[11] as illustrated in Figure 1.2. This distinctive upward trajectory underscores the resilience and recovery of the Bangladesh economy amidst the challenging global economic landscape.

In response to the challenges posed by the pandemic, Southeast Asian economies collectively increased their fiscal spending to counteract the negative impact on domestic economies (Asian Development Bank, 2022). Notably, the Indian government's fiscal stimulus played a crucial role in revitalizing the economy and mitigating the pandemic's effects. Beyond fiscal measures, India also implemented monetary and macro-financial initiatives, showcasing a multifaceted approach to economic recovery. Meanwhile, the Indonesian government introduced three fiscal stimulus packages that disclosed significant benefits for the manufacturing industry, health and social activities, and agriculture, forestry, and fisheries sectors due to this fiscal support (Narayanan et al., 2021).

In response to the unprecedented crisis unleashed by the Covid-19 pandemic, the Government of Bangladesh exhibited a proactive and strategic stance, aiming to swiftly restructure the national

[11] The visible downturn in world economic growth rate from FY 2021-22 to FY 2022-23 is probable due to global recession caused by Ukraine Russia war

economy and invigorate economic activities that had been severely hampered. This concerted effort, as outlined by the Ministry of Finance in 2020, unfolded as a comprehensive course of action spanning the short, medium, and long term. This approach has been determined by taking into account the following four key strategic aspects:

a) Increasing government expenditure specially to create job and discourage luxury spending.
b) Introducing some credit facilities at low interest through the banking system to revive economic activity and increase the competitiveness of entrepreneurs at home and abroad.
c) Extending the scope of social protection programs of the government to protect the poor and unemployed low-income groups and people engaged in informal activities.
d) Increasing the money supply in the market to control the negative impact of inflation.

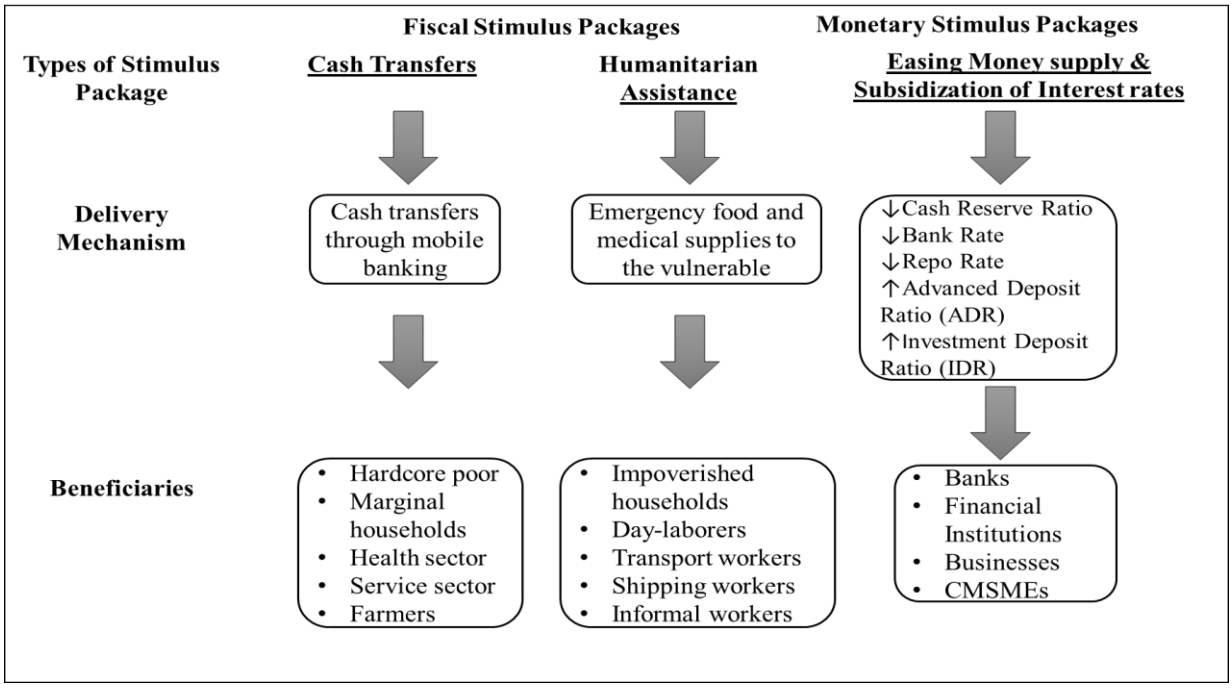
Recognizing the critical need to alleviate the severe economic and social repercussions of the pandemic and uplift affected communities, the Government of Bangladesh (GoB) took decisive action. In a significant move, the GoB introduced a series of stimulus packages strategically designed to implement a multi-stage intervention plan, commencing from early March 2020. This initiative, as highlighted by Alam et al. (2020) and detailed in the Finance Division's report (Finance Division, 2023), underscores the government's commitment to proactively address the immediate challenges faced by its citizens and lay the groundwork for sustained economic recovery. By implementing these stimulus packages, the GoB aimed not only to mitigate the disastrous impacts of the pandemic but also to provide tangible relief, offering a lifeline to those grappling with the severe consequences of the crisis.

In terms of percentage of GDP, the stimulus amount in the case of Bangladesh, was higher than that of other South Asian and Southeast Asian countries. Initially, in FY2019-20, the 20 measures of GoB included cash transfers, social safety net programs, and Government supported bank loans at subsidized interest rates amounting to a total of Tk. 1 lakh 11 thousand 137 crore (US$ 13.07 Billion) which was 4.0 percent of the GDP. Following that, in FY 2021-22, the number of stimulus packages was extended to 28 including cash transfers to the extreme poor, open market sale (OMS), employment creation, and working capital loan assistance for the payment of employee salaries of the theme parks, hotels and motels. The total set of 28[12] support measures spanning from the fiscal year 2019-20 to 2021-23, amounted to approximately BDT 237,6790 million (equivalent to US$ 26,900 million). This represented 3.7 percent, 4.2 percent, 6.23 percent and 5.98 percent of the nation's gross domestic product (GDP) for FY19-20, FY20-21, FY21-22 and FY22-23, respectively (Finance Division ,2023).

In the following figure 1.3, the entire mechanism of implementation of the stimulus packages is shown.

[12] A detailed description of all the packages taken by Bangladesh & Bangladesh bank in Table A1 of Annex A

**Figure 1.3 Implementation Mechanism of Stimulus Packages**




Source: Developed by Authors

These Stimulus packages were implemented through fiscal and monetary policy tools such as spending measures and interest rate adjustments, respectively. More specifically, the fiscal tools operated through cash transfers, humanitarian assistance and subsidization of interest rates, whereas monetary tools included decreasing bank rates, repo rates, cash reserved ratio, increasing ADR (Advanced Deposit Ratio) and IDR (Investment Deposit Ratio). Thus, they played a key role in revitalizing the economy in cases of the financial crisis and economic downturn (Figure 1.3). In fact, the unprecedented COVID-19 pandemic led governments worldwide to enact mass-scaled stimulus packages to reinvigorate the economy and restore output. Therefore, it is important to understand how the stimulus packages helped to reinvigorate the economy and restore output.

## 1.2 Rationale of the Study

While expecting positive effects from stimulus packages, it is essential to rigorously assess the impact and effectiveness of the 28 stimulus packages implemented by GoB during the pandemic. The main target population of these stimulus packages were export-oriented industries, agricultural sector, low-income group, and affected businesses. Therefore, to identify how these packages were designed and implemented, what problems they faced and if shocks like COVID-19 re appears, whether similar packages can be taken, and how these packages affected the economy, this research is carried out. Given the time and budgetary constraint, in order to operationalize the impact, the study has narrowed down to focus only on four key stimulus packages which cover 71.34 percent of the total allocation of the

stimulus packages. The selected packages are: salary support for the workers of export-oriented RMG industries, working capital loans to the affected industries and service sectors, working capital loans to cottage, micro, small and medium enterprises, and revitalizing the rural economy and job creation. Table 1.2 represents detailed information of the selected fiscal stimulus packages.

**Table 1.2 Year-wise Summary of Selected Fiscal Stimulus Packages**

| Fiscal Stimulus Packages | FY 2019-20 (% GDP) [% total allocation] | FY 2020-21 (% GDP) [% total allocation] | FY 2021-22 (% GDP) [% total allocation] | FY 2022-23 (% GDP) [% total allocation] |
|---|---|---|---|---|
| Salary support for export-oriented RMG industries | 5,000 (0.16%) [4.00%] | 5,000 (0.16%) [3.89%] | 5,000 (0.13%) [2.66%] | 5,000 (0.11%) [2.10%] |
| Working capital loans to the affected industries and service sectors | 40,000 (1.26%) [33.29%] | 40,000 (1.30%) [31.14%] | 73,000 (1.84%) [38.90%] | 103,000 (2.32%) [43.34%] |
| Working capital loans to cottage, micro, small and medium enterprises | 20,000 (0.63%) [16.65%] | 20,000 (0.65%) [15.57%] | 40,000 (1.01%) [21.31%] | 60,000 (1.35%) [25.24%] |
| Revitalizing the rural economy and job creation in rural area | --- | 1,500 (0.05%) (1.17%) | 1,500 (0.04%) (0.80%) | 1,500 (0.03%) (0.63%) |
| Total | 65,000 (2.29%) [54.09%] | 66,500 (2.15%) [51.77%] | 1,19,500 (3.01%) [63.67%] | 1,69,500 (3.81%) [71.34%] |

Source: Authors' calculation; Stimulus Package Field Survey, 2023

The target population of the **Salary Support for the workers of Export Oriented Industries** was 38 lakh workers from export-oriented RMG industries, who had a share of exporting 80% of their exports, and among them 53 percent were women. Moreover, since this was an interest free loan, only 2 percent service charge was to be paid by the industries. By 2019-20, 98.7% of the package was disbursed.

Whereas, for **Working Capital Loans to the Affected industries and Service Sectors,** 4,955 organizations were subjected to the package, 81.81% was disbursed during 2019-20, 38.53% the following year 2020-2021, and finally 6% in the year 2021-2022. For this package, only 4.5 percent was repaid by the receiver and 4.5 percent was repaid by the government.

Moreover, **Working Capital Loans to Cottage, Micro, Small and Medium Enterprises** were given to 2,11,699 individuals among whom 8.1 percent were women. In the year 2019-2020, 79.93% of the allocation was disbursed, 75.77% was disbursed in 2020-2021 and finally, 14.44% was disbursed in 2021-22. For this package, the interest rate was 9%, out of which, 4% was repaid by the receivers and 5% by the government.

Lastly, **Revitalizing the Rural Economy and Job Creation** was carried out by 8 institutes (Joyeeta Foundation, NGO foundation, Social Development Foundation, Polli Daridro Bimochon Foundation, Bangladesh Small Cottage Industries Corporation, Small Farmer Development Foundation, and Bangladesh Rural Development Board). In case of this package, 38% was disbursed during 2020-21 and 56% during 2021-22. Here also, the government was responsible to repay 5% of the interest rate and the rest 4% of the interest rate was paid by the loan recipients.

Finally, the target population represents a composition of livelihoods of poor workers, marginalized people, agricultural farmers and also helped revive the businesses of women entrepreneurs, affected CMSMEs, as well as industries and firms. But this study has omitted social safety net programs, a significant component of government incentives, due to their diverse stakeholders and the project's constrained timeframe. Thus, a distinct study can be conducted on social safety nets, given their multifaceted nature. Alternatively, the selected four incentives have also played a role in safeguarding the economic and social well-being of marginalized individuals through job preservation, income generation, and assistance for their lives and livelihoods.

## 1.3 Objectives of the Study

This study is motivated by the imperative need to conduct a comprehensive evaluation of the relation between the economy and fiscal stimulus packages implemented by the GoB during the COVID-19 pandemic. Thus, due to the mentioned rationale in subsection 1.2, the objectives of the study are as follows:

a) To provide an objective assessment of the impact and effectiveness of the fiscal stimulus measures.
b) To understand the linkages between announced fiscal stimulus and the recovery process from the pandemic.
c) To analyze the challenges in the implementation process of stimulus packages.
d) To provide relevant policy and operational recommendations for improving the design and delivery of future stimulus measures.

In order to operationalize these objectives, this study conceptualize the impact and effectiveness of these measures into the following indicators, such as, input impact. process impact, output impact, outcome impact and result impact. Thus, by inducing a quasi-experimental approach in the study, the objectives can be attained by raising the following research questions:

- How did the implemented fiscal stimulus packages result in expected output and whether there were any unintended consequences?
- In what process were the incentive policy measures as inputs translated into outcome?

- What challenges and difficulties were faced during the implementation of these packages?
- What recommendations can be proposed for future policy measures?

After the introduction in Chapter 1, the report is structured with a focused progression: Chapter 2 provides a comprehensive review of existing literature on the topic. Chapter 3 outlines the conceptual framework and research methodology. Findings and analyses are presented in Chapter 4, followed by a concise discussion in Chapter 5. Finally, Chapter 6 offers a conclusion of the present study.

# Chapter 2: Literature Review

Over the years, a large volume of both theoretical and empirical literature on 'Recession' has been found starting from the Great Depression (1929-1939), the South Asian Financial Crisis (1997), Financial Crisis of 2008-2009 and many more (Bernstein, 2001; Goldstein, 1998; Nützenadel, 2021). They show that through various monetary and fiscal policy measures, stability in the economy was revived. Similarly, various evidence on how the whole world from 2019 to 2023, bounced back from the economic shock due to COVID-19 show the aspects of the worldwide and local economic situations, giving a full picture of the difficulties and possibilities nations faced during economic recovery.

Throughout this chapter, the key research on this issue, the methodologies used, the findings and the evaluation of these pieces of literatures are categorized into developed countries, developing or emerging nations and Bangladesh.

## 2.1 Developed Countries

In their study, Giesecke and Schilling (2010) employed a dynamic Computable General Equilibrium (CGE) model to analyze the New Zealand economy. The results indicated that the implemented package had a modest positive impact on short-term employment, yet it came at the expense of long-term real consumption. An alternative package was explored, showing a potential to enhance short-term employment with a similar long-term consumption cost, suggesting avenues for optimizing policy design. However, the study acknowledges the limitations of the CGE model used and underscores the importance of further research employing diverse methodologies and empirical data. Overall, the paper underscores the intricate trade-offs associated with fiscal stimulus packages, emphasizing the need for a nuanced approach that carefully considers both short- and long-term consequences in economic policy design.

Buchheim and Watzinger (2017) investigated the impact of a significant German infrastructure investment program on employment at the county level, particularly its effectiveness as a countercyclical fiscal policy during economic downturns. Using a quasi-experimental design, the researchers leveraged the program's focus on improving school building energy efficiency as an instrument for investment. They compared employment changes in invested counties with control counties using a difference-in-differences approach, controlling for regional trends, economic activity, and pre-existing employment levels. The program significantly boosted employment, with an estimated one job created for every €25,000 invested. However, the study acknowledged limitations, including potential challenges in generalizing findings to other infrastructure programs or economic contexts, the short-lived nature of employment effects, and the specific applicability of using school building investments as an instrument for other infrastructure projects.

Li et al. (2021) tried to explore the profound impact of stimulus payments on the U.S. economy and households worldwide, particularly the low-income people employing a large panel data with DID technique. Their key findings include that stimulus payments elevated the daily average spending in inter-temporal dimension; a net gain was visible after the stimulus payments geospatial dimension; and the stimulus payments significantly increased daily average spending by 25.86% which was mainly attributed to higher spending on non-essentials and durable goods, indicating a boost in demand and potential economic recovery. However, this study relies on aggregate transaction data and does not capture individual-level characteristics or motivations behind spending decisions. (K. Li et al., 2021)

From early 2020 onwards, substantial fiscal and monetary policy measures were introduced in Australian economy to limit the negative economic effects on households and businesses and to support overall economic recovery in general (Chen & Langwasser, 2021). They concluded that the stimulus support in crisis became more effective only when it was delivered in a timely manner.

A few studies also found that the impact was initially higher but later on reduced due to crowding out of private investment. Walmsley et al. ( 2022) studied the impact of the fiscal stimulus support provided on the US economy and found that initially the stimulus support helped in boosting GDP, investment, and exports. However, later on, due to the "crowding out" effect, the impact was not as large as that of initial disbursement. The study used a combination of econometric techniques, including quasi-experimental designs and structural vector auto regressions (SVARs), to isolate the causal effects of the stimulus measures from other economic factors and analyzed detailed data on government spending, economic activity, household incomes, and labor market outcomes in order to come to this conclusion.

Narayanan et al. (2021) studied the economic impact of fiscal stimulus on COVID-19 for the economies of Oceania. The study used applied general equilibrium (AGE) model incorporating detailed information on production, consumption, and trade in the economies of Australia and New Zealand, and found that the fiscal stimulus support has improved the situation from becoming much worse. However, the fiscal support was found to be inadequate to deter unemployment in sectors such as tourism and education. Fishing, meat and meat products were comparatively in a good position upon receivable of the stimulus support. The dairy sector of New Zealand experienced a significant boost through the fiscal support. But as the AGE model relies on a number of simplifying assumptions about economic behavior, it could not fully capture the complexity of pandemic-related economic shocks (Narayanan et al., 2021).

A study analyzed the impact of COVID-19 stimulus package on Germany economy (Hinterlang et al., 2021). The study utilized a dynamic New Keynesian multi-sector general equilibrium model to simulate the German economy, comparing scenarios with and without a fiscal stimulus package. The study reported that the effect was above average for sectors such as manufacturing and energy while the effect was found to be below average for a number of service sectors such as IT & communication, and

professional, scientific and technical services. Notably, consumption tax cuts and household transfers were identified as particularly effective in stabilizing private consumption and preventing firm defaults. Public investment in productivity-enhancing infrastructure had a substantial long-term multiplier effect, although it took longer to materialize. However, the study acknowledges potential limitations due to the complexity of the economic model and its inherent assumptions (Hinterlang et al., 2021).

## 2.2 Developing & Emerging Countries

Studies carried out in Malaysia and Pakistan showed the role of microfinance and training on sustainability in the disaster context using a structural equation model. This took into account micro-training and social capital as moderators with the key independent variable being environmental disaster and the dependent variable being Women Micro Enterprise Sustainability. The training and additional credit allowed micro-entrepreneurs especially women to prepare for environmental disasters as well as take an active part in the recovery process (Kot & Imran, 2019).

Another such study conducted in Pakistan proved the same conclusion; microfinance institutions enable sustainability to women entrepreneurs especially where unbanked and under-privileged populations exist (Hameed et al., 2022). The study similarly used environmental disasters as a moderator however, included three other microfinance-related variables: savings, insurance and credit. Both studies were cross-sectional in nature and used Likert scales in order to construct the variables used. Even though, significant positive correlation was shown between microfinance-services (e.g., micro-credit, micro-savings, micro-insurance, micro-training, and social capital) on the self-sustainability of women, it failed to show the social and economic conditions of women entrepreneurs. (Hameed et al., 2022)

An evaluation of microfinance's impact on women's empowerment was also conducted in Pakistan. The paper consisted of 670 respondents and used both ordinary least squares as well as propensity score matching to assess the multidimensional poverty levels of recipients and non-recipients. The study comprehensively proved that women with access to microfinance have better welfare overall compared to those who don’t. (Halimatussadiah et al., 2020)

Aside from quantitative approaches, studies have also been carried out qualitatively in order to investigate more nuanced aspects of microfinance programs. A study using semi-structured interviews with Indian women who received microcredit showed that the loans aided in their empowerment (Swazan & Das, 2022). Another study conducted in Akhuwat, Pakistan also found that microfinance aided in women's empowerment. The study not only interviewed beneficiaries but also managers and officials in order to assess causal linkages between empowerment and microfinance (Khan et al., 2021).

In their study, Nurheryanti et al. (2021) used an input-output analysis (IOA) model to understand how goods and services move between different sectors in the Indonesian economy. They considered data

on government spending, sector-specific output levels, and employment figures. The analysis focused on the changes in output and labor income in various sectors after introducing fiscal stimulus packages. The findings indicated that the stimulus packages had a positive but modest impact on overall economic output and labor income. Sectors like agriculture, processing industry, wholesale and retail trade, and car and motorcycle repair benefited the most in terms of output growth. However, the impact on labor income was less significant, with only some sectors seeing substantial job creation. The study highlighted challenges like bureaucratic delays, uneven resource distribution, and pre-existing structural issues in the economy that limited the effectiveness of the stimulus measures.

The study by Prusty et al. (2021) conducted a web-based survey involving 250 stakeholders from India, including academics, entrepreneurs, and industry experts. It employed confirmatory factor analysis to validate constructs related to monetary and fiscal stimulus measures. Using structural equation modeling, the research analyzed how different stimulus measures impact economic recovery, as perceived by the surveyed stakeholders.

Overall, the study revealed a positive perception among stakeholders regarding the potential of the stimulus package to boost economic recovery. Monetary policy measures, such as loan restructuring and liquidity infusion, were viewed as having the most significant impact on reviving businesses and job creation. However, concerns were raised about the efficiency and reach of government spending due to bureaucratic hurdles and uneven distribution of benefits. The research also identified the need for targeted interventions in specific sectors like tourism and hospitality, which were disproportionately affected by the pandemic. However, the study relied on subjective self-reported perceptions of stakeholders, which could not fully capture the objective economic impact of the stimulus measures. The research focuses on macro-level perceptions and does not delve into the distributional effects on different income groups or vulnerable segments of the population.

## 2.3 Scenario of Bangladesh

Similar to the other countries, in response of the policy measures in Bangladesh during the pandemic, many literatures tried to explain the scenarios and mechanism of how the economy started to revive. The research by Lalon (2020) aimed to explore the potential economic consequences of the COVID-19 pandemic in Bangladesh, highlighting the government and stakeholder initiatives to counter the looming economic challenges. Using a descriptive analysis based on reports and secondary data, the study provided insights into the economic impacts of the pandemic in Bangladesh and examined the policies implemented to recover the economy. Notably, the research revealed that the study did not find evidence of economic impact from the fiscal stimulus package, pointing to areas that may require further investigation or consideration in the literature on the economic effects of pandemic responses.

Moreover, Khatun and Saadat (2021) analyzed the announced stimulus packages by the government from a gender perspective and tried to identify ways to strengthen government stimulus measures to

stimulate women's economic empowerment. The assessment of measures undertaken by the government for women was made by both quantitative analysis using secondary data and qualitative analysis using primary data collected through KII and FGD. The findings of the study revealed that the COVID-19 pandemic disproportionately affected women and girls more than men and boys. While 88 per cent of women entrepreneurs continued their business operations, 13 percent had to shut down. Among women entrepreneurs, 62 percent did not terminate employees, but 37 percent had to lay off their workforce. A significant portion (22.6 percent) reduced employee wages by less than 25 percent, and 47 percent did not reduce salaries at all. Unfortunately, the majority of women did not benefit from credit support.

The research by Alam et al. (2020) aimed to evaluate Bangladesh's fiscal response to the COVID-19 pandemic, with a specific focus on analyzing annual budget adjustments in direct tax policies. The objectives included providing policy recommendations for the country's economy. The methodology employed was descriptive in nature, relying on various reports and secondary data. The findings of the study involved analyzing and evaluating the Bangladesh Government's fiscal policy response to the pandemic and assessing the probable impact of budgetary changes in direct tax policies through annual budgets. However, a research gap was identified as the study did not analyze any significant impact, suggesting a need for further investigation or consideration of additional factors in understanding the outcomes of Bangladesh's fiscal response to COVID-19.

In the global scenario, many studies have showed various socio-economic impacts of stimulus packages taken in different countries during different shocks. Most of the studies have used various relevant quantitative and qualitative methods to assess the impacts of those stimulus measures on different factors that keep the economy running. But in Bangladesh, there is almost no study that have significantly analyzed the impacts of stimulus packages taken by the Government of Bangladesh during Covid-19 pandemic. Most of the studies have descriptively analyzed the importance of the packages during that time, and only a few looked at one or two parts of it.

