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THE EDITORIAL

Dear Reader,

CU Global Management Review publishes high-quality research that tests, extends, or builds management theory and make strong empirical contributions to the field of management development, practice, and research. This journal aims to serve an academic researchers and educators, as well as business professionals, by publishing conceptual and empirical manuscripts that intends to explore the paradoxes of management research. The current issue includes a coherent set of six research papers that deliver extensive contribution to new insights for management paradigms, approaches, and methods.

The issue begins with the first research paper titled "COVID-19 Interconnectedness with Nigerian Stock Market Returns" examined the reaction of the Nigerian stock market returns to coronavirus disease (COVID-19) within the first 52 weeks of the outbreak of the pandemic in the country. The second paper titled "Globalization, Sovereignty and Complex-Interdependence of Nation-States in The Post-Pandemic World" attempted to explore the possible future trajectory for globalization, nation-states sovereignty, and complex interdependence by juxtaposing the past trajectory and present circumstances after the outbreak of covid19. The third manuscript titled "Increasing Awareness of Mental Health among Youth" analyzed the causes and effects of mental health in our economy and discussed the importance of mental peace for a good and healthy lifestyle. The next paper titled "Parameters influencing choice and selection of a Jesuit B-School among Graduates: A Factor cum Conjoint Analytic Study" presents the mapping the perception and expectations of the young graduates of Kolkata towards Jesuit B-Schools and explored the various factors which influence such perceptions and the ultimate choice of a Jesuit B-School. Further, the research paper titled "Global Warming and Climate Change: A Threat to Environment" is an attempt to explore major causes of global warming and climate change and their impacts on the human life. The final research paper titled "Study on Impact of COVID- 19 crisis and Lockdown on MSMEs and path ahead" discussed and examined the problems faced by MSMEs during the pandemic as well as the impact of Government's schemes and steps that affected the MSME sector.

CU Global Management Review solicits high-quality conceptual, theoretical, literature review and empirical contributions that advance the state of knowledge on management related domains. More specifically, the journal seeks to publish manuscripts that advances an understanding of issues in the management theory and practice and provides theoretical and managerial implications useful for the further development of research. We are pleased to receive novel yet rigorously developed ground-challenging manuscripts for the journal as per the the Journal Guidelines at the end of the current issue. For any further details and queries, we may be contacted on the following **email ID: cuglobalmgtreview@cumail.in**

Covid-19 Interconnectedness with Nigerian Stock Market Returns

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Abstract

The purpose of this research is to determine the reaction of the Nigerian stock market returns to coronavirus disease (COVID-19) within the first 52 weeks of the outbreak of the pandemic in the country. This study is based on event study methodology and ex-post facto research design. Data on COVID-19 and stock market returns were fetched from the websites of the Nigeria Centre for Disease Control and Nigerian Stock Exchange respectively. The weekly time series data from 27th February, 2020 to 26th February, 2021 were analyzed using Dynamic Ordinary Least Squares model and pairwise Granger causality techniques. This study found that COVID-19 fatal and discharged cases have negative non-significant relationship with stock market returns in the first one year of COVID-19 in Nigeria. However, there is positive significant link between COVID-19 positive cases and stock returns in the Nigerian capital market. The research also established the existence of a unidirectional causality from COVID-19 positive cases to Nigerian stock market returns. However, COVID-19 discharged and fatal cases are independent of stock market returns in the first 52 weeks of the outbreak of the pandemic in Nigeria.

Keywords - Coronavirus Disease, Dynamic Ordinary Least Squares, Event Study, Granger causality, Stock Market Returns.

Introduction

The stock market is a financial market where long term funds are exchange between investors (buyers and sellers) in the form of financial assets (securities) like shares, bonds, stocks, loan stocks, debentures, derivative securities, etc. One of the dimensions of performance which most investors look towards when planning and making investments in the financial market is stock market returns. Investment capital is like a seed sown and hence its germination is premised on the nature of the soil and other factors. The soil here is likened to the particular stock market where the investible funds are invested. The macro-economic view of the behavior of the stock market argues

for the significant role of events and factors in the macro environment in shaping the nature and amount as well the degree of returns obtainable from the stock market.

Asides the macro-economic factors like inflation, exchange rate, public debt, public expenditure, fiscal policy, monetary policy and other factors which have been explored to be of significance in shaping the stock market investment returns; the novel coronavirus disease of 2019 which had its origin in China has added to stock market research literature the need to explore how the health pandemic of this global-ravaging capability, could influence the performance of the nation's capital market. COVID-19 which had its first breakout case on 31st December, 2019 in Wuhan City, China and its formal declaration by the World Health Organisation, on 11th March, 2020, as a global pandemic. The panic-laden news of COVID-19 possesses a great threat to investment community particularly the stock market due to the its potential of having effect not only market psychology but also on the economic and financial fundamentals of the market.

Past empirical findings on COVID-19 -stock market returns have been divergent. Some studies have argued that confirmed deaths had negative impact of COVID-19 (Bahrini & Filfilan, 2020) while others report the debilitating effect of the pandemic on stock market short term returns (Hassan & Gavilanes, 2021). There is also an evidence of a negative non-significant relationship between COVID-19 and the Nigerian banks' stock prices (Iwedi et al., 2020). However, others extant studies proved that coronavirus information positively and significantly affects stock returns of banking firms in Nigeria (Kayadi et al., (2021)). Furthermore, Agustin (2021) posits that daily growth of fatal cases of COVID-19 exerts positive significant influence on stock returns. There is yet to be a consensus on the influence of COVID-19 on stock market returns, hence there is an empirical necessity contribute to the burning issue of COVID-19 and stock market returns most especially in an emerging economy like Nigeria.

Therefore, the kernel of this is to evaluate the impact and causal relationship between COVID-19 and Nigerian stock market returns within the first one year of the outbreak in the country.

Literature Review

Returns are the benefits received by investors for parting with their capital and financial resources and committing such into a business, project, project and investment over a period of time which could be short, medium or long term duration. Stock market returns is thus the benefits of investment in the securities (shares, stock, debentures, loan stock, derivatives) traded in the stock market, which could be in form of dividends and capital appreciation. Stock market returns is one of the key objectives of stock market and this objective could be influenced by several factors. The novel COVID-19 is worthy of examination in terms of potential in shaping and explaining the returns of the stock market due to the information-sensitive nature of the stock market.

Empirical studies on the nexus between COVID-19 pandemic and financial markets, particularly, the stock markets, are still evolving. Among these body of empirical studies is Bahrini and Filfilan (2020) which investigated the interconnectedness of COVID-19 cases and the Gulf Cooperation Council countries' stock market returns of between April 1 and June 26, 2020 via static panel data regression approach. The study found that COVID-19 fatal and confirmed cases exert negative significant effect and non-significant influence respectively, on the returns on stock markets investment in the countries. In another research, Hassan and Gavilanes (2021) employed panel least squares Vector Auto-Regressive (VAR) to determine dynamic influence of the coronavirus disease on stock markets as well as global commodity markets. The study indicates that the pandemic is negatively connected with the returns of the affected stock markets in the short-term.

Iwedi et al (2020) also investigated COVID-19 impact on quoted banks' stock prices in Nigeria from 1st January 2020 to 30th September, 2020 in line with VAR model. The study reveals that COVID-19 positive cases exert negative and non-significant influence on Nigerian banks. However, from the variance decomposition analysis, the study shows weak influence of COVID-19 in predicting future stock prices of quoted banks in Nigeria which suggests that COVID-19 influenced stock price movement in short run but not in the long run.

Furthermore, Kayadi et al. (2021) assessed the nexus between COVID-19 and banks' stock returns in Nigeria. The study reports that COVID-19 interacts positively with stock returns, suggesting the existence of abnormal positive returns on banking stocks in Nigeria even in the face of the pandemic. In another empirical study, Liew (2021) also applied event study methodology in quantification of the short term impact of COVID-19 on stock returns in the Shanghai Stock Exchange. The results of the study reveal a negative short-run impact of the pandemic-induced lockdown on all sectors of the Exchange with the health care and information technology sectors demonstrating high resilient against COVID-19.

In another recent research, Gnahe et al. (2021) determined the effect of COVID-19 on the Regional Financial Exchange. From the pooled regression, the study established that the Exchange's resistance to the COVID-19 shock was altered in such a way that Exchange's reaction to the pandemic was proactive but the COVID-19's impact was temporary. Applying panel regression technique, Agustin (2021) explored the reaction of Islamic stock returns to the influence social restrictions and COVID-19 cases in Indonesia. The research concluded that growth in COVID-19 confirmed cases and lockdown have negative impact on stock market stability. Furthermore, an evidence of positive significant link was confirmed between COVID-19 fatal cases and Islamic stock returns in the market. In a study on COVID-19 impact on stock market returns and, liquidity nexus with stock market returns in Pakistan, Ellahi et al. (2021) proved that the pandemic significantly and negatively affect Pakistan's stock market returns and liquidity.

Yong et al. (2021) evaluated the volatility of Bursa Malaysia and Singapore Exchange for the period 1st July, 2019 to 31st August, 2020 using families of GARCH models. The study reveals among others, that the pandemic induced reduction in stock returns in both markets.

In Indian context, Mahajan and Mahajan (2021) applied ARMA, GARCH, and Granger test to the evaluation of the response of gold and stock market returns to COVID-19 from January to May, 2020. From the results of the study, the authors argued that investors consider gold investment as a better option due its COVID-19 resiliency in India. In China, Lee et al. (2021) based on structural VAR approach assessed the dynamic link of COVID-19, macroeconomic fluctuations and hospitality stock returns from 13th January to 11th May 2020. The study's findings indicate that COVID-19 produced a significant negative reaction on the country's stock market and hospitality industry returns. Kotishwar (2020) within Vector Error Correction Model, investigated the influence of COVID-19 on stock markets in six nations including USA, India. From the panel study, the study concluded that in the long-run, the pandemic exerts negative and significant influence on the stock market performance of the countries.

In another study, Indrastuti (2021) evaluated the effect of COVID-19 on Indonesian Stock Exchange for the duration of 1st April and 30th June 30, 2020. From the multiple linear regression, the observed that COVID-19 discharged cases have significant effect on the stock market in the country unlike both confirmed and fatal cases which are significantly associated with the country's stock market. In Nigerian context, Abu et al. (2021) also determined the effect of COVID-19 on the country's stock market. From the Autoregressive Distributed Lag and set of cointegrating regression techniques, study provides, among others, an evidence that in the long-run, COVID-19 confirmed and fatal cases had significant negative and positive effect, respectively on stock market performance.

Tahat and Ahmed (2020) also evaluated the effect of COVID-19 on firms' stock market returns and liquidity in UK. The study found that the pandemic exerts negative significant impact on UK stock market returns and liquidity and a significant positive association was also confirmed between market returns and liquidity in the country. Furthermore, Ahmed et al. (2021) examined the influence of COVID-19 on stock and commodity markets in India based on Generalized Method of Moment approach. The study shows that COVID-19 significantly reduced oil prices and stock market performance in the country. Similarly, using Indian example, Mittal and Sharma (2021) in an event study, explored the how COVID-19 impact healthcare and pharmaceutical stocks from 15 May 2019 to 24 April 2020. The study shows that the existence of significant abnormal returns in both sectors during the pandemic.

Furthermore, applying event study methodology, Khatatbeh et al. (2020) examined COVID-19's impact on selected global stock markets. The study submits that confirmed case had a significantly

reduced stock returns in the selected securities markets. In Indonesian context, Trisnowati and Muditomo (2021) examined COVID-19 and its link with equity market. The study reveals among others that industrial sectors have tenacious reaction toward the pandemic in Indonesia. Singh et al. (2020) investigated the influence of the pandemic the stock markets of G-20 countries. The study observed a significant negative abnormal returns and the abnormal returns are significant for both developing and developed economies in the studied event period.

Furthermore, Xu (2021) studied the dynamic link between COVID-19 cases and stock returns in Canada and the US. The study established that COVID-19 cases exert negative effect on the stock market in general. Further evidence from the study reveals that the stock returns in Canada react asymmetrically to changes in COVID-19 while in the US, COVID-19 negatively influence the stock market of the country. Rhatous and Daoui (2021) applied GARCH/EGARCH technique in the analysis of the influence of COVID-19 on stock market in Morocco. The study established an empirical evidence of a negative link between of COVID-19 and the country's stock market.

The empirical review above shows different effects of COVID-19 on stock market returns of different countries. The extant empirical findings are shared majorly between positive impact (Kayadi et al. (2021), Trisnowati and Muditomo (2021), Mittal and Sharma (2021)); and negative impact (Khatatbeh et al. (2020), Kotishwar (2020), Singh et al. (2020), Abu et al. (2021), Ahmed et al. (2021), Ellahi et al. (2021), Hassan and Gavilanes (2021), Lee et al. (2021), Mahajan and Mahajan (2021), Rhatous and Daoui (2021), Xu (2021)). The third strand of empirical evidence is that COVID-19 has no significant impact on stock market returns in some countries (Iwedi et al (2020), Indrastuti (2021)). This notwithstanding, more studies reported a damaging effects of the pandemic on the stock market of countries. In the case of Nigeria, while the reviewed extent studies are mostly on sectorial impact analysis of the pandemic with divergent results even from the same industry wherein Kayadi et al. (2021) provides an empirical evidence of a positive significant impact of COVID-19 on banking stocks but Iwedi et al (2020) reported COVID-19 to be of no significant effect in explaining banking stock returns in Nigeria. The divergent findings and relatively scarce empirics on the subject matter of COVID-19 and stock market returns using aggregate market indices, particularly in Nigeria, makes this current study relevant and significant empirically.

Methodology

This research aims to determine the reaction of stock market returns to the cases of coronavirus disease within the first fifty-two weeks of the outbreak of the pandemic in Nigeria, from 27th February, 2020 to 26th February, 2021. Following the studies of Khatatbeh et al. (2020), Singh et al.

(2020), Kayadi et al. (2021), Liew (2021) and Mittal and Sharma (2021), the event study methodology was adopted in this study. The methodology involves the examination and determination of the impact of specific event, such as the COVID-19, on stock market returns. In addition, the ex-post facto research design was employed by using past time series data in the impact-causal analysis. Data on cases on coronavirus disease and stock market returns were fetched from the websites of the Nigeria Centre for Disease Control and the Nigerian Stock Exchange respectively.

The data employed in this study are weekly in frequency. Stock market returns is the quotient of the difference between two successive stock index in the Nigerian Stock Exchange to the previous stock, all expressed in per cent. It is mathematically defined as in equation (1):

$$SMR_t = \left[\frac{(ASI_t - ASI_{t-1})}{ASI_{t-1}} \right] X 100 \quad (1)$$

Where, SMR corresponds stock market returns, and ASI represents All Share Index of the Nigerian Stock Exchange.

