

Crisis of Mobility During COVID-19: A Study on Informal Labour Market Migration in Bangladesh

Raisha Rahman¹

Faisal Al Islam²

Abstract

The rapid spread of COVID-19 led to sudden lockdowns, impacting mobility, economic activities, and social interactions worldwide. It resulted in the informal labour force experiencing socioeconomic and mental health challenges, which led them to return to their native town. The primary aim of this research paper was to investigate the consequences and challenges of the sudden pandemic shock on internal migration among informal labourers in Bangladesh. A multi-cluster sampling technique was followed to collect primary data on nine areas of both the northern and southern parts of Dhaka city with the self-administered questionnaire. Various articles, reports, books, and newspapers were reviewed for secondary data. Adopting a mixed method approach, the study employed descriptive statistics, multivariate regression and Wilcoxon signed-rank test. FGD was conducted to understand in-depth gender disparities mental health severity and economic consequences. The key hypotheses were to evaluate the impacts of COVID-19 on informal workers' socio-economic condition, mental health, gender-based inequalities, government aid effectiveness and information accessibility. The findings highlighted job displacements, income loss, and limited access to employment information. Informal migrants also faced a sizable portion of mental health disorders and highlighted a lack of administrative-level support for migrant workers. The paper identified immediate actions to strengthen social support systems for migrant workers, improve the accessibility of information networks and channels, and enable the implementation of gender-based policies and strong legislation to ensure their rights.

Keywords: informal migration, internal migrant labour, pandemic impact, COVID-19

Introduction

The COVID-19 outbreak has resulted in considerable human misery and economic disruption on a global scale, with the most severe consequences

¹Asst. Professor, Dept. of Economics, Bangladesh University of Professionals, Email: raisha.rahman@bup.edu.bd

²Research Officer, Bangladesh Institute of Development Studies (BIDS), Email: faisal7@gmail.com

occurring in developing nations (Rodela et al., 2020). It disrupted the international labour market and its usual activities. The pandemic affected both formal and informal labour forces; however informal migrant labours experienced the loss of earnings and quality of living most (Acharya & Patel, 2021). Informal labour is universally acknowledged as indispensable for economic operations. But in any economic crises, people often overlook this specific demographic. Developing nations heavily rely on migrant informal workers for economic activities, despite providing structural support during crisis and consistently remain unnoticed.

In Bangladesh, 18.7% of the total population resides country's poverty threshold (ADB, 2022). Over 80% of the South Asian workforce is employed informally, while more than 90% of businesses in this region operate within the informal sector, and Bangladesh is one of these regions (Ahmed et al., 2023). Most of the informal workers were unable to maintain daily wages and returned to their hometowns or origins without a solution for their means of income during the pandemic. These workers shifted their living and occupation to survive, adjusted to cheaper wages to meet essential needs, and took loans from organizations, friends, family, and neighbours. On the other hand, migrant women workers were the ones negatively impacted by COVID-19, suffering from declining income, employment opportunities and workplace harassment.

This study focuses on the difficulties the migrant informal workers faced during COVID-19 and the causes that drove migration. It also examines the movement patterns, socioeconomic hardships, mental health challenges and gender-based disparities of the informal labourers. Investigating the factors of their migration-income level drop, job loss, information inaccessibility and government-level support, it highlights the major gaps in policy responses towards their social safety and rights. This study analyses those aspects to provide actionable insights and strengthen legal and institutional frameworks for informal migrant labours.

Literature Review

Socioeconomic and Mental Health Impact on the Informal Migrant Workers

The COVID-19 pandemic has severely damaged and disrupted global economic, social and health phenomena (Naseer et al., 2023). The labour market has also been affected by the crisis, particularly the informal labour force (Mandeep & Santosh, 2021; Enfield, 2021). It adversely impacted the socioeconomic status of the internal informal labour force, including employment opportunities and job security (Béland et al., 2020). It forced them to either migrate to their place of origin or explore alternative employment opportunities