Put simply, while there has been extensive discussion regarding economic support plans, there is a lack of thorough examination of how these plans truly impact the intended beneficiaries. Therefore, acknowledging the primary research gap of insufficient studies in this area, a study is important to assess the impacts of the packages on the targeted areas and people. Both quantitative and qualitative analysis is necessary using primary data set,

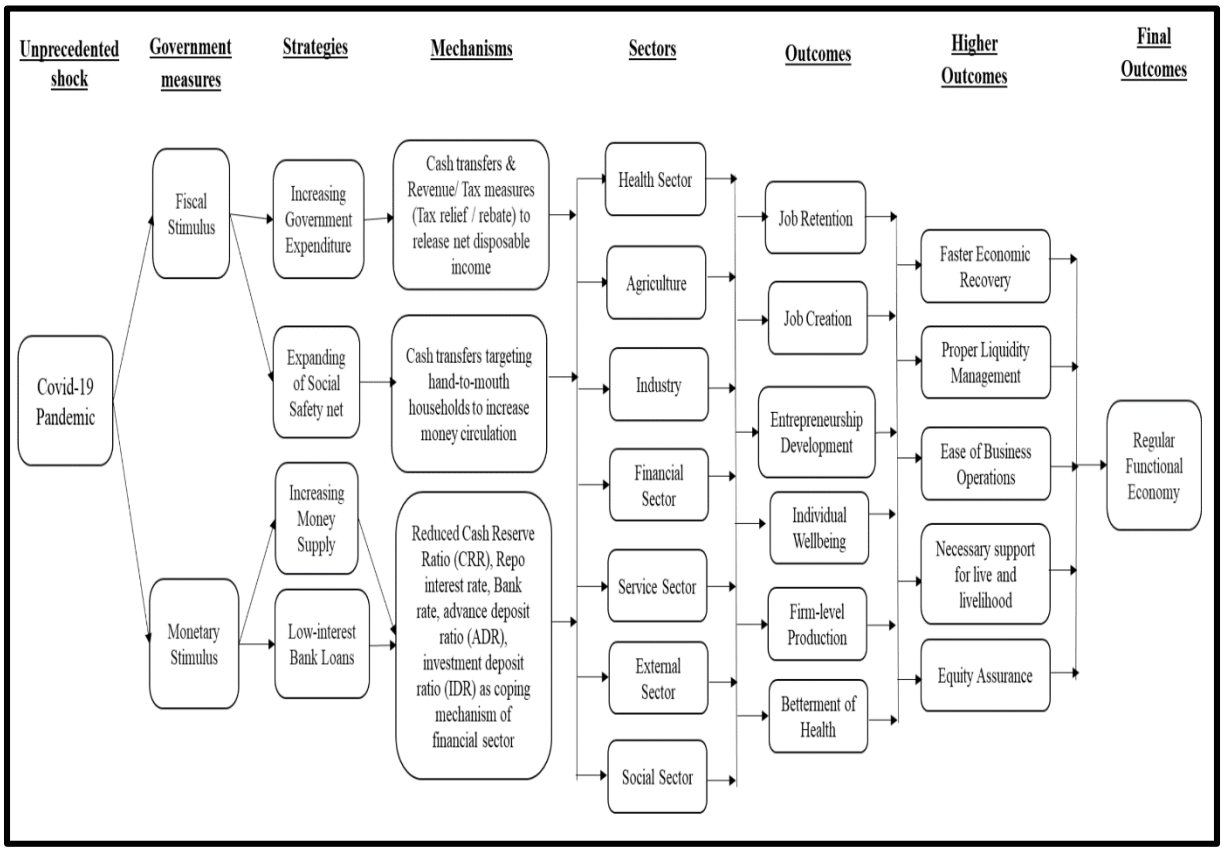
so that a clear and unbiased result can be found from that study. Moreover, this data set will be useful for further implementation of stimulus measures in case of similar shocks in future.

# Chapter 3: Conceptual Framework & Methodology

## 3.1 Conceptual Framework

With the aim to address the economic fallout caused by the COVID-19 crisis and the pressing need for recovery, the Government of Bangladesh (GoB) has swiftly designed a comprehensive plan consisting of fiscal and monetary stimulus measures with four strategies for restructuring key sectors in the short, medium, and long term (Ministry of Finance, 2020). For this study, to assess the impact of the incentive packages along with finding the challenges of implementing these measures and the policy implications thereof, the following conceptual framework is developed (illustrated in Figure 3.1).

**Figure 3.1 Conceptual Framework**




Source: Developed by the Authors

The Framework shows within the Fiscal Stimulus package, the government pursues two distinct strategies. Firstly, it emphasizes supplementing Government Expenditure through the implementation of Revenue/Tax Measures to release net disposable income. Secondly, expanding the Social Safety Net, which involves Cash Transfers directed at poor households to enhance monetized demand.

In tandem, Monetary Stimulus incorporates two strategies: Increasing Money Supply and providing Low-Interest Bank Loans, which are executed through the mechanisms of reduced Cash Reserve Ratio

(CRR), Repo Interest Rate, Bank Rate, and enhanced Advance Deposit Ratio (ADR), and Investment Deposit Ratio (IDR) to offer crucial financial support[13]. Later to tackle the rising inflation, the repo rate was raised to 6.5% and then to 7.25% in 2023, but the cash-reserve ratio is kept unchanged at 4.5%, and the bank rate at 4% and the rate of interest for classified loans have been limited to single digit to promote the productive sector and enhance international competitiveness (Finance Division, 2023).

The strategies, through their respective mechanisms, collectively serve for the enhancement of the key sectors, including health, agriculture, industry, finance, services, and social, as well as the external sector. The anticipated outcomes of implementing these measures include Job Retention, Job Creation, Entrepreneurship Development, Firm-Level Production, Better Health and Individual Well-being.

The outcomes are expected to fulfill the broader national goals such as Faster Economic Recovery, Proper Liquidity Management, Ease of Business Operations, Necessary Support for Life and Livelihood, and Equity Assurance. Ultimately, the culmination of these outcomes will result in a Regular Functional Economy.

## 3.2 Methodology

### 3.2.1 Nature of Research Method

Conceptually, this study is a micro study and has used a mixed method approach to assess the impact of the selected packages, along with looking at the implementation process and finding the challenges. Both quantitative and qualitative methods were employed. The study targeted not only beneficiaries but also experts in the sectors, professionals affiliated with the implementation, and academics/researchers. The study also tried to figure out the challenges faced during the implementation of the packages and provide relevant policy recommendations for improving the design, planning, and implementation of similar initiatives for future similar shocks.

### 3.2.2 Data Collection Method

Primary study analysis was done for all of the four packages. For quantitative analysis, we collected data using a structured survey questionnaire, which was developed to focus on the target population for each package. Qualitative insights were obtained through key-informant interviews (KIIs). But for the study of **'Revitalizing the rural economy and job creation,'** we have also used focused group

[13] From the early months of the pandemic, to tackle the situation and support the operations of financial institutions, the repo rate was lowered to 5.75% from 6% in March 2020 and further reduced to 4.75% from 5.25% in July 2020, as well as the reverse repo rate was re-fixed at 4.00% from 4.75%[13]. The Cash Reserve Ratio (CRR) was reduced from 5.0% to 4.5% (daily basis) and from 5.5% to 5.0% (bi-weekly basis) and again reduced to 3.5% and 4 % respectively from April 15, 2020 (Sarwar, 2021). At the same time, the Advance Deposit Ratio (ADR) was raised from 85% to 87%, and the Investment Deposit Ratio (IDR) from 90% to 92%.

discussion (FGD) to collect data from the respondents. A mail-based survey was conducted for data collection from large industries and service sector enterprises for the package '**Working capital loan for Industries and Service Sectors**'. For the other three packages, a sample survey was conducted using Kobo Toolbox software for data collection to enhance data accuracy and quality. The enumerators who collected primary data were trained extensively with both the survey questionnaire and the tablet-based application.

Using cluster sampling for **'Salary support for export-oriented industries workers',** 1479 RMG workers were included in the sample population as beneficiaries. Moreover, 585 CMSMEs were included in multistage cluster sampling for the package, '**Working Capital Loans for the Cottage, Micro, Small and Medium Enterprises'.** Similarly, using stratified cluster sampling, at first a total of 8 publicly owned institutes were approached, out of which the data for 5 institutes were collected which comprised of 744 beneficiaries.

For quantitative analysis, in the three packages, we have a significant number of observations for getting unbiased results except for the package '**Working capital loan for industries and Service Sectors',** we could not collect a significant number of data as among the selected 128 industries and service enterprises, only 30 industries and service enterprises provided necessary financial information.

For qualitative analysis, key-informant interviews (KIIs) were conducted with relevant stakeholders and experts for all packages. Besides, for the package '**Revitalizing the rural economy and job creation'**, key-informant interviews (KIIs) were conducted with the administrators directly responsible for the stimulus disbursal and intermediaries too. In addition, three focus group discussions were conducted with beneficiaries from Joyeeta Foundation, Bangladesh NGO Foundation, and Social Development Foundation, and the semi-structured interview also took place with a beneficiary from Social Development Foundation. We have collected 12 KIIs for the three packages except for the package '**Working capital loan for industries and Service Sectors',** for which we have collected 8 KIIs. After collecting 8 key-informant interviews, we analyzed and found that almost all the KIIs gave similar responses to respective packages. So, we stopped collecting KIIs further as it reached the saturation level. Following the interviews and key-informant interviews (KIIs), transcripts were promptly transcribed for analysis. These transcripts underwent a thematic analysis process for each of the packages.

### 3.2.3 Quasi-Experimental Approaches

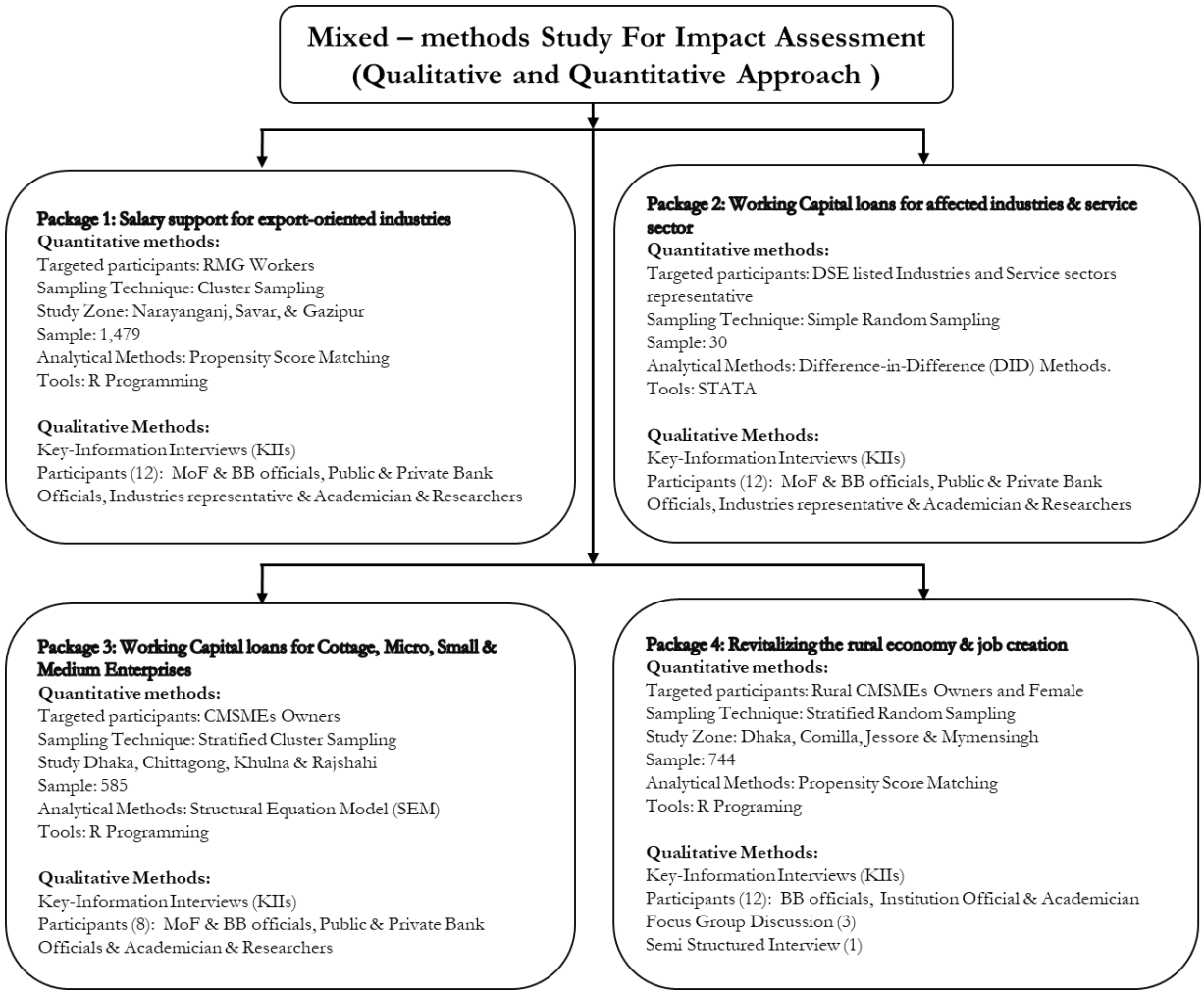
Along with a qualitative study, a quasi-experimental study was employed to estimate the impact of the selected stimulus packages. For **'Salary support for export-oriented industries workers'** and **'Revitalizing the rural economy and job creation'** packages, *the Propensity Score Matching (PSM)*[14]

[14] The details of Propensity Score Matching (PSM) is in Annex C

was used in the quantitative analysis. The critical issue for evaluating the impact/effectiveness of fiscal stimulus on socio-economic variables is handling selection bias, and the PSM method reduces that bias in the estimation of treated effects, hence becoming an increasingly popular technique to evaluate different economic policy interventions (Becker & Ichino, 2002). Therefore, for these packages, the propensity score matching was used in the evaluation. For the package **'Working Capital Loan for Industries and Service Sectors',** two quantitative techniques, *Difference-in-Difference (DID)* and the *Purchasing Manager's Index (PMI),*[15] have been used to estimate the difference between the changes over time for the two groups (receiver vs non-receivers). Finally, for '**Working Capital Loans for the Cottage, Micro, Small and Medium Enterprises'**, we used the *Structural Equation Model (SEM)* as it analyzes the causal relationship between variables in a structured way.

The detailed methodology of the study is summarized in Figure 3.2.

**Figure 3.2 Methodological details of the study**




Source: Developed by Authors.

[15] The details of purchasing manager's index is given in Annex C

### 3.3.4 Linking the Objectives of the Selected Measures to the Specific Techniques of Analysis

With an objective of assessing the impact of the package **'Salary support for export-oriented industries',** on the socio-economic conditions of the beneficiary workers**,** information on RMG workers' welfare aspects, including economic, health, psychological, and social domains, was collected using structured survey questionnaire[16]. RMG workers' perception on welfare aspects were measured using a 5-point Likert scale. The descriptive analysis of the quantitative variables is described as frequencies and percentages. The bi-variate analysis between the qualitative variables was done by the Chi-squared test. Finally, average treatment effect (ATE) of propensity score matched observations is calculated to measure the impact of stimulus package on well-being of the RMG workers.

In qualitative analysis, the transcripts of KIIs underwent a thematic analysis process, during which they were systematically organized into four primary thematic areas: planning and implementation, challenges faced during the pandemic, experience of the stimulus package, and opinions for the moving forward.

For the package **'Working capital loan for industries and Service Sectors',** the intended objective was to assess the impact of the working capital loan on industries and service sectors by analyzing the business revival scenario of the beneficiaries. For evaluating the impact, we used two quantitative techniques, Difference-in-Difference and the purchasing manager's index (Zeldow & Hatfield, 2021). DID method has been used as it is based on subtracting the changes from before intervention outcome to the intervention outcome for the control group (stimulus-non-receiver) from the changes from before intervention to after intervention for the treatment group (stimulus-receiver). Total Asset, Profitability, Debt, and Employment scenario has been considered in case of comparison. Purchasing Managers' Index (PMI) has been used to compare the business performances among pre-COVID scenario, COVID scenario, and business revival scenario based on the specific well-structured questionnaire. The PMI along with the DID analysis provides a comprehensive picture on the business recovery situation of the entities during and after the pandemic.

The aim of studying the package **'Working Capital Loans for the Cottage, Micro, Small and Medium Enterprises' (CMSMEs)**, was to determine the potential impact of the covid-19 working capital loan for CMSMEs by examining Knowledge, Access, Production, Delivery, and Employability. To meet the objective, we used the Structural Equation Model (SEM) as it provides a comprehensive framework for analyzing the interplay between variables and assessing causal links in a structured manner. SEM is a versatile approach that accommodates complex relationships often encountered in

[16] A detailed questionnaire of each package is provided in Annex D.

behavioral and financial activities. These methodological choices were made with the aim of enhancing the credibility and robustness of the research findings, ultimately providing a comprehensive understanding of the stimulus package's impact on the selected components. Based on the literature review as well as the constructed hypotheses[17], five components were chosen to understand the efficacy and impact of the financial stimulus package.

In the qualitative analysis, the transcripts underwent a thematic analysis process, during which the information was systematically organized into several thematic areas: knowledge, access, production, delivery and employment, as well as challenges and issues.

For the package, **'Revitalizing the rural economy and job creation' packages',** the objective was to evaluate the influence of micro credit stimulus package on marginal people and women entrepreneurs' socio-economic and health related aspects as well as understanding the challenges during the implementation of the package. For the study, the descriptive analysis of the quantitative variables was described as frequencies and percentages, and for quantitative variables, means and standard deviations are provided. The bi-variate analysis between the qualitative variables was done by the Chi-squared test. Finally, average treatment effect (ATE) of propensity score matched observations was calculated to measure the impact of stimulus package on well-being of the marginal people and women entrepreneurs, where the marginal people and women entrepreneurs who received the micro-credit loan constituted the treatment group and those who did not receive constituted the control group.

The qualitative study looked into 7 institutions[18]. The sample was selected considering the two basic principles of selecting a study-participant: (i) Maximum variation (participants were picked from different institutions, professions and of different genders however, all were recipients of the stimulus package); (ii) Iterative process (some participants from the FGDs were re-interviewed afterward in order to gather more accurate and nuanced knowledge of the situation).

These methodologies[19] allowed the study to comprehensively evaluate the impact of stimulus packages from various angles, including quantitative measurements and qualitative assessments, providing an overall understanding of their effectiveness, and the challenges each of these packages faced during implementation.

[17] The hypotheses developed for the analysis of working capital loans for CMSMEs are given in Annex C
[18] Bangladesh Small and Cottage Industries Corporation (BSCIC) could not take part in the Key Informant Interviews
[19] A detailed description of the methodology of each package is provided in Annex C for all packages.

# Chapter 4: Findings and Analysis

This study is a micro study. To find the impact of the incentive packages declared by the government of Bangladesh to rescue the economy from the deep socio-economic downturn and concomitant challenges faced in implementing the stimulus packages, the study has looked into 4 (four) key policy measures. That is why the findings and analyses are presented package-wise.

## 4.1 Package: Salary Support for Export-oriented RMG Sectors

The basic terms of reference for this incentive stated that it could only be used to pay the wages and benefits of workers and staff in export-oriented RMG industries. COVID-19 presented a double-edged sword for the RMG industries because, while 98.1% of customers were unconcerned about the illegal wage loss of manufacturing workers, 50% of buyers canceled orders that were either in the production process or had already been finished (Anner, 2020).

As already pointed out in the Methodology Chapter, a mixed-method study approach was employed to analyze the impact of the stimulus support program on export-oriented workers. The quantitative part has been employed to assess export-oriented RMG workers' household well-being. Whereas the qualitative component of the study focused on understanding how the program aided recipients and assessed its effectiveness. Moreover, the qualitative part also addresses the challenges and provides suggestions for program improvement in future if it is needed.

### 4.1.1 Overview of survey respondents

This sub-section presents the descriptive results of the study focusing on the respondents' gender, age, education, marital status, types of job, mode of salary support receivable, residence during the pandemic, infection status, loan, savings, ability to family support and use of Covid-19 hygiene safety kit.[20] The gender composition of this survey is 35.56% male and 64.44% female. More than one-third of respondents (67.21%) were above 25 years old; more than 71% of respondents had completed school-level education, but around 22% were illiterate. 90.13% of respondents were married, and around one-third of respondents (74.47%) received their salary via Mobile Financial Service (MFS) among the salary support receivers. Around 90% resided in urban areas during COVID-19, 39.62% agreed that they had taken a loan to survive, the rate of COVID-19 infection is negligible (1.28%), 60.38% consented that the COVID-19 hygiene safety kit was provided to them by their factories. More than

[20] The detailed Percentage distribution of RMG workers by selected demographic and economic characteristics is in table A2 of Annex A

three-fourth (82.33%) of respondents opined that they were unable to support their extended family during Covid-19.

The general characteristics before and after matching were also examined. Of the total RMG workers, 327 (33.2%) Male, and 658 (66.8%) Female RMG workers were selected from the Stimulus package receiver group. Between the two groups, there were differences in Age, Marital Status, Monthly income, place of residence, loan, and hygiene safety kit provided by the factory. After propensity score matching, no significant differences were found between the two groups for the matched covariates.[21]

### 4.1.2 Impact of salary support on economic, health, social, and psychological aspects during Covid-19

Table 4.1 represents the average treatment effects (ATE) estimates of receiving salary support on a set of various economic, health, social & psychological outcomes (consumption, loan taking and savings behavior).[22]

**Table 4.1 Impact on economic, health, social, and psychological aspects**

| | Outcome variables | Coefficient (ATE) | Standard error | Z-statistics | P-Value |
|---|---|---|---|---|---|
| **Economic Impact** | Regular rent payment | 0.45 | 0.08 | 5.52 | <0.001 |
| | Regular electricity bill payment | 0.37 | 0.07 | 5.29 | <0.001 |
| | Regular gas bills payment | 0.36 | 0.07 | 5.41 | <0.001 |
| | Regular water bill payment | 0.35 | 0.07 | 5.4 | <0.001 |
| | Timely internet bill payment | 0.30 | 0.06 | 4.83 | <0.001 |
| | Regular payment for children's education | 0.07 | 0.03 | 2.72 | 0.007 |
| | Loan taken | -0.09 | 0.03 | -2.99 | 0.003 |
| | The ability of month-end savings | 0.04 | 0.02 | 1.74 | 0.083 |
| | Curtailed expenses on food products | -0.28 | 0.05 | -5.16 | <0.001 |
| | Curtailed expenses on non-food products | -0.21 | 0.0 | -3.94 | <0.001 |
| **Health Impact** | Regular payment of healthcare bills | 0.28 | 0.06 | 4.39 | <0.001 |
| | Capacity for purchasing masks | 0.14 | 0.05 | 2.71 | 0.007 |
| | Capacity for purchasing sanitizer | 0.49 | 0.07 | 6.89 | <0.001 |
| | Capacity for purchasing hand washing materials | 0.51 | 0.07 | 7.29 | <0.001 |
| **Social & Psychological Impact** | Improvement in mental well-being due to salary support | 0.13 | 0.05 | 2.78 | 0.005 |
| | Salary support provided motivation to work for the industry | 0.37 | 0.06 | 6.56 | <0.001 |
| | Less frequent conflict at home | 0.09 | 0.04 | 2.18 | 0.029 |
| | Reduction in social vulnerability | 0.14 | 0.05 | 2.91 | 0.004 |
| | Ability to support extended family during COVID-19 | 0.10 | 0.03 | 3.94 | <0.001 |

Source: Author's calculation; Stimulus Package Field Survey, 2023.

[21] The details of the distribution of the respondents by selected demographic variables before and after propensity score matching is in Table A3 of Annex A.

[22] Outcomes from Propensity Score Matching (PSM)

### A. Economic Impact

In the case of economic impact, this study found a significant impact on almost all of the outcome variables, including food consumption, non-food consumption, rent payment, utility payment, education expenses, need for loans, savings, and so on. The ATE coefficients value indicate that there is a positive and statistically significant difference between the control and treatment groups in terms of all expenditure categories, like rent payment, utility payment, and education expenses. Thus, this positive impact suggests that salary support has contributed to individuals' ability to meet regular financial obligations, resulting in stability in economic activities. The mean agreement level of curtailed expenses on food and non-food consumption shows negative and statistically significant differences between the treatment and control groups. This outcome leads us to conclude that RMG workers of the treatment group spent more in their household's consumption – of both food and non-food goods, than the control group. Hence, the salary support to RMG workers significantly increases the monetary consumption of the treatment group respondents compared to the control group. Although the mean agreement level relevant to taking loans of the control group is a little (-0.09) higher than the treatment one, the mean agreement level for savings of the treatment individual is slightly (0.04) higher than the control one. Because of the pandemic, it was hard for general people to foster their saving behavior (Table 4.1).

### B. Health Impact

In the case of health impact, this study found the positive effects of salary support on various health-related aspects. Positive coefficients in variables like "Regular Payment of Healthcare Bills" indicate an increased capacity to cover healthcare expenses, emphasizing the role of financial stability in promoting better health outcomes. Additionally, the positive coefficients in variables such as "Capacity for Purchasing Sanitizer" and "Capacity for Purchasing Hand Washing Materials" signify an enhanced ability to afford essential health supplies, contributing to improved hygiene practices. This reinforces the idea that salary support not only addresses economic concerns but also plays a pivotal role in safeguarding individuals' health during a health crisis like the COVID-19 pandemic (Table 4.1).

### C. Psychological and Social Impact

In the case of psychological and social impact, this study found that mental well-being, work motivation, less conflict at home, and ability to support extended family reveal a positive and significant impact (see Table 4.1). The findings indicate that the average agreement level regarding mental health, home conflict, vulnerability, and ability to support an extended family of salary incentive receiver household is around 0.13, 0.37, 0.09, 0.14, and 0.10 units, respectively, higher than those who did not receive it. In sum, salary support to export-oriented industries significantly improves the psychological and social outcomes of incentive receivers more than non-receivers. Moreover, the robustness of the outcomes is also checked by employing different matching methods through the comparison of their

ATE.[23] The ATE's results of the matching methods are very close in terms of estimate, sign, and statistical significance for all outcome categories. To conclude, salary support to the export-oriented sector through government fiscal stimulus increased economic welfare, eased healthcare access, and secured psychological and social benefits that contributed to the overall well-being of export-oriented industry workers.

### 4.1.3 Implementation Challenges While Providing Salary Support

In this sub-section, the study analyzed the qualitative data from the transcripts of key-informant interviews (KIIs) using thematic analysis technique. Through the thematic analysis process, this study developed four themes representing challenges in implementing salary support program. The themes include: *planning and implementation, challenges faced during the pandemic, experience of the stimulus package, and opinions for moving forward*[24].

