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Greetings from the Editorial Board of Business Spectrum, a bi-annual peer-reviewed journal of the Indian Accounting Association South Bengal Branch. You will be glad to know that each article undergoes a constructive peer review and editing process to enhance the article's value. For the issue of January-June 2023, we have published seven interesting articles from academics and research scholars, covering different aspects of finance and marketing. The first article by A.F. Wazir Ahmad describes the Insider Trading Policy responses and compliance among the stakeholders of Bangladesh. The study examines the claims of insider trading in Bangladesh. The second article by Sayantani Dutta and Pravat Kumar Kuri examines the economic well-being and inequalities in Child Health Indicators across different states of India. The third article by Istu Roy and Sibabrata Roy examines the role of trade fairs in empowering womenpreneurs of West Bengal which was analysed through a case study of Sabala Mela of Kolkata. The fourth article by Tilak Nath Ghosh tries to analyse the role of MGNREGA in Rural Development with the help of a study in the Hooghly District of West Bengal. The fifth article by Madhurima Basu describes the Women Leadership as a reflection of Transformational Dimensions in the select sample organisations. The sixth article by Oindrila Banerjee described Qualitative Case Studies on CSR Activities of Five Indian Companies during Covid-19. The 7th and final article of the present issue by Chiranjit Ghosh and Dr. Amitava Mondal analysed the relationship between Cost of Equity Capital and Environmental-Social Governance Disclosure level, based on an empirical study on select Indian companies. My deepest respect to Professor Arindam Gupta, the Editor-in-Chief and also to the entire editorial team and reviewers for their thoughtful comments for improving the manuscript in a pin-pointed and guiding manner, and congratulations to the authors for their publication in Business Spectrum. We hope that you enjoy reading these articles. Kindly submit your article for the next issues to **editor.businessspectrum@gmail.com.**

Prof. Pranam Dhar
Associate Editor.

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Insider trading: Policy responses and compliance among the stakeholders of Bangladesh

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Abstract

Bangladesh is attempting to create its own capital market as an emerging country. However, it is widely considered that the share values in Bangladesh are generated and managed artificially. Regaining the public's trust in the market is essential. It would not be possible if the factual scenario wasn't examined. The purpose of this study is to experimentally verify the claims of insider trading in Bangladesh.

This study mostly focuses on descriptive research rather than quantitative analysis. It examines the primary information gathered through structured questionnaires for the four stakeholder groups of listed A-category corporations (board members, senior staff, stock dealers, and investors) to determine their descriptions and relationships.

Even though a sizable majority of the respondents are aware of insider trading, they believe their knowledge is insufficient to identify or stop it through employee (insider) codes of conduct. The respondents also believe that Bangladesh's laws prohibiting insider trading are insufficient. They believe that firms are not doing enough to prevent insiders from making money or avoiding losses at the expense of other investors.

The findings of this study will be useful to managers and financial regulatory organizations in ensuring that key personnel maintain stronger fiduciary responsibilities to all investors. An important barrier to the creation of an efficient market can be removed by making policies preventing insider trading in the face of an ineffective legal and regulatory structure.Despite the fact that a substantial majority of respondents are aware of insider trading, they feel their knowledge is insufficient to recognize it or prevent it through employee (insider) standards of conduct. Additionally, the respondents consider Bangladesh's regulations against insider trading to be weak. According to them, companies are not doing enough to stop insiders from profiting or avoiding losses at the expense of other investors.

The study's conclusions will help management and financial regulatory bodies make sure that important employees uphold stricter fiduciary obligations to all investors. By implementing rules to prohibit insider trading in the face of a weak legal and regulatory framework, a significant barrier to the development of an efficient market can be removed.

Keywords Insider, Nonpublic information, Fiduciary responsibility, Regulatory framework, Recognition, Code of conducts

I. Introduction

A. Background of the study

The history of the stock market in Bangladesh has been rocky, with unequal ups and downs. Despite being the sole stock exchange, the Dhaka Stock Exchange (DSE) was founded in 1954, but trading did not begin until 1956. Trading was outlawed from 1971 to 1976 as a result of the liberation war and then again in 1976 as a result of the socialist stance of the post-liberation regime (Islam, 2014). A tremendous price increase caused by artificial demand and other market players in 1996 within 20 years was swiftly followed by a calamitous drop within a month.

On November 2, the DSE index stood at 957; on November 2, it reached a record high of 3649. The index continued to fall during the post-bubble slump, reaching its lowest level in the index's seventy-year history on May 3, 1999, at 463.

Since that time, the market has been stuck in a recession. The Chittagong Stock Exchange (CSE), which began operations in 2004, was established by the government to increase trade. In 2010, both of Bangladesh's stock markets saw another catastrophic meltdown as the country's stock market was just ready to start growing again in 2003 (Islam, 2005). Despite several rules, price locks, and policy announcements from the Securities and Exchange Commission (SEC) and Bangladesh Bank, the index reached its peak on January 17, 2011, at 7378, and then began a precipitous decline. The index is currently functioning at a low level of roughly 6000 and did not demonstrate any further growth till 2023.

Amid the stock market fluctuations in Bangladesh over the last few decades, the importance of financial reports and the quality of earnings are increasing. The legal requirements seem to be inadequate, especially regarding public accounting practices in Bangladesh. The small stock market of Bangladesh experienced two big crashes in 1996 and 2011 which made many naive investors lose their last amid rumors that few large and foreign investors made a great fortune (Baten, 2021).

In the aftermath of the crises, stakeholders, experts, and regulators demand transparency in corporate reporting, which in turn increases the surveillance and monitoring and often ends up with significant changes in the regulatory framework.

Despite the role of corporate transparency as an important ingredient in ensuring quality of financial reports, there is very limited research in Bangladesh on the regulations to protect investors from insider trading (Saha, 2012).

B. Research gap

The current literatures are mainly concentrated on the stock market collapses and the causes behind them(Rahman, 2020). No work was found highlighting the awareness about insider trading and regulations or codes to prevent them. This paper focuses on the research gap to explore the policy responses and state of compliance to prevent insider trading with the aim of implementing the efficient market theory.

C. Statement of the problem

The term insider trading is defined as"the trading of a corporation's stock or other securities (e.g. bonds or stock options) by individuals with potential access to non-public information about the company"(BEI, 2004) . Trading by business insiders, including officers, key workers, directors, and major shareholders, is typically regarded as legal as long as it doesn't exploit non-public (private) knowledge. On the other hand, the phrase is frequently used to describe a method where an insider or an associated party and "trades based on material non-public information obtained during the performance of the insider's duties at the corporation, or otherwise in breach of a fiduciary or other relationship of trust and confidence or where the non-public information was misappropriated from the company".(Bhattacharya & Daouk, 2002)

Being an emerging market, Bangladesh must adopt the changes made by other countries in regulating the ill motive trading deceiving the innocent outsider.

D. Rationale of the study

Bangladesh is trying to create its own capital market based under the SEC established in 1992. It has two stock exchanges (DSE & CSE) where online transaction is allowed and the number of participants in the market is increasing steadily. However, it is generally considered that the share prices in Bangladesh are manipulated and artificially inflated, which frequently prompts investors to protest the system on the street. (Saha, 2012). The accounting records here are also not being reflected by the market movement and the cooking of reports is quite often in absence of effective regulations and faint enforcement of laws(Ferdous, 2013).

It is necessary to get back the public confidence back to the market and to make the prices of the shares reliable(Bushman & Smith, 2003). It would not be possible without an analysis of the current policy, legislative restrictions, and degree of compliances (i.e., practices). Therefore, the purpose of this study is to objectively verify the claims made about insider trading laws and practices in Bangladesh.

E. Research objectives

This study has two broad different objectives: First, it summarizes the policy measures applicable in Bangladesh preventing or addressing insider trading which is a unknown concept to many. Secondly, the study investigates insider trading in Bangladesh through the perception study regarding the provisions (policy) and practices (compliance).

F. Research question and Hypothesis

Following is the research question based on the research objectives:

Is the policy sufficient to prevent insider trading in the listed and ranked firms in Bangladesh, and are the firms complying with the policy (codes or provisions)?

1. Hypothesis development

Followings are the six hypotheses developed on the research question:

Regarding policy:

H1: There is adequate rules/provisions for preventing insider trading.

H2: Company code of conduct mentions about insider trading.

H3: There is a specific policy regarding insider

Regarding compliance:

H4: Provisions preventing insider trading are enforced.

H5: These provisions are applied to all insiders (irrespective of percentage of ownership).

H6: There is a consequence (penalty) for taking advantage of private information.

II. Literature Review

A. Insider trading -Introduction and Definitions

Trading by insiders (i.e., directors or employees in buying or selling shares which they own or they work for) having access to price sensitive information is termed as insider trading while the information is yet to be made public.

"Bangladesh Securities and Exchange Commission (BSEC)" is the regulatory authority"to control insider trading in Bangladesh". BSEC works as in the United States of America, the "Securities and Exchange Commission (SEC) utilizing the authority given to it by the Securities and Exchange Act of 1993'. The Securities and Exchange Act (1934) of USA, the guiding principle of the act in Bangladesh defines an insider as:"Any officer with the authority to influence the entire company, in other words, makespolicies for the company, a director, an owner of more than 10 percent of any equity class of stock (this includes not only

executives working for a corporation, but also other entities such as mutual funds, hedge funds or institutions who hold an amount equal to or greater than 10% of issued and outstanding shares)."(BEI, 2004)

Insiders typically sell (buy) after prices grow (drop), and partial price reversals commonly occur following their trades. (Ke et al., 2003). Most of the academic researchers in this area, over the last two decades, are centered on analyzing the causes and effects of an insider's informational dominance. These academics have looked into "the possibility of insiders making unusual profits through their trading. (based on private information) at the cost of outsiders (general people without any inside knowledge'

The belief which is generally found across the stock markets that insiders buy the stock of their company (they own or work for) on the hope that the shares will shortly appreciate in value. On the contrary, there are other reasons along with the fear of stock price may drop behind the selling the own company stock by an insider. This was observed by many researchers including Nting (HASAN, 2020; Reza, 2018; Nting, 2008). These studies concluded that buying by insider might be seen as a good signal regarding the future performances, while selling by insider are difficult for interpreting. Generally, in most of the markets, insider trading is considered unacceptable if not illegal as it makes the play field uneven giving an undue information favor for such insiders.