(Cowan, 2020). Besides, restrictions and shutdowns on movement have hindered informal migrant workers' ability or opportunity to return to their origin (Kumar et al., 2020). Informal migrants were forced to adopt loans, sell assets, and reduce expenses to sustain access necessities, and ensure food security (Sohel et al., 2021). These people were more vulnerable during COVID-19 due to less formal support and social protection (Begum & Zami, 2021; Bhattacharyya et al., 2023). Migrant workers are among society's most disadvantaged groups, as most rely on their daily earnings (D'Souza, 2019). During the shutdown, the community was confronted with a significant amount of anxiety, distress, and pressure, necessitating psychological support from locals (Hargreaves et al., 2019; Rajan et al., 2020; Sengupta & Jha, 2020). The crisis also had an indirect impact owing to the long-term economic consequences (Stawarz et al., 2022). After migrating, the migrants faced a range of circumstances that forced them to deal with a variety of social, emotional, and financial pressures. (Srivastava et al., 2021).

Difficulties of Information Availability, Support, Gender-based Inequities and Skills Lack

It severely impacted workers due to a scarcity of information on government support (Siddiq & Sharif, 2023). The informal labour force encountered limited job opportunities and faced disparities in accessing information when relocated to a new place for better economic stability during the pandemic (G. Singh, 2021).

Women workers experienced a decline in income and financial difficulties during the shutdown (Asriani et al., 2021). During the initial phase of India's nearly two-month shutdown, approximately 17 million female workers were unemployed. It induced mental suffering, inequalities, limited social support and poor working conditions for women workers (Madia et al., 2023 and Vera et al., 2022).

Informal labourers who often lack formal education and marketable skills migrated from rural to urban areas, seeking informal employment (Bhattacharya, 2010). Besides, these workers have experienced skills during the pandemic, which hindered their new source of employability (Kaul & Tandon, 2000).

This study excluded informal workers as many of them work in the informal economy without moving and instead focused on migrants who moved from rural to urban areas and engaged in informal employment (Sohel et al., 2021).

The review analysed various papers that highlight the informal workers' vulnerabilities and their trends. However, the existing literature fails to

investigate the specific experiences such as economic, social, and mental health challenges and experiences of informal migrant workers in the context of Bangladesh.

Theoretical Framework

Migration is defined as an act of individuals relocating, either intentionally or unintentionally, within or across national borders (Casale & Posel, 2006). Several factors comprising environmental and socioeconomic changes, political transformation, demographic shifts, and influence migration (Alam & Mamun, 2022). Due to its intricate dynamics, no such universal theory has been discovered (King, 2012). Everett Lee developed the Push-pull Theory in 1966, which posits that migration is impacted by push and pull factors (Lee, 1966). Push factors are unfavourable conditions such as joblessness, substandard living conditions etc. inducing individuals to migrate from their natives. Conversely, pull factors encompass attractive circumstances at the intended location, such as superior job prospects, high salaries etc. In 1970, Harris-Todero developed a migration model based on expected income differentials between rural and urban areas in developing nations. It highlights how higher income and job prospects in urban areas compared to rural drive migration decisions, though there is a risk of unemployment (Harris & Todero, 1970).

To analyse the COVID-19-induced internal migration dynamics in Bangladesh, this paper used the Harris-Todero Migration Model. It is relevant to understand how the crisis troubled usual income expectations and employment prospects, reshaping informal workers' migration patterns. Using the framework, the study explains the economic rationality behind labour mobility and its limitations amidst the crisis.

Research Questions

The research holds the following questions:

- i. What impact has COVID-19 had on the socioeconomic status, psychological condition, and patterns of migration of informal migrant workers in Bangladesh?
- ii. How have gender-based inequalities, information accessibility, and support functions influenced the experiences of informal migrant workers during the crisis period?

Objectives:

The broad objective of this research is to evaluate the consequences of COVID-19 on Bangladesh's informal migrant workers, focusing on their

struggles on the socioeconomic, and mental health fronts. The specific objectives are:

- To analyse the gender-based harassment and discrimination related to employment opportunities.
- To assess the availability and ease of access to information about job opportunities and government assistance.
- To examine the necessity for acquiring supplementary skills or adapting to a dynamic labour market.
- To investigate the financial support given to internal informal migrant workers by the government.