The special funds to the export-oriented industries were provided digitally to the workers through mobile financial service (MFS) accounts or bank accounts. Some workers did not have any MFS/bank account, so how they got the support was a challenge initially. Besides, lockdown restrictions were another challenge to implement this package. To solve this issue, the commercial banks adopted the 'know-your-customer (KYC)' policy, which facilitated mass account opening as factories directly shared the identification information of the workers with the MFS providers. The loan application process was easy, but RMG factory officials struggled to prepare the documents that were needed to submit the application. A KII[25] participant stated that:

> *"The loan disbursement process was somewhat challenging amid the lockdown restrictions, but the program was largely successful. Bangladesh Bank (BB) relaxed the guidelines for opening MFS accounts for the workers. Workers not having any NID were also allowed to create MFS accounts through the KYC process. The absence of proper recording of worker's information by the factories became transparent, but they faced difficulties reaching the workers due to the lockdown restrictions and factory shutdown while implementing the disbursement program. As a result, the disbursement process took additional time and ultimately resulted in a delay in payment of worker's salary in some instances."*

Another KII participant mentioned some of the issues regarding factories applying for the loan:

[23] The figure of the robustness checked of the outputs by employing different matching methods through the comparison of their ATE is in Figure A1 of Annex A
[24] The key-informant interviews were conducted with a total 13 interviewees and the details are shown in the table A4 of annex A
[25] KIIs from public and privet sector Bank Officials

> "*Bangladesh Bank carried out special inspections to monitor the disbursement process. Some industries had their own resources to pay the employees, but even then, they applied for the loan amount. A few offenses were observed in applying for the loans, such as misreporting in terms of the number of total workers and worker's identification information."*

Commercial banks also faced difficulties while disbursing the loans within a very short time period because it was difficult to verify all the required documents and their capacity for repayment. At the same time, the banks had to bear all the risks while providing the loans.

A KII participant stated that:

> "*The implementation of disbursing the loans was left to the commercial banks. Banks have to bear all kinds of risks while providing loans. Disbursement of loans within such a short period made it difficult for banks to exercise proper verification as regards examining repayment capacity*."

Public commercial banks also faced issues while disbursing the loans. A KII participant reported that:

> "*The salary support program benefitted the targeted beneficiaries. Demand was too high for the loan package. Within two months, this fund was almost exhausted, and BB ordered the use of the working capital loan fund for further salary payment. The key challenge for the program was selecting the beneficiaries by evaluating their status. Banks were asked to introduce roster duty, and only a small portion of the employees could come to the office. Therefore, there was a manpower shortage, and it impeded the field-level inspection of companies. As a result, banks in most cases depended on reported documents for scrutinizing*."

Another KII participant also added that:

> "*There were instances that companies sent the list of workers which included officials. As regards the repayment issue, banks had to return the principal amount to BB even if the customers didn't pay the principal amount and service charges to the commercial banks. This created a challenge for the commercial banks in disbursing loans*."

Factories expressed their content with the stimulus support. They also found the disbursement process to be smooth. A KII[26] participant reported that:

> "*Factories didn't face any major difficulties or additional financial expenses while receiving the loan."*

[26] KIIs form export-oriented industries representatives.

Another participant from KII[27] stated that:

*"The salary support was badly needed amid the pandemic as factories were closed and workers didn't receive their salary. This support helped many people to avoid re-entering poverty and increased access to finance for them, which will have a positive long-run impact. Providing the salary also ensured the return of the employees to their respective companies once lockdown restrictions were lifted and they could start their operation.".*

The analysis of both quantitative and qualitative data reveals the significant positive impact of the salary incentive provided to export-oriented RMG industries in Bangladesh as part of the government's fiscal stimulus during the COVID-19 pandemic. Quantitatively, the salary incentive receivers exhibited substantial improvements in various economic indicators, including food and non-food consumption, rent and utility payments, education expenses, and savings. The robustness of the findings is supported by the consistency across different matching methods. Furthermore, the qualitative analysis delves into the implementation challenges faced, such as digital disbursement and lockdown restrictions, and how they were addressed, indicating the effectiveness of the measures taken. Both factory officials and external experts expressed satisfaction with the support, emphasizing its crucial role in preventing economic hardships, supporting mental well-being, and facilitating a smooth return to normalcy for both workers and industries. The combined evidence suggests that the salary support contributed significantly to economic welfare, healthcare access, and psychological and social well-being, highlighting the success of the government's fiscal stimulus in mitigating the adverse effects of the pandemic on export-oriented RMG industry workers in Bangladesh.

## 4.2 Package: Working capital loan to Affected industries and Service Sectors

When the initial shock of the COVID-19 pandemic on industries and service sector was severe, the Government of Bangladesh implemented recovery strategies and introduced stimulus packages, policy measures, and support for industries to promote recovery. The purpose of the study was to examine the effectiveness of Working Capital Loans to Affected industries and Service Sectors in sustaining industries during the challenging times of the COVID-19 pandemic. To evaluate the impact, this study used both quantitative and qualitative methods.

### 4.2.1 Overview of the survey respondents

To better understand the pandemic's impact on the industry and service sector, a survey was conducted. Difficulties were faced by these firms in many sectors.[28] During the production process, 65.4 % of the

[27] KIIs from Senior researcher and academician.

[28] The detailed overview of difficulties faced by firms due to the Pandemic is given in table A5 of Annex A

firms stated that they faced low demand, while 57.7% reported that they faced a shortage of inventory. Reduced orders were the most common issue reported by the surveyed enterprises. More than 60 % of the firms had supply delays. They faced problems in shipping goods, and distribution channels were disturbed. Due to lockdown restrictions, the stock of raw materials was low. A number of firms (30.8 %) reported that they had higher stocks of finished goods, which they couldn't deliver due to movement restrictions.

Among the surveyed firms, more than half of the respondents reported that they faced difficulties in providing wages to the employees, and a significant portion (53.8 %) of the workers went to their homes/villages. Most (84.6 %) of the enterprises stated that they faced difficulties in paying their outstanding loans. Their production cost increased due to the hike in the cost of raw materials. Firms also faced a hike in their distribution, freight, and operational costs. More than half (53.8 %) of the firms struggled to meet fixed-cost payments such as rent and insurance. More than one-third (34.6 %) of the respondents faced difficulties in paying invoices. A significant portion (84.6 %) of the firms reported that they faced a shortage of cash flows. Nearly half (46.2 %) of the organizations had a deficiency of workers.

The survey findings corroborate that the pandemic had a significant adverse impact on business activities, and the enterprises were struggling to keep their business running.

### 4.2.2 Impact of Working Capital Loans on Affected Industries

Government of Bangladesh played a very crucial role in this regard by pursuing a prudent fiscal policy, and despite all these challenges, the economy started to bounce back. On April 5, 2020, this stimulus package worth BDT 300 billion was declared for the affected organizations in the industrial and service sectors, which was increased to BDT 1030 billion. The objective of the loan was to revive economic activities, continue workers and staff in their work, and maintain the competitiveness of the entrepreneurs through the operationalization of the enterprises.

**Table 4.2 Difference-in-difference estimates of the business performance upon receiving the stimulus support.**

| Dependent Variable | Coefficient | *t*-value | P-value |
|---|---|---|---|
| Total asset (in billion BDT) | 2.63 | 0.18 | 0.18 |
| Return on asset | 0.74 | 1.07 | 0.29 |
| Debt-to-equity ratio | -0.61 | -0.89 | 0.39 |
| Net profit before tax (in billion BDT) | 0.28 | 2.58 | 0.02 |
| Net profit after tax (in billion BDT) | 0.19 | 2.97 | 0.00 |
| Number of employees | 189.78 | 1.63 | 0.12 |
| Earnings per share | 1.52 | 1.44 | 0.17 |

Note: t-value = Value of t statistics; Source: Author's calculation; Stimulus Package Field Survey, 2023.

Here, from Table 4.2, we see that the stimulus support's impact on net profit (before and after tax) is positive and significant at a less than 5% level of significance. Total assets, number of employees, and earnings per share have positive coefficients and statistically significant at a less than 20% of level of significance. The intervention's impact on return to asset and debt-to-equity ratio are not significant even at a 20% level of significance. The stimulus support receivers have recorded higher net profits (both before and after-tax). This scenario depicts those enterprises that have used the funds to operationalize their businesses, increase production, and enhance output levels.

We observe that earnings per share has increased for the treatment group compared to the control group. This means that the enterprises receiving the stimulus support recorded higher profits and thus experienced an increase in earnings per share. In our analysis, the employment scenario reflects the positive impact of the stimulus support. Due to the stimulus support, enterprises also did not retrench their employees.

However, the intervention's impact on other performance variables is not significant. This can be explained by the fact that the sample size is small here, which impacts the power to detect the interaction. It is observed that the difference between the treatment and control groups is significant if we could increase the sample size (Andrade, 2020; Faber & Fonseca, 2014). Therefore, we can say that the other remaining variables (return on asset and debt-to-equity ratio) were also impacted positively by the intervention, i.e., stimulus support.

For the same reasons of generating more revenue and profits through higher financial resources, we observe return on asset is higher for the treatment group compared to the control group. The impact of the intervention on the debt-to-equity ratio is negative, which shows that stimulus support contributed to lesser debt for the companies. It's worth noting that in none of these two cases, we have found a significant statistical relationship. Parallel trend is a key assumption for the DID model estimates to be valid. From graphical representation and statistical diagnostics, we find the presence of a parallel trend.[29]

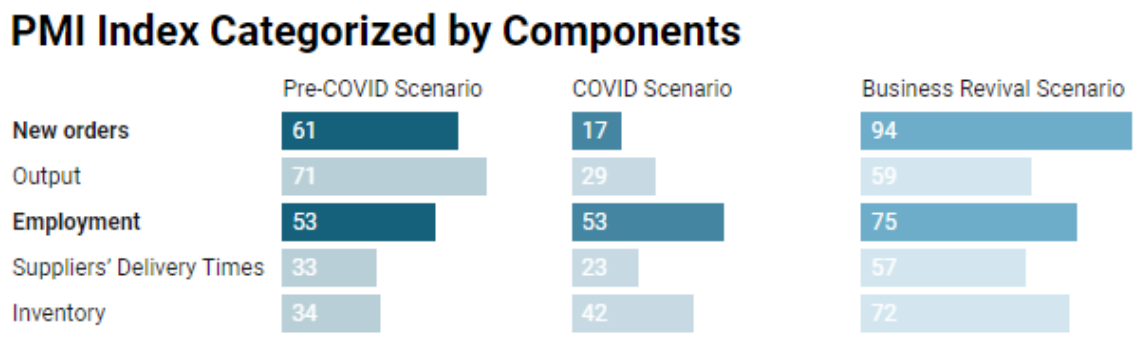
### 4.2.3 Impact of Working Capital Loans on Purchasing Managers' Index

As shown in Figure 4.1, new orders and employment have recorded the highest PMI in the Business Revival Scenario, which is the scenario after receiving stimulus support. While the other three components, namely output, supplier's delivery times, and inventory, also reflected expansionary scenarios. New orders indicator declined during the pandemic, which expanded after receiving the

[29] The details are given in Table A6 & Figure A2 in Annex A

stimulus support. Output levels declined during the pandemic, and after getting the stimulus, businesses showed an expansionary trend.

**Figure 4.1 PMI Index by Components**




Source: Author's calculation; Stimulus Package Field Survey, 2023.

During the pandemic, along with the cancellation of orders from home and abroad, the organizations did not have enough financial resources to accept new orders. The stimulus support helped them to become operationalized and smoothen their production. As production started to increase, the new orders also increased.

If we observe the employment scenario, we see that during the pandemic, the PMI sub-index remained constant, which increased upon receiving the stimulus support. The companies refrained from retrenching employees, which is the reason why there were not any changes in the pandemic scenario. As the industries received the stimulus, they became fully operationalized and continued their production, which is why we see an increase in the PMI sub-index in the business revival scenario.

Supplier's delivery times are the time lag between order placement and delivery by the supplier. Longer delivery times signal disruptions in the supply chain. We observe that the delivery time of raw material suppliers has increased in the business revival scenario. One of the key reasons for this is the lifting of the lockdown restrictions. However, the companies increased their order frequency after receiving the stimulus support, which also contributed to reduced time lag.

Inventory level was defined as raw materials purchased and kept in a warehouse to be used for production. We observe an interesting trend here; amid the pandemic, the inventory level declined but increased from the pre-pandemic levels. This is due to the halt in business activities. On the contrary, the inventory level expanded after receiving the stimulus support, which is due to the increased need for raw materials for the production process.

Some more additional components were extracted from the PMI values where we see that sales expanded while electricity usage declined but has increased from the COVID-19 levels. [30]

### 4.2.4 Implementation Challenges While Providing Loans to Firms and Industries

Recipients' organizations of the stimulus support have stated that this support from the Government of Bangladesh has helped them enormously in operationalizing their businesses adversely impacted by the pandemic. This package helped them revive their business by enhancing their ability to buy raw materials, hire new workers, pay the wages of the existing workers, increase the inventory, repay the previous loan, and thus continue production, increasing both the output and profit level.

On the other hand, the somewhat opposite reaction had come from the KIIs[31]. Due to the pandemic, the production process almost came to a standstill as the companies stopped taking new orders and struggled to pay regular salaries to their employees and staff. But with this stimulus support, the companies started their production again in full swing and as well as took new orders. Even after receiving this package, they were able to provide salaries to their employees and staff, and at the same time, they made profits.

However, banks were extra cautious in disbursing loans to the beneficiaries due to Bangladesh Bank's strict guidelines for the disbursement of loans. Therefore, some of the affected companies who were badly in need of this could not receive the loans. Also, banks, particularly the public banks, didn't make any noteworthy efforts to make the customers aware of the loan scheme. One of the KII[32] reported that:

> *"Banks in most cases provided loans to the existing customers. No additional noteworthy advertising campaign was carried out. This is especially true for the public banks. Due to this, the target of exhausting the fund was not fulfilled. Banks also preferred to give loans to existing customers so that loan disbursement rate can be shown high as assessment of new customers will be time-consuming."*

Thus, banks had enough funds but couldn't disburse the loan amount within the stipulated time. Certain organizations expressed concerns about the guideline requiring them to repay the loan within a one-year period. They found it challenging to meet this timeline as the loans resembled commercial loans, making it difficult for them to manage the repayment along with the interest within such a short timeframe.

[30] Summary is given in Figure A3 of Annex A, and the overall status of recovery for the surveyed organizations is portrayed further in Figure A4 of Annex A.

[31] Detailed summary of the KII is given in Table A7 of Annex A.

[32] KIIs from Public and Private Bank officials.

The loan disbursement process for the public banks was not as smooth as the private banks due to the absence of manpower and resources, and besides that, internal reporting was a major issue in private banks.

There were also occurrences of miscommunication and information gaps or asymmetric information among the divisional branches and the field-level branch offices. One KII official stated that*:*

> *"The Bangladesh Bank circular was not clear to us. In some cases, the field-level branch officers couldn't grasp the guidelines shared by the divisional officers. Hence, there was a miscommunication, and, in some instances, the field-level offices didn't collect data on different dimensions, which was a requirement of BB. This led to a gap of data which was filled up based on estimation by the divisional offices or head office".*

There were also political pressures on loan disbursement in a few instances, but banks in most cases disregarded these pressures.

Loan repayment has been satisfactory for large industries and service sector organizations. However, an extension of the repayment period should be considered because a more time-relaxing or longer repayment scheme could be more effective as the borrowers could use it more efficiently.

However, banks faced difficulties in receiving the subsidy amount from the BB as some of the banks were not able to pay the interest amount within the stipulated time.

Bangladesh Bank has played a key role in the disbursement process. A KII stated that:

> *"The stimulus support was effective and timely. Implementation of the disbursement was very challenging during the pandemic. But BB has successfully and effectively accomplished this task. The stimulus support helped businesses to revive and make the businesses operational. There were some issues of defaulted loans, but regular inspection of BB has reduced such cases".*

Another participant of KII[33], who studied and monitored this sector closely over the years, stated that:

> *"The pandemic has had a devastating effect on businesses. Many enterprises were on the verge of bankruptcy. This loan was a good way to prevent bankruptcy, and the support worked quite well in reviving business activities. However, a moral hazard problem existed in the implementation process. BB gave orders to the commercial banks but left them with full liability to implement the package. Most banks didn't even have capable staff to look through financial reports."*

[33] KIIs from senior researcher and academician

The comprehensive quantitative and qualitative analysis underscores the positive impact of working capital loans on the country's affected industries during the COVID-19 pandemic. The quantitative assessment reveals a statistically significant positive influence on key financial indicators, including net profit, total assets, number of employees, and earnings per share, among others. Notably, enterprises receiving the stimulus support exhibited higher net profits, improved employment scenarios, and enhanced financial performance. The Working Capital Loans also had a significant impact on the Purchasing Managers' Index (PMI), illustrating improved business revival scenarios, increased new orders, and expanding output levels. Meanwhile, qualitative insights from key informants and interviews highlight the crucial role of the stimulus in operationalizing businesses, reviving production, and preventing bankruptcy. While challenges in loan disbursement processes and communication gaps were noted, the overall effectiveness of the stimulus, as acknowledged by both industry recipients and financial authorities, suggests a successful intervention in mitigating the economic fallout of the pandemic on Bangladesh's industries.

## 4.3 Package: Working Capital Loans for the Cottage, Micro, Small and Medium Enterprises

The allocation to the SMEs is the second highest out of the packages and had the specific objective of revitalizing the SME sector and retaining jobs. The package consisted of working capital loans provided at lowered interest rates. The amounts were given to commercial and public banks; it was the duty of these banks to disburse these loans to SMEs that required them. The study applied structural equation modeling (SEM) to determine the potential effects of working capital loans for CMSMEs. There are undoubtedly many constraints that prevent CMSMEs from operating during COVID-19, but the government's support for CMSMEs is an encouraging development. Examining the function of working capital loans in CMSMEs' operations is the primary goal of the current study.

### 4.3.1 Overview of the survey respondents

A deeper look at the characteristics of the respondents[34] showed that 22.7% were cottage enterprises, 31.5% were micro-enterprises, 37.4% were small enterprises, and 8.4% were medium enterprises. Most enterprises had less than 10 employees, making up 70.3% of all surveyed enterprises, followed by enterprises with 10-24 employees at 21.7% and enterprises with 25 to 99 employees and 100 to 250 employees, being near equal at 4.1% and 3.9%, respectively. Among the respondents, 97.4% were male, while 2.6% were female. Most were in urban areas (63.2% ) instead of rural areas (36.8%). Among the

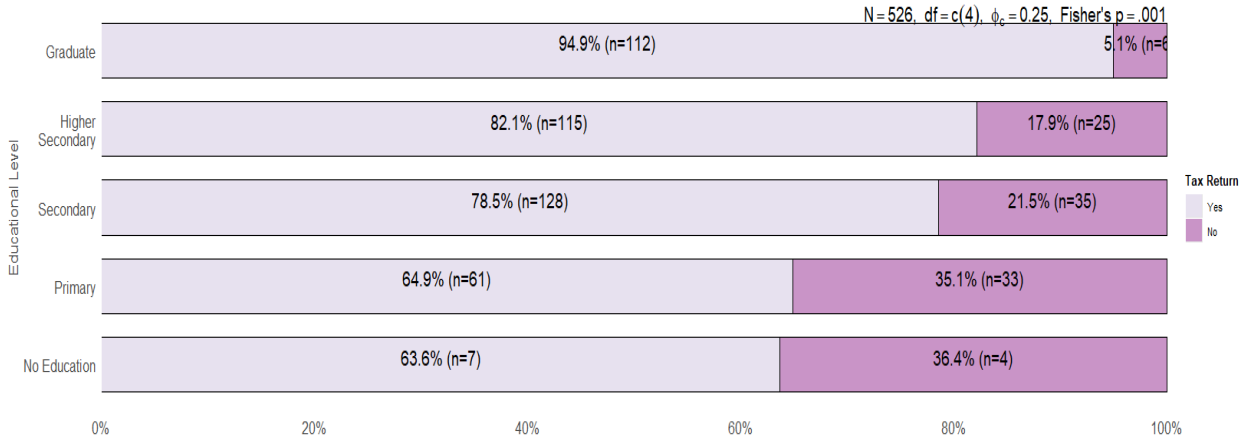
[34] The details of Demographic profile of stimulus package for CMSMEs recipients is given in table A8 Annex A

aid recipients, 89.9% had TIN accounts, and 17.3% had received some aid from NGOs. Furthermore, 92.5% of the enterprises invested in aid in the business' recovery.

Of all the recipients of this particular package, the mass majority agreed that this stimulus package resulted in assistance of their business recovery. Among them, 44.8% agreed strongly, and around 46.2% agreed in general. This showcases that a total of around 90% of the recipients admitted a positive relation between the stimulus package and their business recovery.[35]

In terms of educational achievement, only 3.1% of respondents reported being uneducated. Most of the respondents had completed primary education (96.9 %). A notable 24.8% of respondents had attained a higher education level, while 31.4% possessed a graduate-level education. This educational distribution is of particular significance, not only serving as an indicator of problem-solving aptitude but also establishing a clear relationship between education and tax return outcomes among business owners, as depicted in Figure 4.2.

**Figure 4.2 Relationship between SME owners' education and tax return**




Source: Author's calculation; Stimulus Package Field Survey, 2023.

### 4.3.2 Impact Assessment of Fiscal Stimulus Package

A look into the answers given to the questionnaire can be divided into the 5 sections mentioned in the literature review: knowledge, access, production, delivery, and employment. A summary of the answers is given in the appendix. In order to use the latent variable in a structural equation model, it is necessary to test the internal consistency of the variables and their components being used. Here, Cronbach's Alpha[36] is used to assess the internal consistency of the components and then the variables. For

[35] Figure A5 of Annex A highlights these findings.
[36] Details in in Table A10 of Annex A

successful confirmatory factor analysis (CFA)[37], the average variance estimator (AVE) is required to be above or equal to 0.5, and the composite reliability (CR) is required to be above 0.7 to be acceptable. Also, the fit statistics criteria for measuring the model goodness fit index's[38] test statistics to model internal consistency and establish conclusive evidence have been calculated for CFA.

As shown in Table 4.3, production and access of stimulus during covid-19 period had positive and significant impact on supporting business recovery. However, in terms of having Knowledge, Delivery of services and products, and Employment generation, these components have positive relation but no significant influence on supporting business recovery. From the summary of the model fitting criteria for the structural equation model we observed that RMSE and SRMSE are 0.06 and 0.05 respectively.[39] The comparative fit index (CFI) and Tucker-Lewis's index value are greater than 0.96, which shows that the model had good fit indices. Which confirms the best fit for analysis.

**Table 4.3 Relative impact of stimulus support on Business Recovery**

| **Paths** | **Coefficients** | **SE** | ***t*-value** | ***p-Value*** | ***Hypothesis*** |
|---|---|---|---|---|---|
| Knowledge → Stimulus support | 0.04 | 0.04 | 1.04 | 0.30 | Not Supported |
| Access → Stimulus support | 0.08 | 0.44 | 1.84 | 0.07 | Supported |
| Production → Stimulus support | 0.34 | 00.05 | 6.68 | 0.01 | Supported |
| Delivery → Stimulus support | 0.05 | 0.07 | 0.72 | 0.48 | Not Supported |
| Employment → Stimulus support | 0.08 | 0.05 | 1.44 | 0.15 | Not Supported |

Note: t-value = Value of t statistics, SE = Standard error. Source: Author's calculation; Stimulus Package Field Survey, 2023.

### 4.3.3 Implementation Challenges while giving loans to CMSMEs

In this part, the study investigated the challenges in implementing working capital loans given to CMSMEs using thematic analysis technique. The study developed three themes that represents challenges in implementing working capital loans, through a rigorous analysis of the KIIs. These themes include: Knowledge and Access of the Loan Recipients, Production, Delivery and Employment level of the SMEs, and Difficulties faced during the Implementation Process.

[37] Details is given in table A11 of Annex A
[38] Details are in Table A12 of Annex A
[39] The summary of the model fitting criteria for the structural equation model is given in table A14 of Annex A.

### a. Knowledge and Access of the Loan Recipients

As seen from the quantitative analysis the knowledge component was statistically insignificant and lacked any positive trend. Interviews taken with SME owners who received the loan stated that they were contacted by the banks and were informed of the stimulus package loans by the banks and not through other sources. It was a common statement across the interviews and was also mentioned by data collectors in the field that the banks informed the respondents.

This was not isolated as almost all the respondents throughout the survey were clients of the banks, they received the loans from and were considered secure borrowers from the perspective of the banks. It was also shown that the banks were extremely careful in scrutinizing the borrowers before providing the loans. A KII[40] participant revealed;

> *"We gave loans to our already existing clients. The pandemic was a major shock for everyone, and we didn't have the time to scrutinize applicants as we would previously. This was also the Central Bank money and we needed to be extra careful regarding the returns as this was a major cause for concern to commercial banks in the event they were penalized for non-performing loans."*

The statement shows that the commercial banks were extremely risk averse and hence chose recognized regular clients instead of scrutinizing new ones.

### b. Production, Delivery and Employment level of the SMEs

The ability to produce and deliver goods and services was a key objective of the stimulus package as was employment of labour. The interviews of SME owners consisted of entrepreneurs engaged in both production and services. Production enterprises had unique problems depending on their specific sector of work. Loan helped them to buy new stocks and employ the old employees again.

Storage was considered a problem faced by those active in production as the storage at times required renting warehouses or keeping perishable goods. Many also stated that there was a decline in demand which made them lower the production to adjust for costs. Pandemic lowered the demand of some specific goods like bricks. The producers needed to think how to keep the production running/ ongoing so that they don't have to cut their workers off otherwise in future they have to hire new workers. Loan helped them to pay the pending wage immediately.