Insider trading is prohibited according to the SEC of the USA (1934), " as being the buying and selling of securities it involves either a breach of fiduciary duty, or some other relationship of trust and confidence. Specifically, the breach involves in trading while in possession of material non-public information about a security (stock)." Regulators, also many of the researchers, suggests differentiating the trade by insiders based on the dimensions and intensity of the information that made it advantageous and considering the trades those create larger information imbalance illegal.

> "*Our markets are a success precisely because Americans enjoy the world's highest level of confidence. (...) Investors trust that the marketplace is honest. They know that our securities laws require free, fair and open transactions."*
> A. Levitt, Chairman SEC, "SEC Speaks Conference", February 1998.

B. Trading by insiders, their responsibilities and legal provisions

It is well accepted from the time unknown that insiders would possess the inside information which is not available for public consumption. When such information becomes significant, they need to be reported to other investors in usual channels and regular reports. It is seen as

a "fiduciary responsibility of the insiders" to make the information available for others without monopolizing on it. Instead of doing so or before the information becomes public if the insiders engage in trading based on such information, it is considered a violation of law.

As mandated by the SEC in USA, mere possessing the nonpublic information should not be verdict as a crime till the information becomes a key factor behind the trade decisions.

Trading on securities by the insiders based on "material nonpublic information" about the company and "making profit based on such privileged and nonpublic (confidential) information is prohibited"(Silver, 1985; Cook & Feldman, 1953).Such actions put ordinary outside investors who purchase or sell similar shares in a disadvantageous position with no understanding of the information that an insider keeps.

In the UK, the securities regulation lately adopted provisions against the insider trading. Until 1980's trading on non-public information was not considered as criminal activities. The first attempt to regulate it was in 1985 by the revised Companies Act. Later in 1993, "the Criminal Justice Act" also "the Financial Services and Market Act (2001)" made insider trading prohibited inside UK.

In both the USA and the UK, the relevant Act forbids not just insider trading but also tipping or inciting others to purchase or sell by providing inside information. Although "the Securities and Exchange Act of 1934"'in the United States did not expressly name or forbid such trading or tipping, it was amended in the 1960s to identify several kinds of insider trading and to specifically classify them as crimes.(Verstein, 2019).

III. American and European Law: Pioneer Regulations on Insider Trading

The pioneer regulations restricting and controlling insider trading was found in USA and UK, those were originated from the concept of "common law", the legal tradition from British Emperor. A good number of countries (EU, Australia, Norway, Canada, Kuwait, China, India, Brazil, and Philippines) followed the concept and framed or fine-tuned their legal system based on the spirit initiated by the British and US law(Gao et al., 2022; Huang et al., 2020).

The similarity and differences among the provisions need to be understood with due care before initiating any responses in the legal system. The following table summarizes and contrasts the two continent's laws on insider trading:

Table 1: Regulating Insider Trading in USA and United Kingdom

Characteristics	United States	United Kingdom and European Union
Regulated by the authority/body	Securities and Exchange Commission (SEC)	Financial Conduct Authority (FCA)
Originated from	Securities and Exchange Act of 1934	"Companies Act 1985, Criminal Justice Act (section 5) 1993, Code of the London Stock Exchange 1997"
How insider is defined	"A top level executive as either officers, directors, corporation's vice presidents and owners of more than 10 percent of the corporation's stock of any equity class." Defined by SEC 1934.	The Act on Criminal Justice (1993) defines insider trader as"A director, employee or shareholder of issuers of securities or someone who has access to inside information by virtue of their employment, office or profession." Possession of inside knowledge has exemptions in UK like "commercial bankers, brokers, insurance companies, investment banks, investment advisers, employee benefit plans, pension funds, and mutual funds"(Fidrmuc et al., 2008).
What are the Insider trading Offences	Insider trading is when a person engages in any of the following: "1) trades on confidential information about important	A person is accused for insider trading is when a person engages in any of the following: "1) deals in securities that are priceaffected in relation to the

	events affecting the firm, thereby reaping profits or avoiding losses as a result 2) encourages another person who is not in a position to acquire this information to trade and 3) discloses this information to a third party."	information 2) encourages another person to deal in securities due to information that are price affected and 3) he discloses this information to another person."
Disclosure framework	SEC (by SEC Act 1934) allowed "up to the 10th day of the month following on from the month in which insiders traded to report their transactions." "The Sarbanes Oxley Act of 2002" modified the rules in two ways: • insiders must electronically disclose any transactions when they are completed, • and they must do so in two business days from the trade's execution.	UK rules require that • directors must inform their respective companies with in five working days from the date on which the transaction was completed. • The company must then report this transaction to the Stock Exchange by the end of the following working day and record it in the Company Register. The stock exchange disseminates the information "via the online Regulatory News Service (RNS)" and data vendors. ta vendors (Korczak et al., 2010); (Hillier & Marshall, 2002).
Place for primary revelation.	The Securities and Exchange Commission created and maintains the "Edgar database". Insider trading	Online regulatory news services provided by the British Stock Exchange.

	information is provided using SEC forms 3, 4, and 5.	
Possible penalty and fines	A civil punishment of up to three times the profit made or losses saved, a one million dollar fine, and a prison sentence of up to 10 years ; are all possible penalties. (Korczak et al., 2010).	limitless fine and a maximum sentence of seven years in prison.
Objective of the rules	The central theme of all US rules is -insiders shall abstain from trading based in private(inside) information unless releasing the information and making it public (Yuan & Wu, 2021).	British rule provides specific allowable period while restricts the trading in other periods by insiders. Provides a two month embargo for earnings disclosure and one month restriction prior to disclosure of quarterly earnings(Nting, 2008).

IV. Legal framework to prevent insider trading in Bangladesh

In Bangladesh the legislative codes preventing insider trading and earnings management are bare minimum despite of existence and enforcement of a number of acts regulating the capital market. In this vacuum an initiative was taken by Bangladesh Enterprise Institute (a private research body) as it proposed The Code of corporate governance for Bangladesh in 2004. This was actively considered as the guideline to make the market perfectly completive without enacting new laws. But in the last decade minimal development was noticed in this regard.

A. Securities and Exchange Ordinance 1969

The Securities and Exchange Ordinance of 1969's Section 19, highlights the maintaining the confidentiality where it clearly mentions, “no person can disclose any information to anyone without the permission of the commission which he got through performing any function (without legally required)”. In the mid-90s, Bangladesh, like many other countries, initiated efforts to crib trading on tips and “the Securities and Exchange Commission (Prohibition of

Insider Trading) Rule 1995" was enacted. Later, other rules and orders from the BSEC further supplemented. In 2012 Section 19 (A) was added expanding the provision "to the existing and former chairman, member and employee of the commission (SEC) for the information obtained, entrusted or accessed in the performance of any function under this ordinance". The act imposes penalty for "violating these two sections for the purpose of making profit". The penalty would be "imprisonment for a term may extend to five years or a fine not less than five lakh taka or both". The act was later revised by "The Securities and Exchange Commission Act 1993" which kept the two provisions unchanged.

In Bangladesh following acts and rules are governing commercial exchange of securities:

1. **Acts and Ordinances:**
    a. "Securities and Exchange Ordinance 1969 (SEO)
    b. The Securities and Exchange Commission Act 1993
    c. Companies Act 1994"
2. **Rules and SROs:**
    a. "Securities and Exchange Rules 1987
    b. Securities and Exchange Commission (Prohibition of Insider Trading) Rules 1995
    c. Depository Act 1999
    d. Securities and Exchange Commission (Issue of Capital) Rules, 2001
    e. Securities and Exchange Commission (Asset Backed Security Issue) Rules, 2004
    f. Securities and Exchange Commission (Public Issue) Rules, 2006
    g. Securities and Exchange Commission (Rights Issue) Rules, 2006
    h. Dhaka Stock Exchange /Chittagong Stock Exchange (Direct Listing) Regulations 2006
    i. Listing Regulations of the Dhaka Stock Exchange /Chittagong Stock Exchange Limited 1999"

None of these rules and acts have any provisions targeting insider trading other than those two mentioned above.

B. Code and regulations for corporate governance in Bangladesh

"The Code of corporate governance for Bangladesh was initiated by Bangladesh Enterprise Institute in " (BEI, 2004). Later in 2006, corporate governance guidelines for Bangladesh

Proposed by BEI was approved by the "Bangladesh Securities and Exchange Commission (BSEC,2006)". This guideline however did not mention any punitive provision for noncompliance. Due to the capital market scandal in 2010, Bangladesh government formed a probe committee to investigate the case. Accordingly, the committee proposed restructuring of BSEC and asked to ensure successful governance within the organization and better financial reporting quality ((Saha, 2012) quoting Khalid, 2011). With the intention to strengthen the corporate governance practices within Bangladeshi companies this guideline was revised in 2012 by BSEC. ((Al-Jaifi et al., 2017)BSEC, 2012).

Nearly a decade later, Ferdous (Ferdous, 2013) reported that the compliance of these corporate governance guidelines by Bangladeshi firms were in moderate level while "the corporate structure" of those were dysfunctional.

"The code of corporate governance for Bangladesh" is split into three areas, namely "code of corporate governance", "basic check list" and "NGO principles" (BEI, 2004). The code is mainly concerned with two aspects: First, Internal controls and management (Audit committee and Board composition) and the second, external issues related to different stakeholders (Al-Jaifi et al., 2017). As a control device, Jensen (1993) outlined corporate governance into four categories: i) legal and regulatory mechanism ii) internal control mechanism iii) external mechanism and iv) market competition(HASAN, 2020).

V. Methodology

This research analyses the primary data collected as empirical evidence by formal frequency and relationship (like regression and correlation) study. There is little emphasis on quantitative analysis in this exploratory study. By conducting structured interviews with chosen top-level employees, directors, and other stakeholders like stock brokers and investors, primary data is gathered. The statistical analysis was done for the six different hypotheses those ultimately defines the policy and compliance by the four groups of respondents .

