THE USV ANNALS OF ECONOMICS AND PUBLIC ADMINISTRATION | VOLUME 23, ISSUE 1(37), 2023

MITIGATING THE NEGATIVE IMPACT OF COVID-19 ON THE READYMADE GARMENTS INDUSTRY IN BANGLADESH

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Received 17 February 2023; Accepted 21 June 2023

Abstract:

The goal of this research work is two-fold. First, it examines the effects of COVID-19 in the workplace of the RMG industry in Bangladesh. Second, it suggests recommendations to fight the negative impact of COVID-19 on the RMG industry of Bangladesh. This research describes the potential strategies to mitigate the negative impact of the coronavirus disease 2019 (COVID-19) pandemic on the readymade garment (RMG) workers of Bangladesh. It articulates the RMG workers' existing vulnerability during the COVID-19 pandemic based on currently available evidence and personal conversations/communications with RMG workers. Both primary and secondary data were used for the study. A survey instrument was developed for collecting primary data to capture the information relating to the research objectives. We distributed the questionnaire to 400 garment workers, managers, and owner-managers. Responses were obtained from 399 rank and file employees, but 64 participants could not correctly respond to the questions. We did not consider those incorrect responses and we were left with 335 questions with the accurate response (response rate of 83% approximately). Hence the sample size is adequate and representative.

We employed frequency, correlation, and regression analysis. The correlation was used to identify if there is an association and strengthen the relationship between the independent variables (adaptability, financial prowess, non-financial prowess, and compliance with CDC guidelines) and the dependent variable Covid-19). We also employed regression analysis to look at the effects of independent examine independent variables on the dependent variable (COVID-19). It is clearly revealed in this study that all the independent variables are positively and significantly correlated with the dependent variable COVID-19, as is evidenced by Pearson correlation coefficients (r) and p values of each independent variable The most considerable relationship is the Adaptability, where r = 0.167, p <0.01 with Mitigating Covid-19. The next considerable relationship between Non-Financial Prowess and Mitigating Covid-19 is r = 0.090 and p <0.01. The third considerable relationship between Global cooperation and Mitigating Covid-19 is r = .084 and p <0.01. The fourth considerable relationship between Financial Prowess and Mitigating Covid-19 is r = 0.072 and p <0.01. Finally, the considerable relationship is the Compliance with CDC, where r = 0.071 and p <0.01 with Mitigating Covid-19. All hypotheses are accepted. Limitations and future research are indicated.

Key words: Coronavirus, SARS-CoV, MERS-CoV, SARS-CoV-2, COVID-19, Epidemiology Readymade Garments Industry, Adaptability, Financial prowess, non-financial prowess

JEL classification: M10, M30

SECTION 1: INTRODUCTION

COVID-19 is a newly discovered infectious disease. While coronaviruses are common human viruses, COVID-19 is a new virus that was not known to humans in the past. Coronaviruses are viruses that can cause illnesses such as the common cold, severe acute respiratory syndrome (SARS), and Middle East respiratory syndrome (MERS). In 2019, a new coronavirus (a deadly disease) occurred first in Wuhan city of China and quickly swept throughout the globe affecting lives and businesses across the globe. As of January 2022, more than 213 countries or territories confirmed the occurrence of COVID-19 including Bangladesh (World O meter,2022). In a little over six months, this COVID-19 had torn its way around the globe impacting people's health and taking away the lives of the people and world economies as well. In March 2020, the World Health Organization (WHO) declared the COVID-19 outbreak a pandemic.

Bangladesh is one of the most vulnerable countries due to high population density, poor health care systems, poverty, politico-bureaucratic corruption, political musclemen, and a weak economy. Because of the rapid spread of COVID-19, RMG, the backbone of the country's economy, is severely hard hit, the brunt being borne by the export-oriented garments industry. On March 8, 2020, three cases of pandemic COVID-19 were confirmed by the Institute of Epidemiology, Disease Control, and Research, popularly coined as IEDCR (2020). Till August 11, 2020, a total of 263,503 COVID-19 patients were officially reported with 3,471 deaths in Bangladesh (World O meter, 2020). COVID-19 patients were found in all 64 districts of the country; however, Dhaka, Narayanganj, Gazipur, and Chattogram have been mostly affected (IECDR, 2020) Dhaka is the capital city of Bangladesh and one of the fastest-growing cities of the world. It supports more than 15 million people in less than 325 square kilometers of area which makes it one of the most densely populated megacities (Alam and Razi, 2018). Moreover, most of the industries of the country such as textiles, tanneries, fertilizer plants, pharmaceuticals companies, cement factories, and paper industries, and most of the government and non-government offices are in these major cities, which might be one of the possible reasons for higher prevalence of this disease in these areas.