The percentage change in coronavirus disease cases, namely, the fatal(CNNFG), discharged(CNNDG) and positive (CNNPG) cases are stated in equations (2), (3) and (4) respectively thus:

$$CNNFG_t = \left[\frac{(CNNFG_t - CNNFG_{t-1})}{CNNFG_{t-1}} \right] X 100 \quad (2)$$

$$CNNDG_t = \left[\frac{(CNNDG_t - CNNDG_{t-1})}{CNNDG_{t-1}} \right] X 100 \quad (3)$$

$$CNNPG_t = \left[\frac{(CNNPG_t - CNNPG_{t-1})}{CNNPG_{t-1}} \right] X 100 \quad (4)$$

This study adapts Babarinde (2020)'s model with modification as to the dependent variable from All Share Index (ASI) as representing stock prices in the said study but in this current study, stock returns is defined in equation (1) above. In this study, stock market return is expressed as a function of COVID-19 fatal, discharged and positive cases as in specified in equation (5).

$$SMR_t = \alpha + \Phi CNNFG_t + \Psi CNNPG_t + \Upsilon CNNDG_t + \varepsilon_t \quad (5)$$

Where, α , Φ , Ψ and Υ are the parameters of the model and ε corresponds to the disturbance term. Other variables in the model (SMR, CNNFG, CNNPG, and CNNDG) retain the definitions given to it in equations (1) (2), (3) and (4).

Results and Discussion

Descriptive Statistics

The descriptive statistics of stock market returns (SMR), COVID-19 fatal cases (CNNFG), COVID-19 positive cases (CNNPG) and COVID-19 discharged cases (CNNDG) are presented in Table 1. Within 52 weeks of study, stock market returns ranges between -13.49430 and 12.96514 while its average (0.872723) does not exceed its standard deviation (3.685515). This suggests that stock market returns exhibit a relatively high dispersion from its mean. Furthermore, stock market return is negatively skewed (-0.182414) and leptokurtic in nature (with kurtosis of over 3, that is 7.719256). Given a Jarque-Bera of 48.54304 and probability value of less than one (that is, 0.000000), stock market returns does not pass the normality test.

The descriptive statistics of COVID-19 cases in the form of growth rate of the fatal, positive and discharged cases has a mean of 1.307692, 68.88462 and 98.51923 respectively. -17.00000, -2137.000 and -4022.000 constitute the respective minimum values of COVID-19 fatal, positive and discharged cases while the respective maximum values for the fatal, positive and discharged cases are 32.00000, 4207.000 and 4301.000. The Jarque-Bera statistics of the fatal, positive and discharged cases of COVID of 22.61785, 187.4139 and 100.1460 and their p-value of less than one per cent, means that none of the indicators of COVID-19 is normally distributed. All of them are however positively skewed and are leptokurtic in distribution.

Table 1: Descriptive Statistics

	SMR	CNNFG	CNNPG	CNNDG
Mean	0.872723	1.307692	68.88462	98.51923
Minimum	-13.49430	-17.00000	-2137.000	-4022.000
Maximum	12.96514	32.00000	4207.000	4301.000
Std. Dev.	3.685515	8.484215	886.4347	1155.367
Skewness	-0.182414	0.904249	1.629642	0.564267
Kurtosis	7.719256	5.677376	11.71067	9.704300
Jarque-Bera	48.54304	22.61785	187.4139	100.1460
Probability	0.000000	0.000012	0.000000	0.000000
Observations	52	52	52	52

Source: Author's computation (2021)

Unit Root Tests

Given the time series nature of the study, unit root tests were applied to each of the variables based the traditional unit root tests (Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests), and Augmented Dickey-Fuller break point (ADF-BP) unit test statistics, whose results are presented in Tables 2 and 3 respectively.

Table 2: Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) Test Statistics

Variable	Type of Test	t-Statistic	Prob.*	Critical Values			Integration
				1% level	5% level	10% level	Order
SMR	ADF at level	-6.520193	0.0000	-3.565430	-2.919952	-2.597905	I(0)
	PP at level	-6.602938	0.0000	-3.565430	-2.919952	-2.597905	I(0)
CNNPG	ADF at 1 st Diff.	-6.107203	0.0000	-3.596616	-2.933158	-2.604867	I(1)
	PP at level	-4.523522	0.0006	-3.565430	-2.919952	-2.597905	I(0)
CNNFG	ADF at level	-8.226326	0.0000	-3.565430	-2.919952	-2.597905	I(0)
	PP at level	-8.263472	0.0000	-3.565430	-2.919952	-2.597905	I(0)
CNNDG	ADF at level	-9.401142	0.0000	-3.565430	-2.919952	-2.597905	I(0)
	PP at level	-9.314464	0.0000	-3.565430	-2.919952	-2.597905	I(0)

Source: Author's computation (2021)

The ADF and PP unit root tests' results agree in their findings on the stationarity of stock market returns, COVID-19 fatal and discharged cases wherein they both stated that the three variables attain stationarity in level. However, the ADF and PP unit root tests differ in their findings on COVID-19 positive cases, such that the former indicates that the said variable attains stationarity at first difference but the latter is of the view that COVID-19 positive cases become stationary in level.

To resolve this difference in the submission of ADF and PP unit root tests on COVID-19 positive cases, a further test by the way of Augmented Dickey-Fuller Break Point (ADF-BP) unit test was carried out and the results are as presented in Table 3. The ADF-BP statistics reveal that all the variables of study (SMR, CNNPG, CNNDG and CNNF) are stationary in level. The variables, SMR, CNNFG, CNNPG and CNNRG are associated with the following break dates, weeks ended 27th March, 2020; 31st December, 2020; 10th January, 2021; and 17th January, 2021 respectively

Table 3: Augmented Dickey-Fuller Break Point (ADF-BP) Unit Root Test Statistics

Variables	t-Statistic	Prob.	Break Date	I(d)
SMR at Level	-8.511618	< 0.01	Week ended 27th March, 2020	I(0)
CNNFG at Level	-9.093599	< 0.01	Week ended 31st December, 2020	I(0)
CNNPG at Level	-6.148623	< 0.01	Week ended 10th January ,2021	I(0)
CNNRG at Level	-11.93022	< 0.01	Week ended 17th January ,2021	I(0)

Source: Author's computation (2021)

Note: Critical values: -4.949133, -4.443649 and -4.193627 at 1%, 5% and 10% levels respectively.

Models Estimation

Dynamic Ordinary Least Squares (DOLS) Model Estimation

This study applied Dynamic Ordinary Least Squares (DOLS) model in the evaluation of the nexus between stock market returns and COVID-19 discharged, fatal and positive cases in Nigeria. According to the result of the DOLS model estimation in Table 4, COVID-19 fatal case is negatively signed with a coefficient of -0.255629 with an associated probability value of 0.2162, which suggests that COVID-19 fatal case has a negative non-significant relationship with stock market returns in Nigeria in the study period. Similarly, with a coefficient of -0.001813 and p-value of 0.3168, COVID-19 discharged case exerts negative and non-significant influence on stock market returns in Nigeria. Finally, COVID-19 positive case has a coefficient of 0.004385 and a p-value of 0.0156, which suggests that there is positive significant connection between COVID-19 positive case and stock returns in the Nigerian capital market. The implication of this findings is of the effect that there is abnormal return in the stock market in Nigeria during the first year of the pandemic in Nigeria. Hence, despite the increase in the number of positive cases of the viral disease, the stock market still experienced increased returns.

Table 4: Dynamic Least Squares (DOLS) Estimates

Dependent Variable: SMR				
Method: Dynamic Least Squares (DOLS)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
CNNFG	-0.255629	0.203094	-1.258675	0.2162
CNNPG	0.004385	0.001728	2.538005	0.0156
CNNDG	-0.001813	0.001786	-1.015160	0.3168
Constant	1.220646	0.525696	2.321964	0.0260
R-squared (R ²)	0.364704	Adjusted R ²	0.152939	

Source: Author's computation (2021)

Granger Causality Tests' Results

To uncover the direction of causality between COVID-19 cases and stock market returns in Nigeria, pairwise Granger causality test was conducted on the variables and the results are presented in Table 5. Based on this, this study confirms the existence of a unidirectional causality from COVID-19 positive case to stock market returns in Nigeria. However, COVID-19 discharged and fatal cases are independent of stock market returns in Nigeria. In other words, there is an evidence of partial feedback effect of COVID-19 positive case on stock market returns in Nigeria but there is zero feedback effect between each of COVID-19 discharged case and COVID-19 fatal case, and stock market returns in the first 52 weeks of the outbreak of the pandemic in Nigeria

Table 5: Pairwise Granger Causality Tests

Lags: 1			
Null Hypothesis:	Obs.	F-Statistic	Prob.
CNNFG does not Granger cause SMR	51	0.02051	0.8867
SMR does not Granger cause CNNFG		0.06795	0.7955
CNNPG does not Granger cause SMR	51	3.74167	0.0590
SMR does not Granger cause CNNPG		1.35554	0.2501
CNNDG does not Granger cause SMR	51	1.56457	0.2171
SMR does not Granger cause CNNRG		1.74800	0.1924

Source: Author's computation (2021)

Conclusion

This study determined the stock market returns' response to the cases of coronavirus disease in Nigeria within the first 52 weeks of the outbreak of the pandemic in Nigeria, from 27th February, 2020 to 26th February, 2021 based on event study methodology and ex-post facto research design. Weekly time series data on cases of coronavirus disease and stock returns were fetched from the websites of the Nigeria Centre for Disease Control and Nigerian Stock Exchange respectively were analyzed using Dynamic Ordinary Least Squares model and pairwise Granger causality techniques. Empirical findings of this study suggest that COVID-19 fatal and discharged cases have negative non-significant relationship with stock market returns in Nigeria in the study period. However, there is positive significant connection between COVID-19 positive case and stock returns in the Nigerian capital market. The implication of this finding is of the effect that there are abnormal returns in the stock market in Nigeria during the first year of the pandemic in Nigeria. Hence, despite the increase in the number of positive cases of the viral disease, the stock market still experienced increased returns. Furthermore, this study empirically established that the existence of a unidirectional causality from COVID-19 positive case to Nigerian stock market returns. However, COVID-19 discharged and fatal cases are independent of stock market returns in the first 52 weeks of the outbreak of the pandemic in Nigeria.

This study therefore argues that COVID-19 positive case exert significant influence on stock market returns in the first 52 weeks of the outbreak of the pandemic in Nigeria. Pandemic-oriented policy framework is needed to be integrated in the Nigerian capital market. It is also suggested that sectorial analysis of the impact of the pandemic on stock markets be investigated by future research.

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Globalization, Sovereignty and Complex-Interdependence of Nation States in the Post-Pandemic World

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Abstract

Pandemics are not unprecedented, and the world has overcome and reformed itself after various pandemics like the Spanish Flu, Asian flu, and many others. Nevertheless, since the advent of globalization in the 20th century world has witnessed something like COVID19 for the first time, which exposed the fragility of globalization and complex interdependence. Since the nascent globalization and sovereignty of nation-states remain contested, whether globalization diluted or undermined the sovereignty of Nation-States or Nation-States sovereignty remains the key player in a globalized world. This Paper will seek to envision and address the mounting problems for globalization due to COVID19 by juxtaposing global health governance system and globalization, how it will impact the sovereignty of Nation-States, and the possible changes that COVID19 can bring for complex interdependence and global health governance mechanisms.

Keywords - Globalization, Sovereignty, Complex Interdependence, Pandemic, Covid19.

Introduction

Covid19 has hampered and imposed several challenges to the globalized and hyper-interconnected world. The challenges of pandemics have stretched to damaging the economy and dismantling the nations' political and social fabric. At the public policy level, Covid19 has impacted nations in several ways. The policies concerning globalization and territorial sovereignty could be considered the most concerned ones as the costly lockdowns have altered nature and exposed the fragility of globalization. In contrast, border tightening has revived the idea of the Westphalian state¹, which has got blurred with the advent of hyper-globalization during the 1990s² (Subramanian & Kessler, 2013). However, to understand the problems posed to globalization and complex interdependence with the outbreak of covid19, I ascertained that the phenomenon was

¹ - Westphalian sovereignty advocates the principle that each state has exclusive sovereignty over its territory. For details see <https://www.oxfordreference.com/view/10.1093/oi/authority.20110803121924198>

² - For details see, *The hyperglobalization of trade and its future* by Arvind Subramanian and Martin Kessler <https://www.piie.com/publications/wp/wp13-6.pdf>

already in a retreat due to the great-power rivalry between the U.S.A and China. The contestation between both nations has shaped the trajectory of the crisis posed by Covid19³.

The first part of the paper analyses both nations' initial public policy management vis-à-vis to control the pandemic and its impact later. In contrast, the second part emphasizes the global health governance issues exacerbated by the COVID-19 pandemic and solutions to these complex problems. The section examines the role of International Health Regulations (IHR) vis-à-vis the Global Health Security Agenda. Being a part of WHO International Health Regulations (IHR) tried to display the shift towards a post-Westphalian state system. It portrayed itself as a dominant actor to regulate the global health governance policies, especially after the SARS epidemic in 2002-2003, albeit the policies adopted by IHR were more Westphalian in nature. The fragility of the policy adopted by IHR has been windswept with the outbreak of covid19. Global health governance mechanisms have declined to more press conferences and fewer actions for needed nations. In the wake of the Covid19 outbreak, the unregulated global health governance mechanisms have exposed the fragility of the post-Westphalian state that how it produced the global inequalities and dependency for developing and emerging nations, the collapse of multilateralism, securitization, and tightening of borders by nations have reversed the world's institutional mechanisms to the Westphalian sovereignty.