A. Sample Design and Sampling Plan

For this study, stratified convenience sampling method was used. A total of 180 respondents under five different categories were selected from A-category firms listed in both Dhaka and Chattogram Stock Exchanges. The respondents were e mailed the questions as interactive online format (Google form). Despite of rigorous persuasion only 165 responses could be

obtained from which 4 responses were rejected due to inconstancy and incompleteness of the response. This study is mased on total 161 responses. The sampling distribution is shown in the following table:

Table 2: The sampling distribution

Category	Number of respondents for each stock in maximum	Number of A category stocks in 2022	Total
Board member/director	3		15
Company secretary, CEO and CFO	2	255	10
Top level employees	5		55
Shareholders/Investors	5		38
Share brokers/DSE	*		43
Total	**10**		**161**

*Not applicable

B. Questionnaire development and administration

1. Questionnaire design: Different structured questionnaire were developed for the four types of individual respondents following the questioner used by "The Dallas Chapter of the Institute of Internal Auditors (DCIIA)", (Curtis & Mwangi, 2007) in detecting insider trading. This questionnaire was used in a good number of researches including Rexon Tayong Nting (Nting, 2008); Adrina Korczak and others (Korczak et al., 2010). Two separate sections were included in the questionnaire targeting the director, CEO and high officials to assess the same attributes (adequacy of policy and level of compliance) regarding earnings management.
2. Pretesting: The questionnaires were pretested using a pilot survey in two public limited companies. The outcome of the pilot survey was used in making necessary

modifications to the questionnaires. The modified questionnaires were used for collecting the primary information (annex 1).

3. Scaling: The questionnaire prepared is a close answer schedule type under five-point Likert scale where responses were either filled up by the respondent or asking the question the surveyor filled up the appropriate answer.

C. Analytical and testing framework

Following table summarizes the techniques and approaches used in this research:

Table 3: Hypotheses and methods

Objective	**Method**	**Instrument**	**Data source**
H1: There is adequate rules/provisions for preventing insider trading. H2: Company code of conduct mentions about insider trading. H3: There is a specific policy regarding insider H4: Provisions preventing insider trading are enforced. H5: These provisions are applied to all insiders (irrespective of percentage of ownership). H6: There is a consequence (penalty) for taking advantage of private information.	Statistical Test Statistics Kingdom (2023). One Sample Proportion Test. Available: https://www.statskingdom.com/111proportion_normal1.html	Questionnaire designed on The "Dallas Chapter of the Institute of Internal Auditors (DCIIA)", (Curtis & Mwangi, 2007) in detecting insider trading.	Survey Responds/ Primary

VI. Analysis and Findings

A. Policy and regulations preventing Insider Trading

Although a significant proportion of Directors & CEOs mentioned that the companies need to have codes and provisions preventing insider trading only a few of them responded that the policy in their respective company is adequate and employees are well aware of the policy.

On the other hand, Employees are not satisfied with adequacy of the company policies. Insider trading policy, gift and tips policy, policy regarding passing private price sensitive information is either inadequate, or not communicated or both as per employee perception. All the four hypotheses covering employee perception regarding policy restricting insider trading were rejected.

A significant number of stock dealers feel that "the rules preventing insider trading in Bangladesh is not adequate". Similar responses were received from the investors. Only 5 Out of total 38 investors surveyed admit that they have adequate knowledge and Bangladesh has adequate rules on it. That makes strong basis to reject the hypothesis.

Table 4: Policy preventing Insider Trading: Directors ,CEOs and Senior Employees

Insider trading preventing policy							
Group	**Directors' and CEOs**			**Senior Employees**			
Hypothesis	H1	H2	H3	H1	H2	H2	H3
Statement addressing the Hypothesis	Our company has adequate rules preventing insider trading.	Company's code of conduct clearly mentions and prohibits insider trading.	trading policy, and all the employees across the company are aware of it.	trading policy, and all the employees across the company are aware of it.	Our gift and entertainment policy covers tips on financial information.	Our company requires reporting and monitoring of gifts and entertainment.	The repercussions of an insider employee leaking information to investors is well informed
n	25	25	25	55	55	55	55
X	6	23	6	14	29	23	14
$\bar{p}$	0.24	0.92	0.24	0.25	0.53	0.42	0.25
$\bar{q}$	0.76	0.08	0.76	0.75	0.47	0.58	0.75
Test value (P_0)	0.70	0.80	0.70	0.80	0.80	0.80	0.80
H_0:	P = 0.70	P = 0.80	P = 0.70	P = 0.80	P = 0.80	P = 0.80	P = 0.80
H_1:	P < 0.70	P < 0.80	P < 0.70	P < 0.80	P < 0.80	P < 0.80	P < 0.80

Significance Level (α)	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Z (Observed):	-4.80	1.25	-4.80	-9.94	-4.89	-6.91	-9.94
Z (Critical):	-1.64	-1.64	-1.64	-1.64	-1.64	-1.64	-1.64
p-value p(x≤Z):	.0072	.89	.0072	.0000002	.005	.00001	.0000002
Result:	H_0 Rejected	H_0 Accepted	H_0 Rejected	H_0 Rejected	H_0 Rejected	H_0 Rejected	H_0 Rejected
Effect size:	0.96 (Large)	0.35 (Medium)	0.96 (Large)	1.16 (Large)	0.59 (Medium)	0.81 (Large)	1.16 (Large)
Test power:	0.8038 (Strong)	0.8038 (Strong)	0.8038 (Strong)	0.9805 (Strong)	0.9805 (Strong)	0.9805 (Strong)	0.9805 (Strong)

Notes:

1. *Test is done using: Statistics Kingdom (2023). One Sample Proportion Test. Available: https://www.statskingdom.com/111proportion_normal1.html [Accessed: 25 February 2023].*
2. *X is the number of positive responses to a question (Agree & Strongly Agree).*
3. *Large effect size: The magnitude of the difference between the proportion ($\hat{p}$) and expected proportion (P_0) is large*
4. *Medium effect size: The magnitude of the difference between the proportion ($\hat{p}$) and expected proportion (P_0) is medium*
5. *Small effect size: The magnitude of the difference between the proportion ($\hat{p}$) and expected proportion (P_0) is large*
6. *Strong test power: It's likely that the right test is chosen*

Table 5: Policy preventing Insider Trading: Investors and Stock Dealers

Insider trading preventing policy			
Group	Investors		Stock Dealers
Hypothesis	H1	H2	H1
Statement addressing the Hypothesis	Bangladesh has adequate rules/provisions preventing insider trading.	The repercussions of an insider employee leaking information to investors is well informed.	Bangladesh has adequate rules/provisions preventing insider trading.
n	38	38	43
X	5	5	5
$\bar{p}$	0.13	0.13	0.12
$\bar{q}$	0.87	0.87	0.88
Test value	0.60	0.70	0.60
H_0:	P = 0.60	P = 0.70	P = 0.60
H_1:	P < 0.60	P < 0.70	P < 0.60

Significance Level (α)	0.05	0.05	0.05
Z (Observed):	-5.73	-7.47	-6.32
Z (Critical):	-1.64	-1.64	-1.64
p-value p(x≤Z):	0.0006	0.000003	.00006
Result:	H_0 Rejected	H_0 Rejected	H_0 Rejected
Effect size:	1.03 (Large)	1.24 (Large)	1.08 (Large)
Test power:	0.9247 (Strong)	0.9247 (Strong)	0.9489 (Strong)

B. Compliance on the regulations preventing insider trading

Like policy, all the hypotheses regarding compliance were rejected. Employees do not see that the compliance regarding insider trading is sufficient. The survey reveals that the respondents feel that the control on stock purchase plans is adequate. Only the transaction during the black out period is restricted as per the survey, which may be responded negatively due to the unfamiliarity with the terms or lack of knowledge in this area.

Table 6: Compliance of Insider Trading Provisions :Employees

Compliance				
Group	**Senior Employees**			
Hypothesis	H4	H5	H6	H5
Statement addressing the hypothesis	Our company enforces the insider trading prohibitions.	These prohibitions apply to all and not subject to a minimum percentage of ownership.	Our company prohibits insiders from using confidential information for investment objectives.	During the blackout (before to the publishing of the financials or the making of a key announcement), our company allows employees to trade company stock.
n	55	55	55	55
X	14	32	24	14
$\bar{p}$	0.25	0.58	0.44	0.25
$\bar{q}$	0.75	0.42	0.56	0.75
Test value (P_0)	0.70	0.80	0.80	0.70
H_0:	P = 0.70	P = 0.80	P = 0.80	P = 0.70
H_1:	P < 0.70	P < 0.80	P < 0.80	P < 0.70
Significance Level (α)	0.05	0.05	0.05	0.05
Z (Observed):	-7.06	-3.88	-6.57	-9.94
Z (Critical):	-1.64	-1.64	-1.64	-1.64

p-value p(x≤Z):	.00002	.00005	.00004	.0000002
Result:	H_0 Rejected	H_0 Rejected	H_0 Rejected	H_0 Rejected
Effect size:	0.92 (Large)	0.48 (Medium)	0.77 (Large)	1.16 (Large)
Test power:	0.9805 (Strong)	0.9805 (Strong)	0.9805 (Strong)	0.9805 (Strong)

As per the responses by the board members and CEOs it can be concluded the company policies are fully compliant to the legal standards, it includes provisions restricting tipping, and the board structure is appropriate for preventing insider trading, but it was not regularly monitored. Only 5 out of 25 respondents agreed that the company monitors the behaviors of insiders having private price sensitive information.

Table 7: Compliance of Insider Trading Provisions : Board Member and CEO

Compliance				
Group	**Board Member, CEO and CFO**			
Hypothesis	H4	H5	H4	H4
Statement addressing the hypothesis	Our gift and entertainment policy covers tips on financial information.	Our company requires reporting and monitoring of gifts and entertainment.	Our company is fully Insider trading compliant as per the legal standards.	Our board structure is appropriate for preventing insider trading.
n	25	25	25	25
X	20	5	24	24
$\bar{p}$	0.80	0.20	0.96	0.96
$\bar{q}$	0.20	0.80	0.04	0.04
Test value (P_0)	0.80	0.80	0.80	0.80
H_0:	P = 0.80	P = 0.80	P = 0.80	P = 0.80
H_1:	P < 0.80	P < 0.80	P < 0.80	P < 0.80
Significance Level (α)	0.05	0.05	0.05	0.05
Z (Observed):	0.00	-7.25	1.75	1.75
Z (Critical):	-1.64	-1.64	-1.64	-1.64
p-value p(x≤Z):	.50	.0000047	.96	.96
Result:	H_0 Accepted	H_0 Rejected	H_0 Accepted	H_0 Accepted
Effect size:	0.00 (Small)	1.29 (Large)	0.52 (Medium)	0.52 (Medium)
Test power:	0.8038 (Strong)	0.8038 (Strong)	0.8038 (Strong)	0.8038 (Strong)

Similarly only 5 out of 43 respondents admitted that the consequences of tipping insiders or getting information from them is well communicated, insider trading provisions are well maintained in the brokerage houses and the organization prohibits insiders of a firm from taking advantage of private information.