Notably, a large number of the population of Bangladesh faces a double burden of diseases: non-communicable diseases like diabetes, cardiovascular diseases, hypertension, stroke, chronic respiratory diseases, and communicable diseases like tuberculosis, tetanus, malaria, measles, rubella, leprosy, and so on (Mahmood et al 2013). In Bangladesh young professionals and working people, especially on the front line have been mostly infected by COVID-19. IEDCR reported 68% of COVID-19-positive cases were observed in people aged between 21 and 50 years. On the other hand, only 27% of people aged between 19 and 50 years had been infected with COVID-19 in 2020, while in the U.S. it was 50.63%.

The shutdown of garment factories, because of the pandemic, made the workers unable to meet the bare necessities of life. The Parents working in a garment factory located in Gazipur (near Dhaka) had to sell their newborn baby, as they could not pay the hospital bill of BDT 25 000 ($295), as reported in daily Prothom Alo .COVID-19 has brought shocks and spillovers in many areas such as disruptions in supply, demand shortfalls, global spillovers in emerging and developing economies, limited treatment facilities, etc. These cracks have extremely impacted the global economy and are impacting Bangladesh's RMG (Ready-made Garments) sector since the entire sector is dependent globally.

The situations have called for a study of how to mitigate the negative impact of Covid-19 on the RMG industry of Bangladesh. The purpose of this research is, then, to examine how to mitigate the negative impact of COVID-19 to protect and save this industry from this global pandemic (COVID-19).

I. THEORETICAL RATIONALE

The future of the RMG sector of Bangladesh is interconnected with the economic activities of Europe and the U.S. The global pandemic situation is forcing many international buyers to cancel or postpone confirmed procurement orders as their retail outlets are closed in Europe, North America, and elsewhere. Therefore, to handle the problems faced by the RMG sector in this COVID-19 era we theorize that adaptability and prowess (both financial and non-financial) would be instrumental for the survival of this industry. The underlying theoretical assumptions are that if the industry can become adaptable to changing situations, receives global support and collaboration, follows CDC guidelines, and use its financial and non-financial resources for the industry and its employees, this industry will find its footings in a world that is becoming more and more uncertain every other day amid this deadly coronavirus (COVID-19).

EXPECTED OUTCOME AND CONTRIBUTION OF THE RESEARCH

This research tries to examine an important sociological construct in examining the dramatic changes in how businesses act, and employees behave in the RMG industry of Bangladesh in this uncertain world arising out of COVID-19. This study is directed toward that destination, the destination of mitigating COVID in the RMG industry, a vital industry that contributes 25% of the GDP of Bangladesh (BGMEA).

Upon completion of this research study, we are expected to capture the essence of implementable strategies and approaches in mitigating the negative impact of COVID-19, thus constituting an aid to policymakers, researchers, and businesses in coping with the COVID-19 situation.

We see that our behavioral pattern, because of pandemic outbreaks, has been more or less connected with personal protection (Funk et al, 2009), rather than general behavior changes. In Bangladesh, as far as our knowledge goes, there is a dearth of studies on Covid-19, especially on how to measure and mitigate the negative impact of COVID-19 for RMG companies to survive and thrive in this critical period. This study aims to seek to identify implementable strategies in measuring and mitigating the negative impact on the RMG industry that will add valuable insights to the literature regarding the subject of this study.

II. GOALS AND OBJECTIVES

The general goal of this research work is then two-fold.

First, it examines the effects of COVID-19 on the RMG industry of Bangladesh. Second, it suggests recommendations to fight COVID-19 from a strategic point of view. More specifically, we deduce the following specific objectives as instrumentals for accomplishing our two main goals:

Specific Objectives of the Study:

To identify the adaptability-related factors to changing situations to investigate the impact of COVID-19 on the RMG industry.

To identify financial factors that can help mitigate the adverse effects of COVID-19 on the RMG industry.

To identify the non-financial factors in helping the industry to mitigate the adverse effects of COVID-19 for its survival and growth.

To identify the motivational factors of compliance with CDC guidelines to stay healthy and work better for the industry in COVID-19.

To examine the factors that work behind the coordination and cooperation at the cross-border level.

These researchers, therefore, chose to investigate and examine the negative impact of COVID-19 on the RMG industry and suggest remedies to prevent and mitigate these negative impacts on this industry. Accordingly, the questions that guide this study are the following:

To what extent adaptability to changing situations arising out of COVID-19 would be helpful to save this industry?

To what extent financial prowess would be instrumental in the survival and growth of this industry in this COVID-19?

To what extent non-financial prowess would help alleviate this ailing industry to move forward?

To what extent compliance with global CDC guidelines would help the workers to stay healthy and work?

To what extent global cooperation and integration would help the garment industry for its survival and growth?