Conceptual Framework

A conceptual framework has been designed to analyse the impacts of pandemic on mobility of the informal migrant workers. The framework is given below:

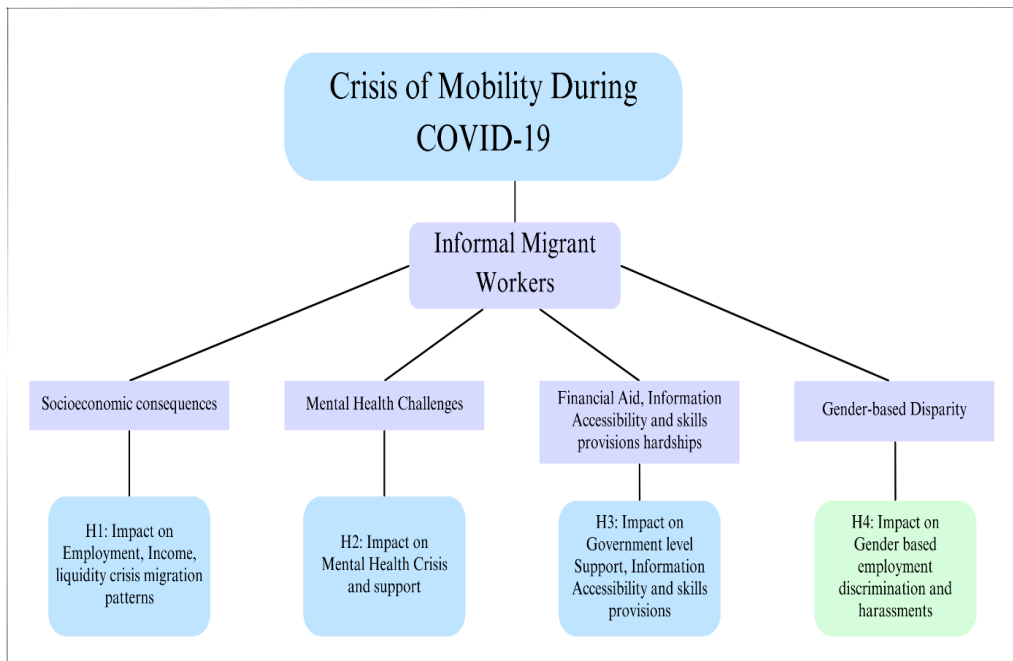


Figure 1: research framework

Hypothesis Development

Hypothesis (I): Socio-Economic Impact of the COVID-19 on Informal Migrant Labourers

H0: COVID-19 had no impact on the income levels, employment, liquidity crisis and migration patterns of the informal migrant labourers in Bangladesh.

H1: COVID-19 had an impact on the income levels, employment, and financial condition of the informal migrant labourers in Bangladesh.

Hypothesis (II): Impact of COVID-19 on Informal Labourers Mental Health Condition

H0: The mental health status of informal migratory labourers was not significantly impacted by COVID-19 migration.

H1: The mental health of informal migratory labourers was significantly impacted by COVID-19 migration.

Hypothesis (III): The Government's Financial Aid, Information Accessibility and Skills provision impact Migrated Labourers during the Pandemic

H0: Financial aid (government) and information inaccessibility had no such impact on the informal migrant labourers during COVID-19.

H1: Financial aid (government) and information inaccessibility had such an impact on the informal migrant labourers during COVID-19.

Hypothesis (IV): Impact of COVID-19 on Gender Related Disparity in Employment Prospects

H0: COVID-19 did not cause gender-related inequalities in employment prospects and harassment for female informal migrant labourers.

H1: COVID-19 did cause gender-related inequalities and harassment in employment prospects for female informal migrant labourers.

