IMPACT OF COVID-19 ON LIVELIHOODS OF STREET VENDORS IN DHAKA CITY, BANGLADESH

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IMPACT OF COVID-19 ON LIVELIHOODS OF STREET VENDORS IN DHAKA CITY, BANGLADESH

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This is to certify that the thesis entitled **'IMPACT OF COVID-19 ON LIVELIHOODS OF STREET VENDORS IN DHAKA CITY, BANGLADESH'** conducted by **MD. MAHMUDUL HAQUE,** bearing Registration No. 19-10401 (**July-December/2021**), under my supervision and guidance in the partial fulfilment of the requirements for the degree of **MASTER OF SCIENCE (MS) IN DEVELOPMENT AND POVERTY STUDIES** in the Faculty of Agribusiness Management, Sher-e-Bangla Agricultural University, Dhaka 1207, Bangladesh. No part of this thesis has been submitted for any other degree or diploma.

I further certify that any help or source of information received during this study has been dully acknowledgement by him.

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Dedicated to

My Beloved Parents

ACKNOWLEDGEMENT

Md. Mahmudul Haque

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LIST OF ACRONYMS AND ABBREVIATIONS

ACRONYM	ABBREVIATIONS
BDT	Bangladeshi Taka
CRC	Johns Hopkins Coronavirus Resource Center
DGHS	Directorate General of Health Services
DCC	Dhaka City Corporation
DNCC	Dhaka North City Corporation
DNCC	Dhaka North City Corporation
DWASA	Dhaka Water Supply and Sewerage Authority
Eq.	Equation
FAO	Food and Agriculture Organization
FDA	U.S. Food and Drug Administration
IEDCR	Institute of Epidemiology, Disease Control, and Research
LAI	Livelihood Assessment Index
MoYS	Ministry of Youth and Sports
NGO	Non-Government Organization
NPUSV	National Policy for Urban Street Vendors
SLF	Sustainable Livelihood Framework
SSNPs	Social Safety Net Programs
UNDP	United Nations Development Programme
WHO	World Health Organization
WIEGO	Women in Informal Employment: Globalizing and Organizing (WIEGO)
WWF	World Wildlife Fund

ABSTRACT

The COVID-19 outbreak created the most significant challenge after World War II, and Bangladesh is one of the top 33 countries that have been affected. Street vendors in Dhaka city are an integral part of urban economies. Since the COVID-19 pandemic affected all areas, they also suffered from this situation. The study aims to investigate the impact of COVID-19 on the livelihoods of street vendors. To attain the objectives, primary data were collected from 122 respondents using simple random sampling in three areas of Dhaka city with a pre-tested questionnaire in March-April 2022. Descriptive statistics and the livelihood assessment index (LAI) method were used to analyze the data. The results showed that COVID-19 had a negative impact on the livelihoods of street vendors. The pandemic affected different capitals of the sustainable livelihood framework (SLF) in different ways, with social capital extended and financial and human capital compensating, while other capital remained constant. Street vendors' household income decreased during the pandemic, and though many were expected to migrate to the village, only a few did. Street vendors managed to sustain their livelihoods through vending businesses, taking loans from various sources, and spending their previous savings. To protect this vulnerable group from future similar events, they need to be encouraged to save more and strengthen their social capital. This study provides a clear understanding of the adverse effects of COVID-19 on the livelihoods of street vendors in Dhaka city. It highlights the need for effective policy measures to mitigate the impact in the future.

<div align="center">**CHAPTER I**</div>

<div align="center">**INTRODUCTION**</div>

1.1. Introduction

This chapter illustrates the background of this research. Further, it presents the background of the study, followed by the problem statement, rationale of the study, research objectives, and organization of the thesis. This chapter ends with the scope of this study and a chapter summary.

1.2. Background of the Study

The Covid-19 outbreak created the most significant challenge after World War II in this globalization era. It caused a crucial health crisis in human life with an extensive distortion of livelihood (The Economist Intelligence Unit, 2020). The first case of Coronavirus was reported from Wuhan, China, on 31 December 2019 (WHO, 2020a). It was a coronavirus disease named COVID-19, the seventh coronavirus to invade human life until now (Zhu et al., 2020). COVID-19 had a more significant impact on the economy and financial markets than in previous pandemic crises due to strict public limitations on social and economic activity (Koch et al., 2020). This caused a negative impact on the livelihood of people in all sectors.

1.3. Global COVID-19 Situation

According to the Johns Hopkins Coronavirus Resource Center (CRC), the global confirmed cases were 513,798,371, and the total number of deaths was 6,264,624 on 30 April 2022. Figure 1.1 shows the trend of the daily confirmed cases worldwide from 01 March 2020 to 30 April 2022. World Health Organization (WHO) announced COVID-19 as a global pandemic on 11 March 2020 (WHO, 2020b). Since COVID-19 spread rapidly with physical contact and droplet infection, many patients often remained asymptomatic and infected others since there was no vaccine since it invaded (Godman, 2020). COVID-19 had sparked in daily life with a severe crisis in socio-economic sectors and prevention strategies.

Daily new confirmed COVID-19 cases
Due to limited testing, the number of confirmed cases is lower than the true number of infections.

Source: Johns Hopkins University CSSE COVID-19 Data

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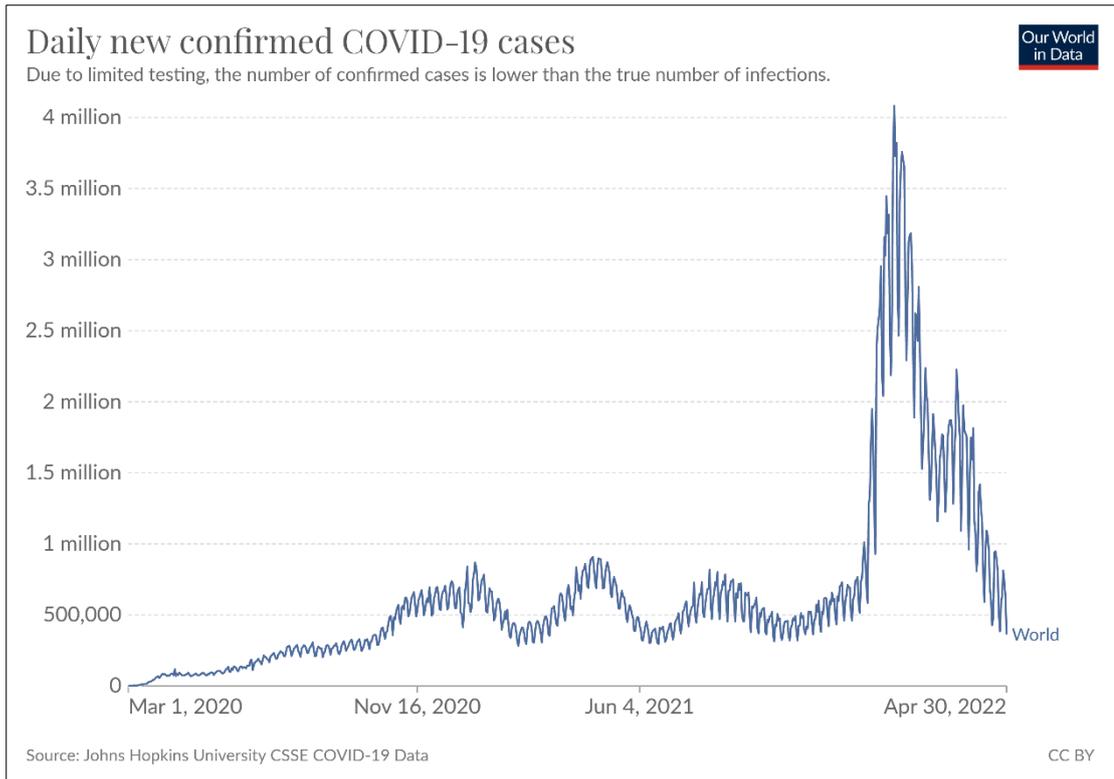
Figure 1.1 Global daily new confirmed COVID-19 cases till 30 April 2022

Source: Johns Hopkins University CSSE COVID-19 Data and Visualized from https://ourworldindata.org/

The global pandemic was no longer limited to the health crisis. It extended an unprecedented devastating impact on the socio-economic sector and seemed to disperse scars in the long run (UNDP, 2020). During the pandemic, the economic sector faced tremendous change. Its implications and impacts are studied as "Coronanomics" (Eichengreen, 2020). Due to this pandemic, the world experienced a "de-globalization" constraining inter-national locked down, forestalling typical progressions of products, and temporary shut-down of business and production (Barua, 2020).

1.4. COVID-19 Scenario in Bangladesh

Bangladesh faced several challenges to overcome the situation as a lower developing country. With a global crisis, it was very tough to cope with the situation as the socio-economic characteristics are quite different from the whole world.

The first case was confirmed in Bangladesh on 08 March 2020 (IEDCR, 2020). According to the press release on 01 May 2022 by the Directorate General of Health

Services (DGHS), Ministry of Health and Family Welfare, Government of People's Republic of Bangladesh, the country had confirmed COVID-19 positive cases of 19,52,716 and the total deaths were 29,127 with 1,39,93,109 lab tests including antigen tests till 30 April 2022. Bangladesh was among the top 33 countries with 0.51% of the world's COVID-19 incidents (WHO, 2021).
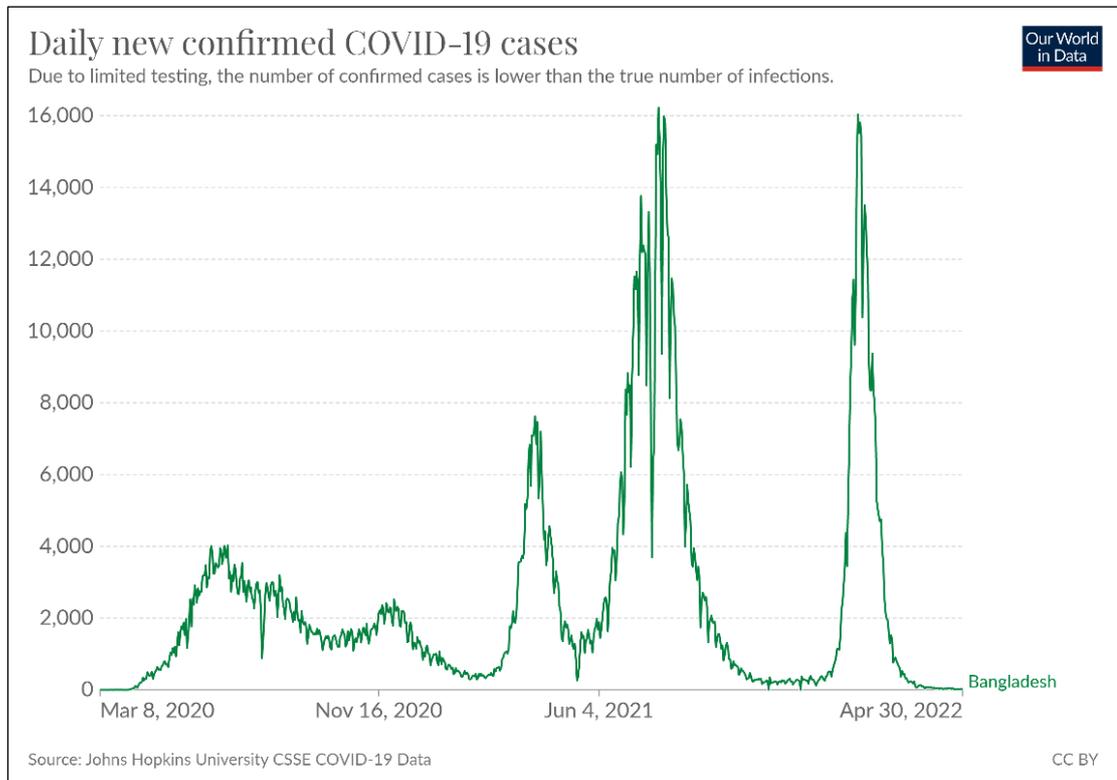
Figure 1.2 Daily new confirmed COVID-19 cases in Bangladesh till 30 April 2022

(Source: Johns Hopkins University CSSE COVID-19 Data and Visualized from https://ourworldindata.org/)

Figure 1.2 shows the trend of the daily confirmed cases in Bangladesh from 08 March 2020 to 30 April 2022. The highest number of cases reported in Bangladesh was 16,230 on 28 July 2021, and the highest number of deaths was 264 on 5 Aug 2021 (CRC, 2022). Figure 1.3 indicates the comparative scenario among the COVID-19 cases, tests, positive rate, and reproduction rate with a 7-day rolling average in Bangladesh till 30 April 2022. Here, the reproduction rate represents the average number of new infections caused by a single infected individual. If the rate was greater than 1, the disease could spread in the population. If it is below 1, the number of cases in the population will gradually decrease to zero (Our World in Data, 2022).

COVID–19 cases, tests, positive rate, and reproduction rate

7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections. Comparisons across countries are affected by differences in testing policies and reporting methods.

Source: Johns Hopkins University CSSE COVID-19 Data, Official data collated by Our World in Data, Arroyo-Marioli F, Bullano F, Kucinskas S, Rondón-Moreno C (2021) Tracking R of COVID-19: A new real-time estimation using the Kalman filter.
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Figure 1.3 COVID-19 cases, tests, positive rate, and reproduction rate with 7-day rolling average in Bangladesh till 30 April 2022

(Source: Johns Hopkins University CSSE COVID-19 Data and Visualized from https://ourworldindata.org/)

After observing COVID-19 spreading, educational institutes were closed down from 17 March 2020 to prevent the spread of the virus (Ministry of Education, Bangladesh, 2020). The first death from coronavirus was confirmed on 18 March 2020 (DGHS, 2022).

The first locked down was started on 26 March 2020 as the Government of Bangladesh declared public holidays till 04 April 2020 to prevent the spread. This public holiday was extended several times. All the government and private organizations except some emergency sectors were closed and instructed to start work from home during this time. Meanwhile, all means of transportation were banned except the emergency services. On 01 September 2020, restrictions on public movement and activities were withdrawn, but some limits on maintaining health measures remain the same. Bangladesh started a countrywide COVID-19 vaccination drive on 07 February 2021. In March 2021, the second wave of COVID-19 began, and the number of positive Covid-19 cases increased

again. Bangladesh government announced strict lockdown again from 05 April 2021. It continued with the date extension several times and lifted on 08 August 2021.

The functionality of industrial factories, offices, and healthcare facilities in both public and private sectors (Shammi et al., 2021) eventually got disrupted due to the shutdown. The consequences of a sharp decline in demand for manufactured goods and services due to the COVID-19 control measures taken by the Government of Bangladesh, particularly from the informal sectors such as agriculture, export-oriented ready-made garments, and other such labour-intensive sectors of the economy, had affected employment and livelihood of marginal people (Genoni et al., 2020). In addition, households engaged in informal services and labour-intensive activities, such as street vendors, construction workers, rickshaw pullers, day labourers, and owners of small grocery stores, are in great danger of income losses due to slower demand and social distancing measures (Islam et al., 2020). Moreover, the COVID-19 outbreak and the healthcare burden jointly exacerbated the negative impacts on employment, household income, and livelihood in rural and urban areas (Genoni et al., 2020).

Street vendors in Dhaka city are an integral part of urban economies. They offer a wide range of goods and services with easy access to their customers in public areas. The pandemic's impact caused the business of the street vending business. There are several categories of street vending present in Bangladesh. They and their households usually rely on their vending business (Ullah, 2021).

1.5. Rationale of the Study

Since the COVID-19 pandemic affected all areas of human life, street vendors also suffered from this situation as a part of the economy. During the locked down period, a few types of vending business was allowed to keep open, and most of the business got shut down. Vending business was the only earning source for most households (Hasan and Alam, 2015), so street vendors' survival mechanisms also needed to be studied. Both direct and indirect impact due to Covid-19 was found among them. Besides, they always faced many problems, i.e., no fixed places, terrors, police, and others, and it was challenging for them to survive (Moniruzzaman et al., 2018). The study aims to find out the gap in the studies which has been conducted till now and to find out the impact of COVID-19 on street vendors both economically and socially.

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Street vendors play an essential role in the economy. The global pandemic negatively caused the economy's whole scenario and was hampered in all spheres of the people. The study was conducted to find out the specified objectives provided below by following a set of questions where the impact was analyzed with the three time periods. As it was a new experience for this generation, the coping mechanism differed from the previous outbreaks. Much research had conducted to find the impact of Covid-19 in various sectors. As street vendors are a vital contributor to the economy, the study was designed to find out how they survive and cope with the situation. This study will help prepare for the future invasion of any pandemic situation in Bangladesh. The study also aimed to find the street vendors' livelihood strategies and how they were living with their income.

Street vending covered a vital share of urban informal employment. Street vendors played a significant role in economic development by protecting resources (vendor products) from such a position where they were sometimes treated as wastes or sometimes very much less valued products (Hasan and Alam, 2015).

The study was conducted in three areas of Dhaka city with a limited number of respondents and a few types of vending businesses. The vending business was a vast area compared with the other business, with various kinds. The study aimed to investigate the impact caused due to the COVID-19 pandemic and the locked-down situation to stop the outbreak. The study will help the researchers to study more with a wide range of respondents and vending types. The study was conducted with a simple random sampling and interview method, with a pre-tested structured interview questionnaire prepared with a specific set of questions to fulfil the research objectives.

1.6. Research Objectives

a) To study the socio-economic status of street vendors in Dhaka city;

b) To compare the before, during, and post Covid-19 livelihood patterns of street vendors in Dhaka city;

c) To explore the survival strategies of street vendors during COVID-19; and

d) To draw an insight regarding the migration of street vendors due to COVID-19.

1.7. Organization of the Thesis

The background, global Covid-19 situation, Covid-19 scenario in Bangladesh, rationale, and research objectives are described in Chapter I. Chapter II comprises a review of the literature. Chapter III covers the research methodology. Chapter IV describes the socio-economic status of the street vendors in Dhaka city. Chapter V illustrates the livelihood patterns of street vendors. Survival strategies of street vendors during COVID-19 are discussed in Chapter VI. The migration status of street vendors during COVID-19 is discussed in Chapter VII, and finally, Chapter VIII contains a summary, conclusion, and recommendations of the study. The references are provided after Chapter VIII, and the annexures (Livelihood Assessment Index (LAI) calculation and questionnaire) are provided at the end.

1.8. Chapter Summary

The chapter represented the background of the COVID-19 Pandemic with statistics found in the specific period. The chapter also illustrated the rationale of the study and why the study needs to be conducted. Also, the research objectives were provided in this chapter to give a point of view about the study. The chapter ended with a scope of the study, and an outline of the thesis was discussed.

CHAPTER II

REVIEW OF LITERATURE

2.1. Introduction

This chapter mainly discusses the previous studies, the concern, and the importance of this research. Further, it discusses the background related to this research. It also explains and identifies research gaps and underpins the theoretical framework. This study ends with a chapter summary.

2.2. Literature Review

Very few studies have been carried on to investigate the COVID-19 impact and the livelihoods of the street vendors in Dhaka city. Among them, the literatures were considered that meet the requirements of the objectives of this study. Some studies were also carried out for a better illustration of the research.

2.3. Street Vendors

The terms "street vending," "street shopping," "hawking," and "peddling," among others, were sometimes used interchangeably (Ullah, 2021). Street vendors made their living by selling goods on the streets (Moniruzzaman et al., 2018). Street vendors, who sell anything from food to apparel, were a common sight throughout the country and served as the first point of contact for customers in the supply chain. They sell on street corners, sidewalks, local markets, and delivery carts (Pandey and Jaani, 2020). As an informal economic practice, street selling has become a global phenomenon in developing and rich countries (Uddin, 2021).

Several hawkers organizations estimated that over 2.5 lakh street vendors carried out their business on public sidewalks in capital cities, up from 90,000 in recent years (Husain et al., 2015). They were the least and most vulnerable group of the urban poor. Despite this, they served an essential role in addressing the demands of Dhaka's urban dwellers by offering inexpensive and long-lasting commodities, as well as income and work possibilities for a massive number of individuals, resulting in a significant source of income for their families (Suraiya and Noor, 2012).

In a study on street entrepreneurs, Faruque et al. (2010) found that no policy existed to facilitate street entrepreneurism but as an alternative source for neighbourhood-specific goods or an economical entry. The service did not require extensive capital hence urban street selling could also improvise social mobility and micro-economies (Faruque et al., 2010).

A study was conducted on street food vendors in Dhaka city by Muzaffar and Huq (2009). They identified key factors that could positively affect the vendors' sales revenue. The two key factors, such as the experience of the vendors and initial capital, positively influence their sales revenue. There was no significant impact of formal education on their business performance. The paper also showed two major problems faced by street vendors in Dhaka city. Lack of proper security to protect their inventories, income, etc., and problems in the supply of raw materials were two major problems faced by the vendors (Muzaffar et al., 2009).