[40] KII from academic and former banker

The service sector was considerably different in this regard as it mainly focused on retaining their workers. The service sector required their employees to be retained more due to their experience and learning. For both sectors employees were retained and at times new ones were hired if the old ones found new jobs. However, it is important to note that delivery was nonetheless an issue.

Surveys and interviews both reveal that the delivery of goods and services was a difficult endeavor as the lockdowns created restrictions on transportation in trucks and ports. All entrepreneurs stated that they were either unable to deliver their products or faced delays. This was stated explicitly by a participant of KII[41] who stated;

> *"I couldn't bring any of my goods from the port because the trucks couldn't go. I was called from the port that my goods were shipped in, but I wasn't able to bring them in. Some of my products weren't even shipped in as the ports weren't letting it."*

The loans were effective in employment and production. However, it was essentially of no use to the delivery aspect as the lockdowns made it impossible for shipments to be made. This particular aspect is important to note for the future.

### c. Difficulties faced during the Implementation Process

Challenges and issues faced during the implementation are important to look at specially to understand from the implementers' perspective. The implementation faced several issues as described by officials as well as academics. An official in the Bangladesh Bank who was directly involved during the pandemic period summarized some of the key issues facing the sector in general as well as specific problems pertaining to the stimulus package which are household production system, documentation problems, vast and unregulated sector, asymmetric information between the central bank and the local branch of both public and private banks, unprofessional and unapproachable behavior of central banks to the local branches and lastly the overwork and understaff problem of the local branches of the banks. The interview identified key problems with the sector, however, it does not speak specifically of the sectors problems. A KII participant[42] who worked in the sector previously gave statement corroborating the same however, also mentioned key aspects of the private and public sector banks which were important to consider. The participant stated that:

> *"It must be said that the CMSME sector is a rather risky sector to work in. Entrepreneurs are open to risks and also able to escape from lenders if needed. Before the pandemic only BRAC Bank and Islami Bank had extensive experience with the CMSME sector. The key to ensuring loan and loan recovery is to have a robust and active monitoring and evaluation system. Most*

[41] KII from importer
[42] KII from academician

*banks in the country don't even have the infrastructure to monitor and evaluate average businesses let alone CMSMEs. In addition, the package had poor disbursal, the banks were extremely cautious as the money being lent was from the Central Banks and they were essentially given full responsibility to deal with it. This was a massive moral hazard. The sector needs rapid changes if it wants to adjust to a rapidly developing Bangladesh."*

The problems and challenges identified can essentially be categorized as macro issues and micro issues. The macro issues being the banking sector is not geared towards the CMSME sector and the monitoring and evaluation from both the banks and the Bangladesh Bank is inadequate. The micro issues are, the lack of communication between central offices and branch offices, the behavior of the banks towards their customers and the lack of financial knowledge among the citizenries.

In conclusion, the analysis of both quantitative and qualitative findings provides a comprehensive understanding of the impact and effectiveness of the stimulus packages implemented by the Government of Bangladesh in response to the COVID-19 pandemic. While the quantitative assessment reveals positive trends in various components, including production and access, challenges in knowledge dissemination and delivery persist. The qualitative insights from Key Informant Interviews confirm these challenges, emphasizing the risk aversion of banks, difficulties in delivery due to lockdowns, and broader issues in the banking sector's alignment with the CMSME sector. The combined findings indicate that while the stimulus packages have positively influenced production and employment aspects, challenges persist, particularly in delivery services and knowledge dissemination. The macro and micro challenges underscore the need for prompt attention to documentation, monitoring and evaluation infrastructure, and overall sectoral adjustments. Future policy directions should address these challenges to enhance the effectiveness of stimulus packages in similar circumstances.

## 4.4 Package: Revitalizing the rural economy & job creation

A mixed-method study was conducted to assess the impact of stimulus package on marginal people and woman entrepreneurs. The application of quantitative methods was undertaken to assess effects of stimulus package on economic, employment, food consumption, and healthy behavior of marginal people and women entrepreneurs. The effect was estimated by conducting a quasi-experimental study. Meanwhile, the qualitative methods were utilized to deeply understand how the stimulus program helped the beneficiaries as well as to assess the program's efficacy and potentiality for further use. The study looked at the use of microfinance during the COVID-19 period on women entrepreneurs and micro-entrepreneurs through the government stimulus package. It will specifically look at the impact between recipients of micro-finance and non-recipients as well as try to understand the challenges, and scope for improvement of the programs.

### 4.4.1 Overview of the survey respondents

The demographic and financial[43] characteristics of the loan recipients and non-recipients are compared. A total of 751 participants were involved in the study with a response rate of 97.16%. Among the respondents, 51.1% got the stimulus loans and 48.9% did not get the stimulus loans. The median age of the stimulus package recipients (39.4) was higher than its counterpart (38.1). Approximately half of the males (51.7%) and females (50.0%) received the stimulus loans. Approximately one-third of the respondents without any institutional education got the loan. On other hand, approximately one-half of the individuals of other educational group received the loan. The participants who received entrepreneurship training had a higher percentage (62.1%) of getting the stimulus loans.

Approximately half of the recipients (50.8%) and non-recipients (49.2%) have taken a loan except the COVID-19 stimulus loan. A slightly higher percentage (52.4%) of the recipients of COVID-19 loan continued working and earning during the lockdown compared to non-recipients (47.6%). A significantly higher percentage (60.3%) of the recipients of COVID-19 stimulus loan had found a new source of income during the lockdown, while 39.7% of non-recipients reported the same. There was an increase in the percentage of the buying behavior of COVID-19 loan recipients for medicine (recipients: 52.1% vs non-recipients: 47.9%), sanitizers (recipients: 52.2% vs non-recipients: 47.8%), and facemasks (recipients: 51.3% vs non-recipients: 48.7%)[45].

### 4.4.2 Impact Assessment of the Stimulus Intervention.

In order to understand how well the program worked, six aspects of the respondents were considered, which were economic, business, employment, food consumption, preventive measures, and psychology. The aspects are compared between the recipient and non-recipient of the stimulus loan. The comparisons of significant items are listed in table 4.4.

In the case of economic aspect, it was found that stimulus loan recipients were more likely to pay land tax ($\beta = 0.65$; $p = 0.01$), other kind of taxes ($\beta = 1.14$; $p = 0.03$), mobile bills ($\beta = 0.58$; $p = 0.03$), and fuel price ($\beta = 0.55$; $p = 0.02$). The savings pattern of the recipients of the stimulus loan were more stable ($\beta = 0.49$; $p = 0.01$), than their counterparts. The business or firm that received a microloan from COVID-19 stimulus package ($\beta = 2.47$; $p = 0.01$), had a 2.47-time higher chance to operating than the business or firms that did not receive such loan. Hence, the stimulus package evidently benefited the recipients' overall economic activity, particularly their ability to pay for necessary costs such as tax, bills, and fuel.

[43] The detailed Demographic characteristics of the respondents is in table A15 of Annex A
[45] Details of Economic Activities of the respondent is given in table A16 of Annex A

**Table 4.4 Effect of COVID-19 Stimulus Loan on Economic Activities**

| | Outcome variables | Coefficients | Standard error | Z-statistic | P-value |
|---|---|---|---|---|---|
| **Economic Aspect** | Regular land tax payment | 0.65 | 0.25 | 2.54 | 0.005 |
| | Payment of other kind of taxes | 1.14 | 0.55 | 2.07 | 0.013 |
| | Regular payment for fuel | 0.55 | 0.24 | 2.31 | 0.019 |
| | Regular payment for mobile bills | 0.58 | 0.26 | 2.17 | 0.031 |
| | Stability in savings pattern | 0.49 | 0.23 | -2.35 | 0.013 |
| | Business or firm in operation | 2.47 | 0.24 | 10.30 | 0.011 |
| **Business Aspect** | Working and earning during the lockdown | 0.37 | 0.19 | 1.87 | 0.059 |
| | New sources of income during the lockdown | 0.48 | 0.26 | 1.81 | 0.062 |
| | Access to raw materials throughout the pandemic (Till December 2021) | 0.43 | 0.20 | 2.10 | 0.033 |
| **Job Aspect** | Employment Generation | 0.84 | 0.20 | 4.13 | <0.001 |
| | Regular salary payment to the workers during COVID-19 | 0.43 | 0.19 | 2.18 | <0.001 |
| **Consumption & Health Aspects** | Food Consumption (During Pandemic) | 0.41 | 0.18 | -2.27 | 0.221 |
| | Food consumption (After Pandemic Period) (‘000 TK) | 2.05 | 1.02 | 2.01 | 0.044 |
| | Buy sanitizers for the pandemic | 0.42 | 0.19 | 2.10 | 0.041 |

Source: Author’s calculation; Stimulus Package Field Survey, 2023.

In the case of business aspect, the study found that the microloan recipients also had a better ability to run their businesses and earn ($\beta = 0.37$; $p = 0.06$) during the lockdown. Moreover, microloan recipients had a higher chance of ($\beta = 0.48$; $p = 0.06$) finding new source of income than the non-recipients. Raw materials were also far more accessible to the recipients ($\beta = 0.43$; $p = 0.03$) than the non-recipients. The new injection of money into their lives allowed them to have a greater ability to spend. This means that they were able to have greater leverage in business activities such as purchasing raw materials than those who didn’t receive the stimulus.

In the case of job creation, the study found that the microloan recipients revealed an interesting employment dynamic. On one hand, these recipients demonstrated a commendable capacity to generate employment opportunities, suggesting a positive impact on job creation within their respective enterprises. However, it is noteworthy that during the initial half of the pandemic, these microloan recipients encountered significant challenges in meeting their payment obligations, particularly with regard to their employees. This initial struggle with payments aligns with the broader context of micro-enterprises, which typically operate with limited financial resources and may face difficulties in maintaining consistent employee payments during periods of economic upheaval. Consequently, it is not surprising that several of the analyzed items related to employment exhibited insignificance, reflecting the inherent variability and limitations associated with micro-enterprise operations. While the analysis revealed fluctuations in employment-related variables, the positive trend in employment among the recipients indicates that the stimulus package played a pivotal role in generating favorable outcomes for the beneficiaries, particularly in terms of sustaining employment during challenging times.

In the case of food consumption and health aspects, the study found that recipients of the micro credit loan (β = 0.42; p =0.04) were more likely to purchase sanitizers as an additional health precaution than non-recipients. Micro credit loan had no significant effect on food consumption (β = 0.41; $p$ =0.22). However, micro credit loan significantly increased the food consumption after the pandemic period (β = 2.05; $p$ =0.04). The positive value for sanitizers shows that the stimulus package was successful. Though, sanitizers were not considered as important as masks during that time, the willingness to buy the sanitizer shows that stimulus recipients were willing to spend more on health and hygiene than non-recipients.

### 4.4.3 Implementation Planning of the Publicly Owned Organizations

Officials from the 7 institutions who cooperated during data collection process[46] stated that each had certain targets based on their institutional structure and beneficiary type. The institutions have their own objectives and mechanisms for reaching them however, some of these objectives and their means of reaching them had to be altered for the stimulus disbursals. Primarily a key component of the planning was to develop a policy document for disbursing the loans. A participant from KII[47] quoted:

> *"We began working with the lockdowns in mind. We spent two days preparing for our work-from-home modality, this included preparing Zoom accounts and other meeting applications as well as regularly checking our emails; many of us weren't used to checking our e-mails as regularly as we worked on paper before lockdowns. This was a new experience for us. We spent nearly a week after that to prepare policy guidelines for our loan disbursal."*

As stated by one interviewee:

> *"We have been working with rural poor since 1999. We have also worked with large donors such as Canadian International Development Agency (CIDA) and are well versed with issues pertaining to rural livelihoods. Hence when we developed our policy guidelines, we were well aware of which groups needed loans."*

SFDF official also had similar response as they have been working for a long time. Both SFDF and SMEF maintained proper and updated data on their beneficiaries which was a major boon to their efforts.

In comparison Bangladesh NGO Foundation (BNF) and Social Development Foundation (SDF) had a considerably difficult time in preparing their policy guidelines as they were not providing loans pre-COVID. Both foundations provided training to their beneficiaries but, never provided funds or loans.

[46] A breakdown of the data collection by KII and FGD is given in Table A17 of Annex A
[47] KIIs from Publicly owned organizations.

Hence, during the pandemic both had to develop new mechanisms overnight in order to carry out the stimulus packages. As stated by a KII[48] participant:

> *"As a foundation we largely provided training to Non-Government Organizations (NGOs) and Civil Society Organizations (CSOs). We trained them on accounting, project management, human resource management and proposal writing before the pandemic. However, when the government announced the stimulus package, we had to build a financing office and a monitoring and evaluation office within a week. Many of our senior and junior colleagues were required to work in both office and field level despite not having experience on the field. In the end we disbursed loans to 27 NGOs total across Bangladesh."*

While this was a hassle for BNF, SDF stated that it was much easier for them in comparison despite the initial hassle. As stated by another KII[49] participant:

> *"This is our first time we ever provided micro loans. We mainly specialized in training programs. However, we always made it an issue to have a robust and dynamic monitoring and evaluation division which kept track of past trainees. This allowed us to select our target beneficiaries very quickly and also ensure that they would return the amount on time. Overall, we have nearly perfect recovery at just below 99% and hope to receive the outstanding amounts by the end of this year."*

The two institutions mentioned, had initial difficulties in both policy making as well as implementation. However, they nonetheless disbursed their full allocations as well as received their amounts in their entirety. The interviews showed the importance of having a well-maintained and capable division that can take on additional workload when needed. Joyeeta Foundation in this case is an exception. The institution had poor mechanisms in the beginning and as of such failed to reach their goals. During the interview, the KII participant mentioned the following:

> *"We don't directly disburse our loans; we train our beneficiaries and help them create their documents to take to the banks. We work with multiple banks and they normally review our beneficiary's applications and then disperse them. The loans follow the rules of the bank from which they are disbursed. We are yet to disburse our full allocation and we are facing difficulties in disbursing more as we are largely reliant on the banks' decisions."*

The experience from Joyeeta Foundation was considerably negative compared to the other institutions. Their mechanism presented a considerable handicap for their overall objectives. Joyeeta Foundation is

[48] KIIs from Publicly owned organizations.
[49] KIIs from Finance division representative.

also the only institute among the 7 that were interviewed to have no independence upon their own disbursals.

### 4.4.4 Challenges faced by the Disbursal Institutions

As seen from the previous statements, a key issue for all institutions was the sudden shift to online modality. Almost all officials complained about the instant shift and that they were unprepared. Nonetheless, most adjusted to it over time. The KII participant even stated:

> *"We still hold many of our meetings over zoom. We especially hold them on zoom for our field staff as well as our chiefs who are at times abroad. Now we even hold meetings on zoom when one of us falls ill, it has been very productive for us."*

However, the shift towards online became a problem for field staff as it took longer time for them to gain access to the online modality from their rural destinations. The lockdowns further complicated the process reported as reported by another participant:

> *"We have field offices and many of our field officers were not able to attend office regularly due to movement restrictions in their areas. This was a problem in the beginning as the field workers received less oversight. We had to fill this gap by paying for their mobile bills, which added to our costs."*

Field work was identified as a key struggle for all institutions. BNF officials had special difficulties as they lacked a monitoring and evaluation wing before the pandemic. As quoted by KII participants:

> *"We don't have field offices and are based entirely in Dhaka. We needed to travel for monitoring and the lockdown became a problem for us."*

SFDF and PDBF stated that their difficulties were largely with supervising field workers as the lockdown prevented movement. SMEF stated the same however, due to their robust monitoring and evaluations division as well as their active client relations division, they were able to ease their difficulties considerably. SDF is an exception in the sense that they had mechanisms in place beforehand. Summarized by a KII attendee:

> *"We work with community through members of the community, in short our philosophy revolves around Community Driven Development. The philosophy requires that all field workers are locals and they are to maintain regular contact with not only their supervisors but also the beneficiaries, and not only as institutional representatives but as neighbors. They are to be seen as members of the community as trust is a key aspect of our work ethic."*

While the monitoring and evaluation challenges were largely stated based on movement and communication BRDB and SFDF however, presented challenges which were unique to them specifically. The issue was pertaining to the field workers. As stated by another participant:

> *"Our field workers are not paid based on the government scale; they are paid based on commission from the loans. For each loan they receive 1% commission from the interest. As the stimulus allocation was considered as the property of the government the field workers received no commissions. Many chose to stop working in between as the regular microloans decreased in demand due to the lower interest rate of the stimulus loan. We've had to pay some of our field workers from our own funds which is creating a financial problem for us."*

While this problem is unique to BRDB and SFDF, this is nonetheless a cause of concern as they have large allocations as well as large numbers of employees. Becoming understaffed could prevent the institutions from working to their full capacities. A lack of field staff not only entails poor monitoring and evaluation but also means poorer organization-client relations. This was highlighted by a KII participants:

> *"One of our problems was in identifying the right beneficiary to give the loan to. Many of our beneficiaries stop contacting us once they are alleviated from poverty. However, as many reentered poverty during the pandemic we needed to properly identify if their claims were worth being processed. The disbursal was considerably difficult as we were understaffed due to the much higher demand for processing the loans to our beneficiaries."*

A final problem brought forward by some institutions was that they lacked market linkages during the pandemic. It was especially difficult for institutions that had a large rural population such as BRDB, SFDF, and PDBF. A KII participant stated:

> *"Joyeeta Foundation has a rented store for their beneficiaries. This is a major advantage as our beneficiaries require markets to sell their goods. Taking goods from rural areas to cities was extremely difficult during the pandemic but is also difficult during normal times. It would be very helpful if we had a system like Aarong or Joyeeta Foundation."*

Overall, the key challenges identified by the institutions were, a new modality of work, monitoring and evaluation, new additional expenses, difficulties in transporting goods, identification of staff and for Joyeeta Foundation specifically; inability to control their own disbursals.

### 4.4.5 Experience of the microloan beneficiaries

Beneficiaries were contacted through focal persons in the institutions and took part in Focus Group Discussions (FGDs) in places where they were comfortable. A total of three FGDs took place with 2

institutions directly involved: Joyeeta Foundation and SDF, and a partner of BNF, Youth Power in Social Action (YPSA). The beneficiaries of each FGD consisted of; 8 women entrepreneurs from Joyeeta Foundation, 10 rural poor in Sitakunda working with YPSA, and 12 micro-entrepreneurs working with SDF in Mymensingh. Semi-structured interviews were taken with the beneficiaries as well to gather greater nuance into their experience of the microloans.

The FGDs highlight the ways in which the microloans were used by beneficiaries, the problems they faced and how they solved the problems using the loans. Certain aspects were common for all respondents, especially with regards to the problems they initially faced. The problems are somewhat unique to each group of beneficiaries. However, the commonalities are striking. As stated by a beneficiary of SDF during an FGD :

> *"Our biggest problem was the lockdown. We couldn't work because we weren't allowed to. I tried to open my shop once and got in trouble with the police. I used up all my savings and had to make deals with traders to buy my stocks. There were very few traders active during this time as the lockdowns prevented them from delivering anything."*

Similar problems were expressed by NGO beneficiaries in Sitakunda. However, unlike in Mymensingh the respondents had a key difference, as explained by a participant of the FGD:

> *"We had access to food and medicine as we are very close to the port and the trucks normally come through here. However, the price of everything was higher and we could afford very little. Medicine was especially expensive. I run a saloon and I couldn't pay my workers and the cost of our products rose so I also had a short coming of inventory."*

The Joyeeta beneficiaries faced the additional problems of rent, long banking procedures, and explicit familial stress, which was not mentioned by other groups. These problems also became more highlighted when asked about the usage of the loans. The feedback was nearly universal, as stated by a participant of the FGD in Mymensingh:

> *"I received the loan nearing the end of 2020 and I immediately used it in my business. I run an automobile parts shop and I used it to buy new stock and to fix the old stock which had been sitting and built-up rust. As soon as the lockdown was lifted the business was running at full speed and I have returned to pre-COVID times."*

Another member there stated similarly:

> *"I sell veterinary supplies to farmers. These have a low shelf life and I didn't have any savings left to invest in the store. The loan helped me to buy new stock and hire a staff to run the store. It was a major benefit for me to receive a loan at only 4% interest."*

Gratitude was common among all members of the FGD in Mymensingh as well as Sitakunda. However, participants in the Sitakunda FGD also brought forward certain dimensions which they suffered from specifically:

> *"The price of fertilizer has gone up and also medicine. As a vegetable farmer, fertilizer is extremely important and the higher price creates problems when I sell my produce. My husband has been hoping to expand our fields but the higher cost of fertilizer is making this very difficult as new fields need more fertilizer to start. The loan was spent largely on buying fertilizer and we need another loan if we want to expand our field by the end of this year."*

As reiterated by other farmers in Sitakunda as well, the higher costs are making their work more difficult. Nonetheless, both beneficiary groups stated that the loans were essential in their recovery and praised the initiative. However, this opinion was not shared by the Joyeeta Foundation beneficiaries who highlighted additional stresses which harmed their recovery. As summarized by one of the entrepreneurs in the FGD:

> *"The delay in the loan reception made it very difficult to recover as many of us couldn't prepare for the Eid sales. We also aren't able to work continuously since the pandemic because the stores were closed for renovation by Joyeeta. This set us back by several months. The loan repayments have also been very costly as we had very little time to pay the first installment amount. It would have been easier if we received the loans earlier. We also have additional problems from Joyeeta itself such as, a monthly audit of our goods, strict policies on our product manufacturing and also difficulties in negotiating with the banks. We see other such organizations such as, Aarong and we have asked many times to allow for some marketing, however we have received very little attention. Marketing is needed for our stores but Joyeeta has not been responsive."*

The entrepreneurs faced not only external difficulties caused by the pandemic but also difficulties due to Joyeeta Foundation's policies, particularly, their strict auditing and manufacturing policies, limited marketing and inability to negotiate with either the bank or the foundation. The Joyeeta Foundation beneficiary experience was a stark contrast to the experience of beneficiaries elsewhere. In particular, a semi-structured interview with an SDF beneficiary highlighted the direct benefits he received:

> *"My father was a farmer who raised goats. My brothers and I grew up raising goats, and our father was extremely opposed to fisheries. I knew fisheries were profitable and that it was the best way to earn a living especially when the pandemic started. However, no one was willing to give a loan to the son of a goat breeder except SDF. They not only gave me a loan but also helped me in discussing with my father the way the fishery would be set up. This was a massive help and now I have converted the fishery on my land to a hatchery and rent nearby ponds to raise the fish. It has been extremely beneficial to me."*

The sheer difference in experience and perception can be attributed to 3 distinct aspects which differentiate Joyeeta Foundation from the others, which are institutional independence in issuing loans, the ability to negotiate with the lenders, and a considerably liberal policy of monitoring.

The combined quantitative and qualitative analysis sheds light on the multifaceted impact of the stimulus intervention in response to the COVID-19 pandemic in Bangladesh. The quantitative findings indicate that microloan recipients experienced positive outcomes in various aspects, including economic stability, business operations, and access to raw materials. The loans played a crucial role in enhancing recipients' ability to meet financial obligations, maintain business operations during lockdowns, and even explore new sources of income. However, challenges were evident, particularly in meeting payment obligations to employees during the initial phase of the pandemic. The qualitative insights from focus group discussions and interviews with beneficiaries revealed common challenges faced, such as the impact of lockdowns on work, rising prices, and difficulties in accessing goods and services. The experiences of beneficiaries varied, with those associated with institutions like Joyeeta Foundation expressing additional stress due to strict policies and delayed loan disbursements. Overall, while the stimulus package significantly benefited many, the study underscores the importance of addressing institutional challenges, ensuring timely disbursement, and tailoring interventions to diverse beneficiary needs for a more inclusive and effective recovery strategy.

# Chapter 5: Discussion

This study looks into 4(four) stimulus packages out of 28 (twenty-eight) during the pandemic. Each of these four packages has different objectives, different target populations, and different implementation mechanisms. Therefore, in this Chapter, the results of each package are discussed separately. Then, we will synthesize the results and their implications and compare them with other researches, challenges, limitations, and policy recommendations that follow from these results.

For the package **'salary support for export-oriented industries',** the objective was to evaluate the impact of salary support on the socio-economic conditions of beneficiary workers. We observed a positive change in the well-being of RMG workers who were the beneficiaries of the package. Using the household questionnaire survey data, the study attempts to assess the efficacy of the stimulus package in improving the well-being of export-oriented industry workers at the micro-level. The gender composition of this survey is 35.56% male and 64.44% female. We employed propensity score matching (PSM) to estimate the Average Treatment effect (ATE) to evaluate the fiscal stimulus impact. The survey results showed that salary support for export-oriented industries in RMG workers' households has a significant impact on their household well-being and job retention, as well as on the Bangladeshi economy as a whole. It is found that salary support to export-oriented industries significantly improves the financial, economic, healthcare, psychological, and social outcomes of incentive receivers than non-receivers. Their social subsistence was also better, but more than three-fourths (82.33%) of respondents opined that they were unable to support their extended family during COVID-19. The qualitative study showed challenges during the implementation process due to the lockdown and lack of necessary documents for the workers, but overall, the package was substantially successful in fulfilling their target. A similar study was carried out in India. Using structural equation modeling (SEM), the study found that fiscal measures didn't show success in terms of job creation and improvement in lifestyle in short-run, as many small firms suffered from a decrease in sales and many migrant laborers returned to their villages to take care of themselves and their families as fear of being affected speeded. But gradually India observed an increase in real GDP growth (Prusty et al., 2023). Another study, using a dynamic New Keynesian multi-sector general equilibrium model, tried to assess the effects of Germany's fiscal stimulus package intervention during the COVID-19 pandemic. In Germany, it was discovered that government interventions significantly mitigated output and consumption losses in the short run, and the welfare costs, on average, reduced for the beneficiaries (Hinterlang et al., 2021).