The Initial Discourse on Globalization and Sovereignty of Nation States

The ubiquitous nature of globalization makes it indispensable for any nation-state. As Thomas Friedman points out in his book "the world is flat," globalization is entrenched at every level, either individual, community, or government, and this entrenchment is completely inescapable; thus, there is not any possibility of reverse engineering for Nation- States (Friedman, 2007). The academic debate on Globalization and Nation-states sovereignty has already been contested between scholars, who pointed out whether the Westphalian notion of sovereignty exists or not, or Nation-States has loosed their grip on their territory. Kenichi Ohmae and Michael Mann are two influential proponents who have written tirelessly on this issue; the former is the advocate of "End of Nation-States" (Ohmae, 1995) as Ohmae equate the Nation-State with a "Nostalgic Fiction" whereas the Later sees the Nation-States as indispensable as there might be some threats to it due to globalization but all the transactions happening among either MNCs, TNCs, or any governmental organization they are taking place in the name of Sovereign States (Mann, 1997). However, it must not be either of the cases of assertiveness that globalization has ended the relevance or altered the jurisdictions of nation-states. Instead, it could be argued that globalization has devised the

3 - The 2008 financial crisis hits the world's economies hard, and the severity of the crisis was centered around the American economy. Markets witnessed several disruptions and shrinkage in supply chains, the globalization as a process started to slow down. However, with the changing patterns in the world's economic structure, globalization has allowed western countries to find a cost-effective production space like China. American factories moved their production houses, leading to a rise in nationalist sentiments and a demand to shift those factories back to employ native American citizens. The spat between U.S and China has intensified drastically in the last few years. When Donald Trump was appointed president, he increased the tariffs on Chinese products by six-folds, and China responded by doubling those tariffs on U.S products.

flexibility for nation-states to rearrange the purpose, boundaries, and sovereign authority by keeping the time and place in mind⁴ (Cohen, 2001). The operationalization of rearrangement of state sovereign authority could also be taken as alternate public policy management. As the pandemics are not unprecedented and have been recurring throughout human history has altered not just the conventional lifestyle of humans; but also the political and economic system. Undoubtedly, these pandemics have produced a psyche of fear for humans and staggering impacts for state institutions. These impacts have been highly vulnerable for humans and the nation-states. However, society has witnessed gradual normalization changes after the world's pandemics. Meanwhile, COVID19 is the first of its kind after the advent of globalization in the 20th century; amid all the continuing academic debates and intensifying process of globalization, the arrival of Pandemic like COVID19 has complexified the idea of globalization and its future. The paper's analysis has been done by juxtaposing globalization, state institutions, and public health management in the wake of the COVID19 outbreak. The paper also seeks to address the intensifying issues for the nation-states and how they could be resolved rapidly, and the interactions between states could be normalized in near times.

Literature Review

The paper attempts to explore the possible future trajectory for globalization, nation-states sovereignty, and complex interdependence by juxtaposing the past trajectory and present circumstances after the outbreak of covid19. It investigates and hypothesizes damages and alterations to globalization and complex interdependence. However, as globalization is already entrenched at every level of nation-states and market, it will not disappear (Friedman, 2007). The debate on the relevance of nation-states sovereignty was contested during the late 1990s when hyper-globalization was at its peak and altered and superseded territorial borders. Nation-states at that time were equated with Nostalgic Fiction and outdated (Ohmae, 1995). However, the nation-states were the primary actor providing markets to the proponents of globalization; it would not have accelerated against the willingness of nation-states (Mann, 1997).

Further, to understand the global health governance mechanism after the outbreak of covid19, the paper juxtaposes literature on globalization and complex interdependence and health management policies for any nation-state (Fidler, 2003). With this juxtaposition, it is ascertained that Covid19 has exposed the vulnerabilities and fragility of global health governance. It produced inequalities, securitization of borders, and collapse of multilateralism. As an international agency to look upon issues concerning health emergencies, WHO has tried to act as a post-Westphalian institution but soon crumbled with the outbreak of Covid19 (Ingram, 2009). The paper is an attempt to add to the literature of the post-pandemic world vis-à-vis globalization, complex Interdependence for nation-states.

4 - See, Globalization and boundaries of the state by Edward Cohen, which attempts to provide a balanced explanation of impacts posed to nation-state by globalization.

Research Design

The research aims to understand the changing nature of nation-states and their sovereignty with the advent of globalization. The primary part of this research conceptualizes the impacts posed by COVID19 to Globalization, Sovereignty, and nation-states. The qualitative research method has been applied to understand and unfold the complexities posed by these phenomena. It involved studying literature to identify the broad themes and the relevance of the site chosen for the study to formulate and address the research questions. Secondary data accumulated in the paper has been cited with proper attribution.

Globalization, Complex Interdependence and COVID19

Globalization and Complex Interdependence are inextricably linked with each other. The appearance of coronavirus exposed the fragility of both globalization and complex interdependence, as the importance of complex interdependence in the Neo-Liberal era pointed out by Robert Keohane and Joseph Nye as "it comes closer to reality than realism"⁵ (Keohane & Nye, 2011) but within a few days of the outbreak of Covid19 the two major power of world i.e: U.S.A and China initially seemed to indulged in the blame game, propaganda and alike of Cold War approach debates. As initially, soon after the outbreak of COVID19, Joseph Nye pointed out in his article for the foreign policy that Initial responses to the pandemic Covid19 outbreak revealed and portrayed the crisis major powers has posed to the world, which went down in the wrong direction. The initial response from both significant major powers, i.e., China and the United States, has shown the unwillingness to immediately needful action to contain the pandemic outbreak (Szendy, 2020). The initial verbal spat and blame game between Chinese President Xi Jinping and then U.S. President Donald Trump started the discussion at the management of the pandemic by blaming each other for failure to deal with their public policies; the exchanged arguments were primarily the misinformation and the several denials about the pandemic crisis. The vilification and disagreements between the U.S and China have intensified the impacts of COVID19 as it limited the scope of communication and cooperation to deal with the nature and vulnerability of the coronavirus. The absence of initial cooperation has led to the wastage of significant time to contain and control the virus proliferation, and the opportunities which would have lesser down the impact and spread of COVID19 have been squandered (Nye, 2020). Nonetheless, even after costly lockdown imposition, the frivolity and hush of the world's two largest economies have showcased the imprudent conception not just for the other countries but also for their citizens. However, the initiation of dialogue was less constructive vis-à-vis resolving the pandemic outbreak and more of a propaganda battle. The Chinese government has held the U.S. military responsible for the presence of the virus in Wuhan, and Trump has blamed and described the coronavirus as the "Chinese virus." In an economy with the size of the United States of America, the European Union is vacillated in a

5 - See Robert O. Keohane and Joseph S. Nye for details on "Realism and Complex Interdependence" from *Power and Interdependence* 224-256, 2011 (4th edition)

state of dissatisfaction. However, a virus does not care about any securitization, police patrolling, and construction of fences at the borders. Similarly, it cares less about the nationality of its sufferer and borders (Nye, 2020).

Meanwhile, the intensity of the impact of COVID19 on globalization is going to be excessive. The world with unfettered global trade and markets will indeed face economic diminishment, disruption, and consequences in upcoming years. Achieving the earlier normalization could be a difficult task initially after the end of the pandemic; we're likely to see a messier world. There could be a rise in phenomenon that will lead to either regionalization, nationalization, or localization, some form of de-globalization. Although, there is no end to globalization as globalization transcended the boundaries of political, economic, and sanctions, for example, ecological globalization. Globalization or interdependence across the territories results from various modes of transportation and advancement in communication technology changes. These are not likely to fade away but might get halted sometimes, so there could be damage to "good globalization"⁶ as the trade, business, and economy will be damaged by the recession that accompanies the pandemic, and there has been or will be a diminishment of economic globalisation⁷. Whereas there will not be any changes in "bad types of globalization"⁸ such as Climate Change/Ecological Globalization as they obey the laws of physics/Science and not the laws of politics, tariffs, or borders.

Kismet of Nation State's Sovereignty after COVID19: Return to Westphalian sovereignty?

Already, the globalization trends have cast doubt on the continuing relevance of the principle of state sovereignty and, arguably, the nature and role of the state itself have changed after the advent of globalization. Amid all the dilemmas of sovereignty for Nation-States, this pandemic further poses arduous challenges for Nation-States vis-à-vis sovereignty. David P. Fidler has done an outstanding analysis in his Post-SARS article on "Political Pathology and Post-Westphalian Pathogen," and Alan Ingram has further elaborated it in his well-defined work on "Geopolitics of Disease." David Fiedler offers an innovative and prolonged analysis of the effects of the pandemic on globalization and sovereignty (Ingram, 2005). The central argument offered by Fidler correlates the inextricable linkage between state and globalization as globalization has entrenched at every level of state it has also entrenched at the level of health infrastructure; which precisely means the domain of public health has crossed the threshold of the post-Westphalian doorway.

6 - "Good globalization" denotes the positive side of globalization, which does not have only adverse effects. for details see, <https://www.forbes.com/sites/panosmourdukoutas/2011/09/10/the-good-the-bad-and-the-ugly-side-of-globalization/?sh=251788c9483f>

7 - see Joseph S. Nye Jr. "No, coronavirus will not change the global order" *foreignpolicy.com* 20th April, 2020

8 - "Bad globalization" denotes the negatives of globalization which has adverse impacts, for details see, <http://speri.dept.shef.ac.uk/2020/01/27/why-climate-change-is-globalizations-biggest-challenge-yet/>

9 - "See David P. Fidler, "SARS: Political Pathology of the first post-Westphalian pathogen," *Journal of law medicine and ethics*, p.485, 2003

Epidemics like the SARS that broke out in 2002–2003 and the HIV/AIDS pandemic have influenced this change. The epidemic like SARS that broke out in 2002-2003 and the HIV/AIDS pandemic has significantly influenced in driving this shift. Fiedler argues that Westphalian rule came into existence during the nineteenth century to reduce and wipe off the friction of cholera, plague, and yellow fever, designed for travel and trade (Ingram, 2005).

The mechanism developed under WHO's International Health Regulations (IHR) is primarily Westphalian in nature. It promotes the states to disclose and publicize health emergencies like COVID19 concerning other parts of the world under their moral obligation and humanitarianism rather than binding on them. However, IHR advocates that the state should pass and amplify the notification of outbreaks of any communicable diseases at the organizational level. Meanwhile, the IHR respects the idea of territorial sovereignty and the Westphalian notion of the state as it claims to respect the 'principle of non-intervention' and gives the state a free hand to decide vis-à-vis the disclosure of a health emergency if it is not a communicable disease. The International Health Regulations (IHR) do not dictate the states' internal public health management even they do not interfere in any matter concerning public health governance of any state. Meanwhile, the IHR's minimal role in dictating states to look upon the prevention and control of communicable diseases like COVID19 shows the importance of territorial sovereignty and decline in the trends of post-Westphalian notion and again the shift of prominence towards the Westphalian notion of sovereignty¹⁰. The state is the predominant governance actor in the Westphalian public health system. By the late 1970s, the emphasis on how the spread of disease affected international relations with public health in poor or developing countries led to the downfall of Westphalian public health. The official failures and incapacity of several states to tackle HIV/AIDS humanely have been emphasized and intensified to develop a global health governance system by the rise of human rights discourse, and the development of global health governance has made the role of the state more relative. Even after devising the mechanism of global health governance, the SARS epidemic exposed the Westphalian traits of territorial sovereignty exerted by a state like China.

The SARS has also become seminal to understanding the geopolitics of disease, that is, how a state works during a health crisis or emergency. In Fidler's words, it could be argued that 'China behaved Westphalian in the post-Westphalian world order (Fidler, 2003¹¹). At first, Chinese officials tried to suppress news of the outbreak, but the Internet, e-mail, and mobile phone communications circumvented the suppression of Chinese authorities and amplified it rapidly to the public. The authorities then acknowledged the outbreak but downplayed its magnitude and the level of seriousness with which it should be treated; for this reason, China drew unprecedented direct criticism of the WHO, only for cases spreading internationally. Meanwhile, it is significant to note that China has also followed the sequence revealed during the 2002 SARS outbreak in the context of

10- Ibid.489

11- Alan Ingram, *The new geopolitics of disease: between global health and global security*, *Journal of Geopolitics*, P.522-545, 2005

the COVID19 outbreak. In the end, China acknowledged the scale of the SARS epidemic, responded entirely domestically, increased cooperation, implemented global health management ideas with the WHO¹², and even extended its cooperation to Taiwan. However, the delayed acceptance, implementation, and cooperation were not enough for a rising great power to compensate for the losses suffered by many other countries due to the Chinese state's frivolous approach to the SARS outbreak.

However, the delayed acceptance, implementation, and cooperation were not enough for a rising great power to overshadow the damages done to several other countries because of the frivolity attitude to deal with the SARS outbreak of the Chinese state. Nonetheless, it also portrays that the WHO intervention amid the SARS outbreak crisis in China's political decision-making as a shift to the post-Westphalian state system was not enough to 'humiliate the sovereignty of the rising great power and put an end to international scrutiny and criticism¹³ (Ingram, 2005).

The SARS outbreak pronounced the WHO's emergence as a more significant actor within global governance by asserting its new powers and dynamic mechanism to deal with a health emergency at the global level. However, soon after the outbreak of COVID19 and the increase in vulnerability of states to deal with the pandemic has not just revealed the incapacity of states to deal with their public health policy but also exposed WHO's leadership to deal with the pandemic outbreak. Within a few days of the COVID19 outbreak, traveling, transportation, and every communication medium were banned¹⁴. States have started to display the portrayal of their sovereign powers and characteristic, the needful resources to contain the virus has not been shared by the developed states with the poor and developing nations. Which clearly shows a shift to Westphalian sovereignty. Both the shifts, the first after the SARS outbreak and the second after the covid19 outbreak, reveal the complexity of world politics, which primarily follows the idea of realism theory to safeguard their people and territory. However, the economy provides a platform of cooperation between states; it could also be considered as a complex interdependence, and in the post-covid times, it will strengthen and enhance the 'good globalization' once again (Prepscius, 2020)

Way Forward: Need for an Inclusive approach

Propaganda, accusation, and blame games are not going to resolve the problems of this pandemic; instead, they will intensify it in the absence of an inclusive approach. It is high time when the states should act inclusively. Instead of executing the principles of geopolitics, states should look forward to executing the Foucauldian notion of bio-politics and governability. It concerns the maximization of the population's welfare and appears in areas such as urban planning, population science, reproduction & fertility ratio, and public health and insurance (Ingram, 2009).

12- Alan Ingram, *The new geopolitics of disease: between global health and global security*, *Journal of Geopolitics*, P.522-545, 2005

13- Ibid. 531-532

14- See, *Coronavirus: The world in lockdown in maps and charts*, <https://www.bbc.com/news/world-52103747>

World Health Organisation (WHO) in the post-Westphalian state can act as a key player in addressing the need of nations to fight against COVID19. However, the restriction, fund cuts, and accusations from the developed world and countries like the U.S prevent it from delivering its duty. Unlike, during SARS International Health Regulations (IHR), of WHO does not address that how a state should fight in its territory, but unlike last time WHO can address the issue from every state's perspective and can find ways to cope up with the problems and as Darwin taught us "the people who win are not strongest, the people who win are not smartest, the people who win are the most adaptive" so, Adaptation is one of the crucial need of the hour and WHO can somehow address the global challenge of Adaptation with their presence in every corner of world simultaneously there is need of "COVID Adaptation Fund" by developed countries for the poor and developing countries which can help to sustain the crumbling economies and human lives of these developing countries.

The COVID19 has also demonstrated the urgency and challenge of "Resilience" to the world community. There is an urgent need to be resilient in terms of healthcare, businesses, supply chains, and other areas affected by COVID19. Resilience is one of the most important ways the post-covid19 impacts on globalization, business, and healthcare, and so on, can be tackled in every possible manner. The last and foremost important aspect of reducing the impact of COVID19 is that the world has to leave the propaganda and accusation war, especially the U.S and China, so inclusively the world can find a way to get rid of this pandemic impacted arenas, primarily economic and healthcare.