III. THEORETICAL FRAMEWORK:

Based on the foregoing discussion and theoretical rationale we deduce the following theoretical framework, as depicted below:

Figure no. 1. Theoretical framework

The model posits that mitigating the negative impact of COVID-19 is a function of adaptability, financial prowess, non-financial prowess, compliance with CDC guidelines, and global support and collaboration. Hope is that a better understanding of these key variables will advance our current understanding of mitigating the negative impact of COVID-19.

IV. ASSUMPTIONS AND LIMITATIONS OF THE STUDY

We have assumed that_the survey respondents gave honest answers to the question in the survey instruments. The respondents came from small to medium-sized garment units. It is assumed that respondents are representative of the workforce of the industry. The limitation was that testing the entire garment community was practically impossible since they were not easy to reach. Also, we did not exactly know how many workers large garment factories have. Besides, statistics that are available, the experts argue, are not accurate. They are also antiquated.

SECTION 2. LITERATURE REVIEW

COVID-19 and its negative influence on the garment industry in Bangladesh and elsewhere is a recent phenomenon. The literature on the effects of COVID-19 and controlling the negative impact of this industry in this global pandemic is very sparse. Even where it exists, a proper analysis is missing. Most are from published sources known as secondary data. Several studies (Habibzadeh, and Stoneman, 2020; Kabir et al, 2020) focused on the negative impact of COPVID-19 on Bangladesh's RMG industry. Cooperative for Assistance and Relief Everywhere (popularly coined as CARE) that has been working for long 20 years in the garment industry in Bangladesh, because of the nature of the work of this industry, has called for adaptability to social distancing and wearing masks by all engaged with the work of this industry. Key preventive measures include tracking and tracing transmissions, mass testing, and social distancing, Countries with lower financial indexes (for example South Asian nations) have considerable difficulty compared to countries with higher financial indexes in compliance with the norms of the World Health Organization (WHO).

COVID-19 now is attributable to global health and deep economic crisis and the labor market as well. It is no more a national issue, and the world economy has become almost standstill (Acikgoz, O and Gunay, 2020). Some call it Coronamic (Eichengreen, 2020) while others call it "Black Swan" (Petro, 2020). The beginning of the COVID-19 pandemic engulfed the RMG sector with many problems, compelling the industry owner to either close or adjust or readjust their operational procedures to address the COVID-19 situation. The paucity of PPE, reduced staff availability; workers' mental well-being represented significant difficulties to keep the business running. Apparently, this global pandemic is producing a de-globalization process forcing countries to lockdown borders, preventing the normal flow of goods, capital, and humans, thus shutting businesses.

A new environment has emerged from the pandemic (COVID-19). Human resources managers delved into the "*unknown unknowns*" to help fellow co-workers respond to the changing socio-economic environments arising from the COVID-19 pandemic. The physical work setting got turned into a remote work setting but RMG workers' presence in the physical facilities is a must. It became impossible for the employees with remote work capacity to look for alternate workspaces (e.g., cafés, libraries, coworking spaces) outside of the home. This became a new issue for the employees and dampened the segmentation between work and private spheres creating many difficulties in "*unplugging*" from work demands (Abma & Martinez, 2006).

As the COVID-19 pandemic continues its devastating spread across the globe, businesses in every industry are striving to weather unprecedented disruption and operational impacts. Companies are searching for ways to sustain business continuity while dealing with dramatic shifts in operational norms. Successful coping with new operational norms requires companies to be agile and adaptable. Darwin surmised, those who survive "are not the strongest or the most intelligent, but the most adaptable to change (see quoteinvestigator.com). To survive in this new normal of economic turbulence and uncertainty, companies will need to adapt to new working paradigms, new ways of servicing clients and customers, and new technology to improve processes. The first wave of Covid-19 required considerable adaptability of the RMG workers. Adaptability is the capacity to modify one's cognition, affect, and behavior constructively, reflecting an individual difference in the way that one responds to changing, new, and uncertain conditions (VandenBos, 2007; Martin et al., 2012). The literature shows that adaptability strategies play a crucial role in the organizational resilience of institutions facing major crises (Kruk et al., 2015, Lane and McGrady, 2018).

COVID-19 naturally entails restrictions that affect not just our daily lives, but also the operations of businesses. Companies often lack the processes and tools to make rapid decisions to address the COVID-19 challenges. Disaster preparedness consists of measures that minimize a hazard to lives, properties, and livelihoods (CDC, 2012). Collapsing consumers' ability to buy, shut down measures undertaken by the government measures, and derangement of the supply of raw materials are responsible for the closure of many garment factories around Asia-Pacific. This is because during COVID-19 consumers around the world remained in lockdown. Consequently, they no longer needed new products, thus forcing the closure of factories. Kabir et al (2020) state that according to BGMEA, orders worth 3 billion US dollars got canceled in April 2020 and further stated foreign brands were delaying and canceling orders forcing the closure of factories. Global brands were obsessed with their own economic pain in this economic recession around the globe, threatening millions of people's lives worldwide.