Table 8:Compliance of Insider Trading Provisions : Stock Dealers and Large Investors

Compliance on Insider Trading						
Group	Stock Dealer			Investors		
Hypothesis	H5	H4	H6	H4	H5	H6
Statement addressing the hypothesis	All staff members are informed of the repercussions if an insider employee leaks information to investors.	Our organization enforces the insider trading prohibitions.	Our organization prevents insiders from using confidential information for investment objectives	Most of the companies enforce the insider trading prohibitions.	These prohibitions are for all and not subject to a minimum percentage of ownership.	Companies forbid insiders from using confidential or proprietary information for investment objectives.
n	43	43	43	38	38	38
X	5	5	5	5	5	5
$\bar{p}$	0.12	0.12	0.12	0.13	0.13	0.13
$\bar{q}$	0.88	0.88	0.88	0.87	0.87	0.87
Test value	0.60	0.60	0.60	0.60	0.60	0.60
H_0:	P = 0.60	P = 0.60	P = 0.60	P = 0.60	P = 0.60	P = 0.60
H_1:	P < 0.60	P < 0.60	P < 0.60	P < 0.60	P < 0.60	P < 0.60
Significance Level (α)	0.05	0.05	0.05	0.05	0.05	0.05
Z (Observed):	-6.32	-6.32	-6.32	-5.73	-5.73	-5.73
Z (Critical):	-1.64	-1.64	-1.64	-1.64	-1.64	-1.64
p-value p(x≤Z):	.00006	.00006	.00006	0.0006	0.0006	0.0006
Result:	H_0 Rejected	H_0 Rejected	H_0 Rejected	H_0 Rejected	H_0 Rejected	H_0 Rejected
Effect size:	1.08 (Large)	1.08 (Large)	1.08 (Large)	1.03 (Large)	1.03 (Large)	1.03 (Large)
Test power:	0.9489 (Strong)	0.9489 (Strong)	0.9489 (Strong)	0.9247 (Strong)	0.9247 (Strong)	0.9247 (Strong)

Investor's survey rejected all the three null hypotheses on the company's efforts regarding preventing insider trading. "As per their opinion companies are not taking sufficient measures to prohibit insiders to make profit/avoid loss at the cost of general investors".

Table 9: Summary of findings regarding policies

*

Hypotheses regarding Polices preventing insider trading	**Testing by empirical analysis**				**Conclusion**
	Board members and CEO	**Employees**	**Stock Dealers**	**Investors**	
H1: There is adequate rules/provisions for preventing insider trading.	Rejected	Rejected	Rejected	Rejected	Rules and regulations preventing insider trading is not adequate in Bangladesh.
H2: Company code of conduct mentions about insider trading.	Cannot be rejected	Rejected	**	Rejected	
H3: There is a specific policy regarding insider trading	Rejected	Rejected	**	**	

* Not tested for this group

Table 10: Summary of findings regarding compliances

Hypotheses regarding compliance of the regulations preventing insider trading	**Testing by empirical analysis**				**Conclusion**
	Board members and CEO	**Employees**	**Stock Dealers**	**Investors**	
H4: Provisions preventing insider trading are enforced.	Cannot be rejected	Rejected	Rejected	Rejected	Provisions preventing insider trading are not complied adequately in Bangladesh.
H5: These provisions are applied to all insiders (irrespective of percentage of ownership).	Rejected	Rejected	Rejected	Rejected	
H6: There is a consequence (penalty) for taking advantage of private information.	**	Rejected	Rejected	Rejected	

VII. Implications of the study and further development

A. Theoretical contribution

This study gathers a significant amount of high-impact research and articles in this field, and it can be used as a future reference to comprehend the importance of identifying and avoiding insiders' anomalous profit-making that violates market mechanisms and regulatory oversight. The results of this study support the idea that although insider restrictions exist in many countries, they are insufficient to control transactions with ulterior motives.

B. Practical implication

The findings of this study may be useful to managers and financial regulatory organizations in ensuring that important personnel have stronger fiduciary obligation to general investors.

As it identifies the gaps in present procedures and discourages widespread insider trading, this research will aid in reducing the extent and context of insider trading.

C. Social implication

By tightening restrictions against insider trading, a significant obstacle to the creation of an efficient market can be removed. The legislation from the US and the UK that were summarized might lead to a social agreement on the line that an insider must not cross. A healthier and more balanced capital market in Bangladesh and many other nations may result from updated regulatory actions.

D. Limitations and scope for future research

The empirical portion of this study only considers local businesses, excluding the majority of other developing nations from its potential application. Since only Bangladeshi businesses were included in the study's sample, extrapolating its results to other markets may be challenging. The representatives of Bangladesh's legislative and regulatory organizations were not consulted for this investigation. Since this study concerns the suitability of rules, it may be enriched by suggestions from the legislative and judicial branches.

VIII. Conclusion and Recommendation

The results of this study allow us to draw the conclusion that insider trading restrictions are not properly understood or applied in Bangladesh. Since insiders have access to nonpublic information, the market is unfair because they are free to contact or tip brokers. Insider trading restrictions during the blackout period are either nonexistent or are not enforced. The Bangladeshi legal system does not have sufficient penalties for insider trading or tipping to deter persons from committing these crimes.

Bangladesh's corporate governance has to be updated with clear rules on transactions made during blackout (restricted) periods, employee stock purchase policies, and disclosure of buy and sell transactions. Insiders who have access to nonpublic information should have their stock transactions closely watched at all times. In Bangladesh, the penalties for breaching fiduciary obligations are not very severe, which might deter high-ranking officials from acting in their own interests at the expense of innocent third parties. Rethinking the punishment provisions is necessary.

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Economic Well-being and Inequalities in Child Health Indicators- An Inter-State Analysis

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Abstract

In Southern Asia, U5MR dropped down from 126 in 1990 to 39 2019,NNMR from 57 to 24. In 2019, Under-five mortality rate is paramountin the region of Sub-Saharan Africa followed by Central and Southern Asia in the world. (UNICEF report 2020). In our analysis, DHS, NFHS data were used.This paper examinestrend in different Mortality rates in India and try to comprehend the disparities of mortalities in West Bengal with demographic and socio-economic characteristics. Different mortality ratesfor 2015-16 are calculated for six regions of India (North, central, East, North-east, South, and West) and West Bengal. The paper uses Concentration index to examine health inequality and construct Composite Child Health Inequality Index for 30 states in India. Also attempt has been made to figure out the position of Indian states, when we tally health inequalities along with income inequalities.India's rural mortality rates are more or less same or higher than in total with respect to the all demographic and socio-economic characteristics except children belonging to the middle-income category.

The finding suggest that greater burden of health inequality is observed Sikkim, Karnataka, Tripura, Uttar Pradesh, West Bengal whereas within states lesser degree of inequality is witnessed in Kerala, Delhi, Andhra Pradesh, Meghalaya and Bihar. Lastly income related child health inequality reveals that Meghalaya experiences lower income and lower health inequality whereas states like Arunachal Pradesh, Assam, Chandigarh, Gujarat, Haryana, Himachal Pradesh, Karnataka, Maharashtra, Mizoram, Puducherry, Punjab, Sikkim, Tamil Nadu, Uttrakhand portray coexistence of higher income and higher health inequality.

KeywordsNMR, PNN, IMR, CMR, U5MR, Economic Inequality, Concentration Index(CI), Composite Child Health Inequality Index (CCHII), Income-Health relationship

Introduction

The global under-five mortality rate dropped down to 38deaths per 1,000 live births in 2019 from 93 in 1990 and 76 in 2000 which was accounted for 59 % and 50 % decline respectively. In 2019, global NNMR slipped down to 17 deaths per 1,000 live births from 37 in 1990 and 30 in 2000. In 2019, 47 % of all under-five deaths occurred in the neonatal period.The rate of reduction of U5MR will be greater if the rate reduction in neo-natal deaths will be much faster.Under-five mortality rate is paramountin the region of Sub-Saharan Africa followed by Central and Southern Asia in the world in 2019. These two regions are responsiblefor more than 80% of the 5.2 million global under-five death in 2019 (UNICEF report,2020).In 1992-93, World Bank and UNICEF jointly inaugurated a program known as Child survival and Safe motherhood program which was implemented at 1997-98. Main purpose of this scheme was to improve infant health condition and reduction of child and maternal morbidity and mortality.As per UNICEF's report in 2019, 122 countries have already achieved an under-five mortality rate below the Sustainable Development Goal(target of 25deaths per 1,000 live births).Rani et al (2021) visualized the fact thatin India, inter-state child health inequality is higher among economically poor and socially background communities.National Health Policy in India (2015) confronts that health inequality is carried disproportionately by residence wise, different socio-economic and population subgroups.Dhak (2022) observed that over the period of 23 years (from 1992-2016) 34% child under-nutrition is reduced by improvement of parental education, economic condition, coverage in immunization and betterment of reproductive health care facilities.

Under this backdrop, this paper intends to explore Socio-Economic inequalities in child health indicators. For convenience this paper is divided into V sections. Section I deals with review of literature. Trends in mortality rates in India from Phase I to Phase V (NFHS data) and also inter-state variations in India are depicted in section II. Section III explores the variations in mortality rates in India and West Bengal allowing socio-economic and demographic characteristics using NFHS4 dataset. Section IV presents inter-regional mortality variation by wealth quintiles in India using unit level DHS data. Regional income-inequalities for different childhood mortalities are calculated using concentration index. Composite Child Health Inequality Index (CCHII) is

constructed and states are ranked accordingly. Income related dimension of health inequalities are discussed in section V and conclusion appears in Section V.