Then our study on providing **'working capital loans to affected industries and service sectors'** aimed to analyze how the working capital loan influenced and contributed to the recovery of industries and service sectors. This study demonstrated positive outcomes for loan receiver companies. A survey was conducted on 30 enterprises for a better understanding of the pandemic's impact on the industry and

service sector. Difference-in-difference method was used to compare stimulus package recipients with a matched sample of non-recipients. The stimulus support's impact on net profit (before and after tax) is positive and significant. The study showed that earnings per share increased for the treatment group compared to the control group. This means that the enterprises receiving the stimulus support recorded higher profits and thus experienced an increase in earnings per share. In our analysis, the employment scenario also showed the positive impact of the stimulus support. Due to the stimulus support, enterprises did not retrench their employees. New orders and employment have recorded the highest PMI in the Business Revival Scenario, while the other three components, namely output, supplier's delivery times, and inventory, also reflected expansionary scenarios after receiving stimulus support. As the industries received the stimulus, they became fully operationalized and continued their production, which is why we see an increase in the PMI sub index in the business revival scenario. The overall PMI value is extracted from the 5 components (new orders, output, employment, supplier's delivery times, and inventory levels) and showed that the overall index value was 73.6 out of 100 (comparing the February 2021 to February 2020 scenario). Meanwhile, the qualitative part was employed to understand the linkage between the announced stimulus package aimed at recovering the economy from the pandemic and the implementation challenges of the stimulus package where beneficiaries of stimulus support have stated that this support from the Government of Bangladesh has helped them enormously in operationalizing their businesses adversely impacted by the pandemic. A study that applied general equilibrium (AGE) model on effects of fiscal stimulus packages on 8 (eight) COVID-19-afflicted economies in Oceania, showed that the fiscal stimulus package protected against the negative effects of COVID-19 on output but it was insufficient to prevent joblessness in Oceania's tourism and education industries, which even need continuous assistance to survive. However, we know that a computable general equilibrium model is based on many assumptions that may make the findings of such model questionable.

The third part of the study focuses on '**working capital loans for CMSMEs'**, targeted to assess the potential impact of the COVID-19 working capital loan on CMSMEs involving a comprehensive examination of knowledge, access, production, delivery, and employability. The beneficiary CMSMES enjoyed an increase in the production of their goods and positive results in job creation and job retention, although lockdowns hindered the delivery aspect. The stimulus package had a significant positive effect on access to stimulus support and the production ability of the firms. But delivery of service and products, and employment generating had not significant improvements to recovery from the pandemic. The stimulus amount was used not only to pay employees' wages but also to purchase their hygiene and safety products. Knowledge component was statistically insignificant and qualitative study also showed that the commercial banks were extremely risk averse and hence chose recognized regular clients instead of extending loans to new ones. Additionally, though the package was announced for the women entrepreneurs, almost 94% of the beneficiaries of this package were men. Qualitative analysis

showed that the loans were effective in employment and production, however, it was essentially of no use to the delivery aspect as the lockdowns made it impossible for shipments to be dine. Some systematic problems, including lack of marketing, asymmetric information, paperwork hassles, and unpreparedness of banks were identified but access to packages were significant and there was an overall positive impact on the recipients relatively. A report by Gourinchas et al. (2021) on the impact of the pandemic on different dimensions including the sectoral dimension in 27 countries (18 advanced economies and 9 emerging economies) showed that the fiscal support measures were helpful in reducing the share of demand-constrained sectors and positively affected the employment scenario. However, stimulus funds were, in many instances, were not disbursed to the beneficiaries who were in need of it. Findings from another mixed method study on impact of innovation capabilities of business sustainability in SMEs of India statistically proved the requirements of fiscal stimulus packages for SMEs during covid-19 for their business recovery (Prusty et al., 2022).

Lastly after studying **'revitalizing the rural economy and job creation'** which targeted to evaluate the impact of micro credit stimulus package to marginalized groups and woman entrepreneurs on socio-economic and health related aspects, we have observed that receivers of the loan benefited positively in terms of several factors. The quantitative methods were applied to assess the effects of stimulus package on economic, employment, food consumption, and healthy behavior of marginal people and women entrepreneurs. A significantly higher percentage (60.3%) of the recipients of COVID-19 stimulus loan had found a new source of income during the lockdown, while 39.7 % of non-recipients reported the same. There was an increase in the percentage of the buying behavior of COVID-19 loan recipients for medicine (recipients: 52.1% vs non-recipients: 47.9%), sanitizers (recipients: 52.2% vs non-recipients: 47.8%), and facemasks (recipients: 51.3% vs non-recipients: 48.7%). The beneficiaries were more regular in land and other tax payment and fuel and mobile bill payment. Besides they had a stable savings pattern though micro credit had no significant effect on food consumption during the pandemic but after the pandemic it was significant for the beneficiaries. In case of business operation, those who received micro credit showed a higher chance of running their business as well as a commendable capacity in employment generation and regular payment to the employers compared to non-receivers, but challenges faced by the implementing institutions included delayed disbursals, payment issues for workers, problems in beneficiary selection, and monitoring and evaluation of the implementation process. Aside from quantitative approaches, studies have also been carried out qualitatively in order to investigate more nuanced aspects of microfinance programs. A study using semi-structured interviews was also conducted and it showed that who received microcredit had better socio-economic welfare. Overall, while beneficiaries acknowledged positive impacts, concerns were raised about the short time between loan receipt and payment of the first installment, small loan amounts, and restrictive institution policies. An evaluation of microfinance's impact on women's empowerment conducted in Pakistan utilized a cross-sectional research design combined with a quantitative research approach and

comprehensively proved that women with access to microfinance have better welfare overall compared to those who do not (Hameed & Iqbal ,2022).

So, it can be said through the study that all four packages achieved the goals of providing socio-economic relief, ensuring livelihoods, tending the needs of marginalized groups, ensuring the survival of both the industrial and CMSME sectors, and ensuring employment, despite management, implementation, and organizational challenges in each sector.

From macro perspective, in Bangladesh, there is an observed drop in the GDP growth rate from the FY2020-21, signifying the effect of the pandemic, however there is also gradual increase in the growth rate emphasizing the recovery of the economy. In the FY 2021-22 and FY 2022-23, the GDP growth rate increased to 6.9% and 7.1% simultaneously for Bangladesh indicating the positive impact of stimulus packages in the post COVID period. Similar scenario is noticed in the GDP growth of Vietnam who took almost similar kind of stimulus package to revive the economy. The amount of stimulus packages as a percentage of GDP was highest in Vietnam and second highest in Bangladesh and the impact is noticeable in GDP growth rate in FY 2021-22 and FY2022-23. Bangladesh experienced a positive growth in almost every sector like agriculture, industry and service between FY 2019-20 and FY 2022-23. Similarly, Walmsley (2022) studied the impact of the fiscal stimulus support provided on the US economy using quasi-experimental designs and structural vector auto regressions (SVARs) and found that initially the stimulus support helped in boosting GDP, investment, and exports. From other several studies on fiscal stimulus packages during global financial crisis showed that, China, US and Australia were able to maintain an increase their GDP growth and economic stability (S. M. Li & Spencer, 2016). From the observation of taken fiscal stimulus packages in India during Covid-19 showed that, the measures were not successful initially but gradually economy showed positive response in sectorial growth (Prusty et al., 2021).

In Bangladesh, though the packages were to a great extent successful in achieving objectives, there were also some challenges during the implementation of the packages. Certain organizations excelled compared to others, primarily because of their internal protocols and capability to distribute funds efficiently. Finding beneficiaries was a challenge and also there was limitations in support coverage due to resource constraints. Banks usually did not have the right setup to give loans to small businesses. Loans were delayed in getting distributed because there was not sufficient promotion, the necessary technology, and, faced challenges in documentation. Additionally, applicants underwent thorough scrutiny, which further slowed down the process.

Our study also has some limitations including challenges in identification of beneficiaries. There was a lack of availability of adequate data in package '**Working capital loan for industries and Service Sectors',** as among the selected 128 industries and service enterprises, only 30 industries and service enterprises provided necessary financial information. As COVID 19 was a sudden shock, except this

package baseline data of the other three packages were not included due to unavailability. The study also had time constraint to collect more data for analysis. Moreover, this study excluded social safety net programs due to time constraint and various stakeholders. It is suggested to conduct a separate study on social safety net programs.

Nonetheless, this research anticipates delivering a fair and impartial assessment of how the four stimulus packages affect the specific groups they aimed to help, viewed from a close-up and detailed perspective. Alongside this, our study sheds light on the obstacles encountered during the execution of these packages, offering valuable insights that can guide for future policymaking, especially in the context of handling similar pandemics in the future. The challenges we found from qualitative analysis were also from the experts of the respective fields which will be helpful for further implementation of such stimulus packages in case of any shocks in future. So, overall, these findings will be valuable for future shaping the design and implementation strategy of future incentive policy measures.

The report **recommends** to establish a database which should have detailed information of workers from both large industries as well as CMSME and beneficiaries of government sponsored programs that are dedicated to serving marginalized people, women entrepreneurs and disadvantaged people including handicaps on district and upazila level. Therefore, as this study has a primary data set collected from the beneficiaries and professionals for micro level analysis it can be linked and incorporated with the national ID database, so that during any emergency, it is easy to identify the targeted population and their eligibility can be checked and rechecked. This database would contribute to a quicker, more accurate and efficient execution of government sponsored programs, overcoming the hurdles faced previously.

Additionally, if all banks and financial aid providers have access to the relevant database, they will have less difficulties in identification of beneficiaries thus solving the problem of asymmetric information, and disbursements of loans in future, which will address one of the main challenges discovered from this study. Moreover, as the government subsidizes interest rates as an incentive, proper training should also be provided to banks so that they know how to function during this kind of crisis situation.

Recording the outcomes, lessons learned, and challenges faced in the process will play a crucial role in making necessary improvements as we move forward with the implementation. Similar to the "National Plan for Disaster Management" framework, another documentation like this can prove to be a guideline for disasters like COVID 19 in the future. Sector wise training to the involved stakeholders and coordination through clear cut protocols and communication channel from decision makers to front liners should be ensured. This will not only help in fine-tuning the delivery phase but also act as a foundation for creating policies based on solid evidence. By capturing and understanding the results and challenges, this study hopes to pave the way for more effective and informed policymaking.

# Chapter 6: Conclusion

The ramifications of the COVID-19 pandemic were multi-dimensional, significantly impacting public health and economic systems. To mitigate these effects and facilitate economic recovery, governments worldwide, including Bangladesh, implemented strategic stimulus policies. Bangladesh implemented 28 distinct stimulus packages categorized as fiscal and monetary. While fiscal measures, encompassing cash transfers, subsidizes interest rates and social safety nets like subsidized goods and food aid, played a crucial role, the core of the initiative rested on monetary stimulus. Comprising 71.32% of all packages, these stimuli solutions, likely encompassing loan programs and direct financial support, formed the backbone of the government's response. This study delved into four key fiscal packages, dissecting their unique and collective impacts on Bangladesh's post-pandemic landscape.

Firstly, it analyzed the **"Salary Support for Export-Oriented RMG Industries"** program, aimed at safeguarding the well-being of RMG workers amidst economic distress. Secondly, the **"Working Capital Loans"** package targeted hard-hit RMG, leather, and plastic industries, providing them with critical capital. Thirdly, the **"Working Capital Loans to CMSMEs"** sought to revitalize the sector and retain jobs by offering subsidized loans to these crucial enterprises. Lastly, the study evaluated the **"Revitalizing the Rural Economy and Job Creation"** package, which combined fiscal aid with microfinance loans (partially subsidized by the government) to empower marginalized groups and female entrepreneurs. This assessment employed both quantitative data analysis and qualitative interviews to comprehensively evaluate the impact, efficacy, and implementation hurdles of the four stimulus packages. While they generally delivered positive outcomes for beneficiaries, a range of recurring and package-specific challenges emerged during execution.

An evaluation of the **"Special Funds for Export-Oriented Industries"** package using Propensity Score Matching (PSM) method along with qualitative analysis, revealed demonstrably positive impacts on the socio-economic well-being of benefiting RMG workers. They exhibited increased financial stability (regular bill payments, savings), improved access to healthcare and education, and enhanced social subsistence (mental well-being, work motivation, reduced conflict, and extended family support). While challenges existed in beneficiary identification and mobile financial access, the results indicate significant benefits compared to non-beneficiaries. An evaluation of Bangladesh's **"Working Capital Loans to affected industries and service sectors"** package using Difference-in-difference method and PMI index, revealed encouraging outcomes for recipient companies. Enterprises witnessed enhanced profitability with higher post-pandemic profits, increased new orders, and subsequent growth in earnings per share. Notably, beneficiary companies maintained employee retention, avoiding retrenchment. While implementation challenges were identified, the overall findings suggest the package's positive impact on the targeted sectors. Then, our analysis of **"Working Capital Loans for CMSMEs"** used Structural Equation Model (SEM) for quantitative analysis and highlighted its positive

and significant influence on access and production. But delivery of service and products, and employment generation have not significant effects on recovery from the pandemic. While systematic issues like marketing gaps, administrative burdens, and initial bank unpreparedness were identified, the study reveals significant gains in awareness and accessibility of the loan packages amongst targeted CMSMEs. Our final part, **"Revitalizing the Rural Economy and Job Creation,"** focusing on marginalized groups and female entrepreneurs used Propensity Score Matching (PSM) beside qualitative analysis. Loan recipients demonstrated positive socio-economic changes: improved land tax payment, bill payments, and stable savings. Food consumption remained largely unaffected during the pandemic but saw a significant increase afterward. Beneficiaries displayed higher entrepreneurial success, job creation, and consistent employee payments compared to non-recipients. However, implementing institutions faced challenges like delayed disbursements, problems in beneficiary selection, and monitoring the implementation process. Although beneficiaries acknowledged positive impacts, concerns were raised about loan terms, including short repayment periods, small amounts, and restrictive policies.

While limitations existed, including data constraints and a time frame that excluded social safety net programs, the findings provide valuable insights for future policy formulation. Despite these limitations, the study successfully offers unbiased estimations of impact on targeted populations. Notably, it identifies implementation hurdles experienced throughout the process, serving as a crucial learning point for future interventions in times of crisis. Our study sheds light on the effectiveness of four key stimulus packages, analyzing their micro-level impact through primary data sourced from beneficiaries and professionals. The inclusion of primary data adds a critical layer of understanding, allowing us to gauge the impact from the beneficiary's perspective. Additionally, qualitative insights from field experts provide valuable guidance for the future implementation of similar stimulus packages. Overall, these findings contribute significantly to shaping future economic measures by documenting results, capturing key insights, and highlighting implementation obstacles. This knowledge base will facilitate essential adjustments for delivering impactful programs in case of future similar shocks.

In summary, the implemented stimulus packages proved to be successful in achieving their designated objectives and demonstrated a positive impact on their intended beneficiaries. Despite the acknowledged successes, it is important to note that there have been implementation problems. While the stimulus packages effectively assisted their target beneficiaries, it is crucial to recognize that there is scope for improvement. To make future aid packages more effective, a comprehensive set of policies is needed, especially in the areas of monitoring and evaluation, data management, and stakeholder communication to enhance the effectiveness of these packages. These reforms are essential for ensuring the sustained success and adaptability of economic stimulus initiatives in addressing evolving challenges and fostering long-term resilience.

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# Annex A: Tables and Figures

**Table A1: Summary of Stimulus Packages by the Government of Bangladesh and Bangladesh Bank**

| Sl. No. | Package Name | Allocation* (% of Allocation) | Allocation* (% of Allocation) | Allocation* (% of Allocation) | Allocation* (% of Allocation) |
|---|---|---|---|---|---|
| | Organizations | 2019-2020 | 2020-21 | 2021-22 | 2022-23 |
| 1 | Salary Support for export-oriented industries | 5,000.00৳ (4.16%) | 5,000.00৳ (3.89%) | 5,000.00৳ (2.66%) | 5,000.00৳ (2.10%) |
| 2 | Working capital loan for the affected industries and service sector | 40,000.00৳ (33.29%) | 40,000.00৳ (31.14%) | 73,000.00৳ (38.90%) | 103,000.00৳ (43.34%) |
| 3 | Working capital loan for the Small and Medium Enterprises (including cottage industry) | 20,000.00৳ (16.65%) | 20,000.00৳ (15.57%) | 40,000.00৳ (21.31%) | 60,000.00৳ (25.24%) |
| 4 | Expansion of Export Development Fund (EDF) introduced by the Bangladesh Bank | 12,750.00৳ (10.61%) | 17,000.00৳ (13.24%) | 17,000.00৳ (9.06%) | 17,000.00৳ (7.15%) |
| 5 | Pre-shipment Credit Refinance Scheme | 5,000.00৳ (4.16%) | 5,000.00৳ (3.89%) | 5,000.00৳ (2.66%) | 5,000.00৳ (2.10%) |
| 6 | Special honorarium for the doctors, nurses & other health workers | 100.00৳ (0.08%) | 100.00৳ (0.08%) | 138.00৳ (0.07%) | 138.00৳ (0.06%) |
| 7 | Health insurance and life insurance | 750.00৳ (0.62%) | 750.00৳ (0.58%) | 750.00৳ (0.40%) | 750.00৳ (0.32%) |
| 8 | Free food distribution | 2,500.00৳ (2.08%) | 2,500.00৳ (1.95%) | 2,500.00৳ (1.33%) | 2,500.00৳ (1.05%) |
| 9 | Selling of rice at 10 taka per kilogram | 770.00৳ (0.64%) | 770.00৳ (0.60%) | 770.00৳ (0.41%) | 770.00৳ (0.32%) |
| 10 | Cash transfer to targeted population | 1,258.00৳ (1.05%) | 1,326.00৳ (1.03%) | 1,326.00৳ (0.71%) | 1,326.00৳ (0.56%) |
| 11 | Expansion of the coverage of 2 social protection programs to 112 poverty-stricken upazilas | 815.00৳ (0.68%) | 815.00৳ (0.63%) | 815.00৳ (0.43%) | 815.00৳ (0.34%) |
| 12 | Construction of home for the homeless people | 2,130.00৳ (1.77%) | 2,130.00৳ (1.66%) | 2,130.00৳ (1.13%) | 2,130.00৳ (0.90%) |
| 13 | Support for agricultural farm mechanization | 3,220.00৳ (2.68%) | 3,220.00৳ (2.57%) | 3,220.00৳ (1.72%) | 3,220.00৳ (1.35%) |
| 14 | Subsidy for agriculture | 9,500.00৳ (7.91%) | 9,500.00৳ (7.40%) | 9,500.00৳ (5.06%) | 9,500.00৳ (4.00%) |
| 15 | Agriculture Refinancing Scheme | 5,000.00৳ (5.00%) | 5,000.00৳ (3.89%) | 8,000.00৳ (4.26%) | 8,000.00৳ (3.37%) |
| 16 | Refinancing scheme for low-income professional farmers/small traders | 3,000.00৳ (2.50%) | 3,000.00৳ (2.34%) | 3,000.00৳ (1.60%) | 3,000.00৳ (1.26%) |
| 17 | Employment generation activities (through Palli Sanchay Bank, Karmasangsthan Bank, Probashi Kalyan Bank, Ansar and VDP Bank and PKSF) | 2,000.00৳ (1.66%) | 3,200.00৳ (2.49%) | 3,200.00৳ (1.71%) | 3,200.00৳ (1.35%) |
| 18 | Government subsidy on partial interest waiver on loans by commercial banks in AprilMay/2020 | 2,000.00৳ (1.66%) | 2,000.00৳ (1.56%) | 2,000.00৳ (1.07%) | 2,000.00৳ (0.84%) |
| 19 | Credit Guarantee Scheme for SME Sector | 2,000.00৳ (1.66%) | 2,000.00৳ (1.56%) | 2,000.00৳ (1.07%) | 2,000.00৳ (0.84%) |
| 20 | Support for the destitute export oriented RMG and leather sector | 1,500.00৳ (1.25%) | 1,500.00৳ (1.17%) | 1,500.00৳ (0.80%) | 1,500.00৳ (0.63%) |
| 21 | Revitalizing the rural economy & job creation | | 1,500.00৳ (1.17%) | 1,500.00৳ (0.80%) | 1,500.00৳ (0.63%) |

**Table A1: Summary of Stimulus Packages by the Government of Bangladesh and Bangladesh Bank**

| Sl. No. | Package Name | Allocation* (% of Allocation) | Allocation* (% of Allocation) | Allocation* (% of Allocation) | Allocation* (% of Allocation) |
|---|---|---|---|---|---|
| 22 | Expansion of the coverage of 2 social protection programs to further 150 poverty-stricken upazilas | | 1,200.00৳ (0.93%) | 1,200.00৳ (0.64%) | 1,200.00৳ (0.50%) |
| 23 | 2nd tranche of the cash transfer to targeted population | | 930.00৳ (0.72%) | 930.00৳ (0.50%) | 930.00৳ (0.39%) |
| 24 | Cash Transfer to the targeted poor people | | | 450.00৳ (0.24%) | 450.00৳ (0.19%) |
| 25 | Special OMS at the city area | | | 150.00৳ (0.08%) | 150.00৳ (0.06%) |
| 26 | Fund for providing food support to the vulnerable people reached through 333 phone number | | | 100.00৳ (0.05%) | 100.00৳ (0.04%) |
| 27 | Employment creation through three State owned financial institutions - 2nd phase ( | | | 1,500.00৳ (0.80%) | 1,500.00৳ (0.63%) |
| 28 | Working Capital credit facility at 4% interest to pay wages for the employees of hotel/motel/theme parks | | | 1,000.00৳ (0.53%) | 1,000.00৳ (0.42%) |
| | Total | 120,153.00৳ | 128,441.00৳ | 187,679.00৳ | 237,679.00৳ |
| | GDP(%) | 3.7 | 4.2 | 6.23 | 5.98 |

Note: *Allocation in BDT Crore; Source: Bangladesh Economic Review

**Table A2: Percentage distribution of RMG workers by selected demographic and economic characteristics**

| | | Total (n) | Percentage (%) |
|---|---|---|---|
| Gender | Male | 526 | 35.56 |
| | Female | 953 | 64.44 |
| Age (in years) | Less than 15 years | 2 | 0.14 |
| | 15-25 years | 483 | 32.65 |
| | Above 25 years | 994 | 67.21 |
| Educational level | Uneducated | 317 | 21.43 |
| | Primary | 687 | 46.45 |
| | S.S.C | 382 | 25.83 |
| | H.S.C | 72 | 4.87 |
| | Honors | 15 | 1.01 |
| | Masters | 5 | 0.34 |
| | Others | 1 | 0.07 |
| Marital status | Married | 1333 | 90.13 |
| | Unmarried | 135 | 9.13 |
| | Others | 11 | 0.74 |
| Medium of salary support | Bank account | 103 | 12.17 |
| | Mobile financial service | 630 | 74.47 |
| | Hand cash | 113 | 13.36 |
| Place of residence during COVID-19 | Urban | 1322 | 89.38 |
| | Rural | 157 | 10.62 |
| Taken loan | Yes | 586 | 39.62 |
| | No | 893 | 60.38 |
| Savings during COVID-19 | Yes | 250 | 16.90 |
| | No | 1229 | 83.10 |
| Infected by the COVID-19 | Yes | 19 | 1.28 |
| | No | 1460 | 98.72 |
| | Yes | 893 | 60.38 |

**Table A2: Percentage distribution of RMG workers by selected demographic and economic characteristics**

| | | Total (n) | Percentage (%) |
|---|---|---|---|
| COVID-19 hygiene safety kit provided by factory | No | 586 | 39.62 |
| Supported extended family during COVID-19 | Yes | 194 | 17.67 |
| | No | 904 | 82.33 |

Source: Author's calculation; Stimulus Package Field Survey, 2023.