Sayma (2012) conducted a study to draw insight into street vendors' businesses and their societal impacts. The findings suggested that many people were generating income through street vending, which was an essential part of employment in the informal sector in Dhaka city. The street vendors offered different products to city dwellers within reasonable price limits (Suraiya and Noor, 2012).

Akharuzzaman and Deguchi (2010) conducted a study to clarify Dhaka city's actual urban street environmental situation as reflected by street vendors. The study elucidated that the lack of formalization and poor management system creates problems in urban areas by producing street garbage and gathering crowds on the footpath. The street vendors who do their business on the footpath do not even take responsibility for maintaining the cleanliness of their surrounding environment (Akharuzzaman and Deguchi, 2010). Sayma's (2012) study also supported this study's finding.

Another specific study was found on street food vendors carried on by Faruque et al. (2012). The study presented street food vending as an essential way of providing a wide variety of foods that were relatively cheap and easily accessible and as a means of generating employment for a significant group in the informal sector (Faruque et al., 2010).

The former studies (though a few studies are carried out in this sector) had advocated many benefits of street vending from both the customers' and consumers' and vendors' viewpoints. They provided cheap, convenient, and easily accessible commodities to consumers. They acted as a livelihood for many workers who would otherwise be unable to establish a business due to the lack of initial investment (Faruque et al., 2010; Hasan and Alam, 2015).

In contrast to these potential benefits, street vendors frequently faced harassment and restrictions in Dhaka city. There is no policy for street vendors that could facilitate access to street entrepreneurism or even facilitate their businesses. Since these businesses did not require extensive capital investment or enormous infrastructure, these sectors must be emphasized as it was the essential means of urban informal employment and self-dependent entity creation (Faruque et al., 2010; Hasan and Alam, 2015).

2.4. COVID-19 Prevalence in Bangladesh

As a result of COVID-19, most nations worldwide were in a state of flux in terms of socio-economics, sociopolitics, culture, education, food, nutrition, and so on (Mannan and Farhana, 2020; Pogue et al., 2020). Coronavirus epicentres were in major cities worldwide because they served as entry points into the international arena (Asante and Mills, 2020; Haque, 2020). The second wave of coronavirus in Bangladesh peaked in the first week of April 2021, wreaking devastation on all sectors throughout the country (Khan, 2020; Mamun, 2021). As a result, the government was obliged to impose a serious lockdown for the second time on April 5, 2021, to protect human life and livelihood from the spread of COVID-19.

Bangladesh initiated a COVID vaccination trial program on 27 January 2021, and the countrywide vaccination campaign began on 07 February 2021. This vaccine was part of the Serum Institute of India's initial shipment of five million doses of the Oxford-AstraZeneca vaccine (Kamruzzaman, 2021).

Until April 30, 2022, a total of 257,793,863 vaccine doses were administered among the adult population, 33,214,326 vaccine doses to the 12-17y children, and 218,073 vaccine doses were administered among the floating population, according to the press release of DGHS, Bangladesh. The total vaccination status is provided in Table 2.1.

Table 2.1 Vaccination Status of Bangladesh till 30 April 2022

Doses	Adult	12-17 years	Floating population	Total
1st Dose	128,568,620	17,320,822	218,073	146,107,515
2nd Dose	116,425,878	15,893,504	0	132,319,382
3rd Dose	12,799,365	0	0	12,799,365
Total	257,793,863	33,214,326	218,073	291,226,262

Source: DGHS 2022, Bangladesh

2.5. COVID-19 Impact on the Economy

Many studies were conducted about the impact of the COVID-19 pandemic on the socio-economic status of marginal people, both urban and rural people. The impact was analyzed here only in the urban areas and a specific group of people to better illustrate the scenario.

Ali and Nazrul (2020) conducted a study on the income of households during the lockdown situation in Bangladesh in 2020. They found that households encountered a 29% decline in their monthly income due to the COVID-19 pandemic and a 34% decline in income in Dhaka Metro. As a result, the number of fully jobless households is 6%, and 50% lost at least one-third of their income, affecting the livelihood of lower-income and lower-middle-income families within the first ten days of the government lockdown. The lockdown presented the impending impacts of this financial defeat and pushed them to the point of no recuperation (Ali and Nazrul, 2020). It was essential that a socio-economic and humanitarian crisis in a developing country like Bangladesh would occur during a pandemic that would produce cumulative results of many shortcomings that were likely to end in the worst results in the long run (Truog et al., 2020).

According to a study by Ali and Bhuiyan (2020), numerous people have just lost their jobs, and many more are in danger of doing so. The poorer section of society, who either have very little savings or none at all, is mainly the worst victim of the financial crisis (Ali and Bhuiyan, 2020). According to estimates, COVID-19 has returned 16.5 million people to poverty, primarily street vendors, hawkers, rickshaw drivers, transport

workers, day labourers, construction workers, and staff members of hotels, motels, and restaurants (Islam and Jahangir, 2020). According to Riaz (2020), 20 million people who depend entirely on occupations in the informal sector for their survival have already lost their jobs and are currently jobless due to the government's attempts to prevent the corona disease virus from spreading (Riaz, 2020).

2.6. Impact of COVID-19 on Livelihood

Bangladesh was one of the world's most vulnerable countries to the COVID-19 pandemic and related losses (Sakamoto et al., 2020). The lockdown was considered an effective method of preventing the coronavirus from spreading worldwide (Flaxman et al., 2020; Vibha et al., 2020). Even though the second wave of coronavirus had emerged and increased the number of infected patients and deaths, the government has opted to impose a lockdown across the region after a year (Dhaka Tribune, 2021).

A significant study was conducted in 2021 by Ullah (2021) on street vendors in Dhaka city. In this study, he stated in the result that the coronavirus outbreak had disrupted the everyday life of human beings. COVID-19 significantly impacted everyone's way of life in Bangladesh, especially street sellers. During COVID-19, street sellers' revenues were reduced to a fourth or half of what they were before the pandemic (Ullah, 2021).

The COVID-19 lockdown strategy adopted by the Bangladesh government has posed a significant threat and further exacerbated the already difficult living conditions of street vendors (HBS Southeast Asia, 2020). These measures to halt the spread of the virus had adversely affected the city's poor, who rely on street vendors, the daily wage labour market, and the informal sector to live. Dhaka's street vendors struggled to remain virus-free in crowded and underserved communities and make a living (Taylor, 2020). The absence of social safety nets for low-income areas and a lack of governmental and institutional capabilities worsened the situation (HBS Southeast Asia, 2020).

The most commonly recommended method of preventing contagious disease was social distancing, which had negatively impacted social life, particularly among urban informal labourers, as most of them live in urban slums and like living together. This was also a challenge for them when it came to queuing for assistance and rations, travelling during holidays and festivals on packed public transportation, and attending

religious events, on which people depend more during stressful times (Sen et al., 2021). According to a perception-based evaluation of COVID-19 in Bangladesh, individuals might have faced a mental and economic crisis due to the decision to halt everyday living to slow corona spread (Bodrud-Doza et al., 2020).

The COVID-19 pandemic has brought attention to agricultural development disruptions and their effects on livelihoods in developing nations like Bangladesh (Ahmmed et al., 2021). A study was conducted by Rahman et al., 2021 in the coastal area of Bangladesh about the livelihoods of the shrimp farmer. They found that among the five major livelihood components, the COVID-19 outbreak negatively impacted the social and financial capital components.

The government imposed a lockdown to restrict people's movements to monitor the spread of COVID-19 infection, which was spreading at an alarming pace. Some people benefited from this decision, but it wasn't warm-hearted for others. It was the worst decision for daily wage earners, such as street vendors selling vegetables, tea, phuchkas, and other similar products (Hasan, 2020). The livelihoods of the majority of street vendors have been seriously harmed. Due to the lockdown, street vendors could not earn money (Kazi and Mia, 2020). They used various survival tactics to deal with their financial situation during the arduous lockdown, including spending savings, borrowing from informal sources, and seeking financial assistance from parents. When the government lifted the lockdown, the vendors returned to work despite the danger to their health to prevent more poverty and hunger.

Besides, female street vendors in Dhaka were often primary breadwinners, single mothers, or widows. Their family depended on their income to eat and survive, but the COVID-19 pandemic wiped them out (Rodoshee, 2021). As a result of social distancing policies that prevented them from working and made their life more difficult. They were living in poverty. Many citizens who had already depleted their savings to get through the lockdown could still not fund their businesses (Givengain, 2020).

The two Eids were the busiest shopping time of the year for anyone from shopkeepers to street vendors. Many plans and life goals depended on making a good profit during the festivals. With proceeds from the Eid-ul-Fitr shopping spree, several vendors decided to pay off their debts (Islam, 2020). However, their plans had been put on hold due to the coronavirus pandemic, which had stopped public life. In the capital, they

were struggling to make ends meet. Most street vendors received no help from any sources (Ullah, 2021).

In another situation, police observed street clearing, crime, and intimidation of street vendors after the lockdown was lifted. In this country, vendors, hawkers, truckers, bus drivers, commuters, pedestrians, landlords, homeowners, beggars, the guilty, and the innocent alike have stories to tell. They could attest to how conniving cops still squeezed them for cash (Ullah, 2021). As a result, many vendors who came from villages searching for work were returning home, and people who had nowhere else to go were fighting every day for a chance to live another day, and they were living hand to mouth.

The COVID-19 pandemic harmed social and economic institutions (WWF, 2020), causing food insecurity (Mishra and Rampal, 2020). Reduced food consumption would hinder food production in the present and the future. It will also increase food loss and waste (FAO et al., 2018). These issues led to a significant economic loss for farmers, particularly small and marginalized internal migrant workers and small-scale traders/vendors (Pothan, 2020).

Most poor Bangladeshis used to live in slums, both rural and urban (The World Bank, 2014). Most of these poor were day labourers, poor farmers, vendors, shopkeepers, and store owners in these areas; they had suffered massive losses as a result of supply chain interruptions and employment losses during the lockdown, making them poorer and more food insecure (NAWGB, 2020; Pereira and Oliveira, 2020). COVID-19 restricted food access for the urban poor since staple food costs have increased by around 25% (FAO, 2020). Furthermore, residents in vulnerable regions such as Chittagong Hill Tracks lacked access to diverse food since their food supply depended on supplies from other parts of the nation (FAO, 2020).

Due to substantial public limitations on social and economic activity, COVID-19 impacted the economy and financial markets more than in previous pandemic crises (Koch et al., 2020). The effect could be seen from the least developed to the developed economies. Bangladesh was under lockdown from March 2020, yet there was considerable flexibility in the lockdown in between. Due to the limited purchasing preferences of the customers in this situation, there were not enough places to conduct business. Almost all retail stores closed simultaneously, with few or no face-to-face

interactions. As a result, it became apparent that the COVID-19 shocks created an economic shock across the country.

2.7. Chapter Summary

It is clear from the above review that most previous research focused on the impact of COVID-19 on marginal and rural people. There is no study conducted on street vendors to find their livelihood impact due to the COVID-19 pandemic. There had been a dearth of studies on the comparative livelihood status of street vendors before, during, and post-COVID-19. Street vendors in Dhaka city played a vital role in the economy. So, their livelihood and their problems need to be studied. In this circumstance, the COVID-19 epidemic might have a substantial influence on these categories of employment and as well as street vendors' livelihoods. Considering these issues, the present study was undertaken to fulfil the research gap and to determine appropriate policy options. Although the literature for this demographic was minimal, it focused only on the fact that Bangladeshi informal labourers were affected by the lockdown of COVID-19 but did not focus on the living conditions of street vendors specifically. In this context, this study aimed to add to previously conducted studies by being one of the first to investigate the effects of lockdown on the livelihood of street vendors of Dhaka city. Finally, the results of this study will assist administrations, government departments, and informal labour associations in taking time-sensitive and effective steps to ensure the safety of Bangladesh's street vendors during the COVID-19 outbreak. Furthermore, these results could be used to compare how street vendors reacted to the unanticipated consequences of COVID-19.

Because of these potentials, more studies are essential in this field to explore possibilities and potentialities and understand the challenges the vendors face daily in doing their businesses. Research in this field will also help build awareness among the concerned authorities to take proper steps for formalization and management systems. So, this study was intended to show the scenario of street vending in special concentration to the street vendors.

CHAPTER III

RESEARCH METHODOLOGY

3.1. Introduction

This chapter designs the research framework based on the earlier chapter's discussion. It starts with the study area, followed by research design, operational definition, instruments, data collection, sampling, and data analysis technique. This chapter ends with a chapter summary.

3.2. Study Area

The study area selection is essential to fulfil the study objectives. Dhaka is the capital city of Bangladesh, and it is one of the most populous cities in the world (World Population Review, 2022). Street vendors are primarily found in the local areas of residential places. Three areas were selected to conduct the study: Agargaon, Dhanmondi, and Mirpur. The exact statistics of the street vendors were not found in previous literature. These three places are popular for residential purposes because of the transport and other city services facilities. Among the three areas, Dhanmondi belongs to Dhaka South City Corporation, and both Agargaon and Mirpur belong to Dhaka North City Corporation (DNCC, 2022; DSCC, 2022). Because of the residential area, street vendors were easily found in these areas.
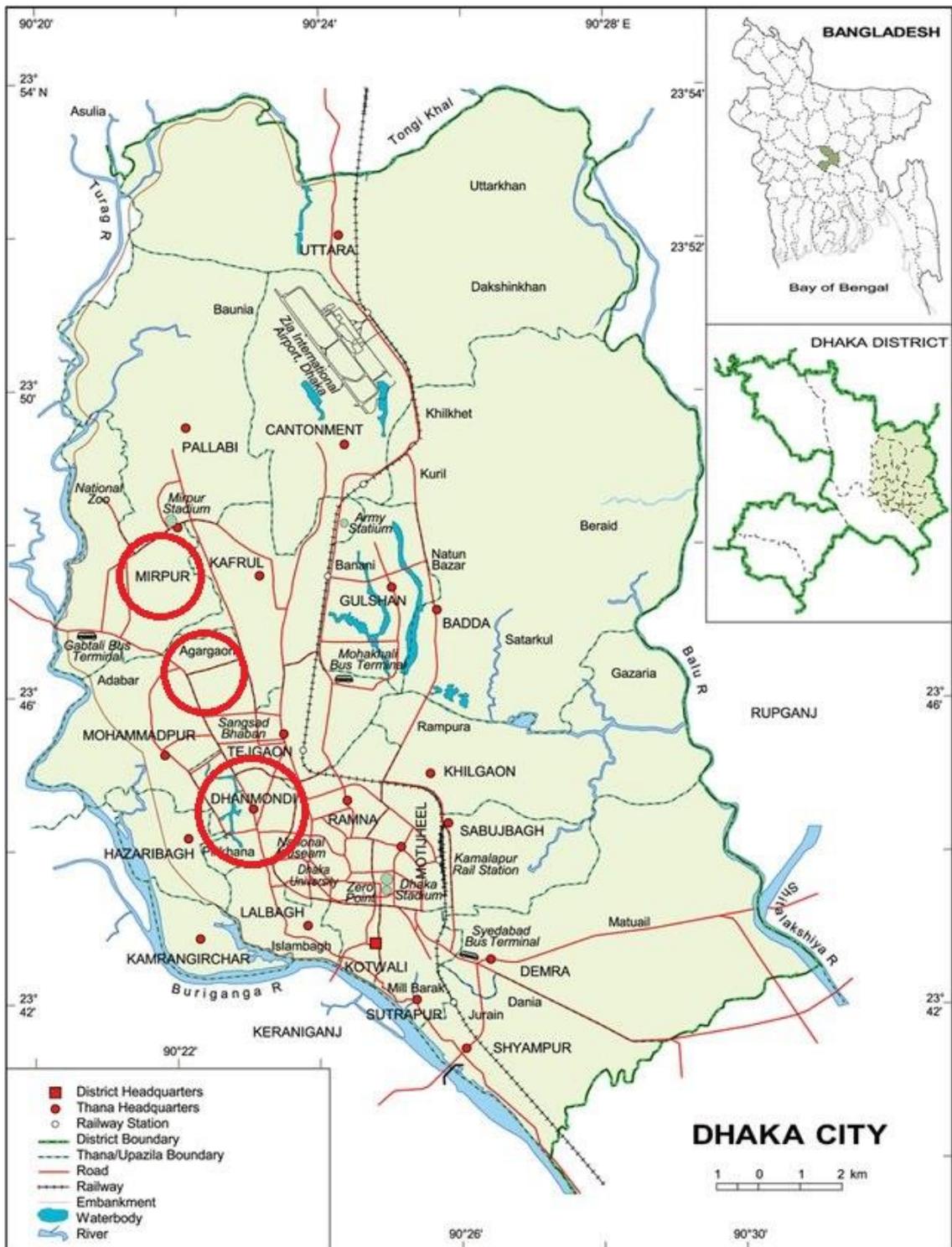
Figure 3.1 Study area (Source: Internet)

Street vendors can be found on all the streets of Dhaka city. Due to the limitation of the study, data were collected only from those three areas (Figure 3.1). Among those three areas, 40% of the respondents were from Agargaon, 36% were from Dhanmondi, and 24% were picked from Mirpur Area (Figure 3.2).
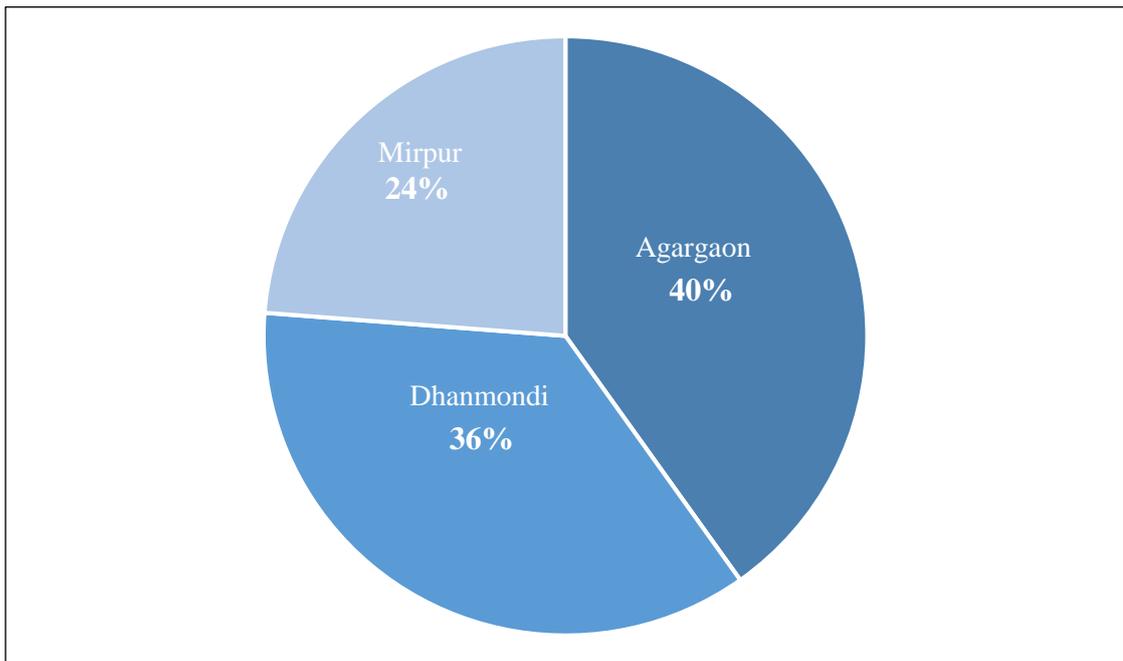
Figure 3.2 Distribution of the respondents

3.3. Population of the Study

According to a study, there were about 2,50,000 street vendors in Dhaka city. Most of them lived in different residential places in Dhaka city. One of the Dhaka City Corporation (DCC) report shows that more than 60% of urban dwellers depend on street vending (Hasan and Alam, 2015). NPUSV (2006) described street vendors as self-employed workers in the informal sector who offered their labour to sell goods and services on the street without a permanent built-up structure. In some cities, street traders account for as much as 20% of total employment (Hasan and Alam, 2015).

3.4. Sample Size Determination

All the street vendors of Agargaon, Dhanmondi, and Mirpur constituted the population of the study. In the first stage, the three areas were selected for collecting data. In stage two, the street vendors were selected randomly from the streets of the designated areas. The sample size of the study was determined by applying the following formula (Arkin and Colton, 1963):

$$n = \frac{Nz^2p(1-p)}{Nd^2+z^2p(1-p)} \tag{3.1}$$

Where,

n = Sample size

N = Total number of street vendors (approximately 2,50,000)

z = Confidence level (at 95% level z = 1.96)

p = Estimated population proportion (0.5, this maximizes the sample size)

d = Error limit of 10% (0.10)

Equation (3.1) suggests that a sample of above 96 respondents would adequately represent the population. Still, 122 street vendors from the three areas were randomly interviewed with a structured and pre-tested interview schedule to gather the required information for the study. The sample size distribution is presented in Table 3.1.