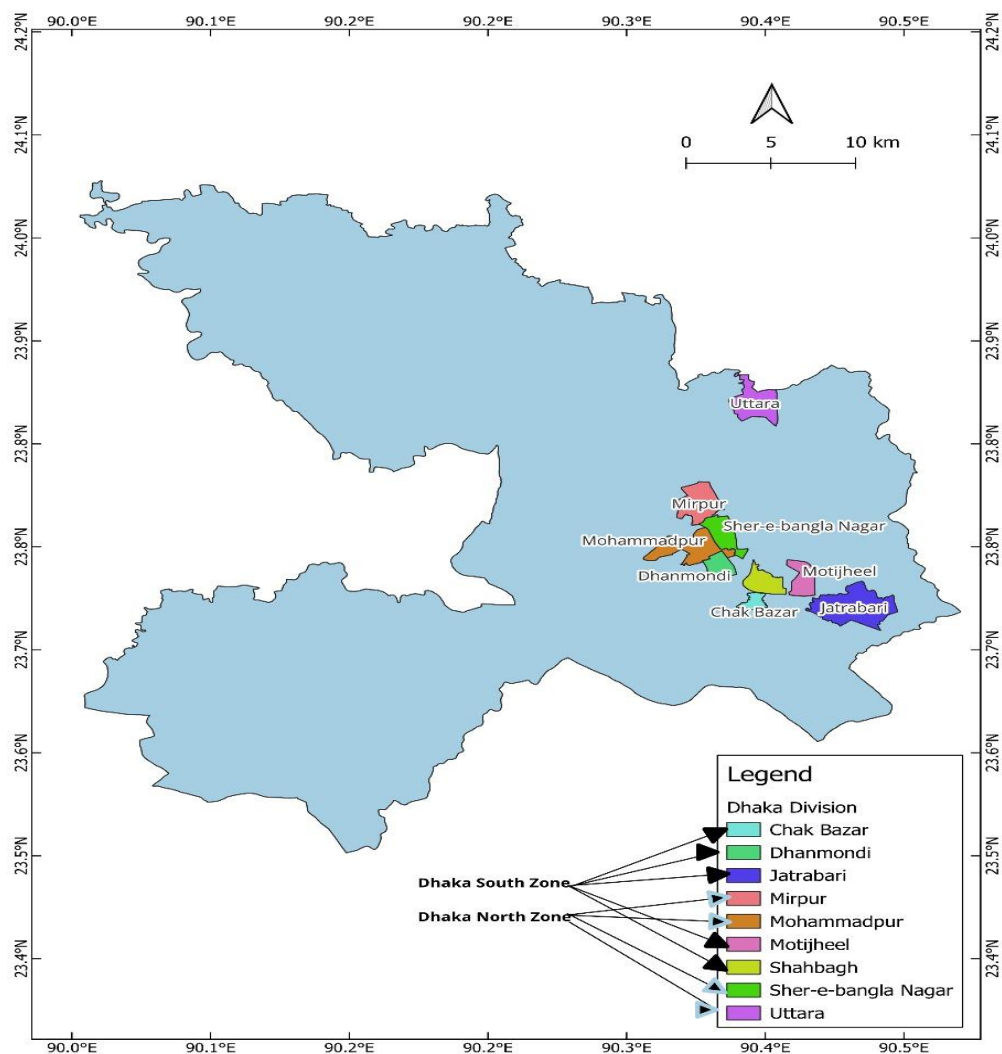


Figure 2: survey area map

Research Methodology

Research Design

This study used a multi-clustered sampling technique to efficiently address the variety and diversification of informal migrant workers (Akram, 2014; Sedgwick, 2015; Chung et al., 2020). In Bangladesh, 84.9% of people

engaged in the informal sectors which is 59.80 million out of 70.47 million employed population. Among them, 13.16 million informal workers live in urban areas and around 80% of the total live in Dhaka city (BBS, 2022). Besides, every day 2000 people migrate to Dhaka and engage in the informal sector (Sohel et al., 2021b). al., 2018). It is effective when the population is geographically dispersed and comprises various subgroups. The following areas are included with (2011) Population and Housing Census data. As a result, the research was done in the northern and southern zones of Dhaka, clustering nine heavily populated areas since informal labourers often resided in populous areas (Sawandi et al., 2018)

Cohen's formula used to determine the sample size:

$$\text{The formula is: } n = \frac{z^2 \times p \times (1-P)}{E^2}$$

Where $z=1.96$ for a 95% confidence level

$E=5\%$,

$P= 0.5$ as $p(1-P)$ is maximized at p equal to 0.5

A representative sample size of 384 would be ideal and the computation is regarded as a ‘magic’ number in research (Krejcie & Morgan, 1970). In total 410 responses were collected and after thorough cleaning, the sample size was 397. The self-administered questionnaire has been prepared to collect primary responses. Various secondary data sources were included in this study such as the World Bank, Bangladesh Bureau of Statistics (BBS) and Asian Development Bank (ADB). Both qualitative and quantitative approaches were used. The data analysis was conducted using Stata. For the quantitative approach, this paper includes descriptive statistics, multivariate regression and Wilcoxon signed-rank test and FGD for the qualitative approach.