Review of Literature

Dhak (2022) observed that over the period of 23 years (from 1992-2016) child under-nutrition is reduced by 34% by improvement of parental education, economic condition, coverage in immunization and betterment of reproductive health care facilities. From Patenaude et al's(2021) analysis by using NFHS-4 data we can summarize that high rate of forgone care is observed in India. Out of five women, one women had forgone antenatal care and one in four women do not avail institutional delivery.Wagstaff's concentration index is applied to identify inequalities. Marginal effects are considered here as elasticity of determinants (coefficients of logistic regression of explanatory variables). Caste and maternal education are marked as determining factors for maternal health variables where sex of child is significant variable for child health. Less child care are observed for girl child. Forgone care in India (maternal as well as child care) is mostly concentrated among poorer socioeconomic groups and in rural areas. Kumar et al (2020) tried to compare the situation of EAG states (Empowered Action Group) with India. These states are Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, Rajasthan, Uttar Pradesh, Uttarkhand and Assam. Using the data source of NFHS4 and by Concentration Index, Concentration curve technique this paper portrays that among EAG states, Bihar and Uttar Pradesh displayed lowest U5MR inequality and higher burden of inequalities are observed in Odisha, Uttarakhand, Assam, Jharkhand. As adolescent health (15-19 years) is a part of reproductive health (15-49 years), Kumar et al (2013) tried to explore the extent of socio-economic disparities among the adolescent women in India for NFHS (1,2 and 3). Full ante-natal care (FANC) and professional attendance at delivery (PAD) are the indicators that are used for adolescent health. Pooled multivariate logistic model is used and concluded that, from 1990-2006, adolescent's access to avail FANC and PAD increased by 79% and 4% respectively. Bango et al (2022) tried to find out social and regional disparities in utilization of maternal and child health care services in India specifically for Tamil Nadu, West Bengal and Bihar. Using 4th round NFHS data, this paper suggest that full immunization coverage is highest in West Bengal in comparison with Bihar and Tamil Nadu.The prevalence of not receiving full antenatal care for

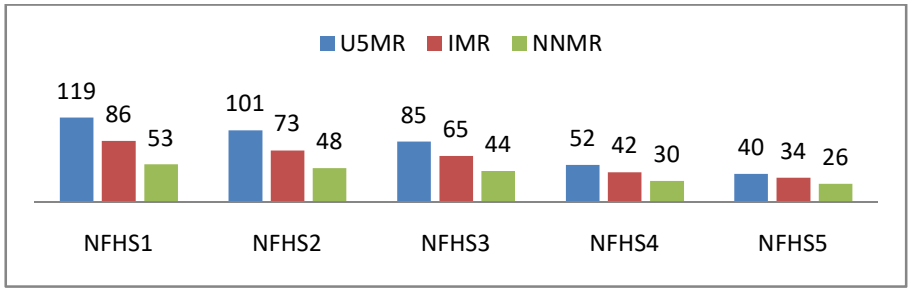
women and full immunization for children was highest among the SC/ST families, followed by economic class, mother's education and residence. In West Bengal and Bihar, health care services are mostly dependent on private sector. Chaturvedi et al (1989) clearly suggest in his study that there is a positive and significant result associated with the children who are availed ICDS services. Overall psychological and social development is more pronounced among the ICDS availed children.

Data Sources and Methodology : This study is performed based DHS data, 3rd and 4th round of National Famliy Health Survey (NFHS-3 and NFHS-4) conduced in 2005-06 and 2015-16, by the International Instiutute for Population Sciences (IIPs), Mumbai under the stewardship of the Ministry of Health and Family welfare, GoI. NFHS4 were interviewed a total of 601509 households, 699686 number of women and 112122 number of men. Present study also utilizes DHS data. The DHS Program was established by the United States Agency for International Development (USAID) in 1984.

In order to measure the degree of (social/demographic/economic) inequality in different child and maternal health care indicators, Concentration Index (CI) is appropriate measure, proposed by Wagstaff. It is applied to measure and compare the degree of socio-economic and demographic inequality in a health variable (Maternal and Child health variable). The value of CI lies between -1 to 1. A value equal to 1 indicates that only the upper section/richest bear the burden of ill health. CI with value of -1 indicates that Concentration of outcome variable among the disadvantageous group. Zero value implies no inequality and value implies there is perfect inequality.

Analysis

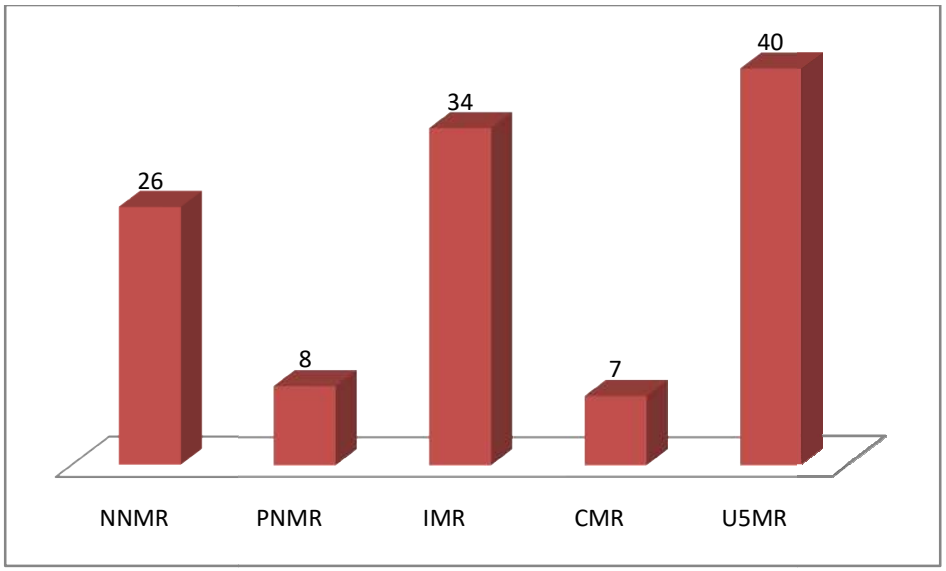
Figure 1.Trends in mortality rates in India



Neo-natal mortality (NNMR) is the probability of dying in the 1st month or 28 days of birth. Neonatal period is the first 28 days of life in which the possibility of death is maximum.Infant mortality rates (IMR) is the number of infant deaths less than one year of age given per thousand live births of that year.U5MR is the probability of dying before his/her 5th birthday. Over 30 years (from 1990-2020) globally under-five mortality rate is reduced by 61 per cent (from 93 deaths to 37 deaths) and on the contrary, the reduction in NNMR is only from 40 per cent in 1990 to 47 per cent in 2020 (WHO).

Since the 1st round of NFHS which was conducted in 1992-93, country's under-five morality rate was 119, in the next round (NFHS2) it was 101 per 1000 live births, 85 in 2005-06, 52 in 2014-15 and in the 5th round India's U5MR is 40. As per NFHS4 national report over the period of 23 years (from 1992-2015) India's IMR decreased by 48%. In 2019-20, it is 34 per 1000 live births.In 1992-93, India experienced with 86 IMR, 73 in 1998-99, 65 in 2005-06 and 42 in 2015-16. In 1992-93, NNMR was 53 per 1000 live births, which is reported as 26 in 2019-20. Throughout (from 1992-93 to 2019-20) rate of reduction in NNMR is very low, but reduction rate was lowest from NFHS2 (48) to NFHS3 (44). From above we conclude that, the extent of reduction in U5MR is comparatively higher than reduction in IMR.

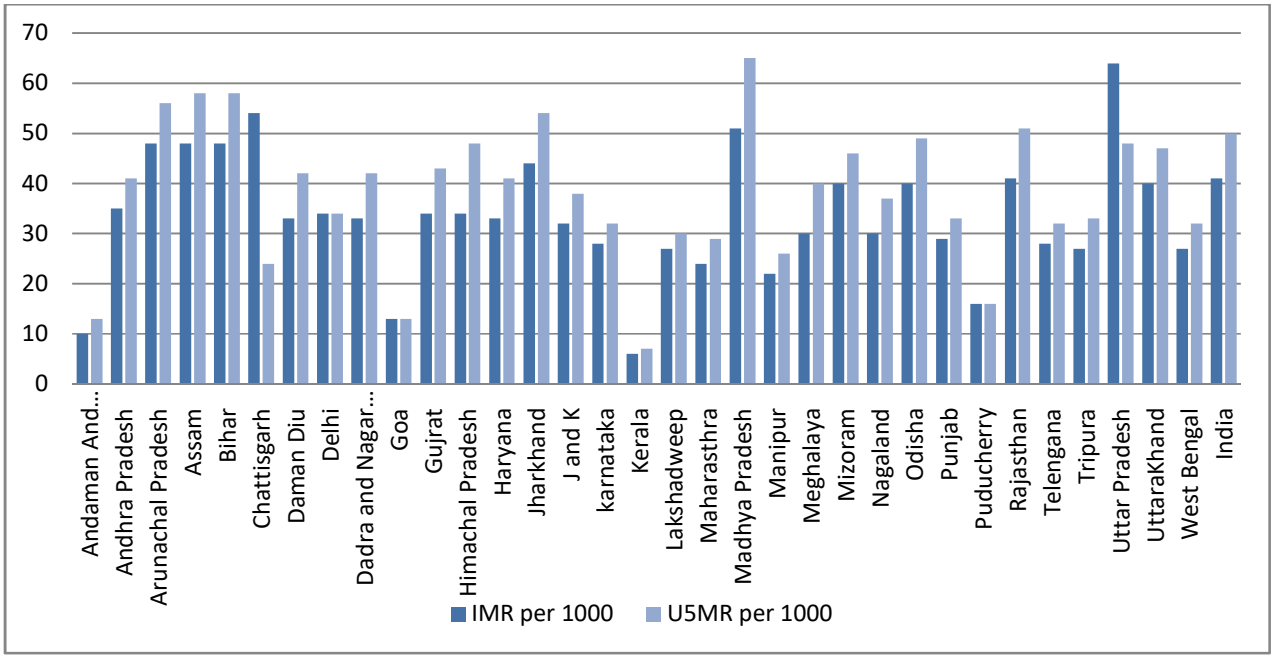
Figure 2.Childhood mortality rates in India for 2019-20