**Table A3: Distribution of the respondents by selected demographic variables according before and after propensity score matching**

| Variables | Before Matching | | | After Matching | | |
|---|---|---|---|---|---|---|
| | Treatment n(%)/mean | Control n(%)/mean | P-Value | Treatment n(%)/mean | Control n(%)/mean | P-Value |
| **Gender** | | | | | | |
| Male | 327(33.2) | 199(40.3) | 0.009 | 333(33.8) | 188(38.1) | 0.12 |
| Female | 658(66.8) | 295(59.7) | | 652(66.2) | 306(61.9) | |
| **Age (in years)** | | | | | | |
| Less than 15 Years | 2(0.2) | 0(0.0) | 0.012 | 2(0.2) | 0 (0.0) | 0.279 |
| 15-25 Years | 298(30.3) | 185(37.4) | | 306(30.9) | 171(34.6) | |
| Above 25 Years | 685(69.5) | 309(62.6) | | 677(68.9) | 323(65.4) | |
| **Educational Level** | | | | | | |
| No formal education | 200(20.3) | 117(23.7) | 0.583 | 192(19.4) | 117(20.9) | 0.103 |
| Primary | 455(46.2) | 232(47.0) | | 466(47.3) | 243(49.1) | |
| S.S.C | 264(26.8) | 118(23.8) | | 263(26.7) | 103(20.8) | |
| H.S.C | 49(5.0) | 23(4.7) | | 47(4.8) | 28(5.6) | |
| Honors | 12(1.2) | 3(0.6) | | 14(1.4) | 2(0.4) | |
| Masters' | 4(0.5) | 1(0.2) | | 4(0.4) | 1(0.2) | |
| **Marital Status** | | | | | | |
| Married | 883(92.5) | 427(87.0) | <0.001 | 883(98.9) | 445(91.4) | 0.454 |
| Unmarried | 71(7.5) | 64(13.0) | | 9(1.1) | 42(8.6) | |
| **Monthly Income** | | | | | | |
| 5-8 thousands | 125(12.7) | 106(21.5) | <0.001 | 157(15.9) | 79(16.0) | 0.942 |
| 8-12 thousands | 725(73.6) | 316(64.0) | | 692(70.3) | 350(70.8) | |
| More than 12 thousands | 135(13.7) | 72(14.5) | | 136(13.8) | 65(13.2) | |
| **Place of residence during COVID-19** | | | | | | |
| Urban | 913(92.7) | 409(82.8) | <0.001 | 873(88.6) | 446(90.3) | 0.38 |
| Rural | 72(7.3) | 85(17.2) | | 112(11.4) | 48(9.7) | |
| **Taken Loan** | | | | | | |
| Yes | 361(36.6) | 225(45.5) | <0.001 | 660(61.5) | 306(52.8) | 0.92 |
| No | 624(63.4) | 269(54.5) | | 376(38.5) | 273(47.2) | |
| **Savings during COVID-19** | | | | | | |
| Yes | 67(13.6) | 183(18.6) | 0.019 | 818(83.0) | 410(83.0) | 1.000 |
| No | 427(86.4) | 802(81.4) | | 167(17.0) | 84(17.0) | |
| **Infected by the COVID-19** | | | | | | |
| Yes | 11(1.1) | 8(1.6) | 0.465 | 13(1.3) | 5(1.0) | 0.803 |
| No | 974(98.9) | 486(98.4) | | 972(98.7) | 489(99.0) | |
| **COVID-19 hygiene safety kit provided by factory** | | | | | | |
| Yes | 655(66.5) | 238(48.2) | <0.001 | 389(39.5) | 208(42.1) | 0.363 |

**Table A3: Distribution of the respondents by selected demographic variables according before and after propensity score matching**

| Variables | Before Matching | | | After Matching | | |
|---|---|---|---|---|---|---|
| | Treatment n(%)/mean | Control n(%)/mean | P-Value | Treatment n(%)/mean | Control n(%)/mean | P-Value |
| No | 330(33.5) | 256(51.8) | | 596(60.5) | 286(57.9) | |
| **Whether they could provide support to extended family during COVID-19** | | | | | | |
| Yes | 757(76.9) | 341(69.0) | <0.001 | 739(75.0) | 376(76.1) | 0.693 |
| No | 228(23.1) | 153(31.0) | | 246(25.0) | 118(23.9) | |
| **Family Size of the Respondent** | 3.811 | 3.91 | 0.236 | 3.83 | 3.83 | 0.261 |
| **Number of Dependents** | 2.83 | 2.98 | 0.133 | 2.86 | 2.88 | 0.888 |

Source: Authors' calculation; Stimulus Package Field Survey, 2023.

**Table A4: Qualitative Survey respondents**

| Respondents | KIIs (n) |
|---|---|
| KII 1:Ministry of Finance officials | 1 |
| KII 2: Bangladesh Bank officials | 3 |
| KII 3:Public and Private Bank officials | 3 |
| KII 4:Industry and service sector organization representatives | 3 |
| KII 5:Academician and Researchers | 2 |

Source: Author's calculation; Stimulus Package Field Survey, 2023

**Table A5: Overview of Difficulties Faced by Firms due to the Pandemic**

| Difficulties Faced in: | Name of the Categories | Percentage of Firms facing the problem (%) |
|---|---|---|
| **Production Process** | Low Demand | 65.4 |
| | Shortage of Inventory | 57.7 |
| | Exporting Goods | 30.8 |
| | Outstanding Production | 3.8 |
| **Distribution Process** | Reduced Order | 73.1 |
| | Supply Delays | 61.5 |
| | Shipping was not Available | 46.2 |
| | Disturbed Distribution Channel(s) | 42.3 |
| | Low stock of raw materials | 38.5 |
| | Too much of the stock finished | 30.8 |
| | Order cancellation from foreign buyers | 23.1 |
| | Order cancellation from local buyers | 7.7 |

**Table A5: Overview of Difficulties Faced by Firms due to the Pandemic**

| Difficulties Faced in: | Name of the Categories | Percentage of Firms facing the problem (%) |
|---|---|---|
| **Employments' Regards** | Difficult Distribution of wages | 57.7 |
| | Most workers left for their homes/villages | 53.8 |
| | Difficulties in hiring workers water lockdown | 42.3 |
| | Temporary workers were retrenched | 3.3 |
| **Dealing with Expenses** | Outstanding Loan Payments | 84.6 |
| | Raw materials costs higher that the pre pandemic period | 76.9 |
| | Difficulties to pay for R&D activities | 19.2 |
| **Financial Challenges** | Fixed cost payments (rent, insurance etc.) | 53.8 |
| | Payment of invoices/deliveries | 34.6 |
| **Operational Challenges** | Shortage of Cash flows | 84.6 |
| | Shortage of workers | 46.2 |
| | Shortage of inputs | 34.6 |
| | Difficulties in fulfilling contracts | 11.5 |

Source: Author's calculation; Stimulus Package Field Survey, 2023.

**Table A6: Parallel Trends Test**

| Dependent Variable | Hypothesis and Significance results | Decision |
|---|---|---|
| TA | H0: Linear trends are parallel<br>F(1, 24) = 1.72<br>Prob > F = 0.2024 | Do not reject H0 i.e. Linear trends are parallel. |
| ROA | H0: Linear trends are parallel<br>F(2, 19) = 0.84<br>Prob > F = 0.3687 | Do not reject H0 i.e. Linear trends are parallel. |
| DER | H0: Linear trends are parallel<br>F(2, 21) = 0.22<br>Prob > F = 0.6425 | Do not reject H0 i.e. Linear trends are parallel. |
| NBT | H0: Linear trends are parallel<br>F(1, 24) = 0.09<br>Prob > F = 0.7722 | Do not reject H0 i.e. Linear trends are parallel. |
| NAT | H0: Linear trends are parallel<br>F(1, 23) = 0.00<br>Prob > F = 0.9526 | Do not reject H0 i.e. Linear trends are parallel. |
| NE | H0: Linear trends are parallel<br>F(2, 19) = 0.14<br>Prob > F = 0.7083 | Do not reject H0 i.e. Linear trends are parallel. |

**Table A6: Parallel Trends Test**

| Dependent Variable | Hypothesis and Significance results | Decision |
|---|---|---|
| EPS | H0: Linear trends are parallel<br>F(1, 24) = 0.21<br>Prob > F = 0.6535 | Do not reject H0 i.e. Linear trends are parallel. |

Source: Author's calculation; Stimulus Package Field Survey, 2023

**Table A7: Qualitative Survey respondents**

| Respondents | KIIs (n) |
|---|---|
| KII 1:Ministry of Finance officials | 1 |
| KII 2:Bangladesh Bank officials | 3 |
| KII 3:Public and Private Bank officials | 3 |
| KII 4:Industry and service sector organization representatives | 3 |
| KII 5:Academician and Researchers | 2 |

Source: Author's calculation; Stimulus Package Field Survey, 2023

**Table A8: Demographic profile of stimulus for CMSMEs recipients**

| Variables | Characteristics | Number of observations (n) | Percentage (%) |
|---|---|---|---|
| Number of employees | | | |
| | Less than 10 | 411 | 70.3 |
| | Between 10-24 | 127 | 21.7 |
| | Between 25-99 | 24 | 4.1 |
| | Equal or more than 100 | 23 | 3.9 |
| Owner category | | | |
| | Cottage entrepreneurs | 133 | 22.7 |
| | Micro entrepreneurs | 184 | 31.5 |
| | Small entrepreneurs | 219 | 37.4 |
| | Medium entrepreneurs | 49 | 8.4 |
| Gender | | | |
| | Male | 570 | 97.4 |
| | Female | 15 | 2.6 |
| Education level | | | |
| | No education | 18 | 3.1 |
| | Primary education | 117 | 20.0 |
| | Secondary education | 184 | 31.4 |
| | Higher secondary education | 145 | 24.8 |
| | Graduate | 121 | 20.7 |
| Residence | | | |
| | Rural | 215 | 36.8 |
| | Urban | 370 | 63.2 |
| Age | | | |
| | 18-30 | 27 | 4.6 |
| | 31-40 | 147 | 25.1 |

**Table A8: Demographic profile of stimulus for CMSMEs recipients**

| Variables | Characteristics | Number of observations (n) | Percentage (%) |
|---|---|---|---|
| | 40-55 | 319 | 54.4 |
| | 55 above | 92 | 15.7 |
| Year of experience | | | |
| | 5 years | 21 | 3.6 |
| | More than 5 years | 564 | 96.4 |
| Existence of TIN account | | | |
| | Yes | 526 | 89.9 |
| | No | 59 | 10.1 |
| Financial support from NGO | | | |
| | Yes | 101 | 17.3 |
| | No | 484 | 82.7 |
| Invest the capital of the stimulus package | | | |
| | On business recovery | 541 | 92.5 |
| | To start a new business | 6 | 1.0 |
| | To repay loan | 11 | 1.9 |
| | To pay a wage of worker | 21 | 3.6 |
| | Others | 6 | 1.0 |

Source: Author's calculation; Stimulus Package Field Survey, 2023

**Table A9: Qualitative Survey respondents**.

| Respondents | KIIs (n) |
|---|---|
| KII 1:Ministry of Finance officials | 1 |
| KII 2:Bangladesh Bank officials | 3 |
| KII 3:Public and Private Bank officials | 2 |
| KII 4:Academician and Researchers | 2 |

Source: Author's calculation; Stimulus Package Field Survey, 2023

**Table A10: Reliability test by Cronbach's Alpha**

| | Cronbach's Alpha |
|---|---|
| 1. **Knowledge about stimulus packages** | 0.75 |
| I learned about the packages from TV & radio | 0.66 |
| I learned about the packages from the newspaper | 0.55 |
| 2. **Access to stimulus packages** | 0.63 |
| I know what to prepare to receive the packages | 0.44 |
| Preparing documents for receiving the document was easy | 0.61 |
| The financial literacy of SME owners is essential to get access to various banking products | 0.51 |
| 3. **Production** | 0.53 |

**Table A10: Reliability test by Cronbach's Alpha**

| | Cronbach's Alpha |
|---|---|
| The stimulus amount made it easier to pay utility bills including rent, electricity and gas. | 0.46 |
| We were required to outsource our order productions | 0.40 |
| The stimulus amount was useful to pay for these additional costs | 0.42 |
| 4. **Delivering your services and products** | 0.74 |
| It took longer to deliver our services/products to customers | 0.67 |
| Customers delayed payments more than usual | 0.72 |
| We could not deliver some products/services due to resource constraint | 0.62 |
| Many of our customers/clients stopped using our products/services | 0.69 |
| 5. **Employing a worker** | 0.70 |
| It was difficult to pay employees during the lockdown | 0.74 |
| We needed to purchase hygiene and safety products for our workers | 0.66 |
| The stimulus amount was used to pay employees wages | 0.61 |
| The stimulus amount was used to pay for employees' safety measures | 0.49 |

Source: Author's calculation; Stimulus Package Field Survey, 2023

**Table A11: CFA and reliability test**

| **Constructs** | **CR** | **AVE** | **SFL** | ***t*-Statistic** | **P-Value** |
|---|---|---|---|---|---|
| **1. Knowledge about stimulus packages** | 0.83 | 0.71 | | | |
| I learned about the packages from TV & radio | | | 0.95 | | |
| I learned about the packages from the newspaper | | | 0.72 | 10.45 | <0.001 |
| **2. Access to stimulus packages** | 0.73 | 0.48 | | | |
| I know what to prepare to receive the packages | | | 0.77 | | |
| Preparing documents for receiving the document was easy | | | 0.62 | 13.33 | <0.001 |
| The financial literacy of SME owners is essential to get access to various banking products | | | 0.67 | 15.49 | <0.001 |
| **3. Production** | 0.67 | 0.41 | | | |
| The stimulus amount made it easier to pay utility bills including rent, electricity and gas. | | | 0.67 | | |
| We were required to outsource our order productions | | | 0.52 | 14.75 | <0.001 |
| The stimulus amount was useful to pay for these additional costs | | | 0.73 | 18.47 | <0.001 |
| **4. Delivering your services and products** | 0.82 | 0.53 | | | |
| It took longer to deliver our services/products to customers | | | 0.77 | | |
| Customers delayed payments more than usual | | | 0.67 | 21.04 | <0.001 |
| We could not deliver some products/services due to resource constraint | | | 0.80 | 23.56 | <0.001 |
| Many of our customers/clients stopped using our | | | 0.67 | 20.70 | <0.001 |

**Table A11: CFA and reliability test**

| **Constructs** | **CR** | **AVE** | **SFL** | ***t*-Statistic** | **P-Value** |
|---|---|---|---|---|---|
| products/services | | | | | |
| **5. Employing a worker** | 0.83 | 0.54 | | | |
| It was difficult to pay employees during the lockdown | | | 0.71 | | |
| We needed to purchase hygiene and safety products for our workers | | | 0.72 | 19.99 | <0.001 |
| The stimulus amount was used to pay employees wages | | | 0.72 | 22.74 | <0.001 |
| The stimulus amount was used to pay for employees safety measures | | | 0.79 | 24.05 | <0.001 |

Source: Author's calculation; Stimulus Package Field Survey, 2023

**Table A12: Summary model fitting indices for CFA**

| Indicator | Value | Chi-Square | DF | P-value |
|---|---|---|---|---|
| CFI | 0.97 | | | |
| TLI | 0.96 | | | |
| RMSE | 0.09 | 607 | 94 | <0.001 |
| SRMSE | 0.07 | | | |

Source: Author's calculation; Stimulus Package Field Survey, 2023

**Table A13: Correlation among Latent variables.**

| | **Knowledge** | **Access** | **Production** | **Delivery** | **Employment** |
|---|---|---|---|---|---|
| **Knowledge** | (0.845) | | | | |
| **Access** | 0.284** | (0.689) | | | |
| **Production** | 0.211** | 0.379** | (0.643) | | |
| **Delivery** | 0.141** | 0.276** | 0.291** | (0.729) | |
| **Employment** | 0.247** | 0.316** | 0.361** | 0.376** | (0.736) |
| ** p <0.001,<br>(AVE): average variance extracted. | | | | | |
| Source: Author's calculation; Stimulus Package Field Survey, 2023 | | | | | |

**Table A14: Summary model fitting indices for SEM**

| Indicator | Value | Chi-Square | P-value |
|---|---|---|---|
| CFI | 0.97 | | |
| TLI | 0.96 | | |
| RMSE | 0.09 | 402.5 | <0.001 |
| SRMSE | 0.07 | | |

Source: Author's calculation; Stimulus Package Field Survey, 2023

**Table A15: Demographic characteristics of the respondents**

| Characteristics | Recipients of COVID-19 Stimulus Loan n (%) / Median (IQR) | Non-recipients of COVID-19 Stimulus Loan n (%)/ Median (IQR) |
|---|---|---|
| **Gender** | | |
| Male | 255 (51.6) | 238(48.4) |
| Female | 129(50.0) | 129 (50.0) |
| **Educational Qualification** | | |
| Primary | 121(52.2) | 111(47.8) |
| Secondary | 136(49.6) | 138(50.4) |
| Higher Secondary | 73(52.9) | 65(47.1) |
| Hons. & Above | 42(56.0) | 33(44.0) |
| No Institutional Education | 11(37.9) | 18(62.1) |
| **Working Area** | | |
| Agriculture | 178(58.2) | 128(41.8) |
| Manufacturing | 81(47.9) | 88(52.1) |
| Service | 125(45.3) | 151(54.7) |
| **Entrepreneurship Training** | | |
| Yes | 118(62.1) | 72(37.9) |
| No | 266(47.4) | 295(52.6) |
| **Bank Account** | | |
| Yes | 363(53.5) | 315(46.5) |
| No | 21(28.8) | 52(71.2) |
| **Mobile Bank Account** | | |
| Yes | 329(50.3) | 325(49.7) |
| No | 55(56.7) | 42(43.3) |
| **Age (in Years)** | 39.4(8.9)[a] | 38.1 (9.2) [a] |
| **Monthly income (in thousands BDT)** | 30.0(25.0) [a] | 30.0(20.0 ) [a] |
| **Monthly Saving (in thousands BDT)** | 5.0 (8.0) [a] | 5.0 (90) [a] |
| **Total Expenditure (in thousands BDT)** | 22 .0(19.3) [a] | 25.0 (15.0) [a] |
| **Food consumption (in thousands BDT)** | 12.0 (5.0) [a] | 12.0(6.0) [a] |
| **Non-Food consumption (in thousands BDT)** | 7 .0(13.0) [a] | 7.0 (1.0) [a] |
| **Total** | 384(51.1) | 367(48.9) |
| [a] Median(IQR) | | |

Source: Author's calculation; Stimulus Package Field Survey, 2023

**Table A16: Economic Activities of the respondent**

| | Recipients of COVID-19 stimulus loan n(%) | Non-recipients of COVID-19 stimulus loan n(%) |
|---|---|---|
| **Acquired a loan apart from COVID-19 stimulus package** | | |
| Yes | 63(50.8) | 61(49.2) |
| No | 321(51.2) | 306(48.8) |
| **Continuation of working and earning during lockdown** | | |
| Yes | 185(52.4) | 168(47.6) |
| No | 199(50.0) | 199(50.0) |
| **New Source of income during lockdown** | | |
| Yes | 76(60.3) | 50(39.7) |
| No | 308(49.3) | 317(50.7) |

**Table A16: Economic Activities of the respondent**

| | Recipients of COVID-19 stimulus loan n(%) | Non-recipients of COVID-19 stimulus loan n(%) |
|---|---|---|
| **Able to buy medicine during the pandemic** | | |
| Yes | 334(52.1) | 307(47.9) |
| No | 50(45.5) | 60(54.5) |
| **Bought sanitizers during the pandemic** | | |
| Yes | 256(52.2) | 234(47.8) |
| No | 128(49.0) | 133(51.0) |
| **Bought facemasks during the pandemic** | | |
| Yes | 344(51.3) | 326(48.7) |
| No | 40(49.4) | 41(50.6) |
| **Total** | 384(51.1) | 367 (48.9) |

Source: Author's calculation; Stimulus Package Field Survey, 2023

**Table A17: Qualitative Survey respondents.**

| Methods | Participants |
|---|---|
| Key-Informant Interviews (KIIs) | KII 1:MoF officials (n=1),<br>KII 2:Bangladesh Bank officials (n=2);<br>KII3: Respective Institutions Representative (n =7)<br>KII 5:Academician and Researchers (n=2). |
| Focus Group Discussion (n=26, male=14, female=12) | FGD1: Female Entrepreneurs from Joyeeta Foundation<br>FGD2: Ultra-poor loan recipients under a BNF intermediary<br>FGD3: Micro-enterprise owners working with SDF |
| Semi-structured Interview (n=1) | With beneficiary from Social Development Foundation |

Source: Author's calculation; Stimulus Package Field Survey, 2023

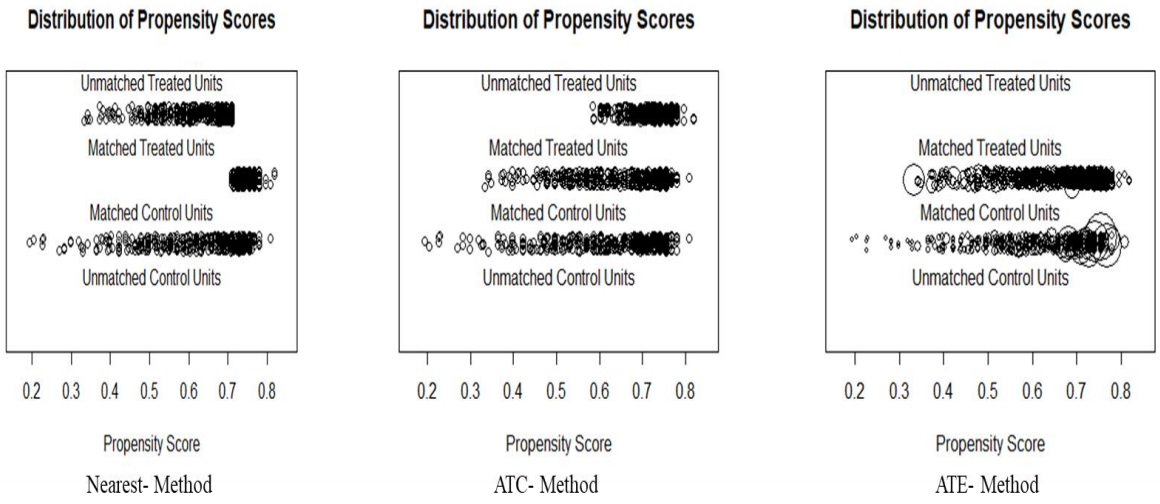
**Table A18: List of Firms giving information**

| Organization Name | Type of Organization |
|---|---|
| Prime Textile Spinning Mills Limited | Textile |
| Maksons Spinning Mills Limited | Textile |
| Metro Spinning Limited | Textile |
| Mir Akther Hossain Limited | Engineering |
| Baraka Patenga Power Limited | Fuel & Power |
| Khan Brothers Bag Industries Ltd | Miscellaneous |
| SQUARE Hospitals Ltd. | Service |
| Samorita Hospital Ltd. | Service |
| Legacy Footwear Ltd. | Leather |
| National Feed Mill Ltd | Agriculture |
| Pharma Aids Ltd | Pharmaceuticals & Chemicals |
| Aman Feed Ltd. | Agriculture |
| National Life Insurance Company Ltd | Insurance |
| Malek Spinning Mills Ltd | Textile |
| S. Alam Cold Rolled Steels Ltd | Engineering |
| Rahim Textile Mills Ltd | Textile |
| Salvo Chemical Industry Ltd | Chemical |

**Table A18: List of Firms giving information**

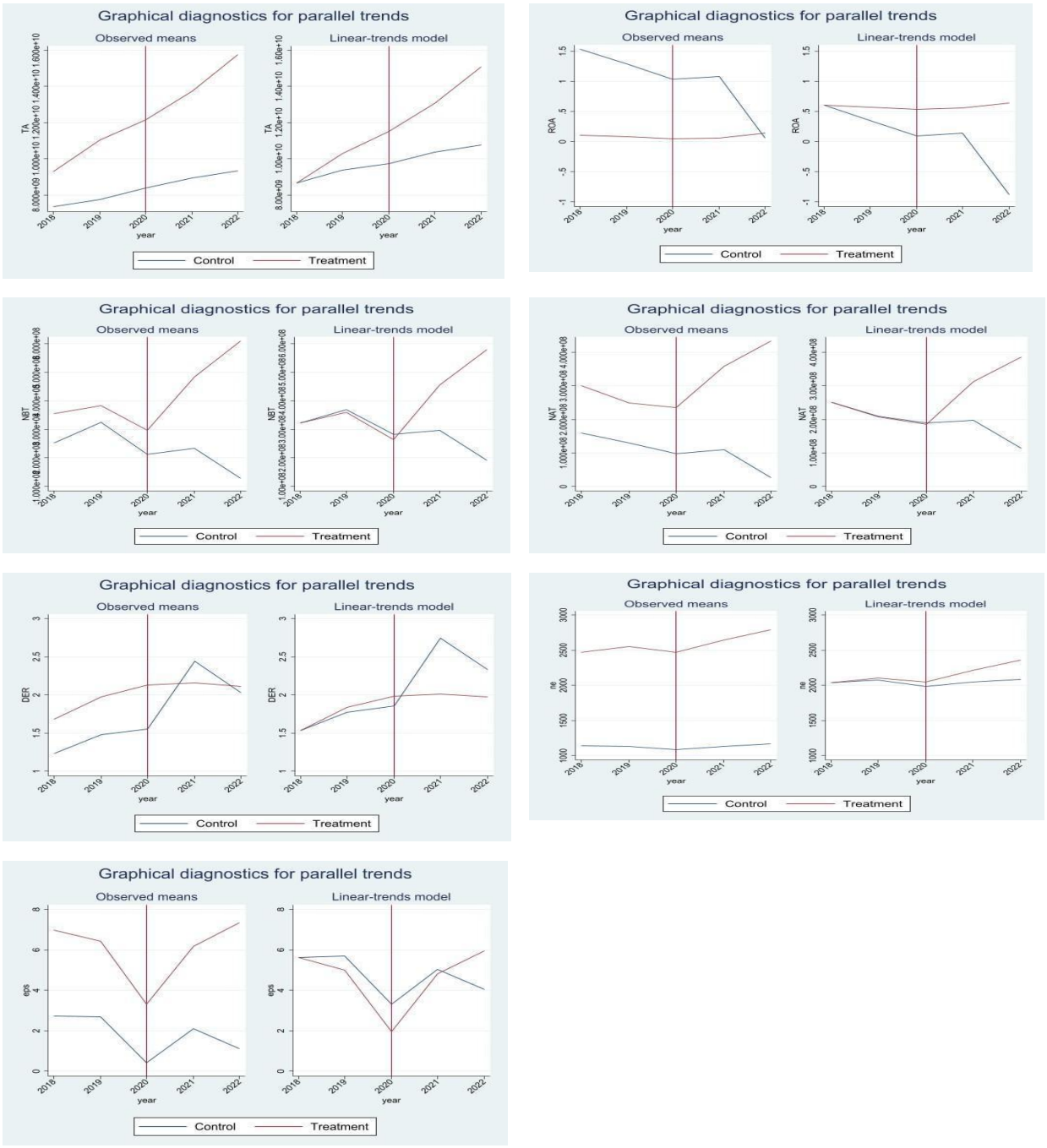
| Organization Name | Type of Organization |
|---|---|
| Paramount Textile PLC | Textile |
| Acme Laboratories Ltd | Pharmaceuticals & Chemicals |
| DESCO | Fuel & Power |
| ALTEX | |
| MK Footwear PLC | Leather |
| BSRM Steel Mills Ltd | Engineering |
| FRC | |
| GPH Ispat Limited | Engineering |
| Navana Pharma | Pharmaceuticals & Chemicals |
| Bashundhara Paper Mills Ltd | Paper & Printing |
| ACI Ltd | Pharmaceuticals & Chemicals |
| ACI Formulations Ltd | Pharmaceuticals & Chemicals |
| Esquire Knit Composite PLC | Textile |