Descriptive Statistics

Descriptive statistics were included to systematically analyse and present data which assist in analysing informal workers’ demographic profiles, district-wise migration, current and post-migration occupation, gender-based challenges and financial hardships (Dong, 2023). Table-I below provides the demographic breakdown of the informal migrant workers.

Table-I: demographic breakdown of the informal migrant workers

Demographics	Categories	Percentage
Gender	Male	89%
	Female	11%
Age	0-17	0.75%
	18-24	10.07%
	25-34	24.18%
	35-44	32.745%
	45-54	17.67%
	55 and above	14.59%
Household Status	Head of the Family	68.51%
	Not Head of the Family	31.49%
Marital Status	Married	89%
	Unmarried	10%
	Widow	1%
Education Level	No Primary Education	33%
	Class 1-5	34%
	Class 6-10	28%
	Class 11-12	4%
	Graduate	1%

Table-II below provides the division wise breakdown of the informal migrant workers.

Table-II: division wise breakdown of the informal migrant workers

Divisions	Count
Barisal	63
Chittagong	75
Dhaka	93
Khulna	27
Mymensingh	37
Rajshahi	32
Rangpur	54
Sylhet	16

Table-III provides the comparison of the pre, and post-migration occupation induced by COVID-19.

Table-III: comparison of the pre, and post migration occupation induced by COVID-19

Occupation Type	Pre-Migration Occupation	After Migration
Street Vendor	164	30
Rickshaw Pullar	76	7
Transport Worker	21	3
Tea Seller	17	1
Fruit Seller	14	0
Street Hawker	14	3
Day Labourer	14	31
Housemaid	11	9
Farmer	0	57
Others	66	18
Unemployed	0	238

Table IV provides the Gender based discrimination, challenges and harassment induced by COVID-19

Table IV: gender-based discrimination, challenges and harassment induced by COVID-19

Category	Count (Out of 397)	Details
Discrimination related to Employment Opportunities	93	13 were females
Harassment in Workplace	34	9 were females

Table V provides the Loans Taken and Asset Sales figure by Informal Migrants during COVID-19

Table V: loans taken and asset sales figure by informal migrants during COVID-19

Category	Static	Count (Out of 397)	Percentage
Loans Taken	Migrants' workers' who took loans	216	54%
	Migrant workers' who did not take loans	181	46%
Asset Sales	Migrant workers' who sold assets	91	23%
	Migrant workers' who did not sell assets	306	77%

Multivariate Regression

Multivariate regression is an effective statistical method applied to model the relationship between one or more dependent and multiple independent variables (Hair et al., 2009). It provides a deeper understanding of the multidimensional factors by considering the interplay between multiple variables. COVID-19 impacts on migrated informal workers are not limited or certain for a specific group or location. It is a diversified framework that impacts employment opportunities, financial support, information accessibility, mental health concerns, mobility, workplace discrimination or harassment etc.

Table VI: multivariate regression analysis (I)

Equation	Observation	Parms	RMSE	R-square	F	P
Migrants Mental Health	396	6	.3104	0.075	6.38	0.0000
Migration of Informal Labours	396	6	.1907	0.370	45.97	0.0000

Table VI.a: multivariate regression analysis (I)

Variables	Migrants Mental Health			
	Coefficient	Standard Error	t-value	p> t
Job Loss (only cause)	.1988175	.0413343	4.81	0.000
Government Financial Support	.004138	.0710436	0.06	0.954
Job After Migration	-.0931406	.0329267	-2.83	0.005
Psychological Support	.1236348	.0536614	2.30	0.022
Workplace Discrimination/Harassment	.0471872	.0575051	0.82	0.412
Variables	Migration of Informal Labours			
Job Loss (only cause)	.2681755	.0253956	10.56	0.000
Government Financial Support	.0365466	.0436489	0.84	0.403
Job After Migration	.0599082	.02023	2.96	0.003
Psychological Support	-.2305357	.0329693	-6.99	0.000
Workplace Discrimination	.0734836	.0353309	2.08	0.038

It examines two dependent variables: migrants' mental health and the migration of informal labours. In addition, there are five distinct factors included

in this analysis: Job Loss (solely as a cause), Government Financial Support, Job After Migration, Psychological Support, and Workplace Discrimination. Regarding the mental health of migrants, two independent variables, including job loss and job placement after migrating, have shown significant results at a 5% significance level. The findings for the migration case indicate that job loss, getting employment after relocating and receiving psychological support, were statistically significant at a 5% significance level.