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Increasing Awareness of Mental Health Among Youth

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Abstract

Mental health is general words is a state of mind where individual realises his/ her own capabilities. Mental health is necessary for healthy teenager's development, strong relationships and flexibility. The aim of this study is to examine the effects of mental health on our generation. The basic objective of this study is to analyse the causes and effects of mental health in our economy. A good and healthy lifestyle does not only mean a disease free lifestyle but a life with mental peace also. A sample of 150 respondents is taken and examined. A well framed questionnaire was designed and is examined with the help of pie charts, and bar diagrams. The main objective of this research is to increase the awareness about mental health.

Keywords - Mental Health, Awareness, and Lifestyle

Introduction

Mental health is described as a state of well-being in which individual realises his/her own abilities that can help him cope up with the mental stress of life. Mental health consists of emotional, psychological and social well-being. It also analysis how we handle our stress and how we relate to others and make choices. Mental health is essential at every stage of our life like, childhood, adolescence age, adulthood and till our aging. Mental health plays a significant role on our physical health also. There are various types of mental health problems like, anxiety disorder, obsessive disorder, personality disorder, eating disorder, post-traumatic stress disorder, psychotic disorder, etc. Mental health is also very necessary as it helps us to cope up with the stresses, helps us to be

physically healthy, having good relationships, working productively, realising our potential and making meaningful contributions to our community. But mental health can also be change over a period of time because of low energy, feeling numb, having unexplained pains, feeling hopeless and helpless, and having severe mood swings etc. Mental health can also be caused due to psychological factors like, trauma, sexual abuse, emotional breakdown, etc.

Mental health awareness enhances the chances for early intervention, which results in a fast growth of the recovery. The emotional well being is as essential as the physical health. A good mental health allows the children and our youth to expand the flexibility to cope up whatever life throws at them and grow into well accomplished, experienced, and healthy adults. Mental health is necessary for healthy teenager's development, strong relationships and flexibility. Researchers and mental health experts have found that increasing mental health awareness helps in the suicide prevention efforts. Mental health is also important for one's self esteem and self image. A good and healthy lifestyle does not only mean a disease free lifestyle but a life with mental peace also. Mental health is the biggest wealth.

In COVID-19 Pandemic, many people have lost their mental health which results into a great loss for the country. During Pandemic, people struggled physically, emotionally, and psychologically. Many people committed suicide because they were unable to deal with their mental health. This Pandemic is very tough time period for the country. People are struggling so much with their mental health these days. This Pandemic has taught us that one's mental health should be very strong emotionally, physically, and psychologically.

Therefore, mental health awareness is very important for the economy's growth and development as it also makes the person strong emotionally and psychologically for fighting any obstacles in their lives.

Mental Health Awareness: Definition and Importance

Mental health refers to an individual state in which his emotional, psychological and social well being is analysed. It focuses on how we handle our stress and how much capabilities we hold to make the right choices in our lives. Mental health is an important factor as:

- It helps us to cope up with the stresses,
- Helps us to be physically healthy,
- Having good relationships,
- Working productively,
- Realising our potential and
- Making meaningful contributions to our community.

Mental health awareness increases the abilities for negotiation, which results in a speedy extension of the recovery. Mental health and stability is a significant element in a person's everyday life. The human brain flourishes many skills at an early age like social skills, behavioural skills, and emotional skills. A good mental health allows the children and our youth to blossom the adaptability to cope up with anything and grow into well polished, experienced, and healthy adults. Mental health awareness is very important as it makes the person stronger and gives them the ability to face any obstacles in their lives.

Usage of Mental Health Awareness in the Education System

The need of mental health awareness in schools is massive. It is very important to raise mental health awareness in schools, institutes as people are getting affected by mental health issues every day. Many children's are struggling from their mental health. And they never discuss these things with anyone because they all have some fear within them.

Raising awareness about mental health in schools and Institutes has become very important because nowadays people are choosing suicide as an option because they are unable to deal with their mental stress. There are many causes of mental health issues among the students and the youth like:

- Academic pressure,
- financial stress,
- Pressure about career,
- Increasing use of social media,
- Trauma,
- Emotional breakdown,
- Sexual abuse, etc.

Therefore, raising awareness about mental health among students and youths has become very important nowadays for the economy.

Need of Mental Health Awareness During Covid-19 Pandemic

As the coronavirus pandemic speedily sweeps across the world, it induces a substantial degree of fear, agitation, anxiety and concern among the population at large and among certain groups in particular like:

- Adults
- Elders

- Younger youth
- Teenagers
- People struggling with health problems

During Pandemic, people are struggling with their mental health so much. It is obvious to feel anxious, apprehensive and stressed during the COVID-19 outbreak. In this Pandemic, many people committed suicide because of their mental health. People struggled physically, emotionally and psychologically during the Pandemic. Therefore, mental health awareness is very important for our country's growth and development.

Relevance of the Study

The aim of this study is to rapidly growing awareness about the mental health. Awareness can also create new refinement for the mentally ill. This consciousness can eventually develop in eminent changes for the mentally ill. Mental health awareness should be for a long term and is considered part of once life. Mental health awareness expends the chances for early arbitration, which can result in speedy recovery. During the pandemic, mental health plays an important role in every individual's life. Awareness is a key for compassionate what mental health is and how one perceives.

Literature Review

Cummins and Jones (2010): A mental health nurse and a social worker required experience in contributing training for police officers. Their main objective of paper is to analyse the mental health on individuals and experiencing some crisis related to their mental health. People's mental health should be treated with nobility and attentiveness. Srivastava et al. (2016): The prototype of mental health awareness as a means of fighting stigma, increasing prevention, establishing recognition and also invigorating simple and practical conciliation within the community. The main purpose of their study is to enhance the awareness about mental health and to know the progress of mental health services. Nazim Uddin et al. (2019): The behaviour and attitudes is to be analysed in relation to mental health conditions. Therefore, the different conciliation programs is to be conducted about mental health awareness. Yamaguchi et al. (2011): The document is being studied to increase the mental health awareness and to prevent the mental illness among the children and the primary focus of this research is to examine the effect of education on the children's mental health. The research focuses on the reduction of the stigma and to identifying the different types of programs for the future issues.

Aller (2019): Awareness and Advocacy of the mental health should be created and assessed. The research emphasises on mental health issues for college campuses and the primary focus is to

bring the efficacy in the college campuses about the mental health awareness. Pinfold et al. (2005): There should be a focus on the low level of the mental health literacy and stigma discrimination and social disbaring related to mental illness are acknowledged as a major public health concern. The efficacy of school based involvement with young people aged 14-16 is differentiated and aimed at enhancing mental health literacy and challenging the pessimistic stereotypes connected with severe mental health illness in sites in Canada and the UK.

Daskivich et al.(2015): The physicians needs to be aware about the mental health issues. It's is important to spread awareness about mental health issues in the hospitals and among the physicians. The final exhortation was to motivate additional study of residents wellness to better acknowledge the complications about mental health issues. Saha et al.(2019): A better acknowledgement about mental health, often encased as social media campaigns, can help immortalize the administration of sparse mental health resources. Motive of these campaigns is to make people aware about mental health problems. Eaton et al.(2017): Conciliation to increase services use are an essential element of health system. This includes recognition on and criterion of person's with mental illness to educate mental health nurses in the clinics. There main function is to aware people about mental health awareness in Nigeria.

Breslin et al.(2017): A theory of systematic behaviour is executed to determine the effects of a mental health awareness programmes on the sports coaches. Comprehensive and determination to offer support can be increased through a short mental health awareness programmes. Khawaja et al (2009): It is based upon the development of an instrument to evaluate the multicultural competencies of mental health professionals in Australia. The scale was developed to evaluate the efficacy of a multicultural mental health training program. Walther et al.(2014): It is important to spread awareness among students about mental health. Active minds has seen first hand the challenges and rewards of utilising student peer to change the conversation about mental health on college campuses. Campos et al. (2012): The interception and treatment of mental health problems, and the assistance of mental health and psychological well-being of children and youth is undertake as a priority in terms of public health worldwide.

Significance

Significance of this study is that mental health is very important for the country's growth and development. Awareness decreases negative attributes that have been set to describe people with a metal illness. Due to the elevating awareness, mental health can now be perceived as an illness. This study aims that raising awareness can reduce misapprehensions. The study states that mental health plays a significant role on our physical health also.

This study contributes to the enhancement of raising awareness about the mental health. This study shows how awareness can also create new improvements for the mentally ill.

Objectives of the Study

- To study the impact of mental health Awareness among the people.
- To study the behaviour of people during COVID about mental health.

Research Methodology

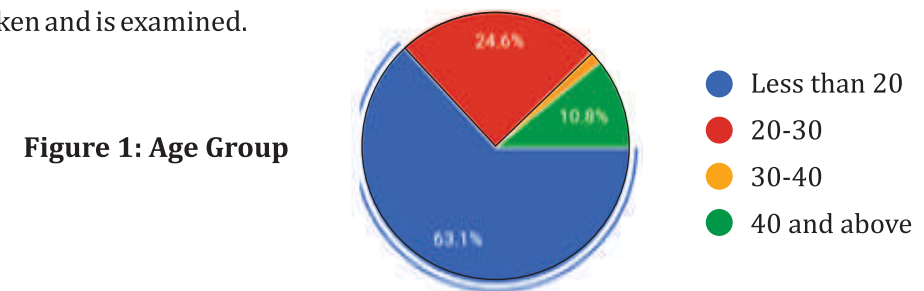
The study empirically examines the data assembled from 150 respondents living in Delhi. There were 20% adults, 45% youth and 35% elder's under this study. Overall, 100% respondents concurred that Mental health is a major problem and 15% respondents claimed that the major cause of mental health problems is emotional breakdown and 28% respondents claimed that cause of mental health is the psychological breakdown. Followed by it, 86.2% respondents are in the favour of mental health awareness campaigns for the growth and development of our economy and also for the enhancement of the knowledge of our youth.

The study also states that the 86.2% respondents believe that academic pressure and 9.2% believes that career pressure are the main reason for the stress of the students due to which their mental health is affecting. Also, 67.7% respondents are in the favour of mental health counselling sessions for the ones who are suffering from mental health issues. The findings of this study also states that 52.3% of the respondents believe that a healthy lifestyle depends upon the good and a stable mental health. This data is assembled through the primary data.

Besides the primary data, secondary data is also analysed from the different online and offline sources, past researchers and from government records. The research methodology obtained and used in this paper is using both primary and secondary data. The research affirms the positive impact of the methodology used and giving a better knowledge about the mental health awareness.

Data Analysis and Interpretation

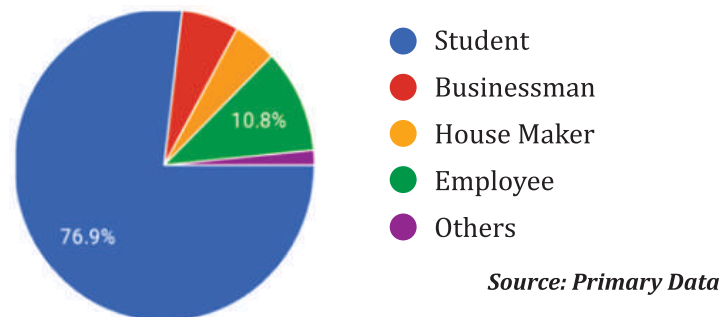
The survey was conducted among different age groups of people. A sample of 150 respondents is taken and is examined.



Source: Primary Data

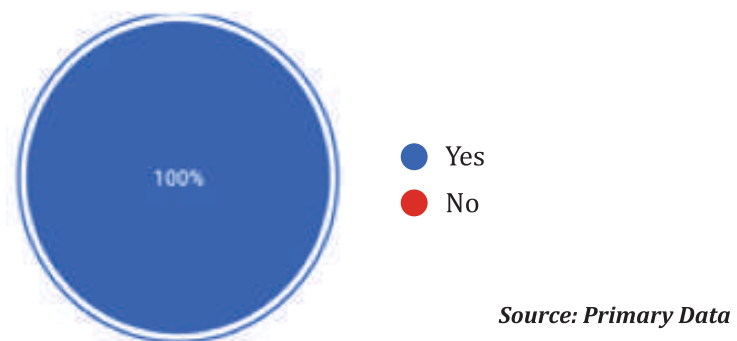
A survey of 150 respondents was collected from which the survey was filled out of which 63.1% respondents are below the age of 20, while 24.6% respondents are between the age group of 20-30 and the rest 10.8 are above 40 age.

Figure 2: Occupation



A survey of 150 respondents was collected from which the survey was filled out of which 76.9% respondents were the students and 10.8% were the employees, concerning about the mental health issues.

Figure 3: Is mental health a major problem?



100% respondents believe that the mental health is a major problem as it can destroys a person and can affect his livelihood.

Figure 4: Effect of mental health on which age groups of people.

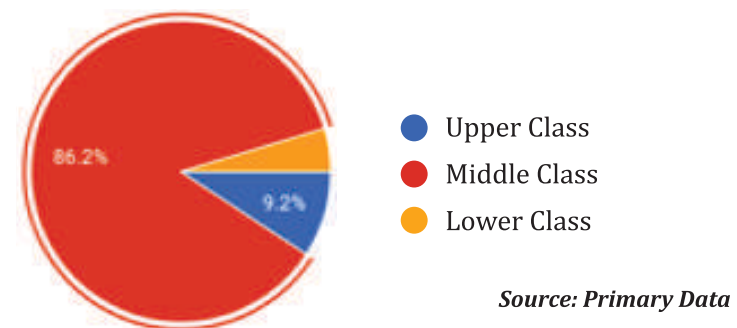
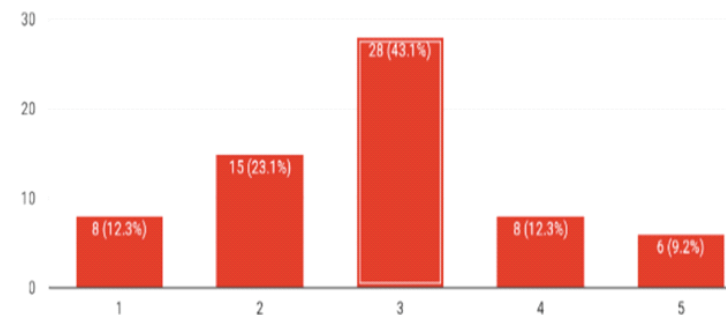


Figure 4 states that 67% respondents are the adults that get affected due to mental health issues and 25% are the young generation.

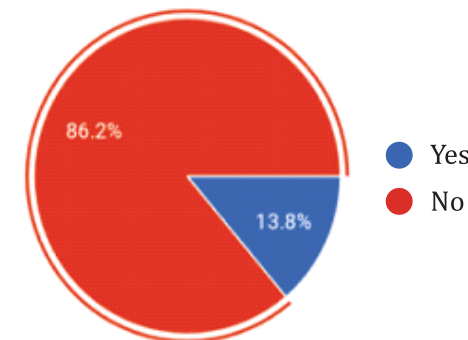
Figure 5: Major cause of mental health issues.