Hunger has, therefore, become a bigger worry than the pandemic. Workers in every garment factory were hurting. Factory owners are in dire shortage of capital. There are two pictures regarding this situation. One is that factory owners are at a huge financial loss because of the pandemic, and the other is that the factory owners have limited or no access to finance. That means factory owners are facing financial ruin putting millions hang in the balance (Paton, 2020). Bangladesh like other developing countries does not have financial means, health systems, or social safety nets to respond to the COVID-19 crisis and its economic impacts. Moreover, access to capital historically has remained obviously one of the typical obstacles to running the garment business (Chowdhury and Amin, 2011). This global preponderance has created banking and financial risks and their effects would depend on three issues viz, the extent of the economic effects, monetary and fiscal policy reactions to the shocks, and regulatory reactions to possible bank fragility (Beck 2020). Historically it is proven that with each economic downturn, it is the entrepreneurial drive that brings us back (Kuratko, 2006;). The major share of exports in Bangladesh comes from the RMG sector and grew rapidly in the last 20 years. Several studies (Myers, 1984; Myers and Majluf, 1984) have long before documented the importance of access to financial capital by the garment industry during the crisis. Governments throughout the world responded with support initiatives. In the USA, the largest program providing funds to small businesses is the Paycheck Protection Program (PPP) with a volume of $650 billion during the earlier period of the pandemic (Bhutta et al., 2020). The Small Business Administration (SBA)–administered program provided loans to small

businesses through banks, credit unions, and other financial institutions for achieving the goal of keeping small businesses open and retaining employees on the payroll (Fairlie & Fossen, 2021). In the UK, the government implemented the Coronavirus Job Retention Scheme (CJRS) (popularly known as "the Furlough" scheme) for waged workers. The CJRS covers 80% of employee salaries of £2500 per month. More than 8.7 million jobs were furloughed at an estimated total cost of around £60 billion (Yue & Cowling, 2021).

Besides access to finance, non-financial factors like motivation and training in this COVID-19 pandemic era are very essential for garment workers. COVID-19 put a large strain on entrepreneurs, who experienced an unprecedented shock to their businesses (Torres et al., 2021). Without being able to meet physically with investors and clients, some entrepreneurs had to scale down their businesses; others closed their businesses. The COVID-19 pandemic has likely been detrimental to the mental health of entrepreneurs. The pandemic forced entrepreneurs to reflect on the importance of their mental health and to actively seek and establish coping techniques. Some entrepreneurs experiencing failure may decide that entrepreneurship is not for them, but we expect that those who continue their entrepreneurial careers will find ways to cope with high-stress levels. For instance, these entrepreneurs will likely focus more on balancing their working and private lives by creating a working situation that suits their social needs. In that sense, some of the entrepreneurs who suffered during the pandemic may come back mentally stronger and more resilient. The lockdown became a source of frustration, loneliness, and worries about the future, thus causing mental illness (Banerjee & Rai, 2020).

In general, economic inequality between and within nations is likely to also increase the likelihood of contracting the coronavirus and dying from it. Developing nations with weak healthcare systems and an inability to practice social distancing also account for the unequal impact. For people of low socio-economic status and economically disadvantaged people in developed countries, COVID-19 also poses higher risks of living in overcrowded accommodations, increasing the risk of illness (Patel et al., 2020). The schools got closed, nurseries, and other childcare facilities except for the children's essential workers got closed (Blundell et al, 2020), leaving parents typically left off with the sole responsibility for caring for their children, including education, which particularly affected the survival of the self-employed.

This pandemic (Covid-19) is a formidable global public health challenge. Since its initial emergence in late 2019, the spread of SARS-CoV-2 has been unrelenting, impacting nearly every aspect of society worldwide. The pandemic has required a substantial response by public health authorities at all levels. CDCP (Center for Disease Control and Prevention) is at the forefront of the public health response to the COVID-19 pandemic and is a respected source of information used by public health, medical, and policy decision-makers. From the beginning of the pandemic, CDC (Center for Disease Control) has been working with a wide array of partners to advance understanding of COVID-19 and has been issuing guidance to deal with these deadly viruses. With the increase of its scope to polio, smallpox, and disease surveillance the name CDC was changed to the Center for Disease Control and Prevention (CDCP) widening its scope further by incorporating health statistics, infectious disease, and environmental health. It is the world's foremost epidemiological center (encyclopedia Britannica) that provides grants for studies and programs to health care professionals.

In the current crisis, social distancing, face masking, and vaccination are the most essential tools to curb the pandemic and mitigate its negative impact. But these measures, though taken seriously by the government, are not followed by the people, especially in maintaining social distance, perhaps may be due to the crowdedness of a country with a very high density of population. But there is no option for the government of the country to continue social distancing and vaccinations strictly through the social and economic activities of the people may be limited to a bare minimum. This is needed for protecting the lives and properties of the people against this virus. But it is to be noted that the RMG industry alone cannot solve this problem alone. Preparing for the pandemic is the biggest challenge. Since the global pandemic is not centered on geography, global preparedness is also required as this world is globally interconnected and

interdepended. Collaboration among the countries can eradicate COVID-19 negatives. Accordingly, the UN calls for global support.