Table 3.1 Sample Size Distribution

Serial No.	Area	Number of Respondents
1.	Agargaon	49
2.	Dhanmondi	44
3.	Mirpur	29
Total number of respondents		122

3.5. Research Design

Apply to this study, when plotting out the impact of individual households of street vendors due to the COVID-19 Pandemic, a descriptive procedure was applied. Many research design frameworks exist: classified into three types: descriptive, exploratory, and causal. Exploratory research is finding ideas and insights (Churchill, 1995). Kent (2007) enlightens that descriptive research is closely concerned with estimating or measuring the sizes, frequencies or quantities of characteristics. In exploratory and descriptive research, the objective may be applied to collect the information stated in the research design process. However, causal research evaluates the effect of one or more independent variables on one or more dependent variables.

Nevertheless, descriptive research entails a clear description of who and what the research is (Churchill, 1995). This study emphasised the respondents' demographic profile, and socio-economic factors, particularly the impact analysis on their livelihood due to the pandemic. Hence, this study examined the factors and strategies for how they survived.

This study achieved research objectives by adapting survey data that generally includes generalizing and summarizing collected data. In detail, this study aimed to collect data in a simple random sampling method. In general, descriptive studies included two types: cross-sectional and longitudinal. Longitudinal studies depend on panel data, simply a fixed sample of individuals or some other entities from which repeated measurements are taken. Cross-sectional studies, or sample surveys, rely on a sample of elements from the population of interest measured at a single point in time (Churchill, 1995).

3.6. Instruments

A well-prepared and pre-tested structured questionnaire was the only research instrument. A questionnaire is an instrument that captures data generated by asking people questions and systematically noting their responses, has been a method of conducting social research. The questionnaire had subjective parts as well as quantitative parts.

The total number of research questions was sixty with four constructs; the first section of the questionnaire started with questions 1 to 9 about personal background information. The second section included nine questions related to the socio-economic data of the respondent. In the third section, the respondents were asked about the impact of COVID-19 on their livelihood, which included twenty different questions. Lastly, the respondents were asked about livelihood-related information to find the impact on their livelihood. This section contains six sub-sections, i.e. Human Capital, Natural Capital, Social Capital, Physical Capital, Financial Capital, and Food related issues. This section has the rest of the twenty-three questions.

3.7. Data Collection

A well-structured questionnaire with both open and closed-end questions was administered to the respondents to collect the data for this study. The respondents were

chosen from three different areas of Dhaka City. In-person interviews were taken with the respondents from March – April 2022. Sample selection criteria were fixed with a specific type of vending business. They were clear representatives of their households. The types of vending business(es) which were considered to take samples are:

1. Street tea seller

2. Street food seller

3. Street cloth seller

4. Street fruit seller

5. Street vegetable seller

6. Street handicraft seller

7. Street hawker

Definitions of the vending business(es) are provided below:

3.8. Street vendors

The term "street vending" is typically used as synonymous with "street trading," "hawking," "peddling." etc. The persons who are concerned with street vending are called street vendors (Hasan and Alam, 2015). Bhowmik (2003) described street vendors as those people who squat in public places such as pavements, parks, or other such areas and those that are mobile as they move from place to place in search of customers and conducting their temporary business (Bhowmik, 2005). Sally (2010) defined the term 'street vendor' as vendors with fixed stalls, such as kiosks; vendors who operate from semi-fixed stalls, like folding tables, crates, collapsible stands, or wheeled pushcarts that are removed from the streets and stored overnight; vendors who sell from fixed locations without a stall structure, displaying merchandise on cloth or plastic sheets; or mobile vendors who walk or bicycle through the streets as they sell (Roever, 2010). So, from the above definitions, those who are engaged in a temporary business-like, street trading, hawking, peddling, etc., and who sell to their customers by transport facilities or any temporary locations with a stall structure can be called street vendors. The types of vending businesses are many. Among them, the following types are considered the most found vendors in the streets of Dhaka city.

3.8.1. Street Tea Seller

Street tea sellers are primarily found in front of markets, institutes, offices, etc. They sell different types of teas along with cigarettes. Some tea stalls provide light snack facilities, but it depends on the size of their business. They can be mobile when they sell tea by carrying a flask, cigarettes, and betel leaves. Sometimes, they are also found selling tea and light snack via a transport van.

3.8.2. Street Food Seller

Street food vendors sell different types of food preparations, dishes, and products in a van. They are mostly found near parks, markets, and some renowned streets for food. They are also found in front of educational institutes, hospitals, and office streets. They prepare the food in their stalls and sell it to customers. Most of the cases, the food becomes cheaper than in restaurants, so they get an enormous customer base.

3.8.3. Street Cloth Seller

Street merchandisers or street cloth sellers are also popular in Dhaka city. The middle class, lower middle class, and poor people rely on street cloth sellers to purchase their clothes. They offer clothes at a cheap rate than the brand showrooms and shopping malls. They can be found in front of shopping malls, some residential areas also near the city's main roads. They sell varieties of clothes for all gender and all ages of people. Sometimes, they offer at a fixed rate and seek customers' attention by announcing interestingly.

3.8.4. Street Fruit Seller

Fruit sellers are mostly found near hospitals and streets of residential areas. They sell different kinds of fruits, including seasonal and imported. Some sellers sell various types of fruits; on the contrary, some offer only one type of fruit. In the summer, the number of fruit sellers increases due to the availability of seasonal fruits in Bangladesh. Most of the fruit sellers are mobile and visit from place to place by displaying their food in the van.

3.8.5. Street Vegetable Seller

The number of vegetable sellers is most among all the categories. They are easy to find on the streets, and customers can buy fresh vegetables. The rates are not fixed, and they can be flexible by bargaining. They are mobile as well as have a fixed but temporary stall in the street displaying different types of vegetables. While moving from one place to another, they seek the customers' attention by announcing the vegetable names in interesting ways.

3.8.6. Street Handicraft Seller

Some sellers offer different types of handmade items, i.e., metal works, jewellery, wood works, cane and bamboo works, clay and pottery, baskets, pottery, wall hangings, handbags, travel kits, toys, ashtrays, carpets, embroidered quilts, etc. They are rarely found in the street, and all the customers are also not interested in buying items from their shops.

3.8.7. Street Hawker

Street hawkers have diversified subgroups as they offer different kinds of daily needs. A street hawker may sell newspapers, household accessories, chocolate and candy, ice cream, and many more things. Sometimes they buy old books and papers, blank pots, and worn-out clothes from the houses. They use their unique techniques of voice and music to attract customers.

3.9. Sample Size and Sampling Procedure

A total of 122 respondents (representing 122 households) were randomly chosen from the three areas of Dhaka city who are directly involved in the street vending business and with no guaranteed jobs. The number of respondents in this study was collected according to the following types of vending businesses:

Table 3.2 Number of different type's street vendors as respondents

Serial No.	Type of Vending Business	Number of Respondents
1.	Street tea seller	18
2.	Street food seller	19
3.	Street cloth seller	9
4.	Street fruit seller	27
5.	Street vegetable seller	36
6.	Street handicraft seller	2
7.	Street hawker	11
Total number of respondents		122

The interviewer read the questionnaire to the respondents in person, and their answers were noted on paper. The data from the questionnaire was entered with Google Forms for better output of the dataset. Data obtained through the interview were analyzed, and the results determined the research outcome.

3.10. Time Duration

The study had an analysis of different periods. It aimed to study the COVID-19 pandemic's impact on street vendors over time. As it was known, in Bangladesh, the COVID-19 virus was detected on 8 March 2020 (Firoj et al., 2021). Since then, many years have elapsed till the recent date. These years were divided into three segments, as under in Table 3.3:

Table 3.3 Time segment considered for this study.

Title	Duration	Consideration for Selection
Before Covid-19	Before March 8, 2020	To ascertain the respondents' conditions before the arrival of COVID-19 in Bangladesh.
During Covid-19	March 8, 2020 – March 1, 2022	To ascertain the respondents' conditions during the locked-down and challenging situations of COVID-19, which has been a mix of confusion and instability.
Post Covid-19	March 1, 2022 - Onwards	To ascertain the conditions of the respondents at present.

Source: Asian Development Policy Review, 2021, 9(4): 194-208 (Firoj et al., 2021).

3.11. Data Analysis Technique

As previously discussed, the research has been a blend of qualitative and quantitative one. The main instrument of the study was a questionnaire survey. The data analysis was completed by using Microsoft Excel 2019. The frequency table and descriptive statistics, which include summary statistics and related analysis, were also completed with the data analysis tool of the Excel Application.

The demographic data were also taken, and it was found that the respondent households consisted of only family members. Hence, the researchers used 'household' and 'family' interchangeably in the research.

3.12. Analysis of Livelihood Assessment Index (LAI)

The sustainable livelihoods framework is an approach to conceptualizing livelihoods holistically, encompassing the numerous aspects of livelihoods as well as the limitations and possibilities that they face. These constraints and opportunities are shaped by various factors, ranging from global or national level trends and structures over which individuals have no control and may be unaware to more local norms and institutions and, finally, assets to which the household or individual has direct access. For now, the household is used as a unit of analysis. However, as with the following

units, it is crucial to recognize that not all household members have equal decision-making authority or benefit equally from household assets.
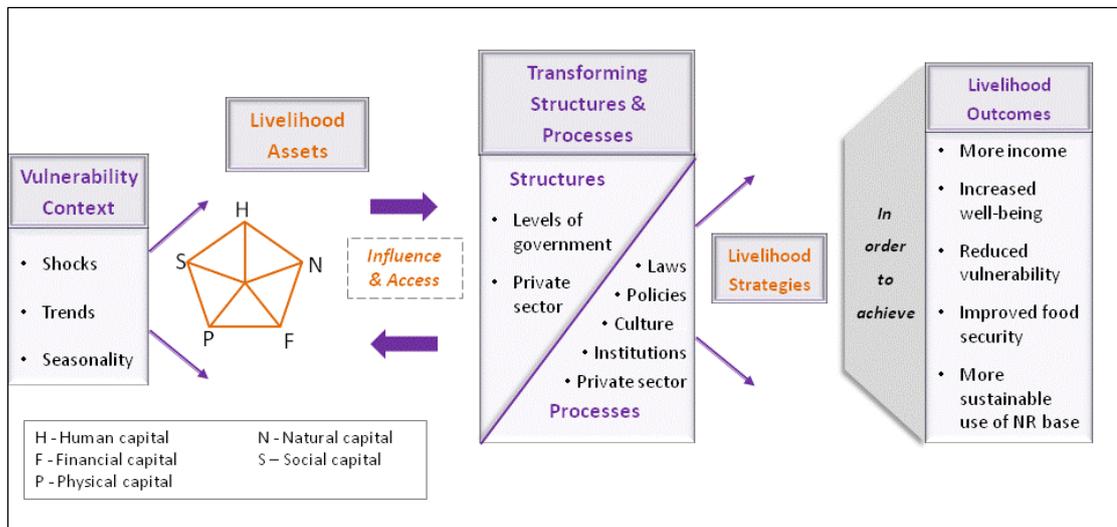
Figure 3.3 Sustainable Livelihood Framework (Source: DFID (1999) p. 1.)

Five forms of assets, or capital as are defined in the study. These are as follows:

1. Human capital

2. Social capital

3. Natural capital

4. Physical capital

5. Financial capital

These five types of assets at different times can explain the impact on the street vendors' livelihood before, during, and after the COVID-19 pandemic. This study asked the respondents different questions to identify the scenario in different time periods.

The livelihood assessment index (LAI) was constructed following the DFID's sustainable livelihood framework (SLF) (DFID, 2000) to compare the livelihood status of the street vendors in the three situations. The SLF provides a way of breaking down the complexity of people's lives and livelihood strategies by addressing their access to a range of assets (human, social, financial, physical and natural). In the context of stress, shock, and seasonality, SLF primarily focuses on livelihood as an integrated function of livelihood capitals (Sarker et al., 2020). It provides a more realistic framework for

analyzing the direct and indirect effects on people's living conditions than, say, one-dimensional productivity or income metrics (Chuong et al., 2015). According to DFID, livelihood is a function of the following five types of capital:

Livelihood = f (human, natural, social, financial and physical capital)

Major livelihood components were translated into a composite index based on the five types of capital mentioned above to measure and compare the livelihood status. The subcomponents of the five capital types were estimated by equal weighting to obtain a complete picture of the livelihood status in the different time periods (Sarker et al., 2020).

The selection of subcomponents and their weights was subjective (Eriksen and Kelly, 2007; Sarker et al., 2020). In this study, the subcomponents were selected based on previously-published studies and field experiences (Table 3.4). Though the five major capital types comprise various subcomponents, each of them contributed equally to the index. Since a specific scale was used for each specific component, standardization was performed using Eq. (3.2):

$$\text{Index}_{SV} = \frac{S_V - S_{min}}{S_{max} - S_{min}} \tag{3.2}$$

where S_V is the original subcomponent value of situation V, S_{min} is the minimum value of subcomponents, and S_{max} is the maximum value of the subcomponents.

After finding an index value for each subcomponent, the index value of each component was calculated using the following equation:

$$M_{VJ} = \frac{\sum_{i=1}^{n} \text{Index}_{SVi}}{n} \tag{3.3}$$

where M_{VJ} is the value of major component J for situation V, Index_{SVi} denotes the value of subcomponents, indexed by i, of major component M_J; and n represents the number of subcomponents in major component M_J.

Table 3.4. Description of livelihood components

Livelihood capital types	Subcomponents	Justification	Value	Sources
1. Human capital	Access to nutritious food	Access to nutritious food can contribute to a healthy life.	Yes = 1 No = 0	(Alam, 2016), (Sarker et al., 2020)
	Access to health facilities	Access to health services can contribute to a healthy life.	Yes = 1 No = 0	(Sarker et al., 2020)
	Child Schooling	Education can aid in diversifying livelihood.	Yes = 1 No = 0	(Alam et al., 2018), (Aryal et al., 2014)
2. Natural capital	Access to safe drinking water sources	Unsafe drinking water can be a source of many diseases and illnesses, which can hamper livelihood.	Yes = 1 No = 0	(Alam et al., 2018), (Tambo, 2016)
	Distance to Safe Drinking Water	Distance to safe drinking water can hamper livelihood.	Less than 5 minutes = 1 More than 5 minutes = 0	(Rahman et al., 2021)
	Crop Land Ownership	Possession of land can increase income and livelihood status.	Yes = 1 No = 0	(Monwar et al., 2018)
3. Social capital	Taking support from relatives or friends	Support from others may increase the possibility of diversifying income.	Yes = 1 No = 0	(Sarker et al., 2020)
	Providing support to relatives or friends	Communication increases the possibility of diversifying livelihood strategies.	Yes = 1 No = 0	(Sarker et al., 2020)
	Contact with a community leader	A social network may help in increasing livelihood status.	Yes = 1 No = 0	(Sarker et al., 2020)
	Borrowing money from relatives	Borrowing money from relatives can diversify livelihood status.	Yes = 1 No = 0	(Sarker et al., 2020)
	Membership in societal organizations	Membership in a societal organization increases livelihood status.	Yes = 1 No = 0	(Sarker et al., 2020), (Monwar et al., 2018)
	Allowing women members to work outside	Women's participation in income-generating activities can increase their livelihood status.	Yes = 1 No = 0	-

Livelihood capital types	Subcomponents	Justification	Value	Sources
4. Physical capital	House ownership in Dhaka	Housing can be a significant factor in livelihood assessment.	Yes = 1 No = 0	(Monwar et al., 2018)
	House ownership in the village	Housing can be a significant factor in livelihood assessment.	Yes = 1 No = 0	(Monwar et al., 2018)
	Vehicle ownership	Vehicle ownership is an important asset for street vendors.	Yes = 1 No = 0	-
5. Financial capital	Service income	Availability of service income can help increase livelihood status.	Yes = 1 No = 0	(Sarker et al., 2020)
	Investment income	Income from investment can increase livelihood status.	Yes = 1 No = 0	(Monwar et al., 2018)
	Savings	Savings can be used to overcome difficult situations.	Yes = 1 No = 0	(Monwar et al., 2018)
	Access to formal credit	Access to credit can be a major factor in livelihood diversification.	Yes = 1 No = 0	(Monwar et al., 2018), (Sarker et al., 2020)
	Remittance income	Remittance income can further improve income diversification.	Yes = 1 No = 0	-

Once values for each of the five major capital types for a particular situation (for example, before COVID-19) were calculated, they were averaged following Eq. (3.4) to obtain the LAI for situation V:

$$LAI_V = \frac{\sum_{i=1}^{n} W_{MJ} M_{VJ}}{\sum_{i=1}^{n} W_{MJ}} \tag{3.4}$$

Eq. (3.4) can also be written as follows:

$$LAI_V = \frac{W_H H_V + W_N N_V + W_S S_V + W_P P_V + W_F F_V}{W_H + W_N + W_S + W_P + W_F} \tag{3.5}$$

Where, LAI_V is the livelihood assessment index of situation V; W_{MJ} is the weight of component J; and W_H, W_N, W_S, W_P, and W_F are weight values of human, natural, social, physical, and financial capital, respectively. H_V, N_V, S_V, P_V, and F_V are the index values of human, natural, social, physical, and financial capital in situation V. Appendix A contains the details of the calculating procedure.

The human capital index includes access to nutritious food (H_{AF}), access to health facilities (H_{AH}), and child schooling (H_{CS}) and was calculated as follows:

$$\text{Human capital index } (H_V) = \frac{W_{AF}H_{AF} + W_{AH}H_{AH} + W_{CS}H_{CS}}{W_{AF} + W_{AH} + W_{CS}} \quad (3.6)$$

Where, W_{AF}, W_{AH}, and W_{CS} represent weight for access to nutritious food (H_{AF}), access to health facilities (H_{AH}), and child schooling (H_{CS}) respectively.

The natural capital index included access to safe drinking water sources (N_{SD}), distance to safe drinking water (N_{DS}), crop land ownership (N_{CL}) and was calculated as follows:

$$\text{Natural capital index } (N_V) = \frac{W_{SD}N_{SD} + W_{DS}N_{DS} + W_{CL}N_{CL}}{W_{SD} + W_{DS} + W_{CL}} \quad (3.7)$$

Where, W_{SD}, W_{DS}, and W_{CL} represent weight for access to safe drinking water sources (N_{SD}), distance to safe drinking water (N_{DS}), crop land ownership (N_{CL}) respectively.

The social capital index includes taking support from relatives or friends (S_{SR}), providing support to relatives or friends (S_{RS}), contact with a community leader (S_{CML}), borrowing money from relatives (S_{BM}), membership in societal organizations (S_{SO}), allowing women members to work outside (S_{WO}), and was calculated as follows:

Social capital index $(S_V) =$

$$\frac{W_{SR}S_{SR} + W_{RS}S_{RS} + W_{CML}S_{CML} + W_{BM}S_{BM} + W_{SO}S_{SO} + W_{WO}S_{WO}}{W_{SR} + W_{RS} + W_{CML} + W_{BM} + W_{SO} + W_{WO}} \quad (3.8)$$

Where, W_{SR}, W_{RS}, W_{CML}, W_{BM}, W_{SO} and W_{WO} represent weight for taking support from relatives or friends (S_{SR}), providing support to relatives or friends (S_{RS}), contact with a community leader (S_{CML}), borrowing money from relatives (S_{BM}), membership of societal organizations (S_{SO}), allowing women members to work outside (S_{WO}) respectively.

The physical capital index included house ownership in Dhaka (P_{HD}), house ownership in the village (P_{HV}), and vehicle ownership (P_{VO}), was calculated as follows:

$$\text{Physical capital index } (P_V) = \frac{W_{HD}P_{HD} + W_{HV}P_{HV} + W_{VO}P_{VO}}{W_{HD} + W_{HV} + W_{VO}} \quad (3.9)$$

Where, W_{HD}, W_{HV}, and W_{VO} represent weight for house ownership in Dhaka (P_{HD}), house ownership in the village (P_{HV}), and vehicle ownership (P_{VO}), respectively.

The financial capital index included service income (F_{SI}), investment income (F_{II}), savings (F_S), access to formal credit (F_{FC}), and remittance income (F_{RI}) and was calculated as follows:

$$\text{Financial capital index } (F_V) = \frac{W_{SI}F_{SI}+W_{II}F_{II}+W_SF_S+W_{FC}F_{FC}+W_{RI}F_{RI}}{W_{SI}+W_{II}+W_S+W_{FC}+W_{RI}} \tag{3.10}$$

Where, W_{SI}, W_{II}, W_S, W_{FC}, and W_{RI} represent weight for service income (F_{SI}), investment income (F_{II}), savings (F_S), access to formal credit (F_{FC}), and remittance income (F_{RI}), respectively. Details of the methodology are available in Hahn et al. (2009) and Sarker et al. (2020).