**Figure A1: Robustness Checked by different Matching Technique.**



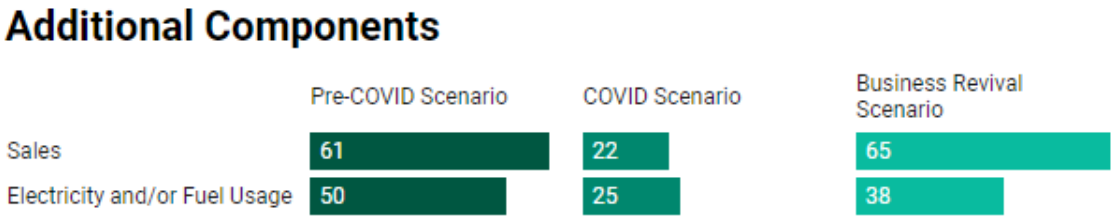

Source: Author's calculation; Stimulus Package Field Survey, 2023

**Figure A2: Graphical Representation of Parallel Trends**



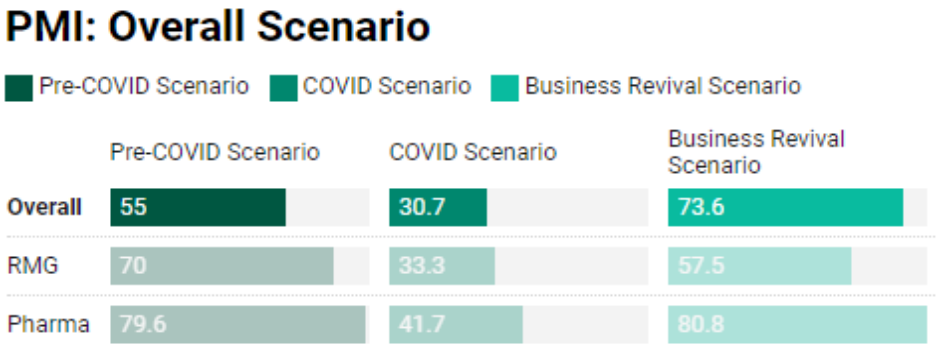

Source: Author's calculation; Stimulus Package Field Survey, 2023

**Figure A3: PMI Index (Sales and Electricity and/or Fuel Usage)**



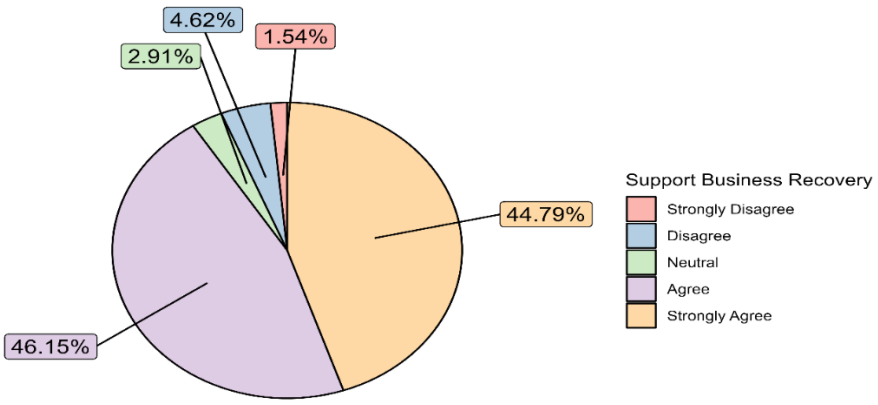

Source: Author's calculation; Stimulus Package Field Survey, 2023

**Figure A4: PMI Overall Scenario**




Source: Author's calculation; Stimulus Package Field Survey, 2023

**Figure A5: Support for Business Recovery**




Source: Author's calculation; Stimulus Package Field Survey, 2023

# Annex B: Sample Size Calculation

**Sample Size Calculation:**

## Package: Salary Support for the workers of Export Oriented Industries

The required sample size was calculated for package using the following formula:

$$n_0 = 2 \times \frac{(Z_{1-\alpha/2} + Z_{1-\beta})^2}{d^2} \times p \times (1-p) \cong 1005$$

$$n_{primary} = DE \times n_0 \cong 1508$$

Here, $Z_{1-\alpha/2} = 1.96$, at α=0.05 level of significance

$Z_{1-\beta}$=0.84, at 80% power of the test

d = 5%, margin of error,

p=0.8, response rate of treatment group

DE = 1.5, design effect

## Package: Working capital loan for the affected industries and services sector

Sample size calculation formula for checking superiority with continuous variable (Zhong, 2009) was used to calculate the effective sample size for estimating the effectiveness of working capital loan for COVID-19 affected large industries in mitigating the impact of COVID-19. The formula is as follows:

$$n = 2 \times (\frac{Z_{1-\alpha/2} + Z_{1-\beta}}{\delta}) \times S^2$$

Here, n= sample size per group

$Z_{1-\alpha/2}$ = 1.96, α = 0.05 is level of significance

$Z_{1-\beta}$ = 0.845, 1- β is power of the test

δ= 5%, margin of error

S = 0.083 (Amin & Jamil, 2015), Standard deviation

Using above values we get sample size 63.14 ≅ 64 per group.

**Package: Working capital loan for the cottage, micro, small and medium enterprises**

The minimum required sample size was calculated for package using the following formula:

$$n_0 = \left( \frac{Z_{1-\frac{\alpha}{2}} + Z_{1-\beta}}{|\beta_{min}|} \right)^2$$

$$n_{primary} = n_0 \times DE$$

Here,

$Z_{1-\frac{\alpha}{2}}$ = 2.57, at $\alpha$=0.01 level of significance

$Z_{1-\beta}$ = 0.84, at 80% power of the test

D = 5% margin of error

$\beta_{min}$ =0.164, minimum value of path coefficient

DE = 1.5, design effect

**Package: Revitalizing the rural economy and job creation**

The minimum required sample size was calculated for package using the following formula

$$n_{primary} = DE.n_0 = 768 \cong 770$$

$$Where, n_0 = \frac{Z^2_{1-\frac{\alpha}{2}} * p * (1-p)}{d^2} \cong 640$$

Here,

$Z_{1-\frac{\alpha}{2}}$ = 1.69, at α=0.05 level of significance

d = 5%, margin of error

p= 0.7, desired proportion of our study

DE = 1.2, design effect

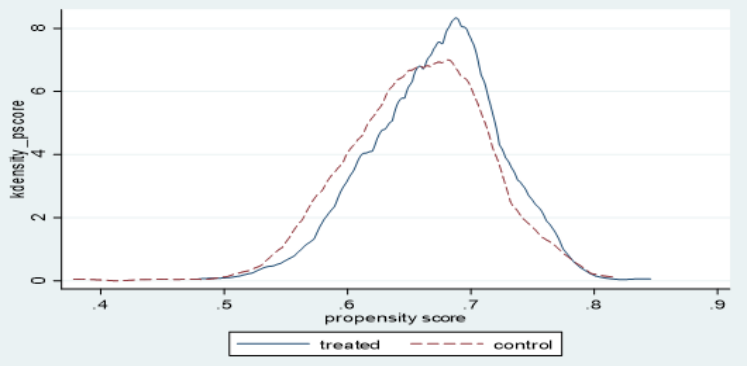
# Annex C: Methodological Background

**Propensity Score Matching (PSM):**

The proposed impact assessment study used quantitative approaches to ascertain the impact of these incentive measures on the Bangladeshi stimulus package receiver during COVID-19 pandemic. This method developed by Rosenbaum & Rubin (1983), is a statistical matching method employed in the estimation of the effect of a treatment or any interference by accounting for the covariates that envisage receiving the treatment (Rosenbaum & Rubin, 1983). The critical issue for evaluating the impact/effectiveness of fiscal stimulus on socio-economic variables is handling selection bias. The PSM method reduces that bias in the estimation of treated effects, hence become an increasingly popular technique to evaluate different economic policy interventions (Becker & Ichino, 2002).

Applying the PSM to assess the impact of the stimulus, the study considered two types of recipients: stimulus-receivers (treatment group) and stimulus-non-receivers (control group). The observed covariates are automatically controlled for when a treated and a control subject has the same propensity score. By comparing how outcomes vary for the treatment group compared with the parallel control group, the method allows more likely to estimate the intervention impact. However, PSM can be applied to only two groups under consideration rather than more than two groups (Thapa & Acharya, 2017).

Figure C1: Area of Common Support; Source: Author's depiction




Source: Thapa & Acharya, 2017

In this regard, the study used all possible matching methods including nearest neighbors matching, kernel matching, stratification matching, and radius matching. The matching methods basically matched each treated individual with control individual that displays the closest propensity score and generate a common support region. That region of common support confirms that the propensity score of the treatment group has “adjacent” comparable observations in the control group. Later on, correcting the selection bias through the matching methods, average treatment effect (ATE) can be estimated. ATE measures the impact of stimulus package on a range of socio-economic indicators of recipient households.

The estimated average treatment effect (ATE) can be defined as follows. The treatment denoted by $T_i$ equals 1 if the receiver $i$ receives a stimulus and 0 otherwise. The interested outcome of receiver $i$ is $Y_{i1}$ if the receiver $i$ receives stimulus and $Y_{i0}$ otherwise. Therefore, the treatment $T_i$ impact on stimulus $i$ is given by:

So, the average treatment effect (ATE) is defined as:

$$ATE = E(Y_{i1} - Y_{i0}|T = 1) * P(T = 1) + E(Y_{i1} - Y_{i0}|T = 0) * P(T = 0)$$

Where P(T=1) and P(T=0) are the probabilities of belonging to the treatment and comparison group respectively.

**Difference-in-Differences (DID)**

In brief, DID estimates are based on the difference in the changes in the outcome between treatment and control groups over time. The change in the outcome of control group is taken as what would have happened to the treatment group before the intervention. The DID, impact estimate is the difference between the changes over time for the two groups (received vs did not receive). In other words, it is based on subtracting the changes from before intervention outcome to the intervention outcome for the control group from the changes from before intervention to after intervention for the treatment group:

$$DID = (Y^1_{after} - Y^1_{before}) - (Y^0_{after} - Y^0_{before})$$

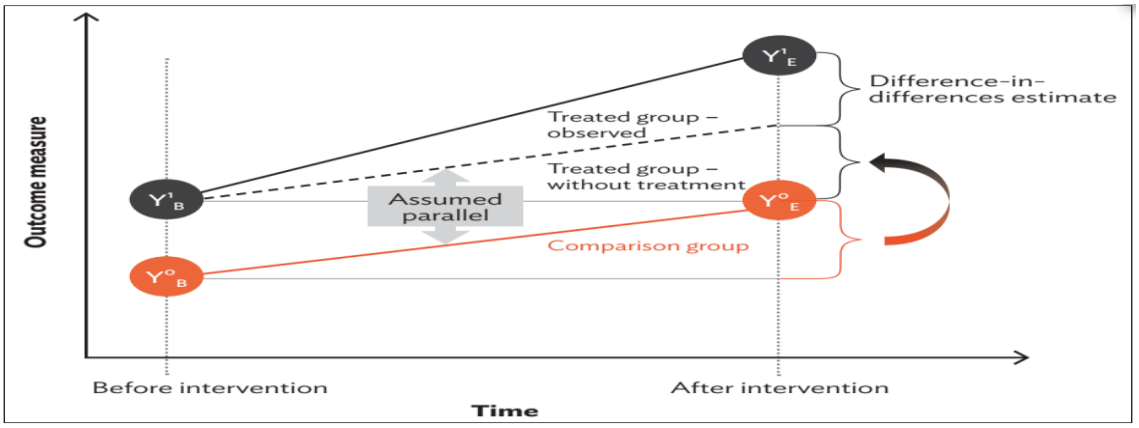
Applying the DID to assess the impact of the stimulus, the study considered two types of recipients: stimulus-receiving (treatment group) and stimulus-non-receiving (control group) over time. It appears that if the indicator's treated and control group values are the same at a base level, then it becomes equivalent to a single difference estimate.

The DID model equations for estimating the impact of the stimulus support on the entities financial performance are as follows:

$$Y_i = \beta 0 + \beta 1 * Time\ Periodi + \beta 2 * Stimulus\ Support\ Disbursementi + \beta 3 * (Time\ Periodi * Stimulus\ Support\ Disbursementi) + \varepsilon i$$

Where Yi is the dependent variable (financial variables), $\beta 1$ , *time* specific effect, $\beta 2$ Depends on stimulus receiving effects, $\beta 3$ depends on stimulus receiving effect over time.

**Figure C2: Graphical Illustration of Difference-in-Differences**




Source: White and Raitzer ,2017

In this study, we did not control any confounding variables, since time-varying confounder is affected by treatment and recovering an unbiased causal effect using difference-in-differences is difficult (Zeldow & Hatfield, 2021).

**Purchasing Managers' Index (PMI):**

Purchasing Managers' Index (PMI) is an index that is used to compare business performance in a particular period against another period. In this study, industries and service sectors' performance is based on before and after COVID-19 scenarios based on the specific well-structured questionnaire (Annex D). The PMI equation is as follows:

$$PMI = (P1 * 1) + (P2 * 0.5) + (P3 * 0)$$

P1 = percentage of answers reporting an improvement

P2 = percentage of answers reporting no change

P3 = percentage of answers reporting a deterioration

Value 1 is multiplied by the percentage number of answers that reported an improvement, 0.5 is multiplied by the percentage number of answers that reported no change, and 0 is multiplied with the percentage number of answers that reported deterioration.

Outcome variables descriptions:

To assess the impact of the stimulus support using DID model, the financial performance of the industry and service sector organization is a key issue that needs to be assessed. The variables that are widely used to measure financial performance of an entity are Total Asset (TA), Return on Asset (ROA), Debt-to-equity Ratio (DER), Net Profit before tax (NBT), Net Profit before tax (NBT), Number of Employees (NE), and Earnings per Share (EPS) (Burky & Suriawinata, 2020; Kurniawan, 2021; Patin et al., 2020)respectively.

The PMI has been constructed for the treatment group i.e. the enterprises receiving the stimulus support. In this method, PMI has 5 components, which are:

New Orders: The number of new orders received

Output or Production: The amount of output produced

Employment: Number of staff working for the organization

Suppliers' Delivery Times: Time lag between order placement and delivery by the supplier

Stocks of Purchases/Inventory levels: Raw materials purchased and kept in a warehouse to be used for production.

**Theories and Hypotheses Development for working capital loan for CMSMEs**

The components chosen to understand the efficacy and impact of the financial stimulus are (i) Knowledge, (ii) Access, (iii) Production, (iv) Delivering, and (v) Employing. Each component was selected to understand the packages' impact and efficacy. This led to hypotheses being formed for each component.

**Knowledge**

Knowledge is considered a key component in finance as it makes receiving financial help easier to obtain and to negotiate in order to avoid moral hazards and adverse selections. A study of enterprises in Indonesia showed that there are significant direct and indirect effects of financial knowledge on entrepreneurs (Bire et al., 2019).

**H1: There are positive effects of knowledge on the recovery from the stimulus package**

**Access**

Access to information is a key factor when considering economic growth. There is a direct relation between access to financial services and economic growth, as access allows for the taking of credit in order to expand businesses or purchase assets. Access is, therefore a key component to consider when assessing efficacy and impact of any such programs (A. Khan, 2001).

**H2: Access to the stimulus package had a positive impact on all operations of the business**

**Production**

Loans have been used in financing business operations at times of emergencies in the past. Loans for financing business operations are regarded as a key to stability when the enterprise is facing difficulties such as recessions, production slumps and exogenous shocks. The loans are a means of stability especially for small and medium sized businesses hence, it is important to look at the production capacity provided by these loans (Ozili, 2018).

**H3: The stimulus package increased the production of goods and services of CMSMEs**

**Delivery**

The COVID-19 pandemic created a massive shock for the world economy largely because of the lockdowns. Identifying this as the key obstacles for businesses it is important to look at how the stimulus loan aided businesses in overcoming this hurdle (Gourinchas et al., 2021).

**H4: The stimulus package increased the delivery of goods and services of CMSMEs**

**Employability**

A key concern for governments was immediate unemployment following the lockdowns. This was of particular concern as SMEs employ many people across the country. The working capital loans are expected to provide the enterprises with the ability to retain workers and maintain a reasonable unemployment rate (Kaufmann, 2020.).

**H5: The stimulus package increased the employment of labour in CMSME**

The use of SEM to assess the efficacy and impact of financial instruments have been studied in the past in Pakistan (Jordan, 2021) with regards to shocks. While this is considered an acceptable way to make an assessment it nonetheless lacks robustness. This is best solved using qualitative means as was in a study in Akhuwat, Bangladesh (R. M. N. Khan et al., 2021). Hence, using the SEM method with qualitative methods to account for robustness to assess the impact of the stimulus package is possible.

**Detailed methodology for all Package**

| **Package: Salary Support for Export Oriented RMG Industries** | |
|---|---|
| **Quantitative Analysis** | |
| A Sample survey was conducted from the third week of February 2022 to the second week of March 2023. | |
| Target Population | • Workers of BGMEA-certified garments industries that export 80% of their manufactured goods and must have paid off salaries for the months of December 2019 to February 2020.<br>• The target population was divided into two groups: (i) the treatment group, that received salary support under the stimulus package, and (ii) the control group that did not receive support from the stimulus package. |
| Area | • Areas/clusters were drawn from 3 districts (Dhaka, Narayanganj, and Gazipur) purposively where RMG workers and staff mostly live. |
| Sample size/selection of beneficiaries | • A cluster sampling is used to randomly selected 1518 RMG workers, 1479 gave their consent for interviewing (97.34%). Workers were selected randomly from each cluster.<br>• Treatment group: 985 (66.60%) and control group: 494 (33.40%)<br>• Detailed sample size selection described in Annex- B |
| Data collection | • A structured survey questionnaire was developed focused on RMG workers' welfare aspects, including economic, health, psychological, and social domains.<br>• Aiming to enhance data accuracy and quality, data collection was done using tablets with Kobo Toolbox software.<br>• A pilot study was conducted for pre-testing the questionnaire.<br>• Extensive training was provided to the enumerators |
| **Qualitative Analysis** | |
| Method | • Key-informant interviews (KIIs) were conducted with relevant stakeholders and field experts (a total of 13 people) |
| | |
| **Package: Working Capital Loans to Affected Industries and Service Sector** | |
| **Quantitative Analysis** | |
| A Sample survey was conducted from the second week of July 2023 to the second week of August 2023. It was email based survey. | |
| Method | • Field survey of large industries and service sector enterprises. |
| Target Population | • COVID-19 affected large export-oriented industries and service sector enterprises (RMG, pharma, hospitals, and plastic industries) that received working capital loans during the pandemic from May 2020 to July 2022.<br>• The target population was divided into two groups: (i) the treatment group that received working capital loans and (ii) the control group that did not receive the loan. |
| Area | • All over the country. |
| Sample size/selection of beneficiaries | • A simple random sampling technique was used to select a total of 128 industries and service enterprises registered with the Financial Reporting Council (FRC).<br>• Treatment group: 64 and control group: 64<br>• Among the selected 128 industries, only 30 (21 treatments and 9 control) industries and service enterprises provided financial information for pre-COVID-19, COVID-19, and post-COVID-19. |

| | |
|---|---|
| **Package: Working Capital Loans to Affected Industries and Service Sector** | |
| **Quantitative Analysis** | |
| | • List of Farms described in Table A18 of annex A.<br>• Response rate, treatment group- 32.81% and control group 14.06%.<br>• Detailed sample size selection described in Annex-B |
| Data collection | • A structured survey questionnaire was formulated to collect information on the financial performance of the industries and service enterprises from FY 2017-18 to FY 2021-22. |
| **Qualitative Analysis** | |
| Method | • Key-informant interviews (KIIs) were conducted with relevant stakeholders and field experts (a total of 13 people) |
| **Package: Working Capital Loans for the Cottage, Micro, Small and Medium Enterprises** | |
| **Quantitative Analysis** | |
| A Sample survey was conducted from the 28th of February to the 15th of March, 2023. | |
| Method | • Field survey |
| Target Population | • Business owner of Cottage, Micro, Small and Medium Enterprises<br>• A focus on identifying business owners who had received the stimulus funds. |
| Area | • Six districts across four divisions:<br>(i) Dhaka Division: Dhaka & Tangail<br>(ii) Chattogram Division: Chattogram & Cumilla<br>(iii) Khulna Division: Jashore<br>(iv) Rajshahi Division: Bogura<br>• Geographic distribution of responses is presented in Figure A7 of annex A, which offers an overview of the dataset's representation across different regions. |
| Sample size/selection of beneficiaries | • A total sample size of 645 CMSMEs was selected using multi-stage cluster sampling,<br>• Out of the 645 CMSMEs contacted for participation in the survey, 585 CMSMEs responded, resulting in a response rate of 90.7 percent.<br>• A refusal rate of 9.3% for the data collection phase.<br>• Detailed sample size selection described in Annex-B |
| Data collection | • A structured survey questionnaire was developed<br>• To enhance data accuracy and quality, data collection was done using tablets with Kobo Toolbox software.<br>• The enumerators were trained extensively with both the survey questionnaire and the tablet-base application |
| Qualitative Analysis | |
| Method | • Key-informant interviews (KIIs) were conducted with relevant stakeholders and field experts (a total of 8 people) |
| | |
| **Package: Revitalizing the rural economy and job creation** | |
| **Quantitative Analysis** | |
| A Sample survey was conducted between the 24th and 27th July. | |
| Target Population | • Micro finance/credit to the marginal people and woman entrepreneurs' beneficiaries from five Institutions.<br>• The target population was divided into two groups: (i) the treatment group, that received salary support under the stimulus package, and (ii) the control group that did not receive support from the stimulus package. |
| Area | • Areas/clusters were drawn from 4 districts (Dhaka city, Cumilla, Jashore, and Mymensingh) . |
| Sample size/selection of beneficiaries | • A stratified random sampling approach was used to select the respondents and stratification based on the institution under which the respondents got the micro-credit. Due to time and geographic constraints, these institutions were chosen based on their availability and level of cooperation<br>• A total of 778 respondents, 756 gave their consent for interviewing (97.17%). Entrepreneurs were selected randomly from each Strata.<br>• Treatment group: 389 (50.00%) and control group: 367 (47.17%)<br>• Detailed sample size selection described in Annex- B |

| **Package: Revitalizing the rural economy and job creation** | |
|---|---|
| **Quantitative Analysis** | |
| Data collection | • A structured questionnaire was designed in order to collect the information on economic activities, employment status, food consumption, and healthy behavior of the respondents.<br>• Aiming to enhance data accuracy and quality, data collection was done using tablets with Kobo Toolbox software.<br>• A pilot study was conducted for pre-testing the questionnaire.<br>• Extensive training was provided to the enumerators |
| **Qualitative Analysis** | |
| Method | • Key-informant interviews of administrators directly responsible with the stimulus disbursal, intermediaries, experts and academics in the field. (a total of 13 people)<br>• In addition, 3 focus group discussions were conducted with beneficiaries from Joyeeta Foundation, BNF and Social Development Foundation and The semi-structured interview also took place with a beneficiary of an Institution |

# Annex D: Survey Questionnaire

**Package: Salary Support for Export Oriented RMG Industries**

IS YOUR WORK EXPERIENCE EQUAL OR ABOVE THREE AND HALF YEARS?

- Yes
- No

**Workers Demographic Profile**

GENDER OF THE RESPONDENTS

- Male
- Female

STUDY ZONE

- Narayanganj
- Savar
- Gazipur

COMPANY NAME……

EDUCATIONAL LEVEL

- Uneducated
- Primary
- S.S.C
- H.S.C
- Honors
- Masters'
- Others

CURRENT AGE OF THE RESPONDENT

- Less than 15 Years
- 15-25 Years
- More than 25 Years

MARITAL STATUS

- Married
- Unmarried
- Others

NUMBER OF CHILDREN ……

FAMILY SIZE OF THE RESPONDENT……..

NUMBER OF OTHER EARNING MEMBERS IN THE FAMILY.....

NUMBER OF DEPENDENTS…….

MONTHLY SALARY

- 5-8K
- 8-12K
- More than 12K

DID YOU RECEIVE ANY SALARY SUPPORT?

- Yes
- No

MODE OF THE RECEIVAL OF SALARY SUPPORT

- Bank Account
- Mobile Financial Service
- Hand Cash

IF YES, WHAT WAS THE % OF SALARY SUPPORT?