Unfortunately, at least through the end of 2020, only limited international cooperation emerged. While some countries supported global efforts, others mostly criticized this global support. And even non-American leaders in Europe were skeptical that countries that were supposedly cooperating—China, for example—were living up to their promises. (Associated Press, June 2020). The effects of the pandemic reveal the deleterious consequences of current G-2 competition. Both China and the US are to recognize the need for calmer and long-term cooperation in their own interests, although it is rapidly running out. Through an integration of the relationship between buyers and sellers, measures must be coordinated at the cross-border level since no country can fight alone against the negativity of this COVID-19. The future of the RMG sector of Bangladesh is interconnected with the economics of economic activities of Europe and the U.S. The global pandemic situation is forcing many international buyers to cancel or postpone the confirmed procurement orders as their retail outlets are substantially closed in Europe, North America, and elsewhere.

The above literature review posits that if the garment industries follow the rule of adaptability to the situation, exercise their financial and non-financial prowess, attach importance to practicing CDC guidelines, and finally attempt global cooperation, coordination, and assistance, it is hoped that adverse effects of COVID-19 can be mitigated to a great extent. Consequently, Bangladesh RMG can thrive and continue its operation as usual.

SECTION 3: RESEARCH METHODOLOGY

This section describes the samples, research hypotheses are presented, variables and their measurements are defined, data collections and data analysis are discussed, the findings are presented and analyzed in section 4.

3.1. SAMPLE

Testing the entire garment community is practically impossible because we cannot reach them easily. Also, we do not find reliable statistics as to how many workers are employed by the huge number of garment factories. According to Saunders et. al. (2009), if the population size is 100000 or more with a 95% confidence level and 5% error margin, the minimum sample size should be 383. Therefore, our sample size is set to be around 400. Even if the number is known, it is huge and scattered all over the country. Considering the time, energy, and complications we used a non-probability procedure (convenience one). This is in line with several studies (e.g., Sekaran, 1992; Cooper and Schindler, 2003).

To accomplish the goals of this study, we, therefore, chose 60 firms from three garment regions of Chittagong, Dhaka, and Narayanganj. The study included a survey of 60 entrepreneurs to investigate into the impact of COVID-19 and the strategies adopted to mitigate this impact and the relevance of the government policies and programs as perceived by the entrepreneurs themselves. Finally, we surveyed 400 men and women workers from among these firms about their perceptions of COVID-19 and its impact, their perceptions of compliance with CDC guidelines, and finally their perceptions of measures taken by the government and the firms for their protection. The demographic profiles of respondents included experience in business and work experience, education, etc.

3.2. STATEMENT OF HYPOTHESES

Based on our theoretical framework we propose the following hypotheses.

Hypothesis 1: HA1: The adaptability to changing situations will significantly mitigate the adverse effects of COVID-19 on the RMG industry.

Hypothesis 2: HA2: Financial prowess will t significantly mitigate the adverse effects of COVID-19 on the RMG industry.

Hypothesis 3: HA3: Non-financial prowess will significantly mitigate the adverse effects of COVID-19 on the RMG industry.

Hypothesis 4: HA4: Compliance with global CDC guidelines will significantly mitigate the adverse effects of COVID-19

Hypothesis 5: HA5: Global cooperation and integration will significantly mitigate the adverse effects of COVID-19

3.3. DATA COLLECTION

We used both primary and secondary data for the study. For collecting primary data, a survey instrument was developed to capture the information relating to the research objectives. We distributed the questionnaire to 400 garment workers, managers, and owner-managers. Responses were obtained from 399 employees of rank and file, but 64 participants could not correctly respond to the questions. We did not consider those incorrect responses and we were left with 335 questions with the accurate response (response rate of 83% approximately). Hence the sample size is adequate and representative. A structured questionnaire was prepared in English and translated into the Bengali language, which is the national language of Bangladesh for the purpose of interviewing RMG workers, managers, and owners. For this purpose, we sent a group of research students to distribute questionnaires to the sample population under the direct administration of one of the researchers of this research project. Secondary data came from several works of literature, government publications, CDC guidelines, World Health Organization's policies, and programs, ILO reports, books, and journals (academic and non-academic).