3.13. Research Design Summary

The methodology summary at a glance will create a view of the entire chapter. The research design summary from the above discussion is provided in Table 3.5:

Table 3.5 Research Design Summary

Indicator	Description
Research type	Descriptive
Types of data	Primary
Sampling design	Questionnaire
Target population	Street vendors in Dhaka city, Bangladesh
Sampling technique	Simple Random Sampling
Sample Size	122
Sampling frame	Three important locations of street vendors, Dhaka city, Bangladesh
Method of administering the questionnaire	Personal interviews of the Street vendors; average interviewing time was 15-20 minutes
Execution	The survey was conducted over a period of 26 days in the month of March - April 2022.
Statistical tools employed	Frequency table, Data analysis, and interpretation
Analysis tool	Microsoft Excel 2019

3.14. Chapter Summary

This chapter presents the study area and the population of the study. It also discusses data collection, instruments, samples, and data analysis techniques. Finally, it ends with a research design summary and chapter summary.

According to the study's objectives, the recorded observations have been presented in a systematic manner, and a possible discussion of the findings has been done with their reasonable and relevant research. From this chapter on, the study's findings and interpretation have been discussed. The demographic findings from the data analysis are presented in the next chapter.

CHAPTER IV

SOCIO-ECONOMIC PROFILE OF THE STREET VENDORS

4.1. Introduction

Different characteristics of the respondent might have a substantial impact on the attitude or behaviour they exhibit throughout their lives. Many of these characteristics may be used to describe the socio-economic profile of street sellers. But in this study, ten characteristics of the respondents were selected, including their age distribution, educational status of the respondents, gender, household sizes of street vendors, monthly household income, individual monthly income from the vending business, household expenditures, and experience in the vending business. These above-mentioned attributes are explained in this section of the thesis.

4.2. Age Distribution

The age of the street vendors varied from 16 to 70 years, with an average and standard deviation of 39.89~40 and 12.03, respectively. Considering the recorded ages, the street vendors are classified into three (3) age groups: 'young', 'middle' and 'old' aged as classified by the Ministry of Youth and Sports (MoYS, 2012). The distribution of the respondents in accordance with their age is presented in Table 4.1.

Table 4.1 Age group categorization

Age Groups	Basis of categorization (years)	Total Street Vendors	Percentage
Young	≤ 35	45	36.89
Middle	36-50	57	46.72
Old	> 50	20	16.39
Total		122	

Table 4.1 shows that the Middle age has the highest proportion (46.72%), which complies with 36-50 years old street vendors, followed by the Young age group and the Old age group. Results also indicate that the majority portion of the respondents is the Young and Middle age group category, which constitutes 83.61% of the total street vendors. The result indicates that street vendors aged the middle years are more

involved in the street vending business to earn their livelihoods. There were also some street vendors found below twenty and above fifty, but the number was low.

4.3. Educational Status of the Respondents

The level of education of the street vendors ranged from 0 - 18 years, with an average of 4.79 years. Based on the year of schooling, the street vendors were classified into four categories arbitrarily. The distribution of the street vendors according to their level of education is presented in Table 4.2.

Table 4.2 Distribution of the street vendors according to their level of education

Category	Basis of categorization (years)	Observed range (years)	Street Vendors		Average
			Number	Percent	
No Schooling	0		44	36.07	
Primary Level	1-5		37	30.33	
Secondary Level	6-12	0-18	35	28.69	4.79
Graduate Level	>12		6	4.92	
Total			122	100	

The result shows that the educational status of the street vendors constitutes the highest proportion (36.07%) with no schooling category followed by Primary Level (30.33%) and Secondary Level (28.69%) of education. On the other hand, the lowest 4.92% of the respondents of the street vendors were studying or passed the Graduation Level of Education. Therefore, the data reveals that 63.93% of the street vendors are literate, whereas 36.07% have no formal educational background.

4.4. Gender

Among the street vendors, the majority portion (88.52%) are male, and the rest of the respondents (11.48%) are female, according to the study. Gender distribution in this study is presented in Figure 4.1.
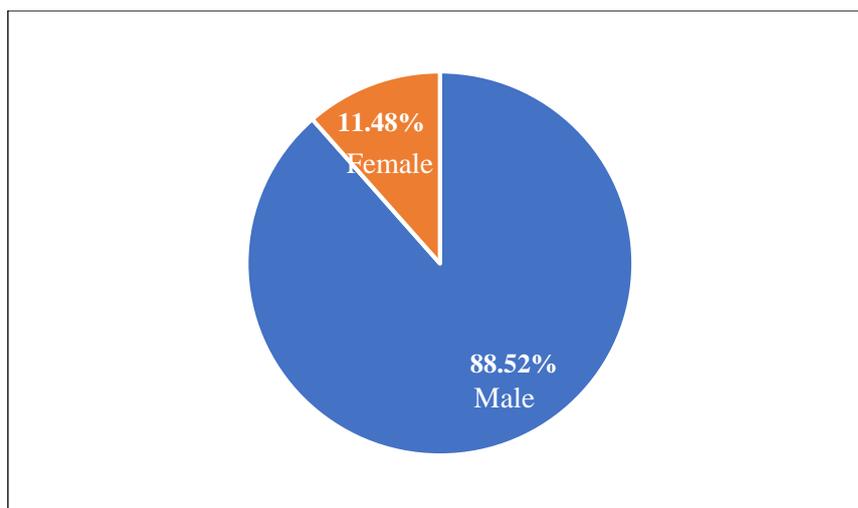
Figure 4.1 Gender variation among the street vendors

Women's involvement in this business is low, and they engage in a specific field of vending, i.e. tea sellers, food sellers, and sometimes vegetable sellers. They are slightly found in the other forms of vending. The domination of male vendors is found in the highest number. The proportion of the gender variation is presented in Figure 4.1.

4.5. Study on Households of Street Vendors

Household size is an important factor for street vendors. From the study, it is found that the family size of the street vendors ranged from 3 to 13 members with an average and standard deviation of 6.35~6 and 2.25, respectively. According to the family size, the street vendors were classified into three categories by adding and subtracting standard deviation with the average family size as 'small', 'medium', and 'large' family. The distribution of the household size of street vendors is presented in Table 4.3.

Table 4.3 Household categories of street vendors

| Category | Basis of categorization (members) | Observed range (members) | Street Vendors | | Average family size | SD |
			Number	Percent		
Small Family	≤ 3		8	6.56		
Medium Family	4-6	3-13	60	49.18	6.35	2.25
Large Family	> 6		54	44.26		
Total			122	100		

Earning members of street vendors are presented in Figure 4.2. The figure reveals that 41.80% of families had only one earning person. The majority of the households (48.36%) had two earning persons in their families, and the least families had more than two earning members (9.84%).
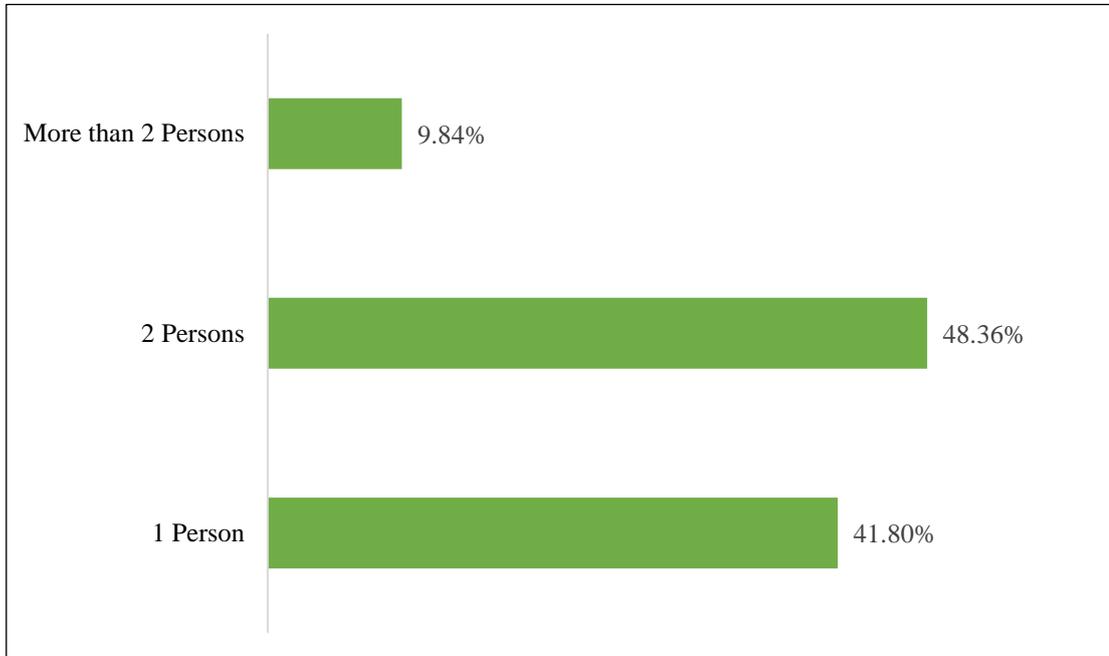
Figure 4.2 Earning members per household

"Household head" means the person who plays the main role in the decision-making process of a family. The household head plays an important role in the socio-economic characteristics of a family. The street vendors are regarded as household heads mostly (69.67%) by themselves in their houses. The respondents stated that the other persons are also considered as their family head, i.e. Father (19.67%), Mother (4.92%), Husband (4.10%), and Brother (1.64%). The graphical distribution of headship among street vendors' households is presented in Figure 4.3.
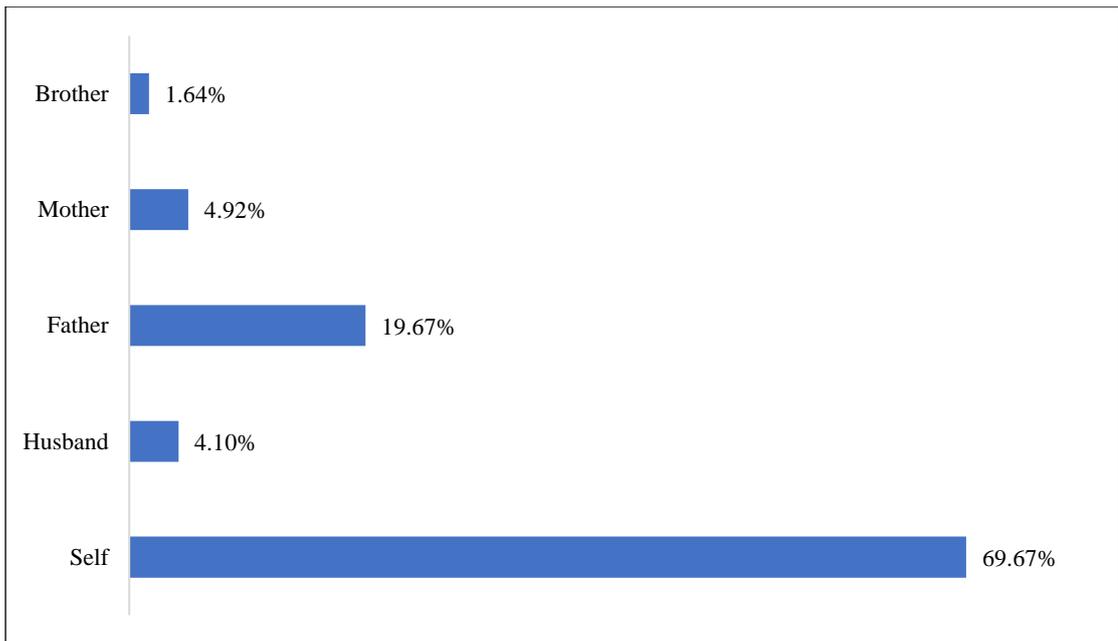
Figure 4.3 Household heads of the street vendors

Among the households, 54.92% of the respondents stated that they live in Dhaka city with their family, and the rest 45.08% stated that they have family members in their villages. The response is presented in Figure 4.4.
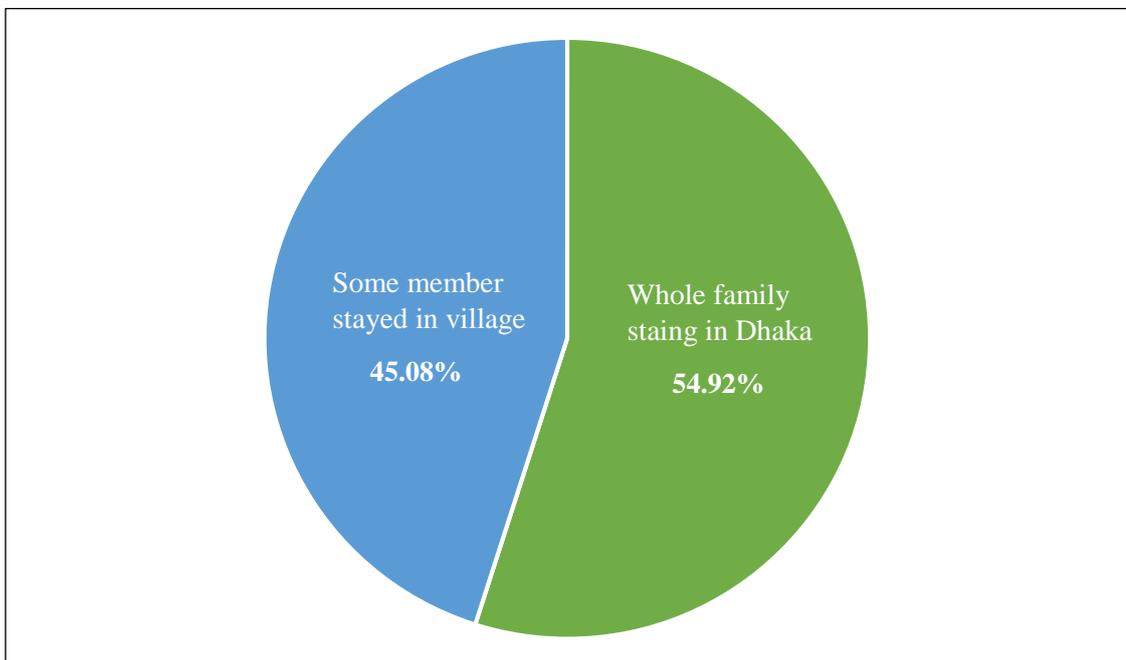
Figure 4.4 Response about staying with family

In response to how many family members are staying in the village, they stated that an average of 2.23~2 members stayed in the village, whereas eight members are the highest in number.

Among the household members, an average of 1.70~2 persons are involved in income-generating activities ranging from a minimum of 1 to a maximum of 5 members. Constitutes 90.16% of the earning members are below two persons, and the rest, 9.84% of the household, had above three earning members in their family.

4.6. Monthly Household Income

The monthly income of households refers to the total financial return from all the earning members of the family in a month. The monthly income of the street vendors' families ranged from BDT 14 to 75 thousand, with an average of BDT 35.23 thousand before the COVID-19 Pandemic. On the basis of monthly income from street vending, the respondents were classified into three categories arbitrarily 'low', 'medium', and 'high' monthly income group. This classification will be used for this study's income and expenditure categories. The distribution of the street vendors according to their household income is presented in Table 4.4.

Table 4.4 Distribution of the respondents based on their household income on different time duration

Income Category	Basis of categorization ('000' Tk./Month)	Before COVID-19		During COVID-19		Post Covid-19	
		Number	Percent	Number	Percent	Number	Percent
Low	<15	2	1.64	45	36.89	8	6.56
Medium	16-30	63	51.64	40	32.79	62	50.82
High	>30	57	46.72	37	30.33	52	42.62
Total		122	100	122	100	122	100
Observed Range ('000' Tk.)		14-75		0-78		10-75	
Average ('000' Tk.)		35.23		22.37		34.14	

The findings reveal that the majority (51.64%) of the households had medium income on a monthly basis before the COVID-19 pandemic. The income was reduced during the pandemic, and the majority (36.89%) of the households had low incomes. The

income increased as previously before COVID-19, and the majority portion (50.82%) of the households started to earn a medium income again. The average income was also reduced during the pandemic (22.37 Thousand) situation from the previous (35.23 Thousand) and post COVID-19 (34.14 Thousand) time periods. The larger income groups had more earning members than the lower income groups who had fewer earning members in their families.

4.7. Monthly Individual Income from Vending Business

The monthly income from vending business refers to the total financial return from the vending in a month. The distribution of the street vendors according to their income from the vending business is presented in Table 4.5.

Table 4.5 Distribution of the respondents based on their income from the vending business on different longitudinal time duration

Category	Basis of categorization ('000' Tk./Month)	Before COVID-19		During COVID-19		Post COVID-19	
		Number	Percent	Number	Percent	Number	Percent
Low	<15	4	3.28	91	74.59	9	7.38
Medium	16-30	106	86.89	28	22.95	104	85.25
High	>30	12	9.84	3	2.46	9	7.38
Total		122	100	122	100	122	100
Observed Range ('000' Tk.)		6-60		0-45		5-54	
Average ('000' Tk.)		22.87		9.46		22.57	

These findings show that the majority (86.89%) of the street vendors had medium income on a monthly basis from their vending business before the COVID-19 pandemic. The income was reduced during the pandemic, and the majority (74.59%) of the vendors had low income because of the consequences caused. After the withdrawal of all the restrictions by the government, the income increased as previously before COVID-19, and the majority portion (85.25%) of the street vendors started to earn a medium-income again. The average income was also reduced during the pandemic (9.46 Thousand) situation from the previous (22.87 Thousand) and post COVID-19 (22.57 Thousand) time periods.

The income distribution is related to the vending business type. During the lockdown, not all the vending businesses had to shut off and earn even under the strict regulations during the pandemic. For example, vegetable (36 respondents) and fruit sellers (27 respondents) did not close their shops during the lockdown as they were excluded from the restrictions. But they had to follow strict health measures. As most of the respondents were vegetable and fruit sellers, the average income during the COVID-19 pandemic differs from the other time periods.

Among the respondents, 84.43% of street vendors had no secondary income sources, and the rest 15.57% had secondary income sources, i.e. agriculture, fishing, day labour, manufacturing, construction, etc. The distribution of the secondary income sources is presented in Figure 4.5.
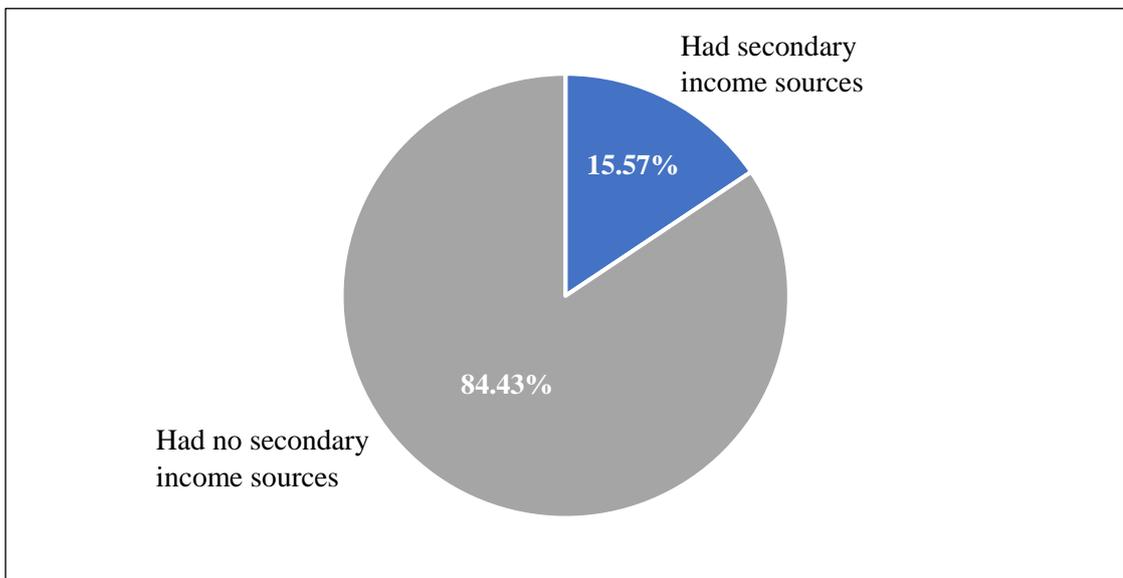
Figure 4.5 Secondary income sources

Among 122 respondents, 19 street vendors responded about their secondary income sources. According to their response, the majority (42.11%) of the vendors responded about Agriculture as their secondary income source, followed by construction (31.58%) and manufacturing (10.53%). The total distribution of the secondary income sources is presented in Figure 4.6.
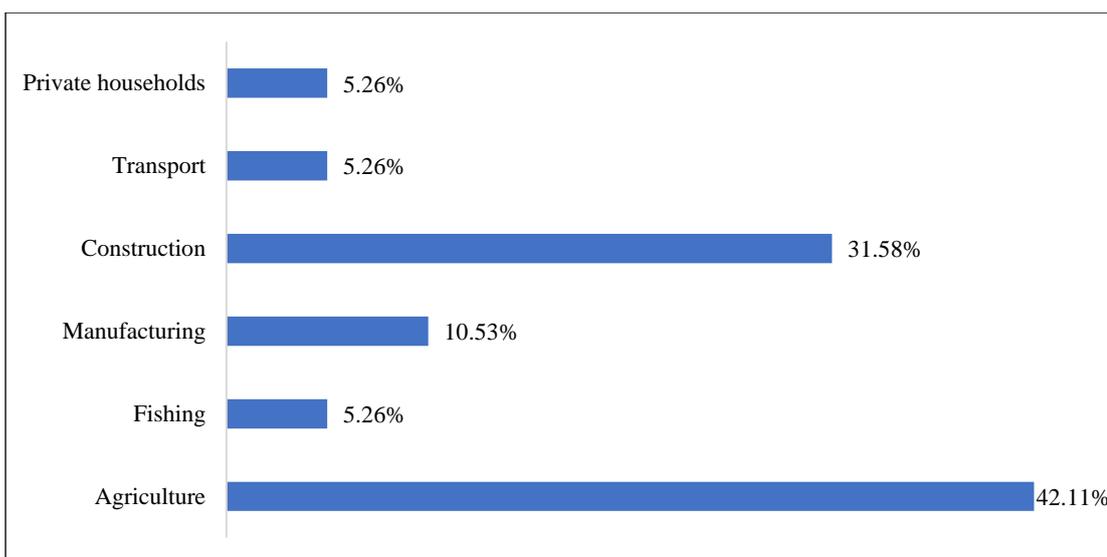
Figure 4.6 Secondary income sources of street vendors

4.8. Study on Household Expenditures

Before the COVID-19 pandemic, a street vendor household used to spend an average of 35.23 thousand takas for their living. These livings include food, clothing, transportation, housing, medical, utilities, debt payments, education, savings, recreational, etc. The average spending had reduced to an average of 25.55 thousand taka due to the pandemic situation. The average spending increased again after the withdrawal of all the restrictions. During this time, they had to struggle to make their living through different sources, i.e. taking loans from formal and informal sectors, local money lenders; savings; selling assets; seeking help from relatives; etc.