Source: Primary Data

In this analysis, the respondents believed that the major cause of mental health issues is the psychological breakdown (28%) and the emotional breakdown (15%). The majority believed that the psychological breakdown is the main issue.

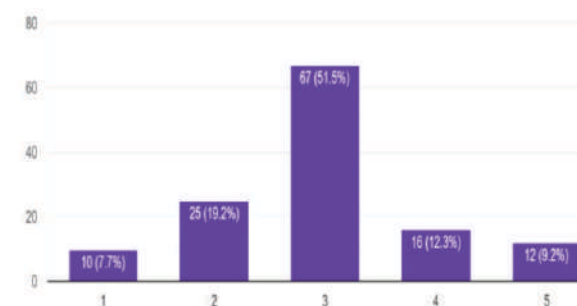
Figure 6: Is Mental Health Awareness Campaigns are Important?



Source: Primary Data

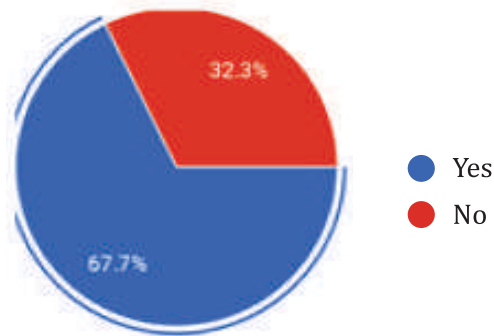
The above analysis, it is clearly seen that 86.2% respondents are in the favour of mental health awareness campaigns while the rest 13.8% people are against the campaign.

Figure 7: Mental health issues among the students



In Figure 7, it is analysed that 51.5% respondents have academic pressure due to which there mental health gets affected whereas, rest of the respondents have the career pressure.

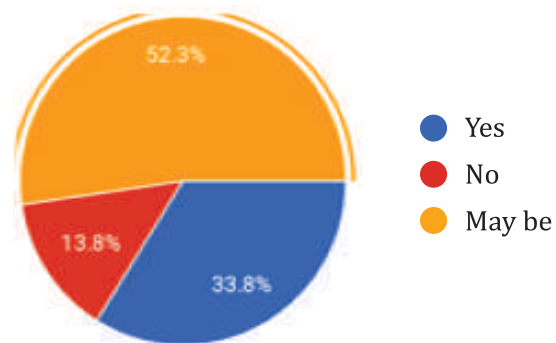
Figure 8: Is counsellor a must if any person facing mental health issues?



Source: Primary Data

Information given above in Figure 8 clearly shows that 67.7% of the respondents are in the favour of counselling while the 32.3% people believe there is no need of the counsellor.

Figure 9: Does our healthy lifestyle depend upon our mental health?



Source: Primary Data

From the above analysis, only 52.3% respondents believe that our healthy lifestyle depends upon our good mental health.

Conclusion

Mental health awareness is very important for the society's well-being. Mental health is all about dealing with the stress and anxiety. Mental health helps an individual in maintaining their emotions effectively. This study states that mental health also plays an important role on our physical health. It focuses on enhancing the chances for early conciliation which results in a speedy growth of the recovery. Mental health plays a significant role as it helps us in coping up with the stress and anxiety. The main objective of this research is to increase the awareness about mental health.

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Parameters influencing Choice and Selection of a Jesuit B-School among Graduates: A Factor cum Conjoint Analytic Study

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Abstract

In the backdrop of the fiercely ultra-competitive globalized era, the challenges faced by Higher Educational Institutions (HEIs) are monumental. Business Schools particularly in the context of India stare at the barrel of such daunting challenges. For the purpose of keeping buoyancy upbeat, B-Schools have prodigious expectations of providing value to its students which calls on the part of such institutions to adapt to a plethora of requirements of the students. In this light, Jesuit B-Schools have become an interesting subject of study when talking in the context of student's choice of HEIs. The current research endeavours to map the perception and expectations of the young graduates of Kolkata towards Jesuit B-Schools, where the essence lies in exploring the various factors which influence such perceptions and the ultimate choice of a Jesuit B-School. The study categorically has been split into two chunks, the first part seeks to examine and analyze the crux factors influencing the perception of a Jesuit B-School and the second part seeks to figure out the best combination of factors which the student respondents of Kolkata feel are most significant in selecting a Jesuit B-School.

Keywords: B-School, Jesuit B-School; Graduate Students; Perception; Choice

Introduction

The landscape of India has fast changing gears in the ambit of higher education to perch itself as a renowned educational hub. Its impeccable performance in the milieu of higher education just after USA and China is a perfect exemplification. HEIs in India are witnessing have experienced a bewildering turnaround in their ways of working and development activities which have followed. India accounts for more than 1000 HEIs which can be categorized into "Central Universities", "State Universities", "Deemed Universities", "Private Universities" and several "institutes of national importance" like IIMs, IITs, IIITs, IISERs, NITs and AIIMS. India is a home which caters to

more than 6000 business schools offering courses like PGDM and MBA. The claims of business schools happen to be great in their offering of a remarkable quality of management education and placement. The present environment has percolations of multiplicity and diversified choices, wherein, PGDM/MBA aspirants are faced with a conundrum of choosing the right B-School. It is imperative on the part of the students to get an in-depth understanding of the key parameters for selecting the correct B-School. The various parameters include location, pedagogy, faculty quality, placements, fees, etc. In this light, the performance of B-Schools need to be comparatively evaluated on the basis of such parameters. This is actually a multifarious and tedious process that requires a host of information and analysis to be made about B-Schools. Young Graduates are in the quest for self-confessed aim of making the right choice of an appropriate B-School without having to be swayed by vague claims. Amidst this, the baptism of a sacrosanct brand of education has been evidenced and a much needed tonic to set the tone and offer a one-stop solution. Jesuit Education has emerged as a catalyst which has transcended the Indian education sector at the apex. The hallmark of Jesuit Education exists in providing education of the highest quality to its students as well as laying a holistic emphasis on 360 degree development of the students making them individuals of "Competence", "Conscience", "Compassion" and "Commitment" (4Cs of Jesuit education). "Jesuits" are actually the Catholic priests who belong to the "Society of Jesus", the highest religious order of the Catholic Church. The ultimate objective of Jesuit education is based on "Ad Majorem Dei Gloriam (AMDG)" meaning "for the greater glory of God." This is based on the principle of finding God in all things. Jesuits are not only engaged in the milieu of education but also myriad endeavours across the world catering towards the society. The present research study is attempted towards examining and analyzing the perceptions of graduate students of Kolkata towards Jesuit B-Schools and the factors which influence their choice of such institutions.

Review of Literature

Prevalence of higher education in a contemporary society is aimed at dissemination and advancement of knowledge to bring a change (Faruqui and Qureshi, 1999). Kozinets (2002), students are the ultimate consumers in the ambit of higher education marketplace. The branding of HEIs are quite significant and play a gargantuan role. As per Bok (2003), the administrators of B-Schools are often oblivious that such educational establishments are on the market place.

A deeper survey of literature would explore that there hardly exist any in-depth researches emphasizing on Jesuit B-Schools let alone student's preference and choice towards Jesuit B-Schools. The crux belief in a Jesuit institution focuses on curriculum not only be centered towards sound academic excellence among its students but also excellence in non-academic spheres of life, thus, shaping agents of change in the society. It has been noticed that Jesuit B-Schools are offering a

plethora of management, technical and career-oriented courses which have been embraced by students in large numbers. Sidin et al. (2003), concluded that student's selection of colleges are dependent on several criteria like academic quality, campus area, facilities and personal traits. They further asserted that factors such as costs, academic quality and duration of study were significant variables for students as well as for their families.

Ming (2010), revealed the various determinants which affect the decision of students regarding selection of B-Schools are college reputation, educational facilities, employment opportunities, academic program, price, financial aid and visit to campus.

Research Gap

On the basis of literature review it can be opined that there are few studies addressing the present issue at hand. There have been myriad researches conducted in the past emphasizing on student perception towards HEIs and B-Schools, but we find it grueling to come across any researches which probe into the factors affecting perception of students towards Jesuit B-Schools. The several important determinants have been identified by past literature survey and has been blended those factors along with certain other factors which have been incorporated to perfectly fit into the parameters that suits a Jesuit B-School.

Research Objectives

1. To probe into the most dominant factors influencing the perception of a Jesuit B-School by conducting Factor Analysis.
2. To prune out the best combination or utilities for factors affecting the preferences and choice of Jesuit B-Schools by conducting a Conjoint Analysis.

Database and Methodology

Both primary and secondary data has been used to conduct the present research study. Secondary data has been collected from various authentic reliable databases like INFLIBNET, JStor, BASE, Google Scholar, etc. The information collected has been used to build a robust conceptual base and understanding of the research study. For the purpose of primary data collection, a structured questionnaire has been used. The questionnaire is a moderately drawn one. The sampling area is purely in Kolkata only which include localities of Taltala, Beckbagan, Park Street and Khidderpore. The sample size is 260 respondents who are all graduates belonging to a very young age group of 21-24 years of age. All the questionnaires were mailed to the respondents. Some respondents who were within reach were surveyed through face-to-face interviews and questionnaires randomly administered. It is noteworthy to mention that the data collection has been undertaken in two phases in our current research study. This is because of our twin objectives of exploring the crux

factors of Jesuit B-Schools which summarize the motivations and expectations of a Jesuit B-Schools aspirant along with investigating the best combination of factors affecting the preference and choice of students towards a Jesuit B-School. In the first phase, data collection has been done primarily to identify the dominant factors and in the second phase of the data collection, the best combinations have been found through Conjoint Analysis which has been drafted as a questionnaire and presented to the same respondents again. Initially, more than 300 respondents were surveyed but some responses have been obliterated due to erroneous or incomplete responses. After such rejection of responses, the final valid responses stood at 260. For measuring the concepts, a "Five-Point Likert" scale has been used. The data collected has been processed by using "IBM's SPSS" 23.

Data Analysis

We have used "IBM's SPSS" 23.0 to process and analyze the data. The analysis consists of demographic profiling, factor analysis and conjoint analysis.

• Demographic Profiling

Our demographic statistics consist of gender, age, occupation and income classification which has been captured below in the form of a table.

Table 1: Demographic Statistics

Demographic Construct	Classification	Population Statistics	Percentage
Gender	Male	132	0.51
	Female	128	0.49
	TOTAL	260	1.00
Age	21 years	23	0.09
	22 years	68	0.26
	23 years	80	0.31
	24 years	89	0.34
	TOTAL	260	1.00

The above table is a representation of various demographic variables which has been taken into consideration for our present research study. We observe that the male and female ratio is balanced moderately accounting for 51% and 49% of the total respondents respectively. Most of the respondents belong to the age bar of 23 years and 24 years.

• Exploratory Factor Analysis

Conducting an "exploratory factor analysis" is crucial to explore the relevant factors that shape the perception of consumers towards shopping malls. However, before, that the "KMO and Bartlett's Test of Sphericity" has been conducted for checking whether that the sample size is adequate, which will further indicate if it is worthwhile to run a Factor Analysis.

Table 2: KMO and Bartlett's Test of Sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.797
Bartlett's Test of Sphericity	Approx. Chi-Square	769.659
	df	55
Sig.		.000

The "KMO Bartlett's Test of Sphericity" gives confirmation to the fact that running the Factor Analysis test was appropriate. The ideal values should exceed 0.6, which is explained by the "KMO Test Statistic" reporting figure of 0.797 (>0.6). The significance shows a value of 0, (p=0.000, p<0.05). This is a confirmation to the fact that "Factor Analysis" can be performed.

The "KMO and Bartlett's Test" has been followed up by "Total Variance Explained" (TVE). Four factors have been obtained; with each of these four factors together explain 67.439% of the variance explained. "Principal Component Analysis" indicates the extraction of the variables provided that the Eigen values exceed 1 (Eigen values=>1).

Table 3: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Var.	Cum. %	Total	% of Var.	Cum. %
1	2.464	33.617	33.617	2.464	33.617	33.617
2	1.883	22.581	56.197	1.883	22.581	56.197
3	1.327	11.242	67.439	1.327	11.242	67.439
4	1.251	8.653	76.092			
5	1.011	8.166	84.259			
6	0.813	4.649	88.908			
7	0.604	4.258	93.165			
8	0.538	4.022	97.187			
9	0.492	1.724	98.911			
10	0.345	0.867	99.778			
11	0.272	0.221	100.000			

Below is the “Rotated Component Matrix”. The rotation has been done using “Varimax with Kaiser Normalization in six iterations.” The 11 variables observed are disintegrated into 3 factors. Component 1 can be recalled as “Primary Factor” which comprises of 3 variables, namely, “Quality of Faculty”, “Industry Interface” and “Quality of Placement”. Component 2 can be renamed as “Secondary Factor” which comprises of 4 variables, namely, “Pedagogy and Course Strength”, “Fee Structure”, “Global Affiliation” and “Accreditation and Infrastructural Facilities”. Component 3 can be renamed as Tertiary Factor which comprises of 4 variables, namely, “Nature of Degree Offered”, “Residential Facilities”, “Locational Advantage” and “Alumni Strength and Network”.

Table 4: Rotated Component Matrixa

	Component		
	1	2	3
F1	-0.786	0.213	0.066
F2	0.692	0.245	
F3	-0.228	0.456	0.472
F4	0.573	0.215	
F5	-0.569	0.078	0.141
F6	0.715	-0.098	0.342
F7	-0.434	0.618	0.382
F8	0.357	0.728	0.165
F9	-0.141		0.692
F10	-0.063	0.749	-0.077
F11	0.182	-0.114	0.636

Extraction Method: Principal Component Analysis Rotation Method: Varimax with Kaiser Normalization

a. Rotation converged in 6 iterations.

Conjoint Analysis

It has been identified that there are 4 attributes with multiple levels: Service Experience (3 variables), Mall Infrastructure (4 variables), Convenience and Utilitarian Factors (4 variables). The “total possible combinations” across the following three attributes is:

$$8 \times 5 \times 7 \times 4 = 1120 \text{ combinations}$$

The impractical task of asking such respondents for ranking the mammoth 1120 combinations, calls for designing an orthogonal framework for generating sample profiles on the basis of the

random seed number entered (50,000 in this case). Accordingly, 16 cards have been generated from the system representing various combos of variables drafted as a questionnaire and presented to the same number of respondents who were asked to rank “the most preferred combination” on a scale of 1-16.

Table 5: Description of Model

	N of Levels	Relation to Ranks or Scores
Primary Factors	3	Discrete
Secondary Factors	4	Discrete
Tertiary Factors	4	Discrete

The table displayed below is of extreme importance, as it represents the “utility coefficients” for each factor level. The preference a particular factor level depends upon the utility coefficients. As per the results obtained, Quality of Faculty (0.692) possess the highest utility or preference in case of Primary Factor, Global Affiliation and Accreditation (2.244) has the highest utility or preference in case of Secondary Factor, while in the case of Tertiary Factor, Locational Advantage (2.132) has the highest utility.