3.4. MEASUREMENT OF VARIABLES

The main instrument is the questionnaire to capture the information relating to research objectives. The questionnaire comprised six sections to measure five independent variables and one dependent variable. The first section comprised six items to measure adaptability to changing situations at the workplace using a 5-point Likert-type response mode. A typical item was I can recognize thoughts and situations that make me feel stressed or upset about COVID-19. The second section consisted of 5 items to measure non-financial prowess. A typical item was I feel negative/or anxious about the future. The third section consisted of 5 items to measure financial prowess. One such item was I experienced financial difficulties. The fourth section comprised 5 items to measure global cooperation and support. One typical item was: Given the global cooperation, the RMG industry could have been able to respond to coronavirus actively. The fifth and final section also comprised 5 items. One item was I have been educated on CDC guidelines for COVID-19 (e.g., symptoms, how it is transmitted, screening criteria, and work exclusions).

All these response modes were as follows: 5=Strongly Agree; 4=Agree; 3= Neither Agree nor Disagree; 2= Disagree; 1= Strongly Disagree. We measured mitigating COVID-19 (Dependent Variable) by a single direct question: Do you think, if implemented, these measures will mitigate the adverse effects of COVID-19? This is in consonant with several studies (e.g., Westbrook, 1980, Oliver, 1980, Montaner and Chirico, 2006).

3.5. RELIABILITY TESTING

Next, we carried out the validity and reliability test. We used 30 well-trained interviewers skilled in their businesses and knowledgeable in COVID-19 (not participants in this study) to pre-test the questionnaire. We then run the reliability analysis by Cronbach alpha. Based on Hair et al., (2006), Cronbach's Alpha is the most common internal constancy measures for testing the items of measurements for research variables. In this research, Cronbach's Alpha is used to measure the

level of internal reliability of six constructs which consists of five independent variables and one dependent variable. According to Malhotra and Peterson (2006), when Cronbach's Alpha coefficient of a variable is below 0.6, the variable's reliability is considered weak. However, if the Cronbach's Alpha coefficient of a variable falls between 0.6 to 0.8, it is classified as moderate to strong (as suggested by Nunally, 78 and Sekaran, 92).

Table no. 1. Construct reliability value

Construct	Number of items	Construct reliability	Specifications
Adaptability	6	0.742	Acceptable
Financial prowess	5	0.772	Acceptable
Non-financial prowess	5	0.698	Acceptable
Compliance CDC guidelines	9	0.791	Acceptable
Global cooperation	5	0.422	Acceptable
Mitigating COVID -19	5	0.722	Acceptable

Reliability statistics for all variables except one passed the benchmark of 0.70 (as suggested by Nunally 78 and Sekaran 92). Only one variable (Global cooperation) falls into 0.422. A study by. Stephen O. Ecole & Harry Quainoo, University of Johannesburg, Auckland Park, South Africa comprised 13 modules of small- to medium-sized classes involving 723 students taught at the university to BSc/BEng engineering degree level gave acceptable reliability coefficients of 0.4 to 0.8, based on results obtained from all three.

Overall, all 35 items from this survey have been used to measure the six constructs are relatively stable relationships among these items (see table 1). All our variables gave acceptability coefficients of 0.4 to 0.80 (6- item adaptability 0.742; 5-item financial prowess 0.772; 5- item non-financial prowess 0.698; 9-item compliance with CDC 0.791; 5-item global cooperation 0.422 5-item mitigating Covid-19 0.722).

3.6. STATISTICAL TECHNIQUES EMPLOYED:

The major focus of this study was to describe the relation between independent variables and dependent variable COVID-19. To describe the relation Pearson's correlation as a measure was chosen. Pearson r is the most widely used Bivariate correlation technique (Gall et al, 1996). Therefore, for testing each hypothesis, we used correlation coefficients controlling demographic variables for identifying the existence of association and the strength of the relationship between each independent variable (adaptability, financial prowess, non-financial prowess, and compliance with CDC guidelines) and the dependent variable Covid-19). We employed regression analysis to look at the effects of independent variables on COVID-19, controlling demographic variables.

Regression Model:

$Y=\beta o +\beta 1\chi 1 +\beta 2\chi 2 +\beta 3x3+\beta 4\chi 4 +\beta 5X5+ €$

Y = dependent variable (COVID-19)

X = independent variable (s)

βo= intercept

β1 = beta coefficients for X1 (adaptability=ADP)

β2= beta coefficients for X2 (Non-Financial Prowess=NFP)

β3= beta coefficients for X3 (Financial prowess=FP)

β4 =beta coefficients for X4 (Global cooperation = GC)

β5= beta coefficients for X5 (CDC Compliance = CCDC)

SECTION 4: RESULTS

In the first part of this section frequency analyses are presented. The second section contains testing of hypotheses. The third contains the testing of theoretical model.

Table no. 2. Demographic characteristics (N=335) with frequency and percentages.