Table 4.6 Household expenditures of street vendors

Category	Basis of categorization ('000' Tk./month)	Before COVID-19		During COVID-19		Post COVID-19	
		Number	Percent	Number	Percent	Number	Percent
Low	<15	2	1.64	32	26.23	8	6.56
Medium	16-30	63	51.64	53	43.44	62	50.82
High	>30	57	46.72	37	30.33	52	42.62
Total		122	100	122	100	122	100
Observed Range ('000' Tk.)		14-75		6-78		10-75	
Average ('000' Tk.)		35.23		25.70		34.14	

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They also received some government and social aid, but the number of recipients was very low. Expenditures of street vendors are presented in Table 4.6 from before COVID-19, during COVID-19, and post COVID-19 time. From Table 4.5, the expenditure is the average monthly expenditure of street vendors' families was BDT 35.23 thousand, followed by 25.70 thousand Tk. on average during the pandemic and 34.14 thousand Tk. in the post COVID-19 situation. The expenditure did not fall during COVID-19 as follows as the income falls.

4.9. Financial Support to the Village

As the earlier stated result of this study, 45.08% of street vendors' families lived in rural areas. They used to send money to villages to support their families. Because of the closure of shops during the lockdown, most of them failed to provide financial support to their families in the village. The failure to send money to the villages caused families to suffer during the lockdown. Responses on sending financial support are presented in Figure 4.7.

From the responses presented in Figure 4.7, the number of sending financial support decreased from the before COVID-19 situation. Figure 4.7 reveals that sending financial support to the families in villages decreased from 42.62% to 36.07%.
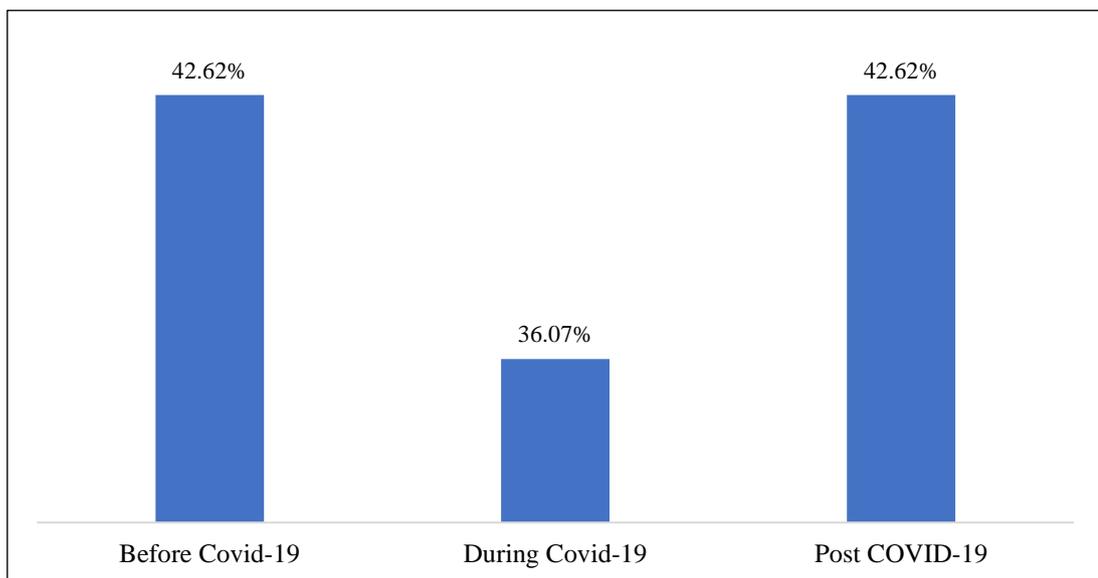
Figure 4.7 Response to sending financial support to villages

The amount of financial support to the villages was also reduced during the COVID-19 pandemic. The average money sent to the villages by the street vendors is presented in Figure 4.8.
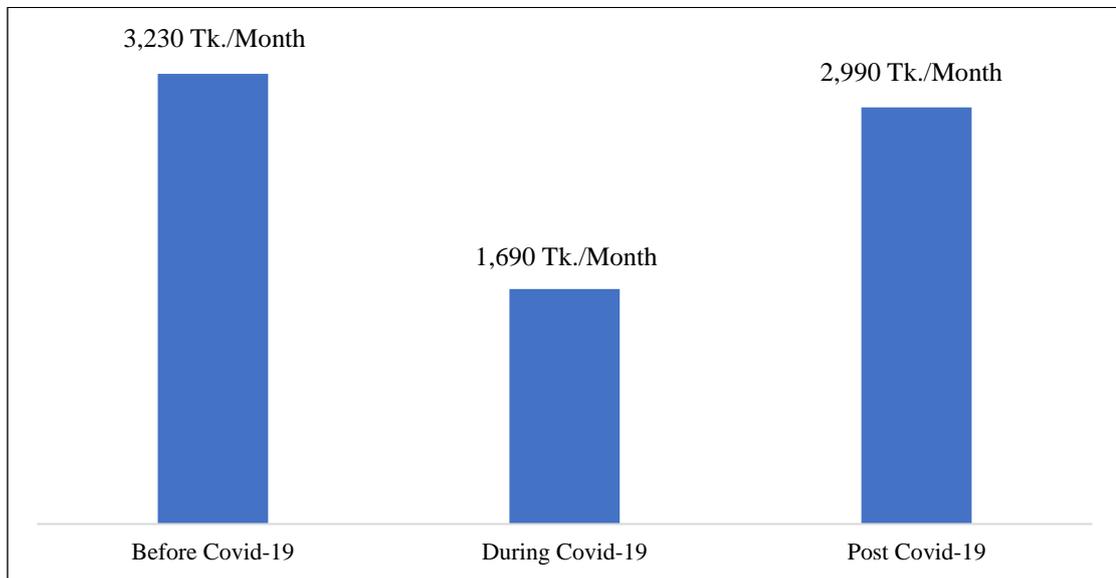
Figure 4.8 Amount sent to the village monthly

Street vendors used to send an average of 3.23 Thousand Taka to support their families in villages before the COVID-19 pandemic, according to Figure 4.8. The amount was reduced to an average of 1.69 thousand Taka. In the post COVID-19 situation, the amount is slightly increased but not reached the previous time period.

4.10. Experience in Vending Business

The respondents' experience in vending business was an average of 11.50 years. The experiences were classified into five categories arbitrarily. The distribution of the street vendors according to their experience is presented in Table 4.7.

Table 4.7 Diversification in experiences of Street vendors

Category	Basis of categorization (years)	Observed Range (years)	Street Vendors		Average
			Number	Percent	
Below 5 Years	<5		31	25.41	
6-10 Years	6-10		32	26.23	
11-15 Years	11-15	2.5-35	30	24.59	11.5
16-20 Years	16-20		19	15.57	
Above 20 Years	>20		10	8.20	
Total			122	100	

Note: Standard Deviation = 6.86

Table 4.7 reveals that the experiences among street vendors are diversified ranging from 2.5 years to 35 years. The average experience is 11.5 years, and the standard deviation is 6.86. The highest experience category is from 6-10 years which constitutes 26.23% of the total respondents. Among them, those with 20 years of experience as street vendors are the lowest (8.20%).

4.11. Chapter Summary

The socio-economic profile of the street vendors indicates that income and expenditure were reduced during the COVID-19 pandemic. Having no schooling experience and educational status are most of them. But an overwhelming majority of them earned low to medium monthly income from their vending business. They suffered during the COVID-19 pandemic, and still, they had not come back to their pre-covid situation.

CHAPTER V

LIVELIHOOD PATTERNS OF STREET VENDORS

5.1. Introduction

To fulfil the second objective of this study, livelihood-related discussions are presented in this chapter. It comprises the result from assessing the livelihood assessment index (LAI) and the description of the findings. The chapter illustrates the comparison among livelihood patterns before, during and post COVID-19 situation.

5.2. COVID-19 Impact on Livelihood

The findings from the analysis are based on the methodology for assessing the livelihood assessment index (LAI) provided in below Table 5.1.

Table 5.1 Livelihood status of Street Vendors in Dhaka City

Sub-components	Value of subcomponents			Major capitals	Value of capitals		
	Before COVID-19	During COVID-19	Post COVID-19		Before COVID-19	During COVID-19	Post COVID-19
Access to nutritious food	1	1	1	Human capital	0.84	0.67	0.84
Access to health facilities	1	1	1				
Child Schooling	0.53	0	0.53				
Access to safe drinking water sources	0.79	0.79	0.79	Natural capital	0.91	0.91	0.91
Distance to Safe Drinking Water	0.05	0.04	0.03				
Crop Land Ownership	0.24	0.24	0.23				
Taking support from relatives or friends	0.1	0.24	0.11	Social capital	0.09	0.16	0.09
Providing support to relatives or friends	0.05	0.04	0.03				
Contact with a community leader	0.02	0.04	0.01				
Borrowing money from relatives	0.02	0.24	0.03				

Membership in societal organizations	0.28	0.28	0.28				
Allowing women members to work outside	0.09	0.09	0.09				
House ownership in Dhaka	0	0	0	Physical capital	0.53	0.52	0.53
House ownership in the village	0.88	0.88	0.88				
Vehicle ownership	0.7	0.68	0.7				
Service income	0.02	0.05	0.03	Financial capital	0.11	0.08	0.04
Investment Income	0	0	0				
Savings	0.47	0.02	0.14				
Access to formal credit	0.06	0.29	0.03				
Remittance income	0.02	0.02	0.02				
Overall livelihood index							
Before COVID	0.37						
During COVID-19	0.35						
Post COVID-19	0.35						

From the Table 5.1, among the five major capitals of sustainable livelihood framework, natural capital (LAI=0.91) and physical capital (LAI=0.52) had no noticeable change during the lockdown and post COVID-19 situation compared to the before COVID-19 period. But, human capital and financial capital index reduced during the COVID-19 period causing a negative impact on their livelihood. The Livelihood Assessment Index changed was 0.67 during COVID-19 from 0.84, which was before COVID-19 in human capital. For financial capital, Livelihood Assessment Index reduced to 0.08 from 0.11. On the contrary, the social capital index increased to 0.11 during COVID-19 compared to 0.09, which was before COVID-19 situation. The reason behind this situation was an increase in taking and providing support from their relatives, taking loans from the relatives, engaging with the societal organizations, and connecting with the community leaders are responsible.

Analyzing the overall livelihood assessment index from the above-mentioned five major capitals of sustainable livelihood framework was 0.35 during COVID-19 and the

post COVID-19 situation, which was 0.37 before COVID-19. So, that means there was a slight negative impact on the overall livelihood index during COVID-19 period compared with the before COVID-19 situation. This result was mostly caused by the social capital and remaining natural and physical capital constant during the COVID-19 lockdown.

Detailed explanations of the situations for each of the five major capitals are described below respectively.

5.3. Human Capital

Human capital in the sustainable livelihood framework consists of the components of health, nutrition, education, knowledge, skills, capacity to work, and capacity to adapt (Serrat, 2017). In this study, the impact of COVID-19 on access to nutritious food, health facilities, and child schooling is discussed.

The COVID-19 situation caused a severe crisis for people across the country as well as all over the world. The difference was observed among the human capital subcomponents of street vendors' livelihoods at different times, which was illustrated in Figure 5.1. The value of human capital during COVID-19 was 0.67, which was reduced from before COVID-19 when the value was 0.84. This was caused because of the closure of all educational institutes, and they were not able to send their children to school at that time. The result is presented in Table 5.2.
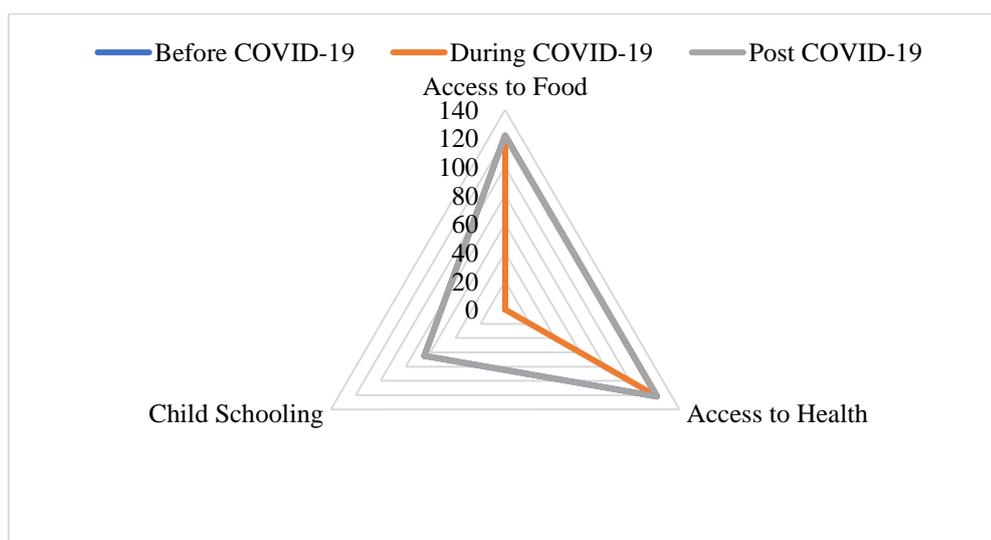
Figure 5.1 Comparison of human capital subcomponents before, during, and post COVID-19 situation

Among the street vendors, they were asked about the availability of food for their families. All of them (100%) responded that they had no issue with food during the pandemic as well as before and after the COVID-19 lockdown period presented in Table 5.2. They opened their shops during the strict lockdown with the risk of having fined by the authority, took a loan from different sources, sought help from their relatives, spent their savings, and went to the village to secure the availability of nutritious food for their families. For these reasons, they did not face any food crisis during the COVID-19 pandemic period.

Table 5.2 Human Capital Responses

Sub Component	Response	Before COVID-19		During COVID-19		Post COVID-19	
		Number	Percent	Number	Percent	Number	Percent
Access to nutritious food (AF)	Yes	122	100.00	122	100.00%	122	100.00
Access to health facilities (AH)	Yes	122	100.00	122	100.00%	122	100.00
Child Schooling (CS)	Yes	65	53.28	0	0.00%	65	53.28

As the COVID-19 pandemic is a health emergency situation, this sector is emphasized with special care. All of the respondents agreed (100%) that they had health access facilities to their nearest hospitals. The number of coronavirus-affected patients among street vendors was very low (1.64%), and for this reason, they did not have to go to the hospital without an emergency case.

All the educational institutions got closed on 17 March 2020 and partially reopened for in-person classes in September 2021. (The World Bank, 2021). This closure of educational institutions was one of the longest school closures (543 days) in the world. Following a significant increase in COVID-19 transmission, the government closed all schools and universities for two weeks, starting on 21 January 2022. The closure was eventually extended until 21 February 2022, and reopened the classes from 22 February 2022. (The Daily Star, 2022).

At this time, the students did not have to go the school, so the number of child schooling is zero during covid-19 in Table 5.2. Before COVID-19 and after reopening the schools

after the withdrawal of restrictions, 53.28% of the families of street vendors sent their children to school both times. Considering some of the reasons, the rest of 46.72% of the families did not send their children to school for education. According to the respondents, 14.75% of the street vendors were unmarried, and as well as some of their families had no children to send to school. Also, some of the respondents did not send their children to school because of the extra burden of the costs related to children's education. A detailed study can reveal more information on this.

5.4. Natural Capital

The natural resources comply with the land and produce, water and aquatic resources, trees and forest products, wildlife, wild foods and fibres, biodiversity, environmental services, etc. (Serrat, 2017). In this study, access to safe drinking water sources and their distances and ownership of agricultural crop land in the village will be discussed.

The value of natural capital in Table 5.1 was slightly reduced in the post COVID-19 situation. This caused because of selling their crop land to meet their livings which is illustrated in Figure 5.2.
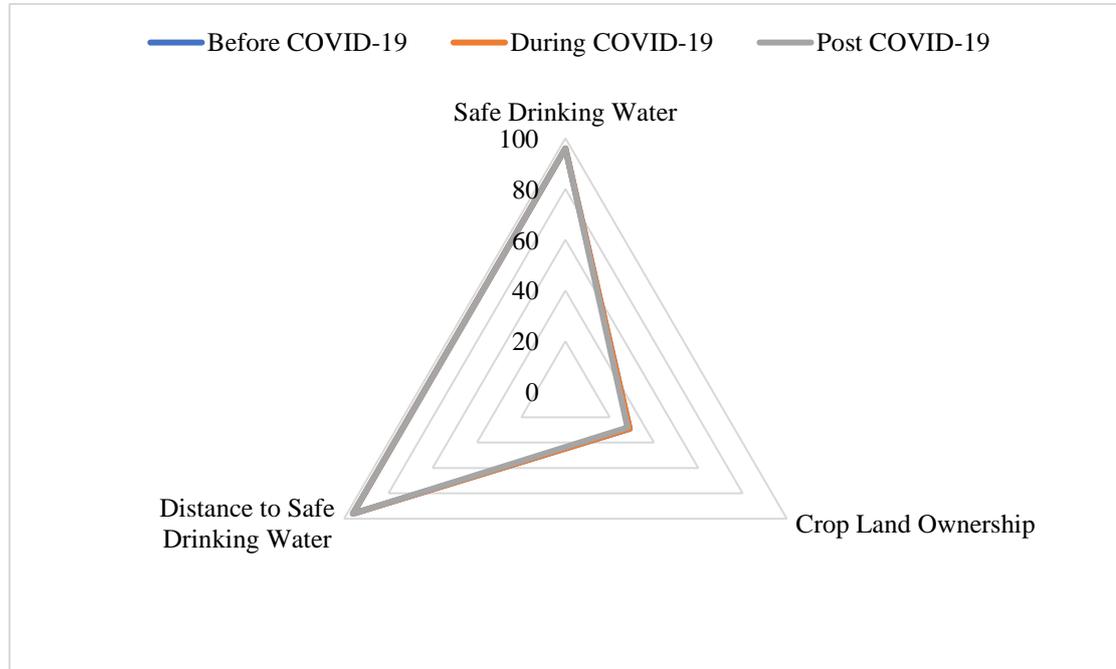
Figure 5.2 Comparison of natural capital subcomponents before, during, and post COVID-19 situation

Water access is a fundamental human right and a cross-cutting concern for sustainable development. Water supplies are vital for human existence, socio-economic stability, and environmental sustainability. The city's residents are deprived of essential urban facilities, with water supply appearing as the most pressing concern. Dhaka city has grown at a 3.5 percent annual rate as a result of an unstructured method (M. S. Islam et al., 2010) to handle a massive population inflow of more than twenty-two million people (Dhaka Tribune, 2022). Such urban expansion places excessive pressure on the city's infrastructure. Poor people, mainly in slum regions, are overlooked on both the demand and supply sides and thus are much more deprived of access to potable water (A. F. M. A. Uddin and Baten, 2011)

This study found that 78.69% of the street vendors had access to safe drinking water sources nearby of their living places. The sources were tap water supply, water booth from Dhaka Water Supply, and Sewerage Authority (DWASA). Some of the street vendors who did not have access to safe drinking water sources (21.31%) stated that they use bottled water supplied by different water supply companies.