Source:NFHS5 India report

National report of NFHS4 reveals that from 1992-93 to onwards, under-five and infant mortality rate are highest in Uttar Pradesh and minimum in Kerala.In case of still-birth and NNM, rate of reduction is quite lower in comparison with CMR and U5MR in India. In some states of India these reduction is remain stopped (NHP, 2015).According to NFHS5, among all morality rates, India accounted for highest U5MR (40 per 1000 live births). India displayed high risk of dying children during first 28 days of life compare Post neo natal phase. In India, new-born is at high risk as NNMR is high. "The high IMR is the consequence of neonatal mortality that still contributes about half of the total infant deaths. IMR is a very sensitive indicator of health not only for children but also to mothers and economic development as well" (Shil et al, 2016). Per 1000 live births, 34 infant deaths are occurred in India according to NFHS4 (2019-21). CMR is the conditional probability of dying between the 1st birthday and 5th birthday for those who survive the 1st year. India's CMR is 7 and U5MR is 40 per thousand live births for 2019-21. A study conducted by research collaborators reveals that, maxmimum decline (from phase 1 to phase 4) of U5MR is perceived by Meghalaya, Madhya Pradesh, West Bengal, Bihar and Tripura whereas lowest decline is experienced by Goa, Tamil Nadu, Sikkim, Uttarakhand, Haryana, Manipur and Maharashtra.

Figure 3.Inter-state variations in Infant and Under-five mortality rates in India, 2015-16



Source:NFHS4 India report

From the data of1st round of NFHS to 4th round of NFHS we can summarize that there is a consistent reduction in infant and child mortality rates in India. But the pattern of reduction is not uniform.India experienced with IMR 41 and U5MR 50 per 1000 live births in 2015-16.In India, there exist wide inter-state disparities in case of under-five as well infant mortality.Concentrating on U5MR, mortality level is higher in Madhya Pradesh (65 per 1000 live births) followed by Bihar (58), Uttarakhand (47), Andhra Pradesh Haryana (41 each). On the other hand a mortality rate under age of five is low in Kerala (7), Goa (13) Puducherry (16), Manipur (26), Tamil Nadu (27) and Maharashtra (29).As compared with NFHS3, maximum decline in U5MR is observed in Meghalaya (from 70 in 2005-06 to 40 deaths in 2015-16) and Goa experienced with least rate reduction (from 15 deaths in 2005-06 to 13 deaths in 2015-16). Statesappearedwith highest infant mortality rates are Uttar Pradesh (64) followed by Chhattisgarh (54), Madhya Pradesh (51), Assam and Bihar (48 each). IMR is lowest in states of Kerala (6), Andaman and Nicobar (10), Goa (13), Puducherry (16), Lakshadweep (27), Karnataka (28).Gap between the two mortality rates are almost same or negligible in Goa (IMR 13, U5MR 13), Puducherry (IMR 16, U5MR 16), Delhi (IMR 34, U5MR 34)and Kerala (IMR 6, U5MR 7). This gap is maximum in Himachal Pradesh (IMR 38, U5MR 48), Madhya Pradesh (IMR 51, U5MR 65). Interestingly, Uttar Pradesh and Chhattisgarh emerged as a state where number of infant death is higher than under-five death.

Table 1.Neo natal, Post neo natal, Infant, Child and Under-five mortality rates in India by background characteristics for 2015-16

Background Characteristics	Neo natal			Post Neo natal			IMR			CMR			U5MR		
Residence	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
Schooling															
No Schooling	37.2	28.2	38.8	16	13.3	16.5	53.2	41.5	55.3	15.1	12.8	15.5	67.5	53.8	69.9
5-7 years schooling	33	25.5	35.6	10.3	7.1	11.4	43.3	32.6	47	8.9	6.5	9.7	51.8	38.9	56.3
10-11 years schooling	19.8	13.4	23.5	8	8.4	7.8	27.9	21.8	31.3	4.1	5.1	3.4	31.8	26.8	34.6
Religion															
Hindu	30.5	20.3	33.9	11.1	7.9	12.2	41.6	28.2	46.2	9.3	5.9	10.5	50.5	33.9	56.2
Muslim	27.8	21.8	31.8	12.2	10.3	13.5	40	32.1	45.2	10.3	7.4	12.2	49.9	39.3	56.9
Caste/Tribe															
SC	33	20.7	36.8	12.2	10.4	12.7	45.2	31.1	49.6	11.1	8	12.1	55.9	38.9	61.1
ST	31	16.5	33.4	13.1	7.1	13.9	44.4	23.5	47.3	13.4	4.4	14.7	57.2	27.8	61.3
OBC	30.5	23.1	33.4	11.6	9	12.6	42.1	32.1	46.1	9	5.8	10.4	50.8	37.7	56
Others	23.2	16.2	27.7	8.9	6.5	10.5	32.1	22.7	38.2	6.6	5.2	7.4	38.5	27.8	45.4
Wealth Index															
Poorest	40.7	33.4	41.1	15.6	13.3	15.7	56.3	46.7	56.8	16.3	13.2	16.4	71.7	59.3	72.2
Poorer	34.2	27.2	35.1	13	11.8	13.1	47.2	39	48.3	10.6	12.7	10.4	57.3	51.2	58.2
Middle	28	26	28.7	11.1	13.9	10.2	39.2	40	38.9	7.3	10.2	6.2	46.2	49.7	44.8
Rich	21.6	20.2	22.8	8.1	7.6	8.5	29.6	27.8	31.3	5.4	4.9	6	34.9	32.6	37.1
Richer	14.6	13.7	16.8	5.2	5	5.8	19.8	18.7	22.6	2.8	2.5	3.6	22.6	21.1	26.1
Source:NFHS4															

Residence-wise disparity is prominent throughout in the 4th round of NFHS data where rural mortalities are higher than total and urban areas in India. Morality rates vary according o he background characteristics in India. In all mortality rates, child education is significantly associated. As the level of education increases, there is a reduction in mortality rates. It shows maximum reduction in U5MR. Caste wise mortality rate is sharply high among the rural areas.

Children belonging to the rural SC categories have faced high mortality compare to other caste categories. Morality rates varied to the five categories of wealth quintile. Rural children belonging to the poorest quintile have experienced with high mortalities in comparison with total and urban mortalities. In middle income wealth-group, the numbers of urban deaths (PNNMR, IMR, CMR, and U5MR) per 1000 live births are higher in comparison with total as well as rural areas.Above table clearly suggest that rural mortality rates are more or less same or higher than in total with respect to the all demographic and socio-economic characteristics except children belonging to the middle-income category.

Table 2. Neo natal, Post neo natal, Infant, Child and Under-five mortality rates in India and West Bengal by background characteristics for 2015-16

Background Characteristics	**Neo natal**		**Post Neo natal**		**IMR**		**CMR**		**U5MR**	
Residence	India	WB	India	WB	India	WB	India	WB	India	WB
Urban	20.1	10.9	8.4	5.3	28.5	16.2	6.0	0.2	34.4	16.4
Rural	33.1	26.3	12.4	5.6	45.5	31.9	10.7	6.1	55.8	37.8
Schooling										
No Schooling	37.2	21.6	16	4	53.2	25.6	15.1	6.8	67.5	32.2
<10 years Schooling	--	26.8	--	7.2	--	34	--	4.8	--	38.7
10years or more	--	11	--	2.3	--	13.3	--	0.6	--	13.9
Religion										
Hindu	30.5	22.6	11.1	4.9	41.6	27.5	9.3	3.6	50.5	31
Muslim	27.8	19.2	12.2	7	40.0	26.2	10.3	5.6	49.9	31.7
Caste/Tribe										
SC	33	22.7	12.2	5.2	45.2	27.9	11.1	5.2	55.9	32.9
ST	31.3	44.1	13.1	2.1	44.4	46.1	13.4	6.1	57.2	51.9
OBC	30.5	23.2	11.6	9.5	42.	32.7	9.0	5.3	50.	37.

					1				8	8
Others	23.2	18.4	8.9	5.4	32.1	23.8	6.6	3.7	38.5	27.4
Child's sex										
Male	32.8	29.1	10.5	5.3	43.3	34.5	8.5	4.1	51.5	38.5
Female	25.8	14.5	12.1	5.7	37.9	20.1	10.4	4.7	47.8	24.7
Mother's age at birth										
<20	38.7	25.6	13.4	5.7	52.1	31.3	7.4	4.8	59.2	35.9
20-29	26.9	20.7	10.1	5.7	37.1	26.4	8.8	4.2	45.6	30.5
30-39	31.9	20.3	14.6	3.8	46.5	24.1	13.5	4.7	59.4	28.7
Birth Order										
1	33	22.9	9.8	4	42.8	27	6.6	4	49.1	30.8
2-3	24.3	20.9	10	8	34.3	28.8	8.6	4.1	42.6	32.9
4	33.8	22.3	17.2	0.9	51.1	23.3	16.7	7.3	67	30.4

Source:NFHS4 State Report

National-level disparities among NNMR, PNNMR,IMR, CMR,U5MR are noticed according to demographic and socio economic characteristics.We can say that, number of socio-economic, demographic factors can affect all child mortality rates in India. Residence wise disparity is clearly visible in India and in West Bengal with higher mortalities in rural areas. In India as well as in West Bengal, rural-urban differential is mostly prominent for under-five children.The probability of dying between 28 days to 11 months for those who survive 1st month of birth (PNNMR) and probability of dying between the 1st birthday and 5th birthday for those who survive the 1st year (CMR) are higher among Muslim child in India and in Bengal. In West Bengal, NNMR and IMR among ST child is higher than in India. Children in West Bengal belonging to Scheduled Tribe (ST) categories have faced higher mortality (NNMR, IMR, CMR and U5MR) rates. Mortality rates are varied considerably by caste, residence, religion, sex of child, and mother's age at birth.Female morality rate is higher for in India and in West Bengal in PNNMR, CMR. Children belong from neonatal phase to infant, mortality rate is lower in India with middle aged-women at her birth (from 20-29 years) where as in West Bengal lower risk of

dying children associated with child bearing age of mother from 30-39 years. In India, higher under-five death risk associated with higher mother's age (30-39 years) at birth, but in West Bengal child bearing in adolescent's age (<20 years) is responsible for higher under-five death. Except the Neo-natal case, as birth-order increased, mortality rates are also enlarged in India.