Variables	Frequency Distribution	Percentage
Educational Level		
Secondary/Higher	25	7
Secondary	106	32
Bachelor	198	59
Master	06	02
Others	**335**	100
Total		
Experience		
Less than 2 years	53	15
2-6 years	101	30.
7-11 years	70	20
12-16 years	47	14.
17-21 years	35	10
More than 21	29	8
Total	**335**	**100**
Position in Organization		
First level manager	64	19.
Mid-level manager	110	33
Top level manager	54	16.
Director/Owners	32	10
Others	75	22
Total	**335**	**100**
Marital Status		
Single	80	23
Married	248	74
Widowed	7	02
Total	**335**	**100**
Gender		
Female	285	85
Male	50	15
Total	**335**	**100**

Most of the respondents were master's degree holder (59%) and then bachelor's degree holder (32). It was an important factor that most of the respondents had profound qualification. Practical experienced after education was another important factor. Most of the respondents were between 2 to 6 years of practical exposure (30%) and then 7 to 11 years (20). The highest percentage of experience lies under the years of 2 to 6 (32.8%). Directors/owners constituted 10% of the respondents but the information they provided was satisfactory to accomplish the analysis. The highest response ware came from the Mid-level manager (33%). Majority of the respondents were female (85%), the male constituted 15 %.

4.1. PEARSON'S COEFFICIENT OF CORRELATION ANALYSIS

Pearson's correlation coefficient (r) is a method to examine the strength or relationship of the association among independent variables, dependent variables, moderators, mediators, or related control variables. Table 4 displays the correlation matrix among the 5 predictor variables (Adaptability, Financial Prowess, Non- Financial Prowess, Compliance with CDC, and Global cooperation) and 1 criterion variable is Mitigating the negative impact of Covid-19.

Table no. 3. Intercorrelation Matrix among the dependent and independ

		ADP	NFP	FP	GC	CCDC	Mitigating Covid19	Mean	Standard Deviation
ADP	Pearson Correlation	1	.304**	.162**	.273**	.372**	.167**	4.10	.459
	Sig. (2-tailed)		.000	.003	.000	.000	.002		
	N	335	335	335	335	335	335		

NFP	Pearson Correlation	.304**	1	.587**	.218**	.145**	.090	3.92	.612
	Sig. (2-tailed)	.000		.000	.000	.008	.006		
	N	335	335	335	335	335	335		
FP	Pearson Correlation	.162**	.587**	1	.273**	.068	.072	3.81	.704
	Sig. (2-tailed)	.003	.000		.000	.009	.008		
	N	335	335	335	335	335	335		
GC	Pearson Correlation	.273**	.218**	.273**	1	.321**	.084	4.15	.419
	Sig. (2-tailed)	.000	.000	.000		.000	.007		
	N	335	335	335	335	335	335		
CCDC	Pearson Correlation	.372**	.145**	.068	.321**	1	.071	4.39	.378
	Sig. (2-tailed)	.000	.008	.009	.000		.008		
	N	335	335	335	335	335	335		
Mitigating Covid19	Pearson Correlation	.167**	.090	.072	.084	.071	1	4.38	.658
	Sig. (2-tailed)	.002	.006	.008	.007	.008			
	N	335	335	335	335	335	335		

**. Correlation is significant at the 0.01 level (2-tailed).
ADP= Adaptability; NFP= Non-Financial Prowess; FP =Financial Prowess; CCDC= compliance with CDC guidelines; GC= Global cooperation

The most considerable relationship is the Adaptability, where r = 0.167, ₱ < 0.01 with Mitigating Covid-19.01 with Mitigating Covid-19. The next relationship between Non- Financial Prowess and Mitigating Covid-19 is r = 0.090 and ₱ < 0.01. The third considerable relationship between Global Co-operation and Mitigating Covid-19 is r = .084 and ₱ < 0.01. The fourth considerable relationship between Financial Prowess and Mitigating Covid-19 is r = 0.072 and ₱ < 0.01. Finally, the considerable relationship is the Compliance with CDC, where r = 0.071 and ₱ < 0.01 with Mitigating Covid-19. Thus, all the variables are correlated positively and significantly.

4.2. REGRESSION ANALYSIS

Regression analysis is a way of mathematically sorting out which of those variables does indeed have an impact. In this study, regression analysis captures and investigates the relationship of five independent variables with one dependent variable. It answers the question: Which factors matter most? And, perhaps most important, how certain are we about all these factors?

Table no. 4. Regression coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.419	.509		6.713	.000
	ADP	.254	.088	.177	5.886	.004
	NFP	.097	.075	.083	2.903	.007
	FP	.078	.064	.070	1.980	.031
	GC	.085	.094	.088	2.051	.009
	CCDC	.070	.105	.073	1.972	.043

Dependent Variable: Mitigating Covid19
Note: F, 335 = 6.06; P <0.05: R square.260; Adjusted R Square .256 (see tables 5 and 6).
According to the results in table 4, the regression model is:
$Y=\beta o +\beta 1\chi 1 +\beta 2\chi 2 +\beta 3x3+\beta 4\chi 4 +\beta 5X5+ €$
We can rewrite our regression equation as
$y = 3.419 + 0.254ADP + 0.097NFP+ 0.078 FP +0.085 GC + 0.070 CCDC + €$
All these supports our model.