- Low (10-30%)
- Medium (30-60%)
- High (More than 60%)

THE SALARY SUPPORT WAS SUFFICIENT

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

WORKER'S JOB TYPES

- Production Section (Daily Wage Basis)
- Registered Employee
- Others

THE SALARY SUPPORT WAS ESSENTIAL

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

HOW DISTRESSING WAS IT FOR YOU TO SURVIVE WITHOUT THE SALARY SUPPORT?

- Strongly distressing
- distressing
- Indifferent
- Less distressing
- Severely distressing

**Economic Aspects**

YOU WERE BETTER OFF WITHOUT THE SALARY SUPPORT?

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

YOUR EXPENDITURE ON FOOD ITEMS WAS LOWER THAN BEFORE COVID-19.

- Strongly Agree
- Agree
- Neutral
- Disagree

- Strongly Disagree

YOUR EXPENDITURE ON NON-FOOD ITEMS WAS LOWER THAN BEFORE COVID-19.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

PLACE OF RESIDENCE DURING COVID-19

- Urban
- Rural

WHERE DID YOU STAY?

- Rent
- Own House

YOU WERE ABLE TO PAY RENT REGULARLY

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

DID YOU TEMPORARILY SWITCH YOUR JOB DURING THE COVID 19 PERIOD TO SURVIVED?

- Yes
- No

IF YES, TYPES OF THE SWITCH JOB

- Farming
- Day laborer
- Others

YOU WERE ABLE TO PAY WATER BILLS REGULARLY

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

YOU WERE ABLE TO PAY GAS BILLS REGULARLY

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

YOU WERE ABLE TO PAY WATER BILLS REGULARLY

- Strongly Agree
- Agree
- Natural
- Disagree
- Strongly Disagree

YOU WERE ABLE TO PAY INTERNET BILLS AND/OR RECHARGE YOUR MOBILES REGULARLY

- Strongly Agree
- Agree

- Neutral
- Disagree
- Strongly Disagree

WERE YOU ABLE TO SEND YOUR CHILDREN TO SCHOOL/PAY FOR HIS EDUCATION DURING THE PANDEMIC?

- Yes
- No

DID YOU TAKE A LOAN?

- Yes
- No

IF YES, WHAT WAS THE AMOUNT? ……

DID YOU HAVE ANY SAVINGS DURING THOSE MONTHS?

- Yes
- No

IF YES, WHAT WAS THE AMOUNT? ……..

**Health Aspects**

WERE YOU INFECTED BY THE COVID-19 VIRUS?

- Yes
- No

YOU WERE ABLE TO PAY YOUR HEALTHCARE BILLS REGULARLY

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
-

YOU WERE ABLE TO BUY MASKS FOR THE PROTECTION FROM COVID-19 VIRUS

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

YOU WERE ABLE TO BUY SANITIZER FOR THE PROTECTION FROM COVID-19 VIRUS

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

YOU WERE ABLE TO BUY HAND WASH FOR THE PROTECTION FROM COVID-19 VIRUS

- Strongly Agree

- Agree
- Neutral
- Disagree
- Strongly Disagree

DID YOUR FACTORY PROVIDE YOU WITH ANY COVID-19 HYGIENE SAFETY KIT?

- Yes
- No

**Psychological and Social Aspects**

THE SALARY Support was ABLE TO REDUCE THE FINANCIAL CRISIS IN YOUR FAMILY

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

YOU HAD MENTAL HEALTH ISSUES DURING COVID-19

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

YOUR MENTAL WELLBEING IMPROVED DUE TO SALARY SUPPORT

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

THE SALARY SUPPORT MADE YOU MOTIVATED TO WORK FOR THE INDUSTRY.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

SALARY SUPPORT HAS HELP TO REDUCE FAMILY FEUD

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

RECEIVING SALARY SUPPORT IMPROVED YOUR SOCIAL STANDARD IN THE COMMUNITY.

- Strongly Agree
- Agree

- Neutral
- Disagree
- Strongly Disagree

DO YOU HAVE EXTENDED FAMILY?

- Yes
- No

DO YOU HAVE EXTENDED FAMILY?

- Yes
- No

WERE YOU ABLE TO SUPPORT YOUR EXTENDED FAMILY IN COVID-19?

- Yes
- No

**Package: Working Capital Loan for Affected Industries & Service Sector**

**Industry/Service Sector Organization Profile**

**Entity Name:**

**Stimulus Support Receival Status:** ☐Yes ☐ No

If Yes, Stimulus Support Receival Date: _____/_____/_____(dd/mm/yyyy)

Stimulus Support Amount: _____BDT

**Respondent Name:**

**Designation:**

**E-mail Id:**

**Phone No.:**

**Part A (Key Performance Indicator Details)**

| Indicators | FY 2017-18 | FY 2018-19 | FY 2019-20 | FY 2020-21 | FY 2021-22 |
|---|---|---|---|---|---|
| **Total Assets** | | | | | |
| **Return on Assets (ROA)** | | | | | |
| **Return on Equity (ROE)** | | | | | |
| **Fixed Assets** | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| **Net Profit Before Tax** | | | | | |
| **Net Profit After Tax** | | | | | |
| **Number of employees** | | | | | |
| **Debt to Equity Ratio** | | | | | |
| **Earnings per share (EPS)** | | | | | |
| **Diluted EPS** | | | | | |
| **Investment** | | | | | |
| **Long Term Loan** | | | | | |
| **Short Term Loan** | | | | | |
| **Dividend** | | | | | |

**Part B (Challenges Faced During the COVID-19 Pandemic)**

**You can select multiple answers.**

1. **What kind of difficulties did you face in the Production Process?**

☐ Shortage of Inventory

☐ Exporting goods

☐ Low demand

☐ Outsourcing Production

☐Others: _____

2. **What type of difficulties did you face as regards the Employment Scenario?**

☐ Wages were difficult to give

☐ Workers were difficult to hire after lockdown

☐ Most workers left for their homes/villages

☐ Temporary workers were retrenched mostly

☐ Permanent workers were retrenched mostly

☐Others: _____

**3. What were the difficulties faced in meeting up the Expenditures?**

☐ Expenditure on fuel was more than the pandemic period

☐ Raw materials costs were higher than the pandemic period

☐ It was difficult to pay for outstanding loan payments

☐ It was difficult to pay for R&D activities

☐Others: _____

**4. What type of difficulties did you face as regards the Disbursement Scenario?**

☐ We had order cancellations from local buyers

☐ We had order cancellations from foreign buyers

☐ Shipping was not available

☐ We had supply delays

☐ We had too much stock of our finished goods

☐ Stock of raw materials was low

☐ Our distribution Channel(s) was/were disturbed

☐Others: _____

**5. What were the Operational Challenges faced by your organization?**

☐ Shortage of cash flows

☐ Shortage of inputs

☐ Difficulties fulfilling contracts

☐ Shortage of workers

☐Others: _____

**6. What were the Financial Challenges faced by your organization?**

☐ Fixed cost payments (Rent, insurance, etc.)

☐ Loan repayments

☐ Payment of invoices/deliveries

☐ Others: _____

**7. What were the External Factors that impacted your Organisation?**

☐ Reduction of orders

☐ Downward pressure on prices

☐ Others: _____

**Part C- Purchasing Managers Index Data for Industries**

| Time period | New Orders | Production /Output Level (in Crore BDT) | Suppliers ' Delivery Times (in days) | Sales (in Crore BDT) | Inventory Levels (in Crore BDT) | Number of employees | Electricity/ Fuel Usage Kilowatt-hour (kWh) |
|---|---|---|---|---|---|---|---|
| **Pre-COVID Scenario** | | | | | | | |
| Feb 2019 | | | | | | | |
| Feb 2020 | | | | | | | |
| **COVID Scenario** | | | | | | | |
| May 2019 | | | | | | | |
| May 2020 | | | | | | | |
| **Business Revival Scenario** | | | | | | | |
| Feb 2020 | | | | | | | |
| Feb 2021 | | | | | | | |

**N.B.: a- Time lag between order placement and delivery by the supplier**

**b- Raw materials purchased and kept in a warehouse to be used for production**

**Part C-Purchasing Managers Index Data for Service Sector Organizations**

| Time period | Inventory Levels (in Crore BDT) | Current Investments (in Crore BDT) | Net Profit After Tax (in Crore BDT) | Number of employees | Electricity Usage Kilowatt-hour (kWh) |
|---|---|---|---|---|---|
| **Pre-COVID Scenario** | | | | | |
| Feb 2019 | | | | | |
| Feb 2020 | | | | | |
| **COVID Scenario** | | | | | |
| May 2019 | | | | | |

| Time period | Inventory Levels (in Crore BDT) | Current Investments (in Crore BDT) | Net Profit After Tax (in Crore BDT) | Number of employees | Electricity Usage Kilowatt-hour (kWh) |
|---|---|---|---|---|---|
| May 2020 | | | | | |
| **Business Revival Scenario** | | | | | |
| Feb 2020 | | | | | |
| Feb 2021 | | | | | |

**Package: Working Capital Loan For CMSMEs**

**CMSMEs Profile**

NUMBER OF EMPLOYEES IN THE ENTERERPRISE

- Less than to
- Between 10-24
- Between 25-99
- Between 100 250

CATEGORY OF RESPONDENTS

- Cottage Entrepreneurs
- Micro Entrepreneurs
- Small Entrepreneurs
- Medium Entrepreneurs

GENDER

- Male
- Female

EDUCATION LEVEL

- No Education
- Primary
- Secondary
- Higher Secondary
- Graduate

DIVISION OF OPERATION

- Dhaka
- Chittagong
- Rajshahi
- Khulna

RESIDENCE

- Rural
- Urban

INDUSTRY

- Service
- Manufacture

(AGE IN YEARS) …….

YEARS OF EXPERIENCE ……..

EXISTENCE OF TIN ACCOUNT …….

- Yes
- No

DO YOU REGULARLY SUBOT TAX RETURNY

- Yes
- No

SOURCE OF RAW MATERIALS FOR THE PRODUCTION OF YOUR ENTERPRISE

- Local
- Foreign
- Both

WHICH IS YOUR TARGETED MARKET?

- Local
- Foreign
- Both

DID YOU RECEIVE FINANCIAL SUPPORT FROM ANY NGOS?

- Yes
- No

HOW DID YOU INVESTE THE CAPITAL OF STIMULUS PACKAGET

- On business recovery
- To start new business
- To repay loan
- To pay wage of workers

STIMULUS PACKAGES TARGETING SAJES PLEASE RATE YOUR LEVEL OF AGREEMENT REGARDING KNOWLEDGE ABOUT STIMULLYS BACKAGES WITH THE FOLLOWING STATEMENTS

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

I WAS INFORAIED ABOUT ALL KINDS OF STIMULUS PACKAGES ON OFFER

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

LEARNED ABOUT THE PACKAGES FROM SOCIAL MEDIA

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

LEARNED ABOUT THE PACKAGES FROM TV & RADIO

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

LEARNED ABOUT THE PACKAGES FROM NEWSPAPER

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

I KNOW OTHER SMES WHO RECEIVED PACKAGES

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

STIMULUS PACKAGES TARGETING SMES, PLEASE RATE YOUR LEVEL OF AGREEMENT REGARDING ACCESS TO STIMULUS PACKAGES WITH THE FOLLOWING STATEMENTS

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

I KNOW THE DOCUMENT PREPARATION PROCESS TO RECEIVE THE PACKAGES

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

PREPARING DOCUMENTS FOR RECEIVING THE STIMULUS WAS EASY

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

FINANCIAL LITERACY OF SME OWNERS IS ESSENTIAL TO GET ACCESS TO VARIOUS BANKING PRODUCTS

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

LEARNED ABOUT THE PACKAGES FROM OTHER SME OWNERS

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

I KNOW OTHER SME OWNERS WHO APPLIED FOR THE PACKAGE

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

WE HAD TO USE ALTERNATIVE MEANS OF RECEIVING PRIMENTS FROM CUSTOMERS

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

THE STIMULLIS PACKAGE HELPED IN PAVING FOR THESE UNFORESEEN COSTS

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

PLEASE RATE YOUR LEVEL OF AGREEMENT WITH THE CHALLENGES TO EMPLOYING YOUR WORKER

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

IT WAS DIFFICULT TO PAY EMPLOYEES DURING THE LOCKDOWN

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

WE NEEDED TO PURCHASE HYGIENE AND SAFETY PRODUCTS FOR OUR WORKERS

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

THE STIMULUS AMOUNT WAS USED TO PAY EMPLOYEES WAGES

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

THE STIMULUS AMOUNT WAS LISED TO PAY EMPLOYEES SAFETY MEASURES

- Strongly Agree
- Agree
- Neutral
- Disagree

- Strongly Disagree

DO YOU AGREE THAT GOVT. ANNOUNCED STIMULUS PACKAGE SUPPORT YOUR BUSINESS TO RECOVER FROM THE PANDEMIC?

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

WOULD YOU LIKE TO PROVIDE ANY SUGGESTIONS FOR IMPROVING THE DESIGN AND DELIVERY OF FUTURE STIMULUS? .....

**Package**: **Revitalizing the rural economy and job creation.**

Personal & Family information's

NAME…….

AGE (IN YEAR) …….

GENDER OF THE RESPONDENT

- Male
- Female

EDUCATIONAL QUALIFICATIONS

- Primary
- Secondary
- Higher Secondary
- Hons. & Above
- No Institutional Education
- Others (Specify):

OTHERS (SPECIFY):

NUMBER OF FAMILY MEMBERS (LIVING WITH) …….

NUMBER OF DEPENDENT CHILDREN …….

NUMBER OF DEPENDENT ELDERLY……

NUMBER OF DEPENDENT SIBLING…….

DO YOU HAVE ANY SCHOOL GOING CHILDREN? .....

- Yes
- No
- Not Applicable

NO. OF SUCH CHILDREN…….

WHICH ORGANIZATION ARE YOU AFFILIATED?

- Joyeeta Foundation
- NGO Foundation
- BRBD
- SFDF
- PDBF
- SDF

WERE YOU A BENEFICIARY OF THE ORGANIZATION BEFORE THE PANDEMIC (TILL DECEMBER 2021)?

- Yes
- No

**Stimulus Information**

HAVE YOU RECEIVED THE COVID-19 STIMULUS LOAN?

- Yes
- No

WAS THE AMOUNT ADEQUATE?

- Yes
- No

WHAT WAS THE LOAN AMOUNT?

…….

WHAT WAS THE INTEREST RATE?

……

WHERE HAVE YOU USED THE DISBURSAL?

- Business Operation
- Family Expenses
- Redemption of old debts
- Asset creation (Enterprise activities)
- Other Activities

**Financial Information**

MONTHLY INCOME/TURNOVER/PROFIT

……..

MONTHLY SAVINGS

……..

TOTAL CONSUMPTION EXPENDITURE

……..

DURABLE CONSUMPTION EXPENDITURE (YEARLY)

……..

TOTAL FOOD CONSUMPTION EXPENDITURE

…….

TOTAL NON-FOOD CONSUMPTION EXPENDITURE

…….

HOUSEHOLD ASSET(BDT)

……..

OUTSTANDING LOANS(BDT)

……..

MEDICAL EXPENDITURE (12 MONTH AVG.)

……..

**Business Information**

AREA OF WORK?

- Agriculture
- Manufacturing
- Service

HAVE YOU RECEIVED ANY ENTREPRENEURSHIP TRAINING?

- Yes
- No

**Assessment of Poverty using multiple dimensions**

STRUCTURE USED FOR HOUSEHOLD:

- Jhupri
- Kacha
- Semi-paka
- Paka

DOES YOUR HOUSE HAVE ELECTRICITY ACCESS?

- Yes
- No

DOES YOUR HOUSEHOLD HAVE?

- Radio
- Refrigerator
- Television
- Non-mobile Telephone
- Mobile Telephone
- Bicycle
- Motorbike/ Scooter
- Car
- Truck
- Computer
- Animal-drawn Cart

**Impact Assessment Criteria (Economic Aspects)**

WHAT TYPE OF WORK DO YOU DO?

- Agriculture/Consumer Goods production
- Processing/Packaging
- Daily Use Products production
- Retail
- Transportation
- Other (specify)

OTHERS(SPECIFY):

…….

HAS YOUR SOURCE OF INCOME CHANGED DURING THE PANDEMIC (TILL DECEMBER 2021)?

- Yes
- No

I COULD REGULARLY PAY LAND TAX

- Yes
- No

I COULD REGULARLY PAY MUNICIPALITY TAX

- Yes
- No

DO YOU PAY OTHER KIND OF TAXES?

- Yes
- No

YES(SPECIFY):

……..

COULD YOU REGULARLY PAY THOSE TAXES?

- Yes
- No

COULD REGULARLY PAY FOR FUEL (COOKING AND WORK) *

- Yes
- No

I COULD REGULARLY PAY MOBILE BILLS *

- Yes
- No

MY SAVINGS PATTERN WAS IMPACTED

- Very Badly
- Badly
- Stayed the Same
- In a good way
- In a very good way

DID YOU HAVE ANY FINANCIAL PLANS PRE-COVID? *

- Yes
- No

HOW HAS COVID-19 AFFECTED THEM IN THE MEDIUM TERM (2-5 YEARS) *

- Very Badly
- Badly
- Stayed the Same
- In a good way
- In a very good way

HOW HAS COVID-19 AFFECTED THEM IN THE LONG TERM (MORE THAN 5 YEARS)

- Very Badly
- Badly
- Stayed the Same
- In a good way
- In a very good way

IF FINANCIAL PLANS WERE IMPACTED, HOW LONG DID IT TAKE FOR YOU TO RETURN TO THE PRE-COVID STATE?

- 1 to less than 3 months
- 3 to less than 6 months
- 6 to 12 Months
- More than 12 Months

THE MICROLOAN PROVIDED ME WITH THE FUNDS TO KEEP MY BUSINESS/FARM OPERATING *

- Yes
- No

NUMBER OF SOURCES OF HOUSEHOLD INCOME

- Decreased Greatly
- Decreased Somewhat
- Stayed the same
- Increased Somewhat
- Increased Greatly

**Impact Assessment Criteria (Loan aspects)**

THE INTEREST RATE ON THE COVID-19 LOAN WAS BENEFICIAL TO US IN A

- In a very good way
- Good way
- Moderate way

THE INSTALLMENT AMOUNT AND PERIOD SHOULD BE MORE FLEXIBLE

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

**Impact Assessment Criteria (Access to Finance)**

DO YOU HAVE A BANK ACCOUNT? *

- Yes
- No

DO YOU USE MOBILE BANKING?

- Yes
- No

DID YOU TAKE ANY LOANS FROM OTHER SOURCES EXCEPT FOR THE COVID-19 LOAN?

- Yes
- No

WHAT WAS THE AMOUNT?

…. .. .. … . …….

WHAT WAS THE SOURCE?

- Bank
- Relatives
- Friends
- Others

Impact Assessment Criteria (Business Aspects)

I COULD CONTINUE WORKING AND EARNING DURING THE LOCKDOWN

- Yes
- No

I FOUND A NEW SOURCE OF INCOME DURING THE LOCKDOWN

- Yes
- No

THE SIZE OF MY BUSINESS/FARM/LIVESTOCK

- Decreased Greatly
- Decreased Somewhat
- Stayed the same
- Increased Somewhat
- Increased Greatly

THE AMOUNT OF TIME I WORKED DURING THE PANDEMIC (TILL DECEMBER 2021)

- Decreased Greatly
- Decreased Somewhat

- Stayed the same
- Increased Somewhat
- Increased Greatly

WE HAD ACCESS TO RAW MATERIALS THROUGHOUT THE PANDEMIC (TILL DECEMBER 2021) *

- Yes
- No

WE COULD PROVIDE OUR SERVICES/PRODUCTS TO OUR CUSTOMERS

- Yes
- No

THERE WERE DELAYS IN OUR DISTRIBUTION/ SERVICE DELIVERY

- Yes
- No

**Impact Assessment Criteria (Employment)**

DO YOU EMPLOY ANYONE?

- Yes
- No

NUMBER OF FAMILY WORKERS

…….

NUMBER OF HIRED WORKERS

……

RATIO OF FAMILY TO HIRED WORKERS

…….

THE NUMBER OF PEOPLE THAT WORKED FOR ME DURING THE PANDEMIC (TILL DECEMBER 2021)

- Increased
- Stayed the same
- Decreased

I PROVIDED MY WORKERS WITH MASKS AND OTHER SANITARY EQUIPMENT

- All of them
- Some of them
- None of them

I PROVIDED MY WORKERS WITH MASKS AND OTHER SANITARY EQUIPMENT

- All of them
- Some of them
- None of them

I PAID MY WORKERS DURING THE PANDEMIC (TILL DECEMBER 2021)

- Always
- Sometimes
- Never

**Impact Assessment Criteria (Food)**

HOW DID YOUR CONSUMPTION OF RICE CHANGE DURING THE PANDEMIC (TILL DECEMBER 2021)?

- Decreased Greatly
- Decreased Somewhat
- Stayed the same
- Increased Somewhat
- Increased Greatly

HOW DID YOUR CONSUMPTION OF VEGETABLES CHANGE DURING THE PANDEMIC (TILL DECEMBER 2021)?

Decreased Greatly

- Decreased Somewhat
- Stayed the same
- Increased Somewhat
- Increased Greatly

HOW DID YOUR CONSUMPTION OF DAAL CHANGE DURING THE PANDEMIC (TILL DECEMBER 2021)?

- Decreased Greatly
- Decreased Somewhat
- Stayed the same Increased
- Somewhat Increased Greatly

HOW DID YOUR CONSUMPTION OF EGGS CHANGE DURING THE PANDEMIC (TILL DECEMBER 2021)?

- Decreased Greatly
- Decreased Somewhat
- Stayed the same
- Increased Somewhat
- Increased Greatly

HOW DID YOUR CONSUMPTION OF MEAT (FISH, CHICKEN, BEEF) CHANGE DURING THE PANDEMIC (TILL DECEMBER 2021)?

- Decreased Greatly
- Decreased Somewhat
- Stayed the same Increased
- Somewhat Increased Greatly

**Impact Assessment Criteria (Health Aspects)**

WERE YOU ABLE TO PAY FOR MEDICINE DURING THE PANDEMIC (TILL DECEMBER 2021)?

- Yes
- No

DID YOU BUY SANITIZERS FOR THE PANDEMIC (TILL DECEMBER 2021)?

- Yes
- No

DID YOU BUY FACE MASKS DURING THE PANDEMIC (TILL DECEMBER 2021)?

- Yes
- No

DID YOU GO TO THE HOSPITAL/CLINIC DURING THE PANDEMIC (TILL DECEMBER 2021) TO CHECK FOR ILLNESS?

- Yes
- No

**Impact Assessment Criteria (Health Aspects)**

WERE YOU ABLE TO PAY FOR MEDICINE DURING THE PANDEMIC (TILL DECEMBER 2021)?

- Yes
- No

WERE YOU ABLE TO PAY FOR MEDICINE DURING THE PANDEMIC (TILL DECEMBER 2021)?

- Yes
- No

DID YOU BUY SANITIZERS FOR THE PANDEMIC (TILL DECEMBER 2021)?

- Yes
- No

DID YOU BUY FACE MASKS DURING THE PANDEMIC (TILL DECEMBER 2021)?

- Yes
- No

DID YOU GO TO THE HOSPITAL/CLINIC DURING THE PANDEMIC (TILL DECEMBER 2021) TO CHECK FOR ILLNESS?

- Yes
- No

**Impact Assessment Criteria (Psychological Aspects)**

I WAS AFRAID FOR MY FAMILY'S WELL-BEING DURING THE PANDEMIC (TILL DECEMBER 2021)

- Never
- Hardly Ever
- Neutral Frequently
- All the time

I WOULD THINK AND WORRY ABOUT MANY THINGS TOGETHER

- Never
- Hardly Ever
- Neutral frequently
- All the time

I HAD PROBLEMS RELAXING DURING THE PANDEMIC (TILL DECEMBER 2021)

- Never Hardly
- Ever Neutral
- frequently
- All the time

I WAS RESTLESS DURING THE PANDEMIC (TILL DECEMBER 2021)

- Never
- Hardly Ever
- Neutral frequently
- All the time

I WAS EASILY ANNOYED AND IRRITABLE

- Never Hardly
- Ever Neutral
- Frequenty
- All the time

I WAS WORRIED SOMETHING AWFUL WOULD HAPPEN

- Never Hardly

- Ever Neutral frequently
- All the time

**Impact Assessment Criteria (Socio-Economic Aspects)**

WAS ABLE TO HELP MY FRIENDS FINANCIALLY

- Never Hardly
- Ever Neutral
- frequently
- All the time

I WAS ABLE TO HELP MY COMMUNITY THROUGH CHARITY

- Never Hardly
- Ever Neutral
- frequently
- All the time

I WAS ABLE TO PROVIDE FINANCIAL HELP TO MY RELATIVES

- Never Hardly
- Ever Neutral
- frequently
- All the time

I WAS ABLE TO SHELTER PEOPLE IN MY HOUSE

- Never Hardly
- Ever Neutral
- Frequently
- All the time

I WAS ABLE TO FEED (CHARITY, GUESTS) PEOPLE BEYOND MY IMMEDIATE FAMILY

- Never
- Hardly Ever
- Neutral Frequently
- All the time

I CONTRIBUTED MORE TO MY FAMILY'S INCOME

- Never
- Hardly Ever
- Neutral frequently
- All the time

I WAS MORE ACTIVE IN HOUSEHOLD DECISION MAKING

- Never
- Hardly Ever
- Neutral frequently
- All the time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