Table 5.3 Natural Capital Responses

Sub Component	Response	Before COVID-19		During COVID-19		Post COVID-19	
		Number	Percent	Number	Percent	Number	Percent
Access to safe drinking water sources (SD)	Yes	96	78.69	96	78.69	96	78.69
Distance to the safe water sources (DS)	Less than 5 minutes	96	78.69	96	78.69	96	78.69
Crop Land Ownership (CL)	Yes	29	23.77	29	23.77	28	22.95

Regarding the distance to the safe water sources from their living places, 78.69% responded that the distance was less than 5 minutes. The rest of the respondents (21.31%) stated that they had to walk or carry water for more than 5 minutes from their living places. There is no change found for the access to safe drinking water components, according to Table 5.3.

5.5. Social Capital

The social resources that people draw on to make a living, such as networks and connections (patronage, neighbourhoods, kinship), relations of trust and mutual understanding and support, formal and informal groups, shared values and behaviours, common rules and sanctions, collective representation, mechanisms for participation in decision-making, leadership etc. (Serrat, 2017). In this study, the data was collected to identify the social impact of the COVID-19 pandemic, so the questions were asked with the relevance of the theme of the objectives. The street vendors are asked about taking support from their relatives, providing support to their relatives, contact with their community leaders, lending money from their relatives, membership status of the societal organizations, and perception about allowing women to work outside of the home to earn. The result is presented in Table 5.4. The difference among different subcomponents of social capital during three different times was presented in Figure 5.3.
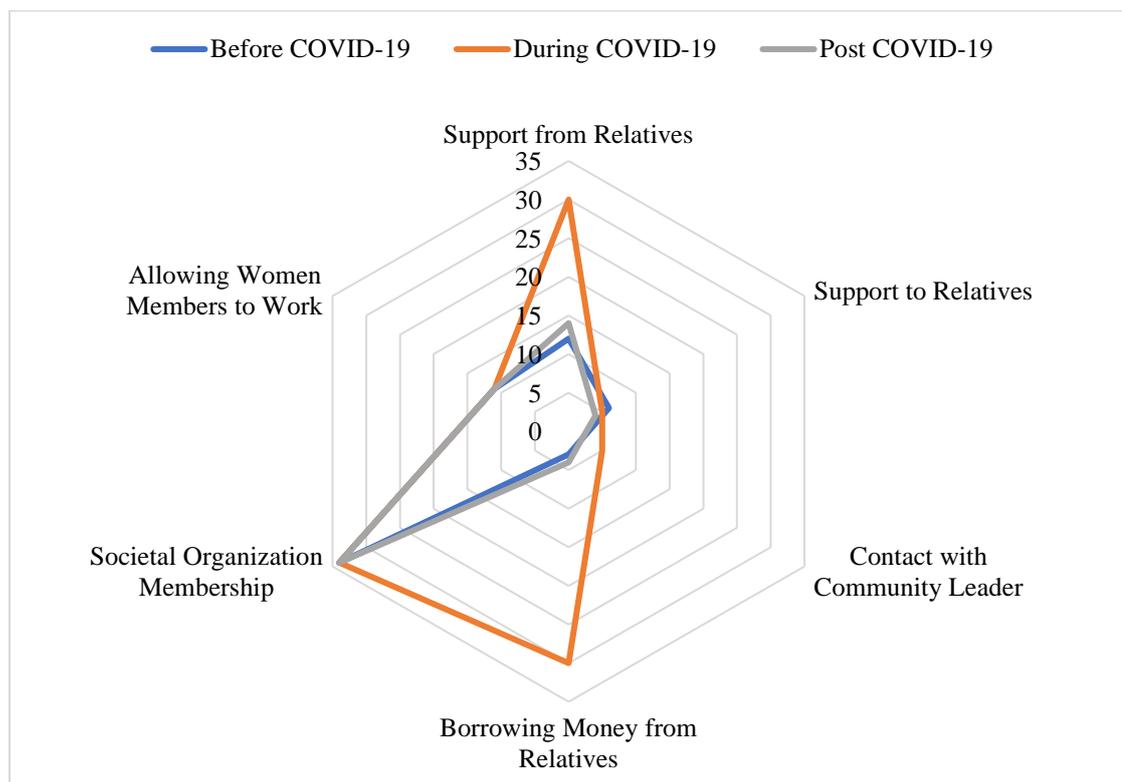
Figure 5.3 Comparison of social capital subcomponents before, during, and post COVID-19 situation

Table 5.4 Social Capital Responses

Sub Component	Response	Before COVID-19		During COVID-19		Post COVID-19	
		Number	Percent	Number	Percent	Number	Percent
Taking support from relatives or friends (SR)	Yes	12	9.84	30	24.59	14	11.48
Providing support to relatives or friends (RS)	Yes	6	4.92	5	4.10	4	3.28
Contact with a community leader (CL)	Yes	3	2.46	30	24.59	4	3.28
Borrowing money from relatives (BM)	Yes	2	1.64	5	4.10	2	1.64
Membership in societal organizations (SO)	Yes	34	27.87	34	27.87	34	27.87
Allowing women members to work outside (WO)	Yes	11	9.02	11	9.02	11	9.02

After the announcement of the lockdown, a shock happened to their regular earnings, so they sought help from their relatives, which is higher than before the COVID-19 period. There are 24.59% of street vendors sought help from their relatives, whereas it was only 9.84% before the pandemic. In the post COVID-19 situation, 11.48% seek help from their relatives with different problems.

The number of helping families among street vendors was lower because they could not help more of their relatives financially since they were also shocked by the situation. Among the respondents, only 4.10% helped their relatives. Before the pandemic, this number was only 4.92%, and in the post COVID-19 situation, it is 3.28%. They struggled a lot to earn their livelihood daily, and as a result, they could not help their relatives, friends, and other families financially.

Borrowing money from relatives and friends increased (24.59%) during the COVID-19 pandemic compared with the previous (2.46%) and the post COVID-19 condition

(3.28%). The reasons behind the increase were easy getting support, flexibility in repayment, and a faster process of getting financial assistance.

The response to contacting the local community leader was very low. The majority of them (98.36% before the pandemic and, at post COVID-19 times, 95.90% during the pandemic) did not ask for any help from the local community leaders and political leaders. The number of respondents who went to the leaders increased during COVID-19, but the rate is very low.

Involvement with societal organizations was constant during the three longitudinal time segments. There 27.87% of the respondents had a membership in social organizations such as local cooperatives, NGO projects, societies, clubs, etc. They used to save money in these organizations and took a loan in emergency situations like the COVID-19 Pandemic. The rate of involvement with such types of organizations is lower because most of the street vendors are migrants, and those who are mobile with their business do not stay in the same places for the time being.

Women's involvement in street vending is seen in this study. A total of 11.48% of women were involved with the street vending business. According to the responses from the male street vendors, only 9.02% allowed women in their families to work outside of the home all the time (before COVID-19, during COVID-19, and post COVID-19). The female responses are omitted in this analysis to get a clearer view of this question.

Table 5.1 shows that the value of social capital during COVID-19 was 0.16, which was increased from before COVID-19 and the post COVID-19 situation, where the value was 0.09 in both post COVID-19 and before COVID-19. This situation defines that they have taken loans or help from their relatives for their survival.

5.6. Physical Capital

The fundamental infrastructure that individuals require to create a living, as well as the tools and equipment that they utilize. For example, transportation and communication systems, accommodation, water and sanitation systems, and energy (Serrat, 2017). In this study, the status of street vendors' house ownership in both village and city and ownership of vehicles were discussed. The analyzed result from the questionnaire is presented in Table 5.5.

Table 5.5 Physical capital responses

Sub Component	Response	Before COVID-19		During COVID-19		Post COVID-19	
		Number	Percent	Number	Percent	Number	Percent
House ownership in Dhaka (HD)	Yes	0	0.00	0	0.00	0	0.00
House ownership in the village (HV)	Yes	107	87.70	107	87.70	107	87.70
Vehicle ownership (VO)	Yes	86	70.49	83	68.03	85	69.67

Table 5.5 reveals that none of the street vendors had their own houses in Dhaka city. It is also not possible for them to afford a house since they had not enough capital, earnings, or savings to buy and build a house in Dhaka city. All of the responses were negative to this question.

Regarding their own house in the villages, 87.70% had their own house in villages, and the rest of the 12.30% did not own any houses both in villages and cities, according to Table 5.5. Most of them lived in slums or low-cost housing facilities where they could afford accommodation with their earnings from the vending business. There is no impact of COVID-19 seen among the street vendors with house ownership in both villages and Dhaka city.

Among the respondents, 70.49% had their own vehicles for operating their businesses, whilst the percentage slightly reduced during the pandemic (68.03%). Vehicle ownership increased again after the COVID-19 pandemic (69.67%). The reason behind reduced vehicle ownership during the pandemic was selling their vehicles and migration from Dhaka city to village.
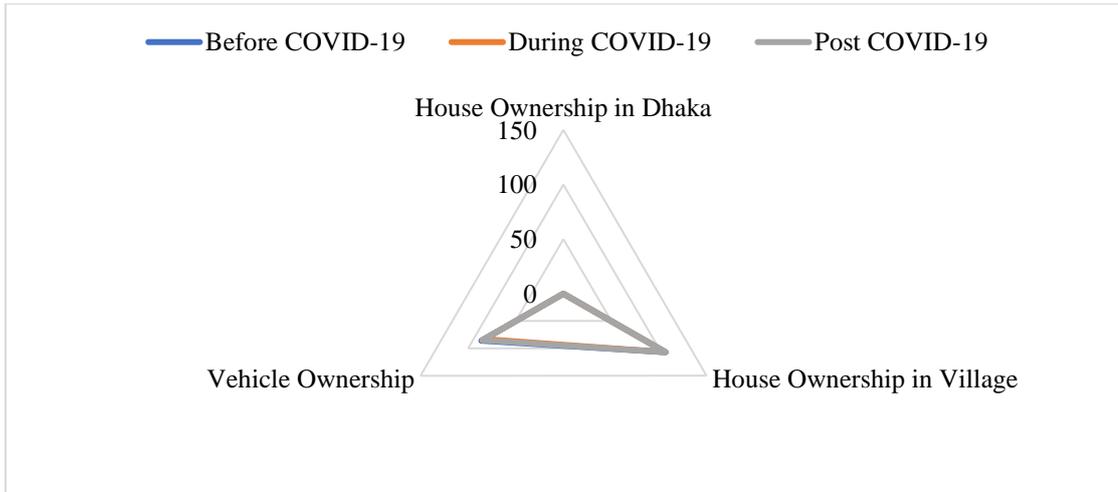
Figure 5.4 Comparison of physical capital subcomponents before, during, and post COVID-19 situation

The physical capital during COVID-19 was slightly reduced, so they did not have a potential impact on this capital which is presented in Table 5.1. The comparison between different subcomponents of physical capital is illustrated in Figure 5.4.

5.7. Financial Capital

Financial capitals are access to financial services, savings tendency, access to credit, debt (formal, informal), remittances, pensions, wages, etc. (Serrat, 2017). In this study, street vendors' income from service, investments, savings tendency, access to formal credit sources, and remittance income will be discussed to find the COVID-19 impact on their financial access.

Table 5.6 Financial Capital Responses

Sub Component	Response	Before COVID-19		During COVID-19		Post COVID-19	
		Number	Percent	Number	Percent	Number	Percent
Service income (SI)	Yes	3	2.46	6	4.92	4	3.28
Investment income (II)	Yes	0	0.00	0	0.00	0	0.00
Savings (S)	Yes	57	46.72	3	2.46	17	13.93
Access to formal credit (FC)	Yes	8	6.56	35	28.69	4	3.28
Remittance income (RI)	Yes	2	1.64	2	1.64	2	1.64

Services may include their additional income i.e. carpenter, construction labour, odd jobs, etc. According to the data presented in Table 5.6, the income of the street vendors from service is very low. The number increased (4.92%) during the COVID-19 pandemic when some of the street vendors switched their jobs to earn their living. The street vendors also did not have any income from investment, according to Table 5.6.

Before the COVID-19 pandemic, the savings tendency was higher (46.72%). During the pandemic, the number of savings was reduced to only 2.46% because 54.10% of street vendors shut down their businesses, and 42.72% of them started to spend from their previous savings. A slight change in savings in post COVID-19 times (13.93%) was seen in Table 5.6, but it is not getting back to the previous pandemic situation. According to the street vendors, the reason behind the decreasing savings tendency was the burden of repayment of the already taken loan from different sources.

The number of loan receivers increased during the pandemic (28.69%) from the previous situation (6.56%). So, access to credit increased during the pandemic.

The street vendors were asked whether any of their family members stayed abroad and sent remittances to them. Only 2 of them responded about receiving remittance from abroad from their family members, and the rest of the 98.36% had no family members abroad to help them financially.
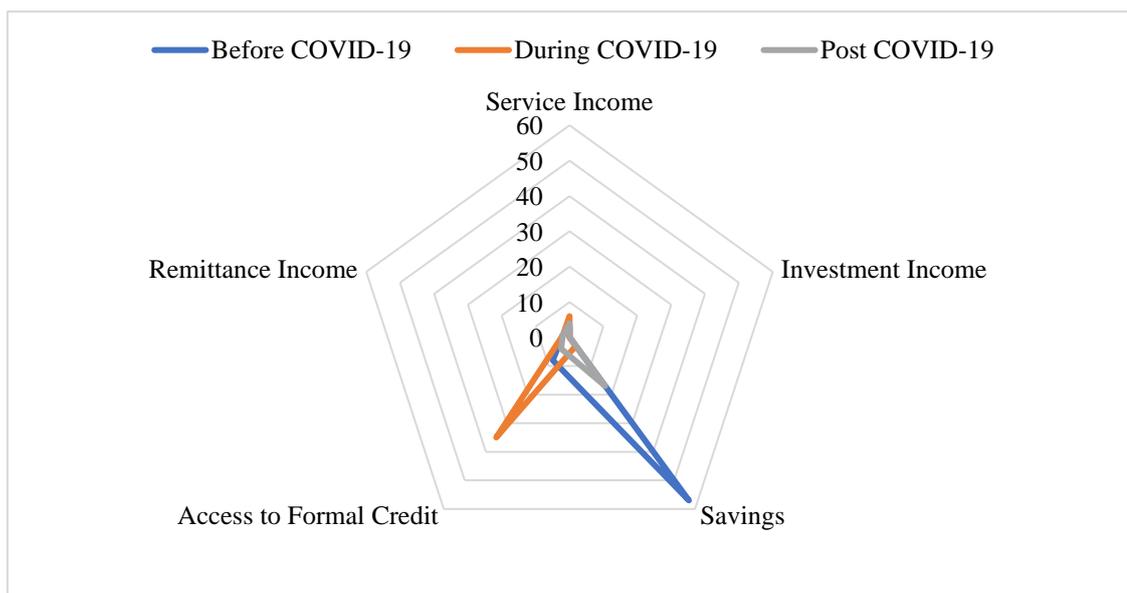
Figure 5.5 Comparison of financial capital subcomponents before, during, and post COVID-19 situation

The difference among the subcomponents of financial capital is presented in Figure 5.5. In Table 5.1, the value of the financial capital reduced from the before COVID-19 situation, followed by the post COVID-19 condition. Before COVID-19, the value of the financial capital was 0.11, but during COVID-19, the value was reduced to 0.08, and in the post COVID-19 condition, the financial capital value was 0.04. Their financial loss caused the most impact on their livelihood during the COVID-19 pandemic. This situation was caused because of the closure of their business, failure to maintain savings, and receiving credit from formal sectors, i.e. banks, NGOs etc.

5.8. Food Issues

From the study, it was found that 45.08% of the street vendors' families lived in villages. In village areas, homestead gardening is both very popular and effective. Among the families that stayed in the villages, 52.73% practice homestead gardening for their own consumption and for selling if the production was higher. This number is also constant for all the longitudinal time parameters. The statistics are presented in Table 5.7.

Table 5.7 Responses related to food issues

Sub Component	Response	Before COVID-19		During COVID-19		Post COVID-19	
		Number	Percent	Number	Percent	Number	Percent
Practice home-stead gardening	Yes	29	52.73	29	52.73	29	52.73
Social safety net program	Yes	0	0.00	0	0.00	0	0.00

In Bangladesh, the major social safety net programs (SSNPs) fall into four broad categories: a) employment generation programs; b) programs to cope with natural disasters and other shocks; c)incentives provided to parents for their children's education, and d) incentives provided to families to improve their health status.

The SSNPs are further classified into two groups based on whether they entail cash or food transfers (Khuda, 2011). Table 5.7 reveals that none of the street vendors was involved in any SSNPs.

5.9. Chapter Summary

This chapter presented the analyses of the livelihood assessment index (LAI) from the collected data. Further, it exhibited the impacts on the livelihoods of street vendors due to COVID-19. The next chapter presents the survival strategies of street vendors during COVID-19.

CHAPTER VI

SURVIVAL STRATEGIES OF STREET VENDORS DURING COVID-19

6.1. Introduction

Another important objective of the study was to explore the survival strategies of street vendors during the COVID-19 pandemic. This chapter comprises the result and related discussions regarding survival strategies during challenging time. The impact of COVID-19 on the vending business, shop closure, COVID-19 affected, and vaccination-related studies are also carried out in this chapter. The chapter ends with a chapter summary.

6.2. Impact of COVID-19 on Vending Business

According to the analysis of the collected data, 63.11% of street vendors think the COVID-19 pandemic caused a negative impact on their business and livelihood, while 36.89% did not think. The result is shown in Figure 6.1. The negative 36.89% response came from the sellers who had the opportunity to keep their shops open during the lockdown, especially the vegetable and fruit sellers. They kept their shops open during the strict regulations because of the flexible laws for them to sell necessary commodities. This helped them to keep their business running whilst others had to shut off their business.
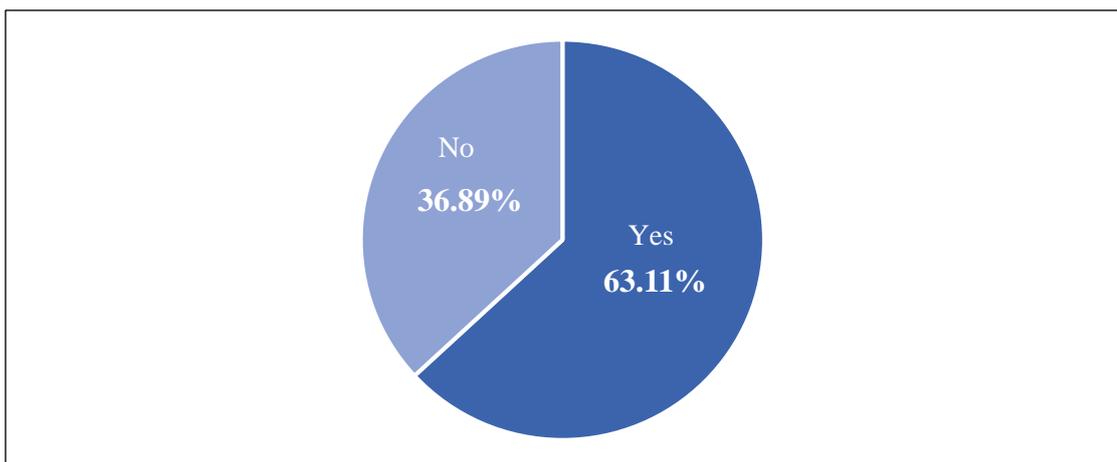
Figure 6.1 Response to the perceived negative impact of COVID-19 on street vending

6.3. Shop Closure During Lockdown

Among the 122 street vendors, 54.92% stated that they did not open their shops during the lockdown, and 45.08% responded about the opening of shops. The result is presented in Figure 6.2.
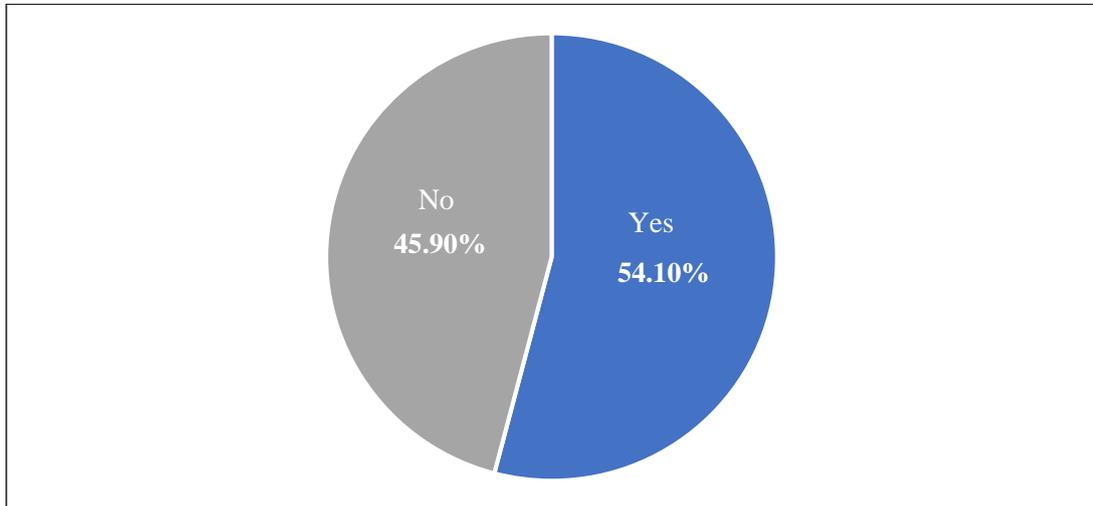
Figure 6.2 Closure of shops during lockdown