This table 4 shows the values of all the beta (B). They tell us how much our independent variables are affecting the dependent variable. We can say 1 unit change in Adaptability; it brings 0.254 units change in Mitigating Covid-19. Considering both t-values and p-values we found that t = 5.886 > 1.96 (critical value), and p = 0.004 < 0.05, results are significant, therefore, all hypotheses are accepted.

Output (Table no. 5): The Statistical Test for the Overall Model fit.

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	24.394	5	8.879	6.060	.040[b]
	Residual	100.316	349	.826		
	Total	124.710	354			

a. Dependent Variable: Mitigating Covid19
b. Predictors: (Constant), CCDC, FP, ADP, GC, NFP

Looking at the ANOVA analysis output for Mitigating Covid19 in Table 5, result shows that 124.710 squared error will occur if the prediction for dependent variable only uses the mean of Mitigating Covid19. Squared error is also referred as the total sum of squares (Hair et al., 2006). In other words, by using the 5 independent variables (Adaptability, Non- Financial Prowess, Financial Prowess, Global cooperation, and Compliance with CDC) in this research, the squared error will be reduced by 19.56 percent). This is statistically significant at F ratio of 6.060 and a significance level of p- . = 0.040. As the criterion for it is that value of F should be greater than 5 which is fulfilled in it. The second thing that is supporting this statement is that p is < 0.05.

Table no. 6. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.574[a]	.260	.256	.45306	1.646

a. Predictors: (Constant), CCDC, FP, ADP, GC, NFP
b. Dependent Variable: Mitigating Covid19

The above table tabulates the correlation between the dependent variable (Mitigating Covid19) and the independent variables (Adaptability, Non-Financial Prowess, Financial Prowess, Global cooperation, Compliance with CDC). The R square value, which is also referred as the coefficient of determination shown in Table 6 is 0.260. It is commonly considered that the value of the adjusted r-square should be less than 0.8 to be called as significant. As Hair et al., (2006) explained that the percentage of total variation of Y is indicated by the value of the coefficient of the regression model consisting of X. Based on this concept it can be anticipated that 26 percent of the average Mitigating Covid19 is explained by the five independent variables.

5. FUTURE RESEARCH

Further studies about general mental health issues, with a focus on experiences of pandemic across more countries, industries, and fields, could expand what we know about the response of entrepreneurs during crises and how negative effects (e.g., burnout) could be leveraged. Results of future investigations could inspire entrepreneurs to search for novel, more sustainable, and more social forms of entrepreneurship, and a better understanding of the failures and successes of small businesses. This knowledge, which is often informal and tacit, represents a source of wealth for dealing with new forms of crisis (both health-related and economic).

Protecting and supporting the health of small businesses and entrepreneurs during and after this disaster is essential because they have a special role in the aftermath of the crisis and in the anticipated post-pandemic boom. This aftermath may be predominantly dematerialized with a virtual mode of working and new norms of working from home. The climate and the green agenda

would be a priority. A large part of business services would be contactless. Entrepreneurs' health—both physical and mental—would be acknowledged and recognized as vital, both by the entrepreneurs themselves and by the policymakers.

CONCLUSION

The regression and correlation analysis clear support all hypotheses (adaptability, financial and non-financial prowess, CDC compliance, and global cooperation). That means all these variables have indeed impact on mitigating the negative impact resulting from the deadly COVID-19 pandemic Our study, thus, demonstrates that if the garment industries follow the rule of adaptability to the situation, exercise their financial and non-financial prowess, attach importance to practicing CDC guidelines, and finally attempt global cooperation, coordination, and assistance, it is hoped that adverse effects of COVID-19 can be mitigated to a great extent. Consequently, Bangladesh RMG can thrive and continue its operation as usual.

Besides we see physical and mental illness in our garment workers because of the loss of unemployment and family violence. This has further increased their sorrows and sufferings (economic hardships, inability to live even hand to mouth, inability to pay for education), thus leaving a long-lasting effect on them.

The next pandemic is yet not predictable and sufficient evidence is not yet available to determine the lifespan of COVID-19 on various surfaces (such as fabric, metal, plastic, etc.). If clothes are produced by the infected worker, there is a probability that with the shipment of clothes overseas, the virus will spread globally. The need is for coordinated, and effective efforts by all actors including global health communities. The need is for the availability and execution of non-pharmaceutical interventions financial and non-financial supports and compliance with the CDC guidelines to control and prevent the spread of the disease from human to human. Concluding we can say the Bangladesh government should play an active role in providing support with free treatment, free testing, job safety, and isolation camp in the overcrowded infected areas.

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