Section IV: For estimating regional variations we include 6 regions of India (NFHS4,2016). According to the geographical area, Indian states were sub-divided into six regions. These six regions are- North, Central, East, West, North-east and South. North region consist of 8 states. These are Himachal Pradesh, Delhi, Chandigarh, Jammu and Kashmir, Punjab, Rajasthan, Uttarakhand. Chhattisgarh, Madhya Pradesh, Uttar Pradesh are considered as Central Region. In the East region we are considering Bihar, Jharkhand, Odisha, and West Bengal. Five states are marked in West regions. These are Dadra Nagar Haveli, Daman Diu, Goa, Gujrat, Maharasthra. North-east region is comprised of 8 states these are Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura. Andaman Nicobar, Andhra Pradesh, Karnataka, Kerala, Lakshadweep, Puducherry, TamilNadu, Telengana are observed in South region. In our analysis we are considering 36 states.

Table 3.Different mortality rates by wealth quintiles of 6 regions, West Bengal and India for 2015-16

Mortality Rates	NNMR	IMR	U5MR
India			
Poorest	42.29	55.5	57.22
Poorer	37.73	48.23	49.36
Middle	31.61	40.7	41.93
Rich	25.79	32.33	33.57
Richer	19.72	24.69	25.10
West Bengal			
Poorest	41.66	41	41.6
Poorer	17.94	23.07	23.07
Middle	8.96	17.93	17.93
Rich	13.88	6.9	6.9
Richer	--	--	--
North Region			
Poorest	30.8	44.63	47.48
Poorer	37.45	44.15	53.10

Middle	30.20	40.58	42.47
Rich	22.41	28.49	29.42
Richer	15.6	19.6	20.32
Central Region			
Poorest	50.70	64.89	66.06
Poorer	55.94	68.4	69.32
Middle	51.13	63.7	63.60
Rich	45.36	54.63	55.67
Richer	26.54	34.8	34.80
East Region			
Poorest	41.22	53.75	54.12
Poorer	35.24	41.52	41.52
Middle	27.27	34.41	35.06
Rich	23.20	26.51	26.51
Richer	30.73	35.46	35.46
North East Region			
Poorest	35.01	52.52	53.19
Poorer	25.55	37.72	39.75
Middle	21.24	30.5	31.59
Rich	17.31	28.85	28.85
Richer	23.09	31.97	33.74
South Region			
Poorest	37.5	37.59	60.15
Poorer	21.78	21.78	34.85
Middle	21.39	21.39	28.94
Rich	19.43	13.79	19.43
Richer	8.63	8.63	8.63
West Region			
Poorest	30.56	37.11	37.11
Poorer	20.63	28.88	28.88
Middle	20.88	31.32	31.32
Rich	20.28	26.25	27.44
Richer	18.67	21.55	21.55

Source: Computed by authors using DHS (NFHS4 2015-16) unit data

The above table presents different mortality rates (Neonatal, Infant mortality, Under-five morality) for India, West Bengal and 6 different geographic regions of India for the time period of 2015-16 by wealth quintiles.

It is evident that except Central and Northern regions of India, mortality rates have dropped throughout from Poorest to Poorer, Middle, Rich and further in Richer category. These substantial declines in all categories of wealth quintiles depict that morality rates are higher among poorer section and lower among richer section. Among the six regions of India, NNMR of poorest section is higher in Central region (50.7 per 1000 live births) which was in India is 42.29.Poorest section of Central region is experienced with highest mortality rates in IMR(64.89) as well as U5MR (66.06). From this we can conclude that, all mortality rates (NNMR, IMR, U5MR) among the poorest are higher in central region. In India and all six regions, NNMR are same or lower than IMR, U5MR except among richer section of South region and in West Bengal. Among all the regions of Richer sections, South region experiencing lowest mortality rates (NNMR 8.63, IMR 8.63, U5MR 8.63) per thousand live births which is much lower than Indian Richer figure (NNMR 19.72, IMR 24.69, U5MR 25.1).

The concentration index provide a means of quantifying the degree of income-related inequality in a specific health variable. If the health variable, is a 'bad' such as ill health, a negative value of the concentration index means ill health is higher among the poor. CI signifies total extents of a health variable. It could be used to quantify the degree to which health subsidies are better targeted towards the poor in some countries.

Table 4.Concentration Indices in economic inequalities with respect to Neonatal, Infant and Under-five mortality, 2015-16

	NNMR_CI	SE	IMR_CI	SE	U5MR_CI	SE
India	-0.1312**	0.023005	-0.7004**	0.1906	-0.1398**	0.0239
North	-0.1603**	0.047753	-0.1686**	0.04909	-0.18767**	0.0522
Central	-0.0672**	0.02541	-0.2044**	0.0582	-0.07445	0.2334
East	-0.0830**	0.01443	-0.1091**	0.0164	-0.10896**	0.0164
North East	-0.1158**	0.0204	-0.1140**	0.01776	-0.11286**	0.0186
South	-0.1992**	0.04119	-0.1943**	0.04357	-0.24457**	0.0512
West	-0.0358**	0.00919	-0.0827**	0.01997	-0.07823**	0.0201
West Bengal	-0.0674	0.0461	-0.4360	0.7257	-0.28369**	0.0350

Source: Computed by authors using DHS (NFHS4 2015-16) unit data, **significant at p<0.01

The above table examines economicinequalities of NNMR, IMR, U5MR for 6 regions in India and specifically in West Bengal (considering five categories of wealth quintiles) for 2015-16. The values of concentration index for Neonatal, Infant and Under5 mortality rates during 2015-16 approved that large imbalances or disparities are exist with higher mortality rates among the poorer.

The degree of economic inequalities in NNMR, IMR and U5MR for India are -0.1312,-0.7004,-0.1398 respectively. In West Bengal, inequalities for all mortalities are much more prominent but only the value of CI of U5MR is statistically significant and higher than the country figure. These disparities are substantially higher in Northern region (-0.1603) for Neonatal mortality. Inequalities inIMR (-0.1943) and U5MR (-0.24457)are predominant in Southern region out of six regions in India. In case of NNMR, economic inequality is narrowed down (-0.0358) in Western regionbut it had widened up and reached highest position (-0.0827) for IMR which is even higher than Country's Index value (-0.7004).

Table 5.Concentration Index for Inequalities in Child health Indicators

	Stunted	SE	Wasted	SE	Anemic	SE	Not fully Immunized	SE
India	-0.0108**	0.00367	-0.0188**	0.004468	-0.0303**	0.004321	0.0015**	0.000464
North	-0.0511**	0.01237	-0.0010	0.000988	-0.0312**	0.0084	-0.1317**	0.03196
Central	-0.0179**	0.00597	-0.0121**	0.004126	-0.0024	0.006038	-0.0632**	0.0136
East	-0.0243**	0.00497	-0.0176**	0.00338	-0.0587**	0.007529	-0.0918**	0.01492
North East	-0.173*	0.07523	-0.0215**	0.00526	-0.0745**	0.01219	-0.0745**	0.009474
South	-0.0174*	0.00867	-0.0204*	0.01025	-0.0848**	0.02189	-0.0694**	0.016777
West	-0.0116*	0.005253	-0.0058*	0.0036	-0.0296**	0.01037	-0.2953**	0.10325
West Bengal	-0.0390**	0.01131	-0.0260**	0.00866	-0.0800**	0.0285	-0.1349**	0.0631

Source: Computed by authors using DHS (NFHS4 2015-16) unit data

**significant at p<0.01, *significant at p<0.05

In the previous table we are discussing about economic inequalities in different mortality rates for six broad regions in India and country as a whole. Here attempt has been made to capture regional economic disparity among various child health indicators.So for this purpose stunting, wasting, anemic, not fully immunized children are considered as important health indicator. Stunting is actually identified as the low height for age. A child is said to be stunted when he/she has the deficit in height for age. Wasting is referred when a children is suffered from adequate weight for height. When the exact age cannot determine, wasting is an appropriate measure to find out acute mal nutrition. According to NFHS4 (Indian version of Demographic Health Survey), fully immunized children mean that, children at age of 12-23 months have completed 1 BCG, 1 measles and 3 doses of each polio and DPT vaccines. If hemoglobin level of a child aged between 6-59 months is below 11.0 gram/deciliter noted as anemic as per 4th round survey of NFHS.

Above table highlights that, CI values for all health indicators are negative which reflect the fact that children belonging to lower income category have higher health hazard except only country value of NFI child. Economic inequalities for stunted children in 6 regions varies from -0.173 to -0.0116. Among the study regions, maximum inequalities for stunting are observed in North-East region while least in West region. North- east is also experienced highest inequalities in case of wasted child. In case of anemic, inequality index for all India is -0.03 with the variation range -0.084 (Southern region) to -0.0312 (North). For another indicator of not fully immunized child, poor immunization in concentrated among the poorest child in West region (-0.2953) followed by the North region (-0.1317). Most importantly, range of variation among these indicators is maximum for not fully immunized child and least variation in inequality is observed for wasting.