Among the 54.10% of respondents who stated that they had to shut down their shops during the lockdown, a maximum (25.41%) of shops were closed between 7 months to 1 year followed by 0 to 6 months 13.93% and 1 to 2 years constitutes 12.30%. Some shops kept shut down for above 2 years (2.46%) in some cases i.e. for migration in the village, starting new income-generating options etc. The average time of vending business closure was found 7.53~8 months from the study. The statistics found in the study are presented in Figure 6.3.
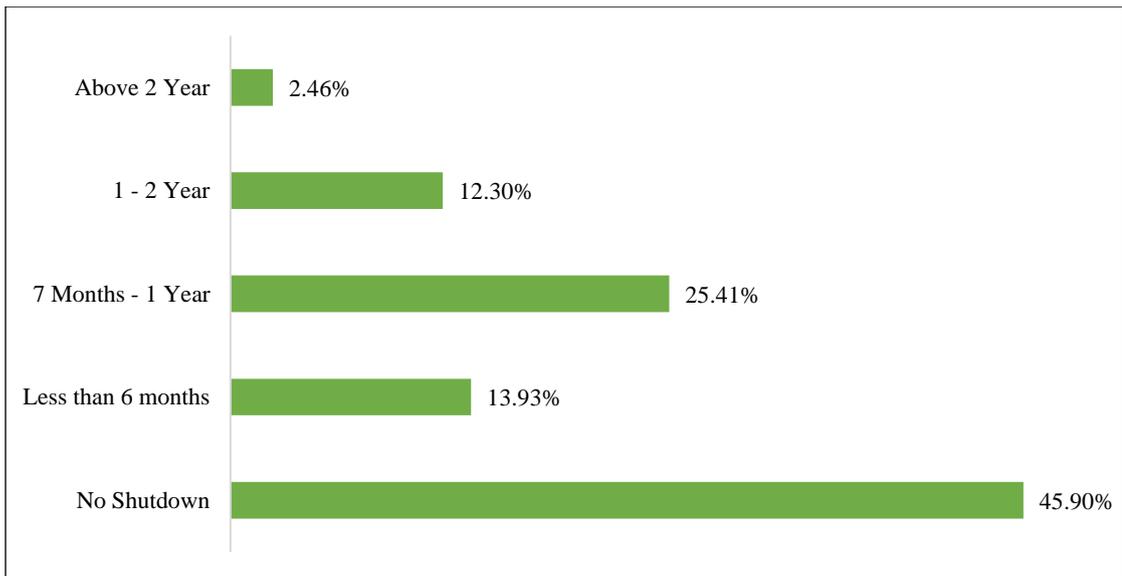
Figure 6.3 Closure duration of vending business

6.4. Survival Strategies During Pandemic

During the lockdown, 54.10% of street vendors had to shut down their shops. In that time, so many bad consequences happened as they had fewer savings tendencies. Among them, 47.54% relied on their vending business, whereas 50% took a loan from different sources. The overview of how they managed their expenditure is presented in Figure 6.4.
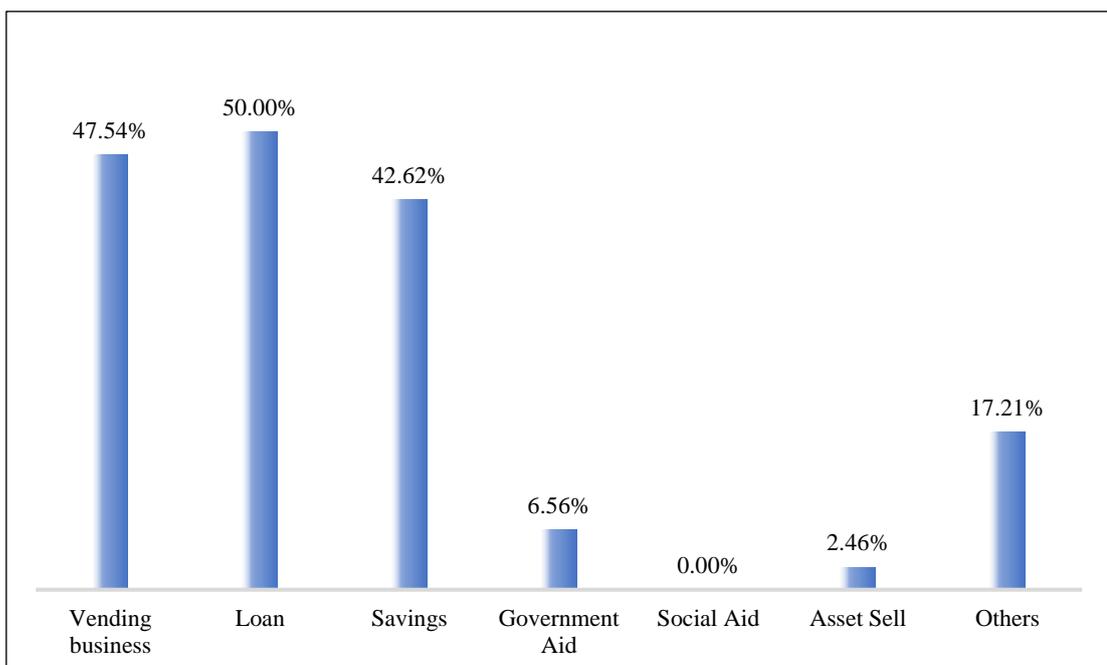
Figure 6.4 Managing expenditure during lockdown

Figure 6.4 reveals that the majority of the street vendors relied on vending business (47.54%), loans (50.00%), and savings (42.62%) mostly. The street vendors who responded to vending business as their way of survival are mostly vegetable and fruit sellers. The other ways are asked about receiving government and social aid, selling assets, and others. Based on their responses, only 6.56% of street vendors received government aid in different forms, i.e. cash, food, etc. They did not receive any social aid from NGOs and other societal organizations, according to their response. They stated that NGOs and societal organizations did not come to them with any assistance, i.e. food, financial support etc. They thought that as the street vendors were a business person, so they had enough funds to make their living on their own. Also, they were not categorized as poor, so they did not have the right to receive any social aid.

As stated in Figure 6.4 above, 2.46% of street vendors sold their assets from their homes to manage their expenditures, and 17.21% responded about others. In response to the others, they stated that they had switched to different odd jobs during the lockdown to manage their expenditures.

Among all the street vendors, 50% took loans from different sources, i.e. banks, NGOs, local money lenders, and relatives, which are presented in Figure 6.5.
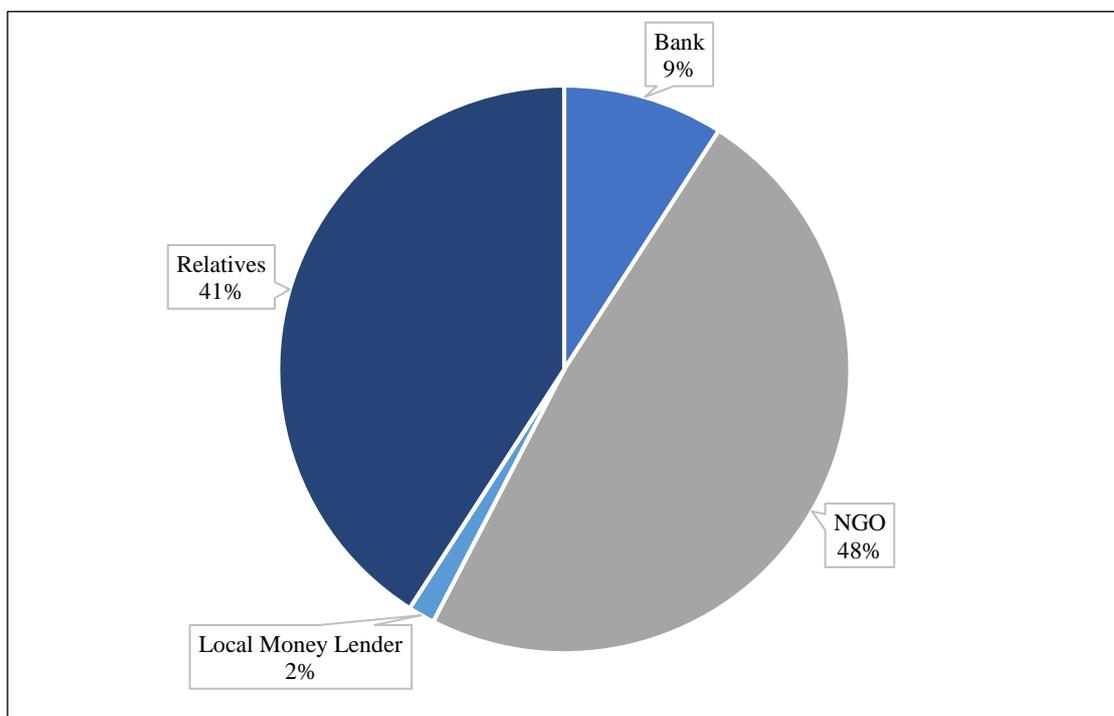
Figure 6.5 Sources of Loan

Taking a loan was mandatory for street vendors who had lessened sales during the COVID-19 period as well as who had been forced to shut down according to the law by the government to stop the spread of coronavirus. They had no way to earn their livelihood, and they became unemployed temporarily. Among the loan takers, most of the street vendors took a loan from NGOs (48%), according to Figure 6.5, followed by 41% taking a loan from their relatives. Only 2% took loans from money lenders, and 9% took their loans from the banking sector.

6.5. COVID-19 Related Study: Affected and Vaccinated

The street vendors directly interact with their customers. So, they were more vulnerable to coronavirus infection as it is a contagious disease that spreads with droplets and virus particles released into the air when an infected person breathes, talks, laughs, sings, coughs, or sneezes (Johns Hopkins Medicine, 2022). But according to the results of this study, as presented in Figure 6.6, only 1.64% of the street vendors responded that they had been affected by coronavirus and the rest of the 98.36% declared that they did not affect during the pandemic situation.
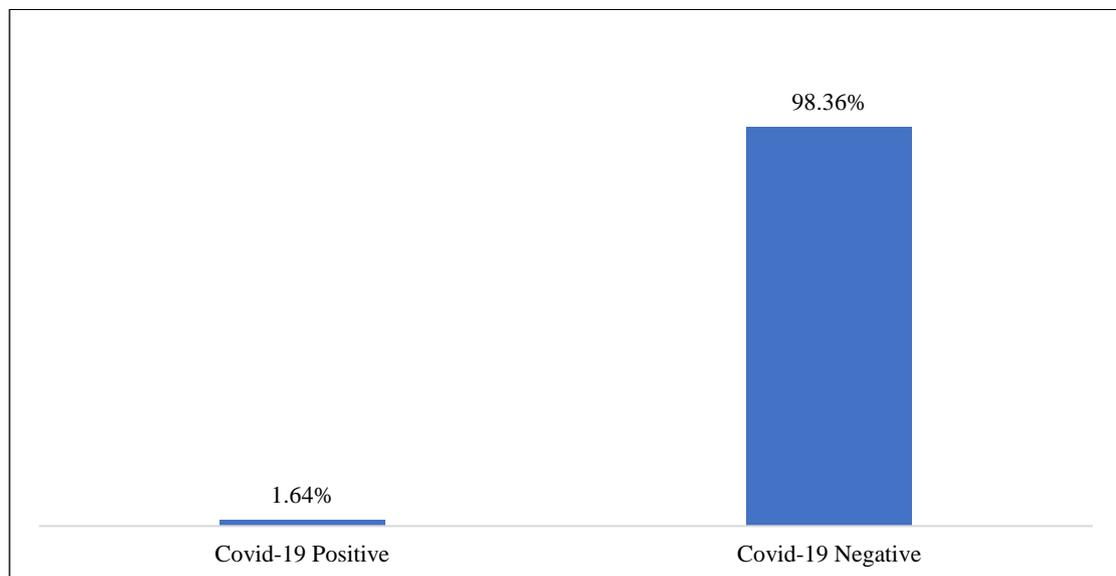
Figure 6.6 COVID-19 positive among street vendors

People were unwilling to discuss their COVID-19-related symptoms or deny any past interaction with COVID-19 sufferers to prevent social discrimination (Rahman et al., 2021). This could be a possible reason for these negative responses to being affected by coronavirus.

Among the 1.64% of the coronavirus-affected patients, all of them had mild symptoms like fever, cough, or change in taste or spell. They did not face shortness of breath and were cured with clinical monitoring or supportive care in the home.

All the respondents responded positively that they had maintained all the health measures according to the directions of the government, i.e. wearing masks, using hand gloves, using sanitiser for both their hands and spraying their products in the shop. They also encouraged their customers to maintain health measures like theirs to stop the spread.

After successful clinical trials of the coronavirus vaccines in different countries, the U.S. Food and Drug Administration (FDA) issued the first Emergency Use Authorization (EUA) of the Pfizer-BioNTech COVID-19 vaccine among people aged 16 years and above for the prevention of COVID-19 (U.S. Food and Drug Administration). World Health Organization (WHO) granted a total of 11 vaccines, i.e. Moderna, Pfizer/BioNTech, Oxford/AstraZeneca, Sinopharm (Beijing), COVOVAX (Novavax formulation), CanSino, Janssen (Johnson and Johnson), Covaxin, Sinovac are remarkable (WHO, 2022). Among the 11 approved vaccines by WHO, seven vaccines are approved for use in Bangladesh. Bangladesh officially started the nationwide vaccination program on February 07, 2022. The street vendors also got the opportunity to be vaccinated. From this study, it is found that 95.90% of street vendors are vaccinated, and the rest 4.10% did not receive any doses yet, which is presented in Figure 6.7.
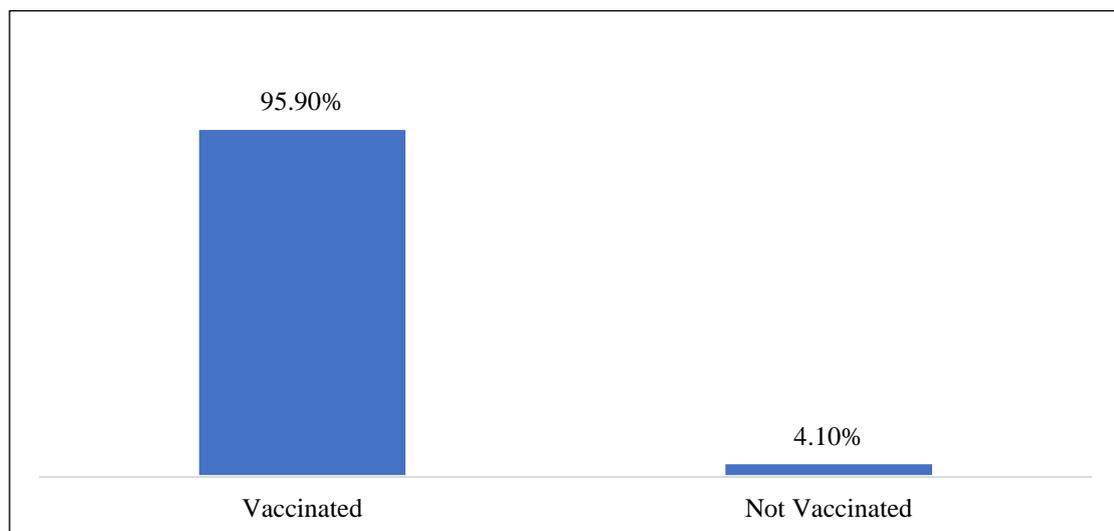
Figure 6.7 Vaccination status among street vendors

Among the vaccinated street vendors, they stated the majority portion received two doses of the COVID-19 vaccine, and 10.66% received the booster doses. The statistics are presented in Figure 6.8.
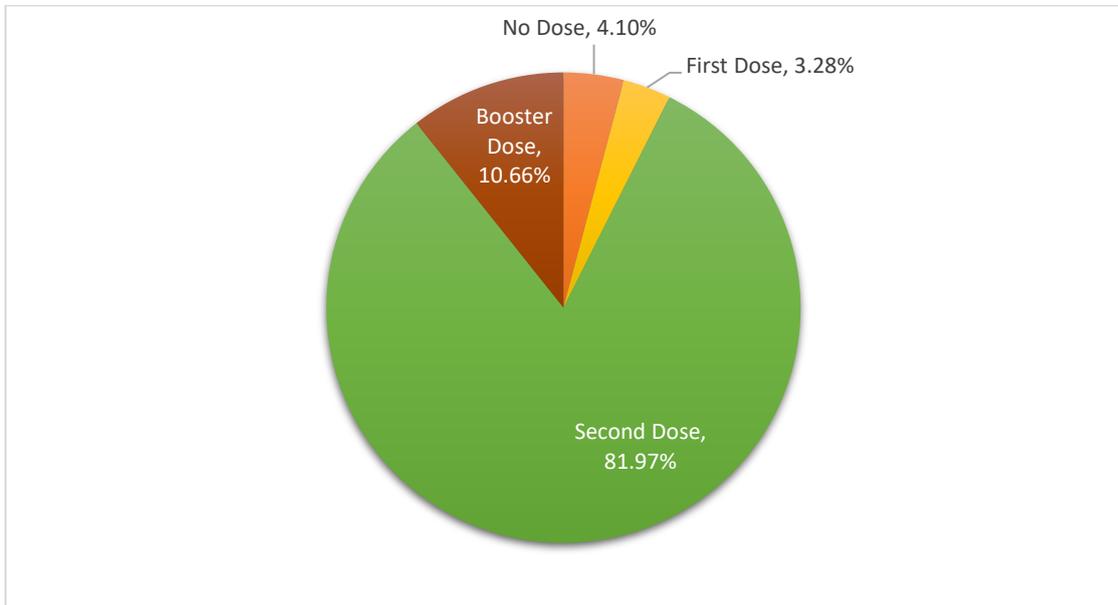
Figure 6.8 Different doses received by the respondents

6.6. Chapter Summary

The chapter described how the street vendors survived during the COVID-19 pandemic and how their business got interrupted by strict locked-down. The chapter also described the affected cases with coronavirus and vaccination status among the street vendors. The next chapter will illustrate the migration status of street vendors due to COVID-19.

CHAPTER VII

MIGRATION STATUS OF STREET VENDORS DURING COVID-19

7.1. Introduction

The last objective of this thesis was to draw insight regarding the migration of street vendors. The chapter discussed the migration-related studies of street vendors during COVID-19. It will also focus on the major reasons behind migration from city to village and new members joining in the job. It will also discuss about what they did during their stay at the village. The chapter ended with a chapter summary.