Table 6: Table of Utilities

		Utility Estimate	Standard Error
Primary Factor	Quality of Faculty	0.692	0.930
	Industry Interface	-0.105	0.870
	Quality of Placement	-0.555	0.930
Secondary Factor	Pedagogy and Course Strength	-1.082	1.017
	Fee Structure	1.117	1.017
	Global Affiliation and Accreditation	2.244	1.017
	Infrastructural Facilities	-2.297	1.017
Tertiary Factor	Nature of Degree Offered	-0.685	1.017
	Residential Facilities	-0.663	1.017
	Locational Advantage	2.121	1.017
	Alumni Strength and Network	-0.826	1.017
(Constant)		8.679	0.612

It can be inferred that the graduate respondents in Kolkata gives preference to a Jesuit B-School with an impeccable quality of faculty, which has a robust global affiliation together with locational advantage. In fact, this is the ideal pre-requisite a shopping mall should have. The table portrayed below represents some pertinent aspect, which is also of relative significance. The table portrayed below represents other pertinent aspect which is also of relative significance among the attributes. In the present research study, secondary factors are the most important consideration for students (51.389), followed by primary factors and tertiary factors according to the values obtained.

Table 7: Importance among attributes

Primary Factor	36.491
Secondary Factor	51.389
Tertiary Factor	12.120

Below is a correlation table representing correlation between “observed preference scores and the conjoint model estimated preference score.”

Table 8: Correlations^a

	Value	Sig.
Pearson's R	0.816	0.000
Kendall's Tau	0.749	0.000

a. Correlation between observed and estimated preferences

The importance of correlation coefficient (0.000) is an indication that the above model is robust enough for predicting the respondent's preference for different attributes towards a Jesuit B-School.

Research Findings

The current research study seeks to examine and analyze the perception of higher secondary students towards Jesuit B-School. To serve this purpose, we have conducted a Factor Analysis to first explore the most dominant factors which shape up the perception of such students in the metropolitan city of Kolkata towards Jesuit B-School. As per our results, we have found that “Quality of Faculty, Industry Interface and Placement Standards” were closely knitted. Similarly, “Pedagogy and Course Strength, Fee Structure, Global Affiliation and Accreditation and Infrastructural Facilities” are close knitted variables and can be categorized into one group

labelled as Secondary Factor. The same is evident in the case of Tertiary Factor which includes variables like “Nature of Degree Offered, Residential Facilities, Locational Advantage and Alumni Strength and Network” which are closely knitted to one another. We have also conducted a Conjoint Analysis to prune out the best combination of factors which are most prominent when choosing a Jesuit B-School. As per our results, students opted for a highly active functional placement department, coupled with global affiliation and accreditation along with “locational advantage” when selecting a Jesuit B-School. Students opine and perceive that Jesuit B-School not only meet their needs of rich quality education but also instill in them capable leadership skills and competence. The research also revealed the association among the factors influencing decision of students. As a Jesuit institution aims not only in providing high quality education but also in overall development of its students, this noble intention has high preference among students of Kolkata who are not only satisfied with mere classroom lectures and related academic excellence but also would like to embrace their overall personality development.

Conclusive Statements

The current research endeavour has been fruitful in unearthing the relevant factors which guide the perception of graduates and their ultimate choice towards a Jesuit B-School. There is further scope of this research study for future research as well. A similar research study based on an exploratory research design can be conducted where other aspects of student decision making can be taken into consideration like personal factors, demographic variables like age and gender, socio-economic status, etc. The research can also be conducted on students at the undergraduate and post graduate level as well as among research scholars as to how they perceive Jesuit HEIs as well as other institutes of higher learning. The present research study would be essential not only for the of Jesuit B-Schools but also for the administrators of other HEIs who could emphasize more on the factors explored in the current research study to raise their standard and excellence in academics and other non-academic milieu.

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Global Warming and Climate Change: A Threat to Environment

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Abstract

The issues of global warming and climate change are very important as its impacts are not limited to any geographical boundaries and affect all the countries whether developed or developing. Many factors varying from natural to human activities are responsible for this change. Rapidly growing population, deforestation, increasing use of chemical fertilizers, emissions from the vehicular traffic, industrialization, urban development and mining activities are some of them. Developed countries are major contributors to Green House Gasses- which is a main cause of global warming and climate change, however, its impact is seen all over the globe. In the recent years, it is felt that all the countries of the world should make some policies to handle this problem individually or collectively. In the present study an attempt has been made to identify major causes of global warming and climate change and their impacts on the human life such as issues of agriculture and food security, rising sea levels, human health, changing settlement patterns, natural hazards and disasters etc. As a whole it poses a great challenge on the part of developed as well as developing countries to reduce the emission of Green House Gasses and control this universal problem.

Keywords - Climate Change, Green House Gasses, Global Warming, Environment, Industrialization, Population.

Introduction

Climate – referred to as the average weather conditions (temperature and rainfall) over a geographical area for certain time period say 30 to 50 years. When these condition deviates from the normal to extreme, the phenomena is known as the climate change. The duration of climate change may vary from 5 years to hundreds and millions of years. Similarly its extent may vary from local to regional and global. Global warming is a phenomenon of increase in average temperature of the Earth, which is a contributing factor to climate change. The average temperature of the Earth has increased by more than 1° F since 1900 and this speed of warming is increasing rapidly day by

day. According to an estimate, the 21st century has witnessed an increase of 3° to 8° F in the global temperature. This occurs due to many reasons such as emission of greenhouse gases like carbon dioxide from the factories, vehicles, power plants, burning of forests, mining and construction activities etc. Global warming has a long-term impact on weather patterns that varies from place to place. In the present paper an attempt is made to study the major causes of global warming and its impact on the shifting patterns of climate. It also calls for need of proper and collective management of major environmental issues at the international level.

Review of Literature

The term 'Global Warming' was introduced for the first time by climatologist Wallace Broecker in his article "Climate Change: Are we on the Brink of pronounced Global warming?" Global warming is observable increase in the global temperature of earth (both land and water) and climate change is the effect brought about by the process of warming globally or in general, overall long-term change in our climate, including sea level rising, extreme weather, and ocean acidification. However, the term global warming and climate change are used interchangeably but there is difference in it, global warming is more sensitive and more diverging which results in less advocacy by some subpopulations (Benjamin, 2016). Further, (Krauss, 2021) clearly puts it in the context when he quotes Lorenz, "Climate is what you expect; weather is what you get." (p.158). Krauss argues that just because there is an anomalous cold day in Washington, DC does not mean that global warming is not happening. Likewise, just because there is an ultra-hot week in Washington, DC also does not validate global warming.

The solar radiation from the sun is balanced by the thermal radiations reflecting from the earth; this interaction balance determines the surface temperature of the earth. The incoming solar radiation from the sun is independent but the outgoing thermal radiations depend on the earth's surface temperature and the presence of greenhouse gases, which absorbs some of the thermal radiations. Greenhouse gases, such as carbon dioxide, methane, nitrous oxides, water vapors, ozone and chlorofluorocarbon (CFC) are responsible for trapping of heat. For instance, water vapor (40%) is responsible for absorbing majority of thermal radiation from earth, followed by carbon dioxide (30%), methane (20%) and other gases (5%) (Aizebeokhai, 2009). So, it indicates that outgoing thermal radiation is mostly absorbed by water vapors and carbon dioxide. Likewise, the change in composition of water vapor due to human activities are negligible, so it implies that the greenhouse gases produced by human activities are likely responsible for the most of the trapping of heat (Aggarwal, 2003; NAS, 2013).

However, some authors (Florides, 2019) argues that the heat trapping by the carbon dioxide is not significant and rather it is likely that sun radiations are responsible for the global temperature rise.

Herring (Herring, 2020) refuted the claim that likeliness of sun radiation as the cause of global warming might not be true. He argues that, it is possible that sun can warm the earth provided that the pattern of the solar intensity increases over the years. Likewise, the sunspot data do indicate that there was a small increase in the amount of sunlight from late 1800 to the mid-1900 which experts' estimates that it could have contributed at the most upto 1.0 C. Further, scientists rule out the significant role of sun in global warming due to the fact that if the sun energy output had intensified then it is logical to expect all layers of earth's atmosphere to be warmed, which is not the case that is been observed. In fact, lower layers of atmosphere (troposphere) get more heated while the upper layers (stratosphere) get cooling (Herring, 2020).

Burning of fossil fuels is the major source of global warming in the developing countries, which in turn, depends upon the high growth of population, increasing demand for fuels, need for economic growth and a high standard of living. Lack of political will power and institutional failure to make effective environmental policies have hampered action against global warming and reduction of the global warming gases (Aizebeokhai, 2009).

The Intergovernmental Panel on Climate Change (IPCC) which includes more than 1300 scientists from countries all over the world forecast a temperature rise of 2.5 to 10 degree F over the next century. Moreover, the IPCC predicts that increases in global temperature rise will produce beneficial impacts in some regions and harmful ones in others. Net annual costs will increase over time as global temperature increases (Jackson, 2019).

However, not everyone believes that the earth's surface temperature is increasing and even if global warming is there, not everyone agrees that human activities are responsible for global warming and climate change. As a result, critics and deniers of global warming and climate change do not see the need to take steps to delay or reverse these trends. USA disengaging from Kyoto protocol and Paris agreement on climate indicate the polarity of attitude of nations and people towards this issue (Johnsson, 2018).

A study conducted by Shapiro and Park (2015) showed that people responses to the global warming and climate change in social media are general and shows little or no concern about this issue, which indicates many people are not convinced about the reality of global warming and climate change. A study by Allen and McAleer (2018) suggests that the negative emotions or indifference to global warming might be due to lack of clear logical framework and confusion of short-term variations in local weather with the long-term global average climate change.

Despite the two school of thought on the urgency and status of global warming and climate change, the evidences from the surface temperature, sea level rise, sea surface temperature and borehole temperature profile indicate that the global warming is happening and it is going to be a major threat in the future, which will be discussed in the forthcoming sections of this paper.

Objective of the Study

The main objective of the present study is to identify the major sources of Global Warming, i.e. emission of greenhouse gases; to what extent this phenomenon affects the human life and ecological balance in the developing as well as developed countries. It also suggests the measures to deal with the situation of global warming and how its adverse effects can be minimized.

Methodology

For the present study descriptive and analytical methodology has been adopted. Data and information was collected from various sources such as govt. reports and publications, statistical abstracts and development plans. In addition, previous studies conducted by different scholars related with the theme were approached and studied. The data and information thus collected was analyzed by using different statistical and cartographic techniques. Besides this, observations during field studies were used to supplement the information.

Greenhouse Gases and Greenhouse Effect

The solar energy received by earth heats the earth's surface and the air coming in its contact. In turn, the earth radiates its energy back into the space (atmosphere). Some atmospheric gases such as carbon dioxide, water vapours and other gases interrupt this process and heat the environment beyond a certain limit. These gases are called greenhouse gases. These gases operate like a blanket and trap the energy radiated out by the earth and cause the rise in the average temperature of the earth's surface and atmosphere, which is known as the green house Effect.

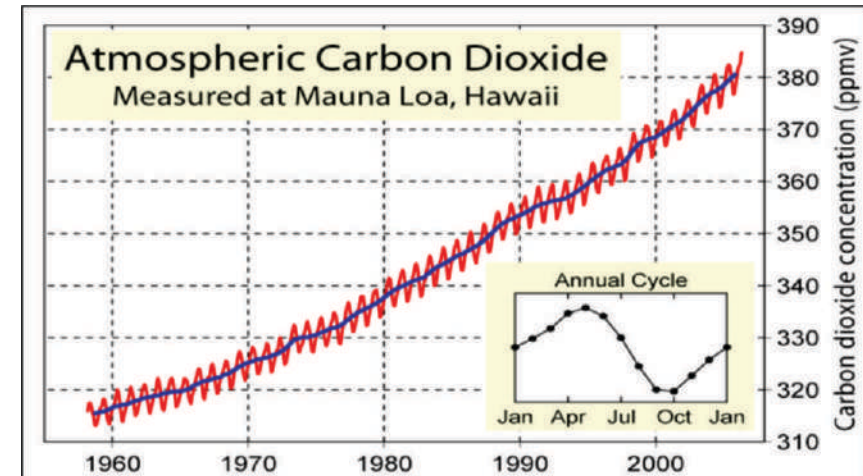
The major greenhouse gases are carbon dioxide, methane, nitrous oxide, hydro fluorocarbons, per fluorocarbons and sulphur hexafluoride. To some extent water vapors are also considered as a greenhouse gas. Greenhouse gases are essential for the health of the planet earth, it can also deal with slightly increased level of such gases, but too much will affect the health of the whole planet adversely. The increased proportion of greenhouse gases in environment beyond a limit causes global warming and results in many adverse effects such as rise in the average sea level, frequent floods, droughts, cyclones, decline in the soil fertility, disturbed life cycle, depleting vegetation cover, changing climatic conditions etc.

Sources of Greenhouse Gases

1. Carbon dioxide is the major source of increase in the global temperature, which is released in huge quantities by the power plants, burning of fossil fuels, rising number of multi-storied buildings which require a lot of fuel to be burnt.

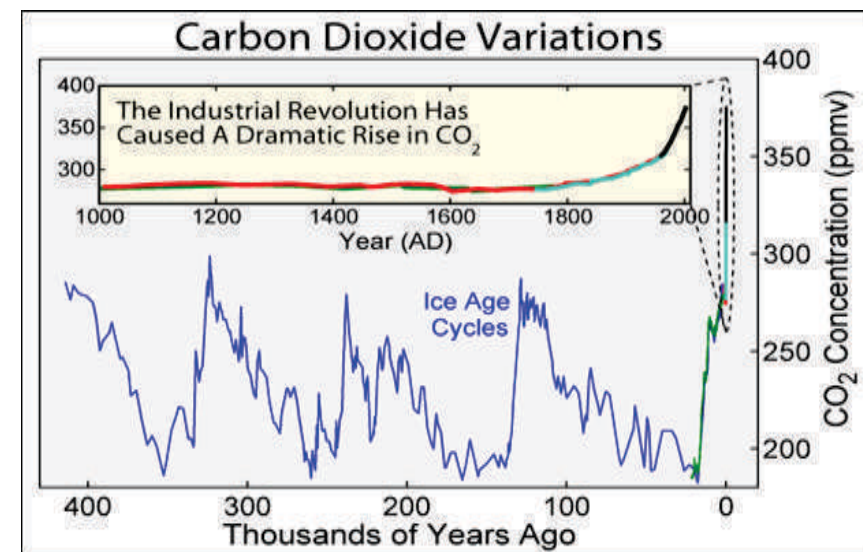
Fig 2 depicts that the atmospheric levels of the greenhouse gas carbon dioxide, have increased since pre-industrial times from 280 part per million (ppm) to 377.5 ppm a 34% increase. Carbon dioxide concentrations in the atmosphere are the highest. Carbon dioxide is a by-product of the burning of fossil fuels, such as gasoline in an automobile or coal in a power plant generating electricity of the UK Meteorological Office.