Table VI.b: correlation matrix of residuals

	Migrants Mental Health	Migration of Informal Labours
Migrants Mental Health	1.0000	
Migration of Informal Labours	-0.1916	1.0000

Bresuch-Pagan Test of independence: $\chi^2(1) = 14.543$, $Pr = 0.0001$

Table VII: multivariate regression analysis (II)

Equation	Observation	Parms	RMSE	R-square	F	P
Access to Job Information	397	2	.4395	0.1307	59.36	0.0000
Access to Information of Govt. Support	397	2	.4691	0.0933	40.66	0.0000
Extra Skill/Provision	397	2	.2189	0.0034	1.352	0.2455

Table VII.a: multivariate regression analysis (II)

Variable	Coefficient	Standard Error	T- Value	P> t
Dependent Variable: Access to Job Information Independent Variable: Migration	.7131367	.0925582	7.70	0.000
Dependent Variable: Access to Information of Govt. Support Independent Variable: Migration	.6300268	.0987997	6.38	0.000
Dependent Variable: Extra Skill/Provision Independent Variable: Migration	.0536193	.0460983	1.16	0.245

This multivariate regression study examines three dependent variables: Access to Job Information, Access to Information of Govt. Support and Extra Skill/Provision. In addition, there is a single distinct factor included in this analysis: Migration of Informal Labourers. The independent variable migration of informal labour has shown significant results at a 5% significant level for access to job information and access to government support.

Table VII.b: correlation matrix of residuals (II)

	Access to Job Information	Access to Information of Govt. Support	Extra Skill/Provision
Access to Job Information	1.0000		
Access to Information of Govt. Support	0.4102	1.0000	
Extra Skill/Provision	0.0194	0.0098	1.000

Bresuch-Pagan Test of independence: $\chi^2(3) = 66.995$, $Pr = 0.0000$

Wilcoxon Signed-rank Test

The Wilcoxon signed-rank test is particularly useful when analysing measurements taken before and after a specific event or intervention (Rosner,

2006). This study uses it to analyse pre and post Covid income levels of migrants as well as during Covid and after migration income level comparison.

Pre and Post COVID-19 Income Comparison

Unadjusted variance = 5194546.50 Adjustment for ties = -12442.38

Adjustment for zeros = -2138.75 Adjusted variance = 5179965.38

Table VIII: Wilcoxon signed-rank Test (I)

Sign	Observation	Sum Ranks	Expected	Z-Value	Prob> Z
Positive	255	60150	39085.5	9.255	0.000
Negative	112	18021	39085.5		
Zero	29	435	435		
All	396	78606	78606		

255 out of 397 individuals experienced substantial alterations in income before and following the Corona period. In contrast, 112 individuals experienced an increase in income level after the pandemic. And the income of 29 informal labourers remains unchanged.

During and After Migration COVID-19 Income Comparison

Among a sample size of 397, 140 individuals experienced substantial fluctuations in their income levels before or during COVID-19 time and after they migrated to their native.

Wilcoxon signed-rank test:

Unadjusted variance= 5233948.75 Adjustment for ties = -757.13

Adjustment for zeros= -391615.00 Adjusted variance =4841576.63

Table IX: Wilcoxon signed-rank Test (II)

Sign	Observation	Sum Ranks	Expected	Z-Value	Prob> Z
Positive	140	40762	32487.5	3.761	0.0002
Negative	90	24213	32487.5		
Zero	167	14028	14028		
All	397	79003	79003		

140 individuals experienced substantial fluctuations in their income during COVID-19 time and after they migrated to their native. Conversely, the income of 90 individuals in Dhaka increased, after they migrated to their origin,

as opposed to the period of income during the pandemic. 167 workers' earnings remain unaltered as well. As the test significance level is below 5%, it is considered statistically significant.