7.2. Urban to Rural Migration

During the lockdown, only 13.11% shifted to the village, according to the study, whereas 86.89% of the street vendors stayed in Dhaka city. The major reasons for shifting to the village were to minimize expenditure, seek help from relatives, search for alternative income sources in the village, close the shop during the lockdown, etc. The statistics for staying in Dhaka and the reasons for shifting to the village are presented in Figure 7.1.
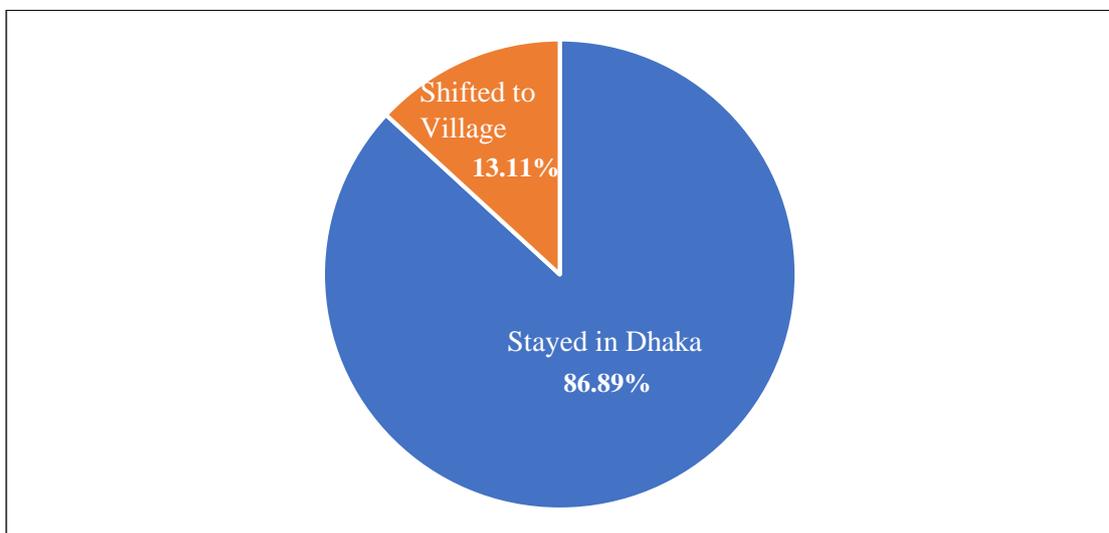
Figure 7.1 Migration status during COVID-19 pandemic
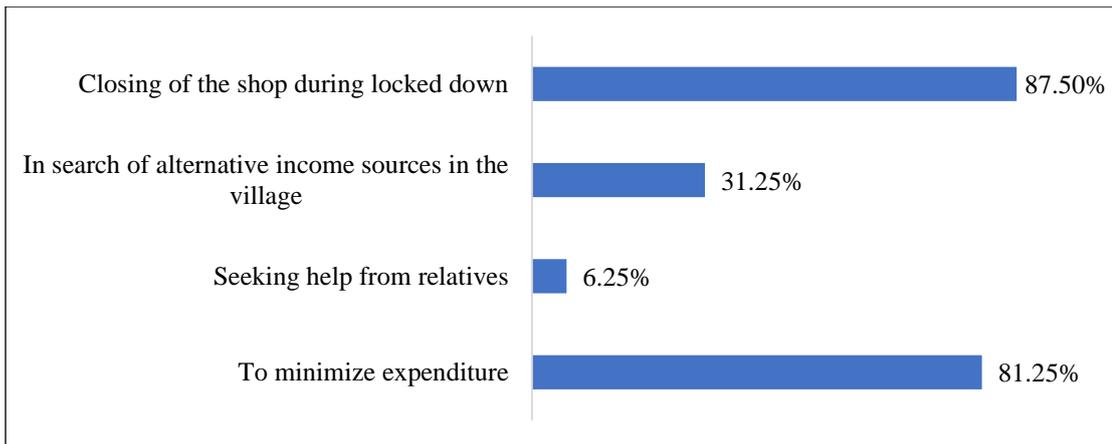
Figure 7.2 Reasons behind migration to village

Figure 7.2 reveals that, among the 13.11% of the street vendors who shifted to the villages, they responded the reason for shifting to villages was mostly because of the closure of their shops during the lockdown (87.50%). Again, 81.25% shifted to minimize their expenditure, as Dhaka is one of the most expensive cities in the world (Tellez, 2022). They failed to manage their livings as street vending was the only means of income for them. This study found that 84.43% of the street vendors did not have any secondary income, so they had no way without shifting village. On the other hand, among the street vendors who stayed in Dhaka city, they stated that they had no houses in the village to go to. So, they had to stay in the city bearing all the expenditure. At that time, they had to take a loan from the sources mentioned earlier.

Street vendors who shifted to the village were asked about what they did during staying in the village. Their response to this question is presented in Figure 7.3.
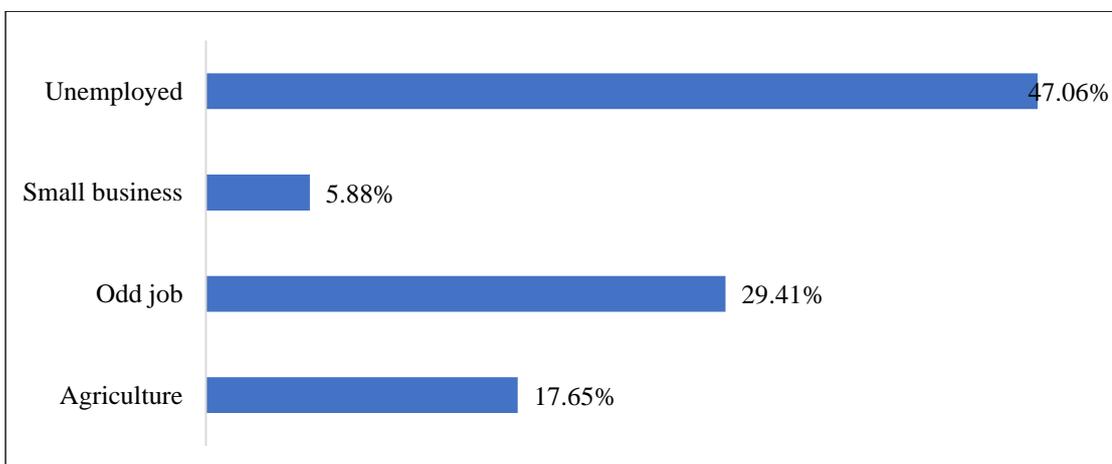
Figure 7.3 Job status during stay in village

Figure 7.3 shows that the majority of the street vendors remain unemployed (47.06%) during their stay in the village. Among the rest, they were involved in different odd jobs (29.41%), agriculture labour (17.65%), small business (5.88%), etc.
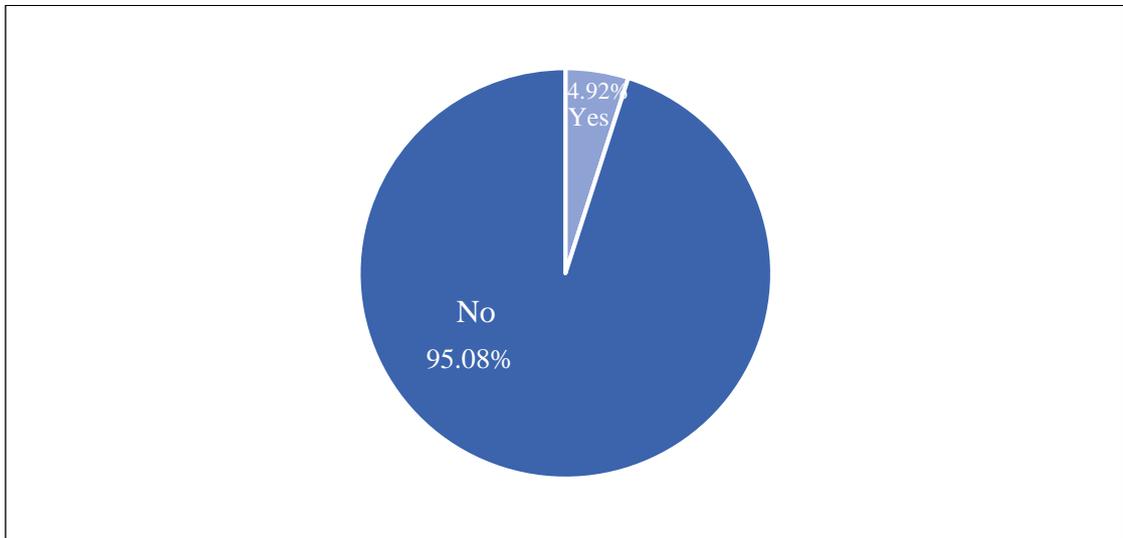
Figure 7.4 New members joining in income generation activities during the pandemic

The scope of day labour was absent in villages, and there was no chance to invest in new businesses in the villages as they had a shortage of capital. They also sought help from their relatives and took loans to manage their household expenditures.

During the pandemic, the study found that other family members' involvement in income-generating activities of 4.92% of street vendors' families, presented in Figure 7.4. They thought it could be a way to reduce the burden of managing the total expenditures of their families. The rest of the 95.08% responded about not joining any of their family members in any income-generating activities during the lockdown. The scope of work was limited, and it is also a vital reason for the new involvement in wage-earning sources.

7.2. Chapter Summary

The chapter described about the migration related findings from the study. The next chapter presents the summary, conclusion, and recommendations followed by references used in this study.

CHAPTER VIII

SUMMARY, CONCLUSION, AND RECOMMENDATION

8.1. Introduction

In this section, the discussion on each objective is described based on the results from Chapters IV and VII. The sections demonstrated each objective and achieved them. It also presents the contributions of the study. Finally, it ends with a conclusion along with recommendations and limitations of the study.

8.2. Summary

The situation of street vendors before and after the pandemic was very different, as they had to change their profession and business many times. The study discovered the negative impact caused by the pandemic situation on some of the capital of the sustainable livelihood framework, i.e., financial capital. Since they were involved in street vending and solely relied on it, they did not have other options to switch immediately to overcome the situation.

The socio-economic status of street vendors in Dhaka city reveals that an average of 40 years aged people were engaged in the street vending business. Among them, 88.52% were male, and their average education level was up to primary education. The street vendors had an average of 11.50 years of experience in their business. An average of 6 family members constituted a household, and there were an average of 2 earning members in each family. The study revealed that 69.67% declared themselves as household heads. Their household income was an average of 35.28 thousand Taka before COVID-19, which was reduced to 22.37 thousand Taka during COVID-19.

A total of 45.08% of families lived in villages, and 42.62% used to send financial aid with an average of 3.23 thousand Taka. This amount was reduced during COVID-19, and then only 36.07% of street vendors sent financial support with an average of 1.69 thousand Taka.

Among the street vendors, 63.11% ensured the negative impact on their business, and 54.10% closed their shops during the lockdown. After an average of 8 months, they were able to reopen their shops and start their business again. During this time, they struggled a lot to meet their livings in different ways, i.e. vending businesses who had

kept their business open; taking a loan from NGOs, relatives, banks, and local money lenders; spending their savings; selling their assets, etc.

Due to several reasons, i.e., closure of shops during the lockdown, in search of alternative income sources, seeking help from relatives, and minimizing expenditure, 13.11% of street vendors shifted to their own villages.

After assessing with the livelihood assessment index, it was found that natural capital (LAI=0.91) and physical capital (LAI=0.52) among the five major capital of sustainable livelihood framework had no noticeable change during the lockdown and post COVID-19 situation compared to the before COVID-19 period. But, human capital and financial capital index reduced during the COVID-19 period causing a negative impact on their livelihood. The Livelihood Assessment Index changed was 0.67 during COVID-19 from 0.84, which was before COVID-19 in human capital. For financial capital, Livelihood Assessment Index reduced to 0.08 from 0.11. On the contrary, the social capital index increased to 0.11 during COVID-19 compared to 0.09, which was before the COVID-19 situation. The reason behind this situation was an increase in taking and providing support from their relatives, taking loans from the relatives, engaging with the societal organizations, and connecting with the community leaders are responsible.

Analyzing the overall livelihood assessment index from the above-mentioned five major capitals of sustainable livelihood framework was 0.35 during COVID-19 and the post COVID-19 situation, which was 0.37 before COVID-19. So, that means there was a slight negative impact on the overall livelihood index during the COVID-19 period compared with the before COVID-19 situation. This result was mostly caused by the social capital and remaining natural and physical capital constant during the COVID-19 lockdown.

8.3. Conclusion

The study provides a clear understanding of the adverse effects of COVID-19 on the livelihoods of street vendors in Dhaka city. The study describes the socio-economic profile and livelihood patterns of the street vendors in three different time periods. The result indicates that COVID-19 had a negative impact on the livelihoods of street vendors, as well as other sectors. This pandemic affected different Sustainable Livelihood Framework (SLF) capitals in different ways. According to the findings of

the LAI analysis, social capital increased whereas human and financial capital compensated, while other capital remained constant. During COVID-19, the household income of street vendors decreased and they took loans from different sources to cope with the situation. Despite the fact that many street vendors were expected to relocate during the pandemic, very few did. During this stressful time, they made ends meet by running the vending business for a limited time with regulations, borrowing money from various sources, spending previous savings, and so on.

8.4. Recommendations

Based on the findings of this study, a number of policy recommendations can be made that can be generalized to other developing countries with similar impacts of COVID-19, like in South Asia. This study will support future research and researchers in obtaining a thorough understanding of the conditions of street vendors' lifestyles during the COVID-19 lockdown in Bangladesh. The study will also help policymakers to understand the situation well and to draw their attention to integrating well-being planning and making more sustainable preparation for any pandemic or disaster in the future. Several practical guidelines for coping with potential pandemics have been proposed based on the study's findings:

a) **Encouraging street vendors to save more**

They managed and coped with their financial insolvency by spending their existing savings and taking support from their relatives. So, they should be encouraged to save more with formal financial sources to cope with any kind of shock or similar situation.

b) **Strengthening their social capital**

Street vendors got enormous support during the challenging time from their friends, families and relatives. Also, local NGOs helped them by providing loan facilities. They should strengthen their social capital to cope with any future unpredictable situation.

c) **"Street Vendor Act" should be formulated to support the vending business**

Street vendors are an important part of the urban economy. Due to the absence of any policy about them, they did not receive any government or social aid during the pandemic. Also, they remained outsiders in regard to the formal

financial sector. So, there is an urgent need for the preparation and proper execution of the 'street vendors act' by the Government of Bangladesh to regulate them in a formal way.

d) **Formulation of evidence-based holistic schemes**

After taking proper consultation with street vendors' representatives, evidence-based holistic schemes should be formulated. They should be legalized and licensed so they can be capable of taking loans from formal financial sectors and make their business(es) run smoothly, as well as taking other citizen benefits.

e) **Further in-depth research is warranted**

This study covers a limited number of subcomponents of the sustainable livelihood framework, and only three areas was covered. Further in-depth studies are warranted for formulating strategies to protect this vulnerable group of people from similar future events.

If the authorities carry out such a well-planned and targeted program, it will not only provide immediate relief to their sufferings in such type of situations, and it will ensure their future security and restore their lost confidence and self-esteem, which is the vital and basic right to every human being, regardless of status or eminence.

8.5. Limitations of the Study

Considering the time, respondents, communication facilities, and other necessary resources available to the researcher, it became necessary to impose certain limitations, as described below-

i. The sample size might be bigger for better understanding and diversification, which was not possible due to time and resource constrained.

ii. The data was collected from the respondents during the post COVID-19 time period. The field data might be collected during the COVID-19 lockdown for better observation.

iii. Only three areas of Dhaka city were selected for collecting data. The area needed to be wider for a diversified and more accurate result.

iv.   One or two FGDs should be completed for data validation which was not possible due to time and resource constrained.

v.   The lack of enough specific research and proper statistics about street vendors is another limitation of this study.

8.6. Conflict of Interest

The author declares no conflict of interest.

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Appendix 1: Livelihood Assessment Index Calculation

Calculation of livelihood index (before COVID-19)

Sub-components for human capital	Sub-component values	Maximum sub-component value	Minimum sub-component value	Index value	Human capital component value
Access to nutritious food	1	1	0	1	
Access to health facilities	1	1	0	1	0.84
Child Schooling	0.53	1	0	0.53	

Step 1 (repeat for all sub-component indicators):

$$Index_{child\ schooling} = \frac{0.53 - 0}{1 - 0} = 0.53$$

Step 2 (repeat for all major components):

$$Human\ Capital = \frac{1 + 1 + 0.53}{3} = 0.84$$

Step 3 (repeat for all situations):

$$LAI = \frac{\sum_{i=1}^{n} W_{MJ} M_{VJ}}{\sum_{i=1}^{n} W_{MJ}} = \frac{3 \times 0.84 + 3 \times 0.91 + 6 \times 0.09 + 3 \times 0.53 + 5 \times 0.11}{3 + 3 + 6 + 3 + 5}$$

$$= 0.37$$

DEPARTMENT OF DEVELOPMENT AND POVERTY STUDIES
Sher-e-Bangla Agricultural University
Sher-e-Bangla Nagar, Dhaka-1207

Questionnaire on
Impact of COVID-19 on Livelihoods of Street Vendors in Dhaka City, Bangladesh

(All the information related to respondents and questionnaire will be used only for research and development purposes)

Interview Date: Interview Serial:

Section A: Respondent's Information

1. Name: …………………………………………………………………………………………

2. Mobile Number: ………………………………… 3. Age: ……………………………….…Year

4. Address: …………………………… 5. Hometown: …………………………………

6. Gender: a. Male   b. Female   7. Experience: …………………….………Year

8. Year of Schooling …………….. Year

9. Marital Status: i.   Married   ii.   Unmarried   iii. Others

Section B: Socio-economic Information

10. How many members are in your family?

i. Male ……………….….. ii. Female ……………………… iii. Children ………………

11. How many earning members are in your family? i. Male …………….... ii. Female ………

12. Annual Household Income

Before COVID-19	During COVID-19	Present

13. Household Head:

   A) Self   B) Father C) Mother   D) Brother   E) Sister   F) Wife   G) Children   H) Other……………

14. Whether all the members of your family stayed with you in Dhaka City?   a) Yes   b) No

15. If No, how many members of your family stayed in village? ……………………

16. Do you send money to your village for supporting your family?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

17. How much amount of money you usually send to them a month (Taka/Month)

Before COVID-19	During COVID-19	Present

18. Annual Household Expenditure

Purposes (Monthly)	Before COVID-19	During COVID-19	Present
Food			
Clothing			
Transportation			
Housing			
Medical			
Utilities			
Debt Payment			
Children Education			
Savings			
Recreational			
Miscellaneous			

Section C: Impact of COVID-19 on Street Vending

19. Type of Vending:

  I.   Street tea seller
  II.   Street food seller
  III.   Street cloth seller
  IV.   Street fruit seller
  V.   Street vegetable seller
  VI.   Street handicraft seller
  VII.   Street hawker
  VIII. Others: Please specify …………………………………………………………..

20. Do you think COVID-19 negatively affected your business?   a) Yes   b) No

21. Did you have to close your shop during locked down?   a) Yes   b) No

22. If Yes, for how many days you've shut down your business?...

23. How much do you earn from your business? (Taka/Month)

Before COVID-19	During COVID-19	Present

24. How did you manage the expenditure for your family?

  I.   Vending business
  II.   Loan
         a) Bank   b) NGO   c) Local Money Lender   d) Relatives
  III.   Savings
  IV.   Government Aid
         a) Cash   b) Foods   c) Others……………………………………………………
  V.   Social Aid
         a) Cash   b) Foods   c) Others……………………………………………………
  VI.   Asset Sell

VII.   Others: Please specify…………………………………………………………………….

25. Do you have secondary income sources?   a) Yes b) No

26. What are the other income sources?
 I.   Agriculture
 II.   Fishing
 III.   Day labour
 IV.   Manufacturing
 V.   Construction
 VI.   Hotels and restaurants
 VII.   Transport
 VIII.   Craft and related works
 IX.   Private households
 X.   Security Services

27. Where did you stay during COVID-19?

a) Dhaka   b) Shifted village   c) Shifted to the other town

28. Did you have to migrate for survival?   a) Yes b) No

29. If Yes, what are the major reasons for migration:

 I.   To minimize expenditure
 II.   Seeking help from relatives
 III.   In search of alternative income sources in the village
 IV.   Closing of the shop during locked down
 V.   Others Please specify …………………………………………………………………

30. If Yes, what did you do during staying in the village?
 I.   Agriculture
 II.   Odd job
 III.   Day labour
 IV.   Small business
 V.   Dairy or poultry Farming
 VI.   Unemployed
 VII.   Others ……………………………………………………………………………………….

31. Did you or any member of your family join to the other income-generating activities during COVID-19? a) Yes b) No

32. After how many days you've returned to Dhaka? .... Days

33. Did you get affected by coronavirus?   a) Yes b) No

34. Complexity Level: i. Mild   ii. Moderate   iii. Severe

*(Note: **i. Mild:** Symptoms like fever, cough, or change in taste or smell, no dyspnea [shortness of breath], cured with clinical monitoring or supportive care; **ii. Moderate:** Lower respiratory tract disease and hospitalized for high risk; **iii. Severe:** Respiratory failure, shock, and multiorgan dysfunction or failure and hospitalized with a critical condition)*

35. Is any other member got affected by coronavirus? …………………………………..

36. Did you maintain the health measures during COVID-19?   a) Yes b) No

37. Did you receive the COVID-19 vaccine?   a) Yes b) No

38. How many doses do you have received? ………………………………….

Section D: Livelihood Related Information

Human Capital

39. Did you have the access to nutritious foods?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

40. Access to health facilities

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

41. Do your family send children in school?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

Natural Capital

42. Do your family have safe drinking water sources?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

43. Distance to the safe water sources?

Before COVID-19	During COVID-19	Present
a) Less than 5 minutes b) More than 5 minutes	a) Less than 5 minutes b) More than 5 minutes	a) Less than 5 minutes b) More than 5 minutes

44. Do you have your own crop land in Village?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

Social Capital

45. Do your relatives or friends help you and your family?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

46. Do you and your family help relatives or friends?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

47. Have you or someone in your family gone to your community leader for help?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

48. Did you borrow any money from relatives or friends?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

49. Are you a member of any societal organization? (i.e. society, cooperatives etc.)

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

50. Do you allow women member work outside home?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

Physical Capital

51. Do you have your own house in Dhaka City?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

52. Do you have your own house in your village?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

53. Do you have any own vehicles? (i.e. Rickshaw, Van etc.)

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

Financial Capital

54. Do you have any income from service?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

55. Do you receive any income from investment?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

56. Do you have saving?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

57. Do you receive credit from formal sectors? (i.e. Bank/NGO)

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

58. Do you receive any remittance from a family member?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

Food Issues

59. Do you practice home-stead gardening?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

60. Do any member of your family included in social safety net programmes?

Before COVID-19	During COVID-19	Present
a) Yes b) No	a) Yes b) No	a) Yes b) No

Signature of the interviewer: ……………………………. Date: …………………………….