Fig 1- Average Concentration of Carbon Dioxide



Source: Jackson R (2019) *The effects of climate change: vital signs of the planet.*

Fig 2- Variation in Carbon Dioxide during the Past



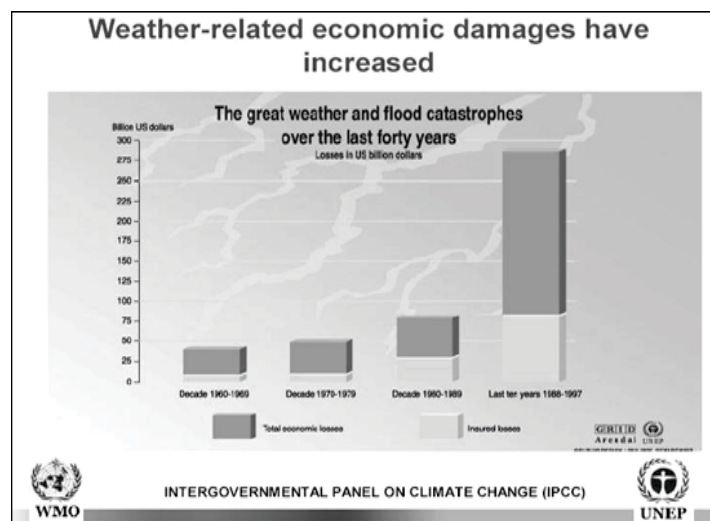
- Methane is another source of heating the environment which is more than 20 times effectual than carbon dioxide. Methane is released from water logged paddy fields, manures and fossils. Decaying of the organic materials in the soil releases huge amounts of methane in to the atmosphere.
- Nitrous oxide is another source of heat production which is produced by nylon and nitric acid production, cars with catalytic converters, the use of fertilizers in agriculture and burning of organic matters.
- Another cause of global warming is deforestation caused by large scale cutting and burning of forests for clearing the land for other purposes.
- The large scale growing population is also responsible for global temperature increase. At present about 9 billion human population is settled over this planet. This huge sized population requires houses, food and other civic amenities posing a great pressure on the urban infra structure and system already existing on the globe.

Global warming and Climatic Changes

The major climatic changes resulting from the Global warming are as following:

- Extreme weather conditions:** An increased temperature of the atmosphere would result in to extreme weather conditions such as frequent floods, droughts, intense heat and cold, spells of dry and rainy seasons etc. This would affect all the living habitats at this planet earth in the ray sun.

Fig 3- Impact of Extreme Weather Condition

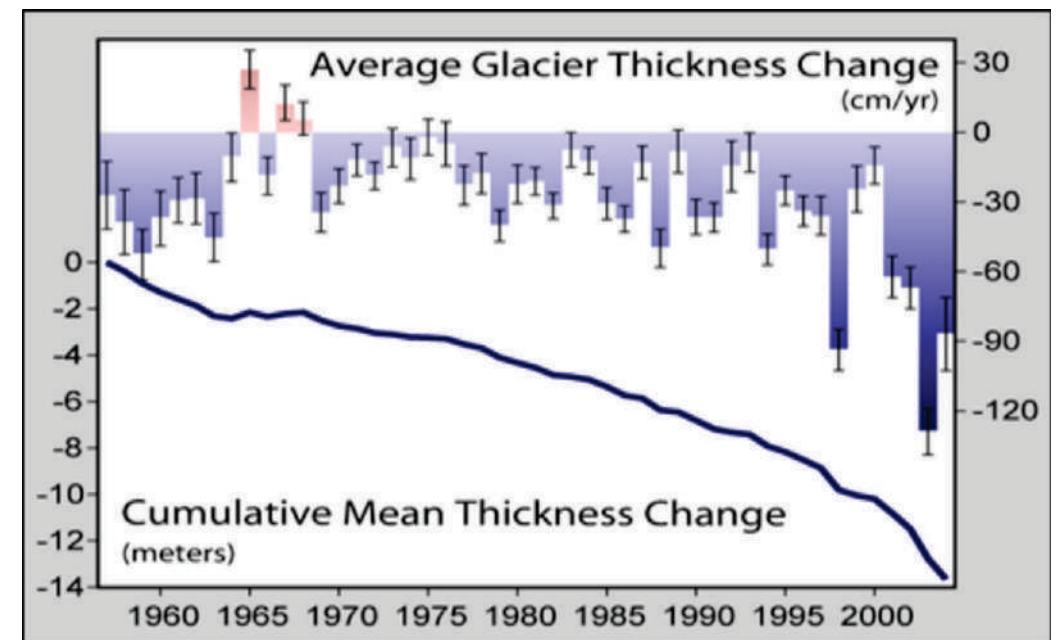


Source: Krauss L.M (2021) *The physics of climate change, London. p 103*

- Rise in the sea level:** An increase in the global environmental temperature would result in to melting of the ice caps and glaciers. This will affect the life on the mountains as well as in the coastal areas. On the one hand this would create a scarcity of fresh water in the high mountainous areas. At the same time, melting of glaciers and ice caps will suddenly increase the volume of water in the rivers and eventually rise in the sea level. This would result in the unexpected flooding in the coastal regions and submergence of the nearby areas.
- Melting glaciers:** Increasing temperature is one of the effects of melting of glaciers in the high altitude Himalayas. Mainly South Asian countries will be affected by worsening floods from the melting glaciers of the Himalayas. Heavy rainfall and uprising water level in the rivers will create floods like conditions and destroy many civilizations.

Ice is melting all over the planet. Glaciers are melting on six continents. If present warming trends continue, all glaciers in Glacier National Park could be gone by 2030. The park's Grinnell Glacier is already 90% gone. Because of global warming, the glaciers of the Ruwenzori range in Uganda are in massive retreat. The Bering Glacier, North America's largest glacier, has lost 7miles of its length, while losing 20-25% of parts of the glacier. In southern Peru the rate of melting of the Qori Kalis glacier during the last 8 year period was 10 times more than previous decade.

Fig 4- Average Melting of Glaciers due to Temperature Rise



Source: Krauss L.M (2021) *The physics of climate change, London. p 195*

Greenland's glaciers are moving more rapidly to the sea, caused, perhaps, by melt water lubricating the base of the glaciers. See below for another look at dwindling ice mass in Greenland. The Tasman Glacier in New Zealand has thinned by more than 100 meters in the past century. A glacier from which Sir Edmund Hillary and Tenzing Norgay set out to conquer Mount Everest nearly 60 years ago has retreated three miles up the mountain due to global warming. The head of the Nepal Mountaineering Association, Tashi Jangbu Sherpa, says "that Hillary and Tenzing would now have to walk two hours to find the edge of the glacier which was close to their original base camp."

4. **Tsunamis and Hurricanes:** The global warming conditions would lead to an imbalance in the atmospheric temperature conditions leading to frequent storms, resulting in to a large scale loss of human life and property. The recent storms of Tsunamis and Hurricanes in USA, Canada and Europe were a result of global warming condition
5. **Impact on Ecosystem:** Global warming will disturb the ecological balance and will affect the capacity of various habitats to adjust themselves to the environment. This will have many impacts on the ecosystem such as Rapid global heating, increase in the ozone gas, extinction of certain species leading to environmental crisis, collapse of biological and ecological system.
6. **Increase in the ocean acidification:** Global warming and excess release of carbon dioxide would result in to acidification of the oceans, leading to heavy loss to the marine life and aqua culture. This will also disturb the food chain and ecosystem biodiversity.
7. **Increase in pests and diseases:** A sudden increase in the global environmental temperature will lead to outbreak of many epidemics of diseases. Many chronic and infectious diseases may result from the imbalance in the ecosystem.
8. **Decline in the agricultural production:** An increased global temperature would affect the agriculture and lead to a decline in the agricultural production of various crops. This may lead to global shortage of foodgrains and increased global hunger.
9. **Global warming and agricultural land:** As a result of global warming the amount of arable land in high latitude regions is likely to increase by melting of ice and reduction in frozen lands. At the same time arable land in coastal areas and islands is bound to be reduced due to rising sea levels and submerging the coastal areas.
10. **Desertification:** Global warming would adversely affect the natural vegetation and extreme hot climatic conditions leading to increasing desertification and loss to vegetation covers. This would result in to loss of agricultural land, unemployment, poverty, hunger and diseases.

11. **Climate change and its impact on women work:** In recent times, the temperature is rising rapidly and it is difficult for women because she has to manage household chores the family members. For example, in the drought areas in absence of rainfall all water sources will dry up and women suffer a lot from this as they have to manage drinking water from a large distances. They have to work harder for the secure food, drinking water and fuel wood for their homes. This leads ultimately in to adverse health condition of the women, deprivation from their rights and poverty and inequality in social and economic life.
12. **Climate change and human health:** Climate change has a direct impact on the human health. The warmer climate has adverse effects on the human health. An increase in the average temperature would lead to break out of the chronic diseases like malaria, cholera, infectious diseases, and pollution related problems. The population living in urban areas is more vulnerable from these diseases because urban areas have more pressure on drinking water, housing, sanitation and other health services as compared with their rural counterparts.

An Overview of Global Warming and Climate Change

We have seen already that how the unbalanced and over exploitation of natural resources has destroyed and polluted the earth's environment. This is creating many problems and crises. The situation can be understood by some instances given below:

Many parts of the world are facing serious climatic changes experiencing extreme hot or cold weather conditions, which were never felt in the past. European countries like France, Spain, Portugal and Italy faced Heat- Wave in the year 2003. Though known as the coldest, the average temperature in these countries rose up to 40° C during this year due to this Heat- Wave.

As for as Indian subcontinent is concerned, many states located in north western, central and central eastern parts of India have experienced extreme hot conditions than previous years. The duration of summer season is also much longer than the past many years. In India, 2016 and 2017 are going to be the hottest years in the history as the average temperature is rising up to 42° C in the months of March and April.

Another change in the weather conditions in the Indian sub continent is the deviation in the monsoon winds from the normal. Monsoons are coming late from the normal time which results in to longer spells of heat. The amount of rainfall received by the monsoons is either too much in some parts of the country or too low in other parts, which created flood like situations in many states like Maharashtra, Madhya Pradesh, Bihar, Jharkhand, eastern Uttar Pradesh and West Bengal while drought conditions in states of Punjab, Haryana and parts of Rajasthan.

Due to global warming and rise in the average temperature, snow line in the hill states of Himachal Pradesh, Uttarakhand and Jammu & Kashmir is changing its position, which is resulting in to failure of snowfall in many regions while very heavy snowfall in other areas. This has affected many fruit growing areas in these states and tourism industry which is base of economy in these states.

Policy and Managerial Recommendations

Global warming and climate change is a global problem. It affects everyone, the rich and the poor, the developing and the developed without any favourism. All the contributors whether major or minor, all are affected by the adverse effects of climate change. So its solution should be found jointly. Though it is difficult to check the emission of Greenhouse gases completely, but we can minimize this by adopting some measures and taking some precautions. Some of these measures are as following:

1. **Adopting Eco friendly vehicles:** We should reduce the emission of carbon dioxide and other gases from the vehicles. For this, eco-friendly vehicles equipped with latest technology and pollution free fuels should be promoted. In urban areas, use of public transport facility should be preferred rather than using private vehicles. Car pooling is another alternative, where people working in the same office or institution can use their car on sharing bases. This will help in reducing the vehicular traffic on roads and hence reducing the air pollution and carbon emission on roads.
2. **To build energy efficient landscapes:** Housing societies and offices should be designed in such a way that least amount of energy is consumed. This includes adopting modern architectural designs, installation of solar energy panels, use of non-conventional building materials and making use of renewable sources of energy etc. Government should provide subsidy and orientation programs for the users so that this type of technology may be promoted.
3. **To check the forest cutting and soil erosion:** To save the environment, haphazard forest cutting should be stopped. New trees should be planted and protected to replace the trees cut down every year. All the institution should make the students aware about tree plantation and afforestation drive should be launched. Community forestry is another concept, in which common public places and common land in rural areas can be used for forestry purpose. This will also bring additional income to the village panchayats and local governing bodies in the semi-urban areas.
4. **Promoting Nuclear Power Plants:** Modern technology should be adopted to produce electric energy. In India, only 15% of the total electricity is produced by the Nuclear power plants. We are still producing electricity by thermal power plants which emit large amounts of carbon and other pollutants in to the atmosphere and cause increase in the average temperature.

5. **Geo- engineering** is another tool which helps in reduction of greenhouse gases emission. It includes use of modern technology and save the green environment.
6. **Using eco- friendly fuels** is another option which helps in controlling the global warming and climate change. We should make use of the alternative sources of energy rather than using conventional methods. In Germany, scientists have developed Hydrogen based fuels for the vehicles which produce no carbon emission. This type of technology can be adopted in the developing countries also

Implications

On the basis of above discussion and analysis it would be wise on the part of humanity to act to minimize the global warming- to which burning of fossil fuels is main culprit. Cause of global warming is well documented and known by majority of the people, what is apparently failing is the action to minimize the production of global warming gases and excessive consumption of natural resources. Humans are most intelligent species, yet most skeptical and cynical creature who even walked the earth, choice are – to scum to habit of cynicism, or accept the fact for real and act to maintain the balance in nature for the sake of humanity. The developed countries should look beyond their narrow self-interest and work jointly with the developing countries to bring out a co-operative and collaborative strategy on this issue.

Summary and Conclusion

The rapid increases in greenhouse gases leads to continuous increase in temperature over the years, which is changing the weather patterns and disturbing the usual balance of nature. The issue of climate change poses many risks to human beings and all other forms of life on Earth. Some impacts of climate change include occurrence of heat waves and heat related illnesses, change in rainfall patterns and occurrence of severe storms resulting in loss of thousands of lives; increased droughts and expansion of desert areas; rise in average sea level leading to submergence of coastal areas. This also makes the ocean water more acidic, which endangers marine life. Climate change poses risks to the survival of species on land and in the ocean. These risks increase with forest fires, extreme weather, and invasive pests and diseases. Decline in food production is another consequence of climate change which leads to shortage of food and global rise in hunger and poor nutrition. Heat stress can diminish water and grasslands for grazing, which in turn will destroy the fisheries, crops and livestock.