Focus Group Insights

FGD was conducted for 95 minutes. Obtaining further insight from informal migrant labourers regarding their backgrounds, characteristics, and demographics, as well as their experiences during the pandemic, was the objective of this discussion. Twenty-three informal migrant labourers participated in this session voluntarily. The informal labourers took part from the following areas: Chak Bazar, Dhanmondi, Jatrabari, Mirpur, Mohammadpur, Motijheel, Shahbagh, Sher-e-Bangla Nagar and Uttara. A semi-structured questionnaire addressed the research objectives.

Q1: How has the pandemic impacted you financially and economically?

Q2: How did the pandemic affect your mental condition?

Q3: Did you face any employment-related harassment, discrimination, or challenges during the pandemic?

Q4: What were the challenges you faced after migration? (related to new job and environment)

Focus Group Discussion finds a significant insight that there was an upsurge in the number of employed households among these workers as a response to economic hardships induced by the COVID-19 crisis. Certain households faced a notable decrease in their income level. However, they returned to their jobs and maintained more work hours to pay off financial loans or debt. The migrant workforce experienced a reluctance to acquire new skillsets for new jobs both in rural and urban areas and found no assistance. This created uncertainty among these workers.

The session also pointed out that financial aid was provided to a small portion of politically affiliated people. Many migrant workers turned to take financial loans. However, these financial loans did not have a direct impact on their levels of mental stress. Most of the informal workforce who migrated to their origin or native places faced hardship in obtaining new employment. Many of them did not find a proper channel to sell their assets during the crisis.

Furthermore, throughout this era, people were limited in their ability to publicly address their psychological difficulties because of a limited comprehension of mental health concerns.

Result & Discussions

The paper highlighted pandemic-induced socioeconomic consequences of informal migrant workers. Employment displacements were experienced by almost 60% of the workers in the sample study. 23% sold their assets and 54% took loans among 397 respondents to tackle the liquidity crisis. 255 out of 397 individuals experienced substantial alterations in income level. Besides, occupational transition significantly occurred. A substantial decline in street vending occupation from 164 to 30 and rickshaw pulling from 76 to 7. 238 individuals reported unemployment after migration to their native land. Gender inequalities were apparent, with 13 females encountering discrimination in employment, while 9 reported instances of workplace harassment. Job loss has a significant impact on mental health, revealing that 82% of respondents experienced increased levels of stress and anxiety. The availability of government assistance was restricted. Only 13% benefit from government aid. Besides, the Wilcoxon signed-rank test revealed a statistically significant decrease in income levels, with more than 65% of migrants indicating a reduction in their earnings. The FGD highlighted widespread challenges, including economic strain, a lack of skill development, and insufficient psychological support.

A significant increase in income level fluctuations and job displacements is consistent with previous research that has outlined the vulnerabilities of informal labour markets during crises (Mandeep & Santosh, 2021). The disproportionate burden on female workers is further substantiated by gendered challenges, which underscore entrenched inequities, as reported by (Vera et al., 2022). The critical systemic deficits are underscored by the minimal reach of government aid and the absence of accessible employment information. This study claims that informal networks are essential for survival aligns with Siddiq and Sharif's (2023) findings on insufficient formal support systems. Policy frameworks must establish structured skill development initiatives, tailored gender safeguards, and inclusive safety nets to overcome these hurdles. To protect this vulnerable group and improve resilience during future crises, it is essential to augment the distribution of job information and accelerate help channels.

Conclusion

This paper evaluates the consequences of the COVID-19 crisis encountered by Bangladesh's informal migrant workers, with a focus on their struggles on social, economic, and mental health fronts broadly. The crisis-induced migration led to a substantial portion of financial hardships, severe

income level decline and insufficient psychological support which affected migrant workers' mental health and migratory patterns. Gender-specific discrimination and harassment in employment prospects faced by a portion of female migratory workers.

The research identified that there is no indicator or method to track and follow the trend of informal migration in Bangladesh. It harder for the government and any organization to analyse their exact socioeconomic scenario. This hinders effective policymaking and intervention for the migrant workers to ensure their social support and to secure economic stability and growth. This paper has emphasized the need for urgent and effective policy measures and initiatives, by ensuring information accessibility, improving formal education and digital literacy, establishing a direct and secure financial aid system, and reinforcing labour laws and regulations. A strong monitoring system for informal migratory labour force flows will be highly effective in responding to these informal vulnerability demographics.

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