The issue of global warming and climate change should be addressed globally. The developed countries should look beyond their narrow self interest and work jointly with the developing countries to bring out a co-operative and collaborative strategy on this issue. The efforts made so far in this direction are sporadic and insufficient. Climate change risk management approach

includes, (i) mitigation - efforts to reduce emission of greenhouse gases; (ii) adaptation – increasing society’s capacity to cope with changes in climate; (iii) geo-engineering – maintaining the natural ecosystems by way of protection and restoration; and (iv) community participation – provide an opportunity to bring everyone to the table and ensure participation of marginalized communities which suffered the most by climate change, most often these groups have been left out of the decision-making process. All countries of the world should adopt a scientific approach and handle this crisis so that the planet Earth can be saved and life continues on this planet for the years to come.

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Study on Impact of COVID- 19 Crisis and Lockdown on MSMEs and Path Ahead

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Abstract

After the influenza pandemic, the whole world is again shaken by the Coronavirus pandemic. Many people have lost their lives from covid-19. Although both pandemics affected the world, the pattern of effect was different. During the Influenza pandemic, most of the world was not much economically developed, even most of the current developed nations were in their developing phase, and India was underdeveloped at that time. So, influenza pandemic didn't affect the world economically as much as the Coronavirus pandemic did, as most nations are now developed or in their developing phase. It would not be wrong to say pandemic economically affected India severely as compared to the rest of the world, as India is a labour rich country and needs a labour-based sector along with a capital-based sector. More than 110 million Indians are employed in the MSME sector which highlights the significance of MSMEs in India. This study aims at examining the current situation of the MSME sector and steps that the Ministry of Micro, Small & Medium Enterprises can take to bring MSME sector growth back on road. The paper discusses the problems faced by MSMEs during Corona lockdown and Government schemes and steps that affected the MSME sector. The paper also puts forth suggestions and opportunities highlighting the path ahead for growth.

Keywords - MSMEs, Coronavirus, Labour-based sector, Government schemes

Introduction

MSMEs are considered the backbone of the Indian economy as they have contributed substantially to the social and economic development of the nation. These enterprises generate employment opportunities and works that contribute to the development of backward and rural areas. During

COVID- 19, many people lose their fight against death, many lose their loved ones. COVID- 19 affected the world both emotionally and economically, as many people lose their jobs and livelihood during COVID- 19 situation. Because of lockdown during COVID- 19, MSMEs couldn't operate their functions normally and efficiently.

Economically India is one of the worst affected nations in the world from COVID, as India is a labour rich country and needs a labour-based sector along with a capital-based sector for growth and to reduce unemployment. For employment Micro, Small & Medium Enterprises (MSMEs) growth is of utmost importance. The importance of MSMEs can be signified by the fact that more than 110 million Indians are employed in MSMEs. Already MSMEs were facing many issues such as credit facility, issues of equity capital, issues of infrastructure, issues of Govt. support, issues related to technology and issues related to skill gap, these problems intensified (Patnaik, 2016) during COVID- 19 lockdown time due to reverse migration of labour- force, fall in demand, disruptions in input supply chain, liquidity crises. These all factors collectively almost crippled MSMEs. MSMEs are dominant in unorganised structures. As per MSME annual Report 2020- 2021, "Micro sector with 63052 thousand estimated enterprises accounts for more than 99% of the total estimated number of MSMEs. The small sector with 331 thousand and the Medium sector with 5 thousand estimated MSMEs accounted for 0.52% and 0.01% of total estimated MSMEs, respectively, 51% of these MSMEs are operating in rural areas and remaining 49% MSMEs are operating in urban areas" (MSME, 2021) and for micro-enterprises, it was very difficult to sustain their business during crippling CORONA lockdown. Export from MSMEs needs to be regionally MSMEs performance differs, like MSMEs north India perform.

According to research conducted by the All-India Manufacturers Organisation (AIMO), 70% of MSMEs are intending to trim the workforce as a measure of cost-cutting because of COVID- 19 situation which will result in further unemployment. So, it's very important to study the impact of COVID- 19 crises and lockdown on MSMEs, and what necessary steps are needed to bring MSMEs growth back on track.

Meaning of MSMEs: MSME stands for Micro, Small and Medium Enterprise (MSME), as introduced by the Government of India in agreement with Micro, Small & Medium Enterprises Development (MSMED) Act, 2006, these units are primarily engaged in the business of production, manufacturing, processing and preservation of goods and commodities i.e., these are primarily labour based enterprises that operate either in the secondary sector or facilitates primary and tertiary sectors.

These entities are classified into three categories, i.e., Micro, Small and Medium enterprises based on capital investment and turnover as:

Table 1: Definition of MSME

Micro Enterprise	Small Enterprise	Medium Enterprise
<ul style="list-style-type: none"> • Investment < 1 crore • Turnover < 5 crores 	<ul style="list-style-type: none"> • Investment < 10 crores • Turnover < 50 crores 	<ul style="list-style-type: none"> • Investment < 50 crores • Turnover < 250 crores

Objectives of the study

This study is descriptive and exploratory with the following objectives:

- Describing problems faced by MSMEs during Corona lockdown
- Describing schemes and major steps of government that affected MSMEs
- Exploring opportunities and path ahead for MSMEs given business environment both nationally and internationally.

Literature Review

Scarcity of finance and credit instruments, limiting regulatory policies, inaccessibility of modern & affordable technology, lack of basic infrastructure facilities, lack of exclusive marketing platforms and circulation networks and inflexible labour laws and availability of affordable skilled labour are major challenges that emerged to MSMEs. (Rao.R & Chary.D, 2016) An ever-changing customer demand rapidly changing technology coupled with national and global level has pressurized MSMEs to develop strategies in enhancing their innovation capability and thus taming their status of innovation. (Raghuvanshi et al., 2017) Effective implementation of Technology innovation can help in boosting manufacturing performance in MSMEs in India (Singh, 2019). With the \$5 billion current market value of Indian MSMEs, this sector accounts for about 45% of the industrial output, 45% industrial units, 42 million employment, 40% of total exports of the country, and more than 8000 products in the Indian economy as per projections. (Zanjurne, 2018)

COVID- 19 affected the Indian economy severely and manufacturing sector productivity may fall by the rate of 5.5% to 20%, exports by the rate of 13.7% to 20.8%, imports by the rate of 17.3% to 25% and MSME net value added by the rate of 2.1% to 5.7% in 2020 over the previous year (Sahoo & Ashwani, 2020). The MSME sector may help in achieving targets of national manufacturing policy, which should contribute 25% to India's GDP by 2022.

Unlike the past few crises, the COVID-19 crises did not spare any country in the world. It's stated with a health crisis and later, turned into an economic crisis. Covid-19 has affected adversely both demand and supply in the world because which the economic growth rates have started declining

drastically in the world (Ahmad Bhat & Meher, 2020). Various schemes and Special Economic regime and structural reforms need to be introduced by the government of India through several legislatures bills in parliament for immediate recovery from Corona lockdown impacts (Muthukrishnan, 2020). MSMEs are facing various challenges such as collapsing demand and liquidity access, accessing inputs, and managing inventory, policy uncertainty and disrupted supply chain, accessing emergency relief, so the government needs to take measures to minimize impact (Saikia & Dey, 2020) (Ganjoo & Aslekar, 2021). Half of MSMEs suffered a loss of 20-25% during COVID- 19, producers of essential and non-essential goods suffered loss up to 50% due to non- disbursement of relief. A major section of small business was shut down during corona lockdown and units with annual turnover equivalent to 25 crores faced a reduction in sales by - 25.3%. The government should use the talent of the opposition for tackling the economic situation and the COVID-19 crisis. (Dubey & Sahu, 2020)

An adequate provision of finance from banks and financial support from the government should be ensured along with a supply of raw material to promote export. (Bandopadhyay & Khan, 2020) MUDRA will be hugely beneficial to small manufacturing units and self-employed individuals in rural and urban areas by catering for the financial problems of MSMEs and giving moral support to the vast pool of a young population. (Basak, 2020)

Problems faced by MSME during Corona lockdown

MSMEs faced many problems during COVID- 19 period mainly because of a fall in demand, disrupted input supply, liquidity crises, and reverse migration of labour and government unstable policies. And when 2021 started on a positive note, there comes the second wave which again result in a second lockdown. According to the Retailers Association of India, retail sales in May 2021 is -79% in yearly comparison to retail sales in May 2019. MSMEs are one of most affected with nearly 60% addition in NPA's in April and May 2021 which is nearly twice it was before COVID. The Corona lockdowns have severely hit MSMEs. Problems that MSMEs must face during Corona lockdowns are summarised as follows:

Halting Production

With nationwide lockdown, several MSMEs faced burnt of it in form of reduction in demand and no input supply. Labour was going back in hometown and already manufactured products were in warehouse hence increase in the cost of storing.

Cash flow restraints and Liquidity crises

Nearly 99% of MSMEs are micro i.e., they have very limited funds with a capital investment of up to 1 crore and during Corona lockdown they were not able to generate revenues because of no sale.

Disruptions in Input supply

During Corona lockdown, MSMEs must face burnt of disruptions in the input supply chain. During the lockdown, boundaries of every country were closed and inside the country, transport from one place to another was banned because of which there were disruptions in input and raw material supply chain.

Reverse migration of Labour force

During the lockdown, workers were going back to their hometown, because of which there was reverse migration of labour force. Many MSMEs must trim their workforce as a measure of cost-cutting.

Perceptions and sentiments about Consumption products

There was growing suspicion among consumers regarding consumption products because of the inherent nature of COVID- 19. The consumer was more cautious about purchasing consumer products, hence MSMEs which was in the consumer products business must face burnt of it.

Increasing cost of storing and managing inventory

During the lockdown, retail stores were shut down and already produced products needs to be stored safely because of which there was an increased cost of storing and managing inventory.

Uncertainty about Government policies

Government policies were changing considering the situation of COVID- 19 spread and the pattern of spread. So, there was uncertainty in government policies during the lockdown.

Difficulty in accessing emergency support

Although there was emergency relief for MSMEs to help them, on the ground, accessing this relief was difficult than being said.

Government schemes and steps that affected MSME sector

Indian government takes many timely measures to combat the adverse effect of COVID- 19 on MSMEs. These measures can be summarised through some categories. These measures are as follows:

Monetary and Financial support measures

As the name suggests, these measures were to combat the liquidity problem that MSMEs were facing during lockdown time. Rs.20 lakh crores economic stimulus package was announced in May 2020 which was offered following as follows:

- **Automatic loans up to Rs.3 thousand billion without any Collateral security**

MSMEs can borrow emergency credit up to 20% of their total outstanding credit on 29 Feb 2020 from Banks and NBFCs. For these loans, MSMEs needs to have Rs.25 crores outstanding and Rs.100 crores turnover. This arrangement was stretched up to 30-06-2021.

- **Subordinate Debt and Credit guarantee scheme**

This scheme was launched on 24 June 2020. Under this scheme, the government announced Rs.200 billion as subordinate debt. MSMEs which are declared as NPAs or are stressed will be eligible for equity support under it.

- **Self-reliant India fund**

The government on 5 august, 2020 issued guidelines about the Self-reliant India fund, containing an amount of Rs.100 billion to leverage equity infusion of Rs.500 billion for MSMEs. On 3 June 2021 MSMEs and other small businesses were allowed for maximum exposure of Rs.50crore.

- **Special long-term repo operation (SLTRO) for small finance banks**

RBI conducted SLTRO of Rs.100 billion for SFB to lend small businesses up to Rs.10 lacs per borrower. It will be available till 31 October 2021.

Business Environment Measures

- **Restricting Foreign companies**

To avoid competition from large foreign companies, the government banned global tenders worth Rs.200crores. Because of this measure, MSMEs will be benefited from an increase in domestic company's representation in the Indian economy.

- **Relaxing and suspension of Labour laws**

Many state governments have relaxed or suspend major labour laws which were stopping MSMEs from growing for a certain period. Now it will be easy for MSMEs to operate their functions smoothly without taking too much pressure of compliance with labour laws. Hence this will further help MSMEs to get back on the path of growth.

- **Revised definition of MSMEs**

Now manufacturing and service sectors both will be evaluated by the same parameters for being recognised as MSMEs. Along with the investment, now turnover criteria also got added.

Moral Persuasion Measure

■ ***Introduced CHAMPIONs portal***

Launched by the MSME ministry, the CHAMPIONs portal is a technology-driven centralized control room, to manage grievances and an information platform with objectives to help MSMEs in terms of finance, raw material, labour permissions etc., and in capturing new opportunities in manufacturing and identifying bright MSMEs which can become national and international champions.

Suggestions

For the growth of MSMEs, although the government is doing and taking all measures that they think can help MSMEs in combat this crisis. But following steps can further help in improving MSMEs productivity and getting over COVID-19 crises:

- Along with the procurement of funds, there needs to be an effective utilization of these funds as well. If funds are not properly utilized, then MSMEs may not be able to overcome COVID-19 crises and back on the growth path again.
- MSMEs productivity is mainly based on their labour force so they need to manage their labour force effectively and efficiently. There is a need for HR practices in MSMEs to increase labour satisfaction.
- Big business needs to help MSMEs as they have better management and a more efficient work environment along with large funds as well. Hence MSMEs can learn many things from big businesses. Public banks alone can't help MSMEs overcome this crises situation. We need to work collectively.
- MSMEs need to provide training to their labour to enhance labour productivity and efficiency.
- MSMEs are operating mostly in clusters and more than 99% of them are micro-enterprises. As they are working individually, at the micro-level there is low-scale production with high cost with earning minimal profit. So, they need to think about amalgamation and join hands and scale up their production, with increased production, there will be more profit in hands of the owner as a result of economies of scale.
- MSMEs needs to expand their market out of their traditional and regional market, they need to expand and think about exporting, by expanding market they will get benefits in form of increased price in different market and by having more security because of not too much dependence on a single market.
- MSMEs need to adopt the use of technology and FinTech to access funds smoothly, and government should incentivise the adoption of FinTech.

- MSMEs need to invest in innovation as well, as that will help them in becoming competitive in this ever-changing environment.

Opportunities (Path ahead for growth)

With the ageing population of China, many companies are exiting China because of an increase in labour costs. But India has a large section of labour which is young as well. India needs to utilize its young population. There are many opportunities for Indian MSMEs in the International market as well as in the National market. But Indian labour is largely unskilled and Indian Business laws are one of the main constraints that MSMEs are facing. So, India needs to work on that otherwise there is a large pot of opportunities available for India.

Conclusion

Although the government has already taken many measures to help MSMEs in overcoming these COVID-19 crises. But still, MSMEs will take time to get back. As of now, MSMEs are facing a very difficult time and with difficulties there comes to some opportunities as well. So MSMEs needs to regularly scan their environment and search for opportunities. The government needs to take regular measures and consider uplifting MSMEs for a long time, as the damage is very deep, and it will be very difficult for MSMEs to overcome all the losses they have to face in the COVID-19 situation. Although the change in labour laws will hurt low-income labour, to combat a problem, we need to make some difficult decisions and face difficulties as well.

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