Table 6.Composite Child Health Inequality Index(CCHII)

	CI_U5MR	**CI_NFI**	**CI_Anemic**	**CCHII**	**Rank**
Andhra Pradesh	-0.09635	0.021612	-0.06168	-0.04547	3
Arunachal Pradesh	-0.12956	-0.0601	-0.0518	-0.08049	15
Assam	-0.16316	-0.10192	-0.05035	-0.10515	21

Bihar	-0.07876	-0.05457	-0.03848	-0.05727	5
Chandigarh	0.017677	-0.14809	-0.04199	-0.05747	6
Chhattisgarh	-0.12894	-0.13974	-0.03488	-0.10119	19
Gujrat	-0.12491	-0.04457	-0.11083	-0.09343	16
Haryana	-0.23913	-0.17834	-0.01326	-0.14358	25
Himachal Pradesh	-0.14215	-0.05089	-0.04244	-0.07849	14
J & K	-0.17611	-0.10473	-0.0191	-0.09998	18
Jharkhand	-0.13631	-0.05204	-0.02921	-0.07252	11
Karnataka	-0.21302	-0.02313	-0.38134	-0.20583	29
Kerala	-0.09678	0.028907	-0.04539	-0.03776	1
Madhya Pradesh	-0.11165	-0.09788	-0.01647	-0.07533	12
Maharasthra	-0.11065	-0.05627	-0.02815	-0.06502	9
Manipur	-0.15167	-0.1975	-0.04513	-0.13143	24
Meghalaya	-0.02418	-0.11789	-0.00069	-0.04759	4
Mizoram	-0.09866	-0.06875	-0.06502	-0.07748	13
Nagaland	-0.0953	-0.09039	-0.1226	-0.10276	20
Delhi	-0.07723	-0.06382	0.009274	-0.04392	2
Odisha	-0.16813	-0.13151	-0.09301	-0.13088	23
Puducherry	-0.11233	-0.05888	-0.00552	-0.05891	8
Punjab	-0.14038	-0.16067	-0.0282	-0.10975	22
Rajasthan	-0.11757	-0.03815	-0.05198	-0.06923	10
Sikkim	-0.21334	-0.25325	-0.23361	-0.2334	30
Tamil Nadu	-0.1182	-0.15235	0.095855	-	7

				0.05823	
Tripura	-0.27604	-0.08469	-0.23711	-0.19928	28
Uttar Pradesh	-0.09802	-0.05804	-0.35081	-0.16896	27
Uttarakhand	-0.18383	-0.06954	-0.02698	-0.09345	17
West Bengal	-0.28369	-0.08004	-0.13489	-0.16621	26
India	***-0.1398***	***0.00147***	***-0.03029***	***-0.05621***	

After analyzing regional variation, we are now focusing on inter-state diversification of child health condition. We have computed CI for selected indicators of health for 30 states of India. Across all the states values of CI are negative confirms poorest group have disproportionality higher burden of inequality.

Inequality value for all-India level is -0.0562 which comprises of inequality for U5MR is -0.1398, NFI is 0.00142 and anemic is -0.03029. On comparison of inequalities of 3 health indicators, inequalities for U5MR are more pronounced. Higher inequality in U5MR is observed in West Bengal (-0.28), Tripura (-0.27) and Sikkim (-0.21) respectively. The CC value of NFI child is maximum in Sikkim and minimum range of variation is found in Karnataka followed by Kerala and Rajasthan. CI value for anemic presents a wide range of variation with minimum (-0.00069) in Meghalaya and maximum in states of Uttar Pradesh (-0.35), Tripura (-0.236), Sikkim (-0.233) and in Nagaland (-0.122). Among other states inequalities that are also higher than national's CI are Karnataka, Gujrat, Punjab, Odisha, Manipur and West Bengal.

The range of CCHII varies from -0.03776to -0.2334. Higher rank means lower the value of composite index and better the health situation. Kerala ranked 1st(-0.0377) in India with the lowest inequality value followed by Delhi, Andhra Pradesh and Meghalaya. Sikkim holds bottom (-0.2334) position.Ranking status of Karnataka, Uttar Pradesh, West Bengal, Tripura, Haryana, Manipur, Odisha, Punjab, Assam is very poor. West Bengal emerged at 26th position with the prominent burden of inequality (-0.16621). Child under-five mortality and Child-anemia in West Bengal are found to very high in West Bengal.

Table 5.Classification according to Income levels and Health Inequality

	Lower Health Inequality	Higher Health Inequality
Lower Income	Meghalaya	Bihar, Chhattisgarh, Jammu Kashmir, Jharkhand, Madhya Pradesh, Manipur, Nagaland, Orrisa, Rajasthan, Tripura, Uttar Pradesh, West Bengal
Higher Income	Kerala, Andhra Pradesh, Delhi	Arunachal Pradesh, Assam, Chandigarh, Gujarat, Haryana, Himachal Pradesh, Karnataka, Maharashtra, Mizoram, Puducherry, Punjab, Sikkim, Tamil Nadu, Uttrakhand

For income, PCNSDP for 2014-15 current prices with base year 2011-12 and for Health Inequality, CI of U5MR, CI of Not fully immunized and CI of Anemic child are used with their all-india levels CI is considered as cut off marks to classify states with high and low categories.

Here we have classified all states in four categories using the data of CCHII and income data (PCNSDP) of all states. Health inequality is computed on the basis of national's inequality value which used as cut-off value. States with higher than cut-off marked as higher health inequality and states with lower the cut-off marks noted with lower health inequality. Four categories are- a)Lower income, Lower health inequality, b)Lower income, higher health inequality, c)Higher income, Lower health inequality andd) Higher income, higher health inequality.

Income related child health inequality reveals that Meghalaya experiences lower income and lower health inequality whereas states like Arunachal Pradesh, Assam, Chandigarh, Gujarat, Haryana, Himachal Pradesh, Karnataka, Maharashtra, Mizoram, Puducherry, Punjab, Sikkim, Tamil Nadu, Uttrakhand portray coexistence of higher income and higher health inequality. States consist of 'a and d' category depict straight forward relationship but no such clear cut relationship exist for the states belonging to 'b and c' category.

Findings and Conclusion

We can conclude that six regions of India prevails different socio-economic inequalities for all childhood morality rates and for child health indicators also. Rural mortality rates in India are more or less same or higher than in total with respect to the all demographic and socio-economic characteristics except children belonging to the middle-income category.Maximum inequalities for stunting are observed in North-East region, North- east is also experienced highest

inequalities in case of wasted child. In case of anemic, inequality is higher Southern region while for not fully immunized child, poor immunization in concentrated in West region. Least inequality is observed in Kerala while Sikkim holds bottom position. Ranking status of Karnataka, Uttar Pradesh, West Bengal, Odisha, Punjab, Assam is very poor. West Bengal emerged at 26th position with the prominent burden of inequality (-0.16621).

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Role of trade fairs in empowering womenpreneurs of West Bengal: A case study of Sabala Mela of Kolkata

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Abstract:

Trade fairs happen to be one of the most effective platforms for businesses to showcase their products. Such events are organised by various agencies to help the entrepreneurs to directly reach out to their prospective customers (both B2B as-well-as B2C) by providing the opportunity to display their wares. According to the theory of marketing mix (4Ps of marketing), these are crucial components of the third P i.e. Promotional mix. Sabala Mela is one such of trade fair organised under the patronage of Government of West Bengal organised specifically for the women entrepreneurs specialising in traditional handicrafts such as pattachitrai.e. scroll painting, bamboo products, handicraft jewelleries, and related items.

The aim of this paper is to explore the role played by this trade fair namely**, Sabala Mela** in empowering the womenpreneurs coming from different areas of West Bengal.

This is an exploratory study, which is purely qualitative in nature. The methodology used is the case study research method, where the data, which is primary in nature, has been collected from the womenpreneurs participating from different districts of West Bengal like North 24 Parganas, Bankura, West Midnapore, East Midnapore, Howrah. The data for this study were collected at the Sabala mela held at Kolkata in February2022, through observations and also by in depth interviews of some participating womenpreneurs using an interview guide. In this regard, the data of the study were analyzed using **MAXQDA**, qualitative data analysis software.

From thematic analysis of the collected data, seven distinct themes were identified namely, Business expansion, Support from family, Place influence, Training, Financial support to family, Identity creation and Family legacy. The findings illuminated that the participant womenpreneurs got benefitted by this innovative initiative of the state government by making the womenpreneurs independent, and helping them in building up an image and identity of their own.

Keywords: Trade fairs, Promotion mix, Sabala mela, Womenpreneurs, Case study.

1. Introduction:

A trade fair (called a *Mela*in vernacular language) is a basic element of the marketing mix which happens to be an important promotional event to reach a huge target market at one go (Datta and Sarkar, 2020). It is used by the marketer to establish an integrated marketing communication system for consumers to get a simple and recognizable picture of the retailer. The trade fair is looked upon as a tool for marketing of goods and services across the globe (Ummulkulthoum& Jianhua, 2017).

Since the term 'mela 'in Sanskrit means' gathering' or 'meeting', we can say that 'mela 'is 'melbondon' or the medium of gathering. Indian Mela is regarded as a key element in the marketing strategies of both urban and rural marketers. In some parts of India Mela is commonly called as how or exhibition. Topics such as specialized arts, expertise, and culture form the basis.

Today's businesses must adapt frequently and quickly to a dynamic environment. According to Nayak(2018), change is the only constant in the corporate world. Increasing industrialization, technological advances, creative thinking, competition, and market expansion are factors that force marketers to continually update their marketing tactics to make a case for their business. It is too much.

According to Mayerand Robert(2017),companies must continuously adapt their marketing strategies to reflect the dynamic external forces affecting the business environment. This paper aims to constantly learn and for get old norms to succeed in the 21stcentury.Twenty-first-century businesses must adapt to managing online (Byrne,2000).From the above opinions of marketers, online marketing methods using technology like the Internet have transformed rural organized and unorganized retail formats(hats,melas,etc.) can be inferred.

Trade fairs are among the most effective platforms for businesses to showcase their products. Various agencies organise such events to help entrepreneurs directly reach out to their prospective customers (B2B and B2C) by allowing them to display their wares. According to the theory of marketing mix (4Ps of marketing), these are crucial components of the third P, i.e., Promotional mix. Sabala Mela is one such trade fair organised under the patronage of the Government of West Bengal explicitly organized for the womenpreneurs specialising in traditional handicrafts such as pattochitrai.e. scroll painting, bamboo products, handicraft jewelleries, and related items.The uniqueness of Sabala Mela is only female participants are allowed to conduct business inside the premises of Sabala Mela. No male participants are allowed. This makes Sabala Mela exclusive from other trade fairs held in and around West Bengal.

This paper explores the role played by this trade fair, namely, Sabala Mela in empowering the womenpreneurs with their economic upliftment and socio-cultural dominance in West Bengal.

2. Literature Reviews:

A literature review evaluated the research conducted and theoretical perspectives on the factors that encourage women entrepreneurs to participate in exhibitions and trade fairs. Many literature reviews were conducted to identify research gaps and to develop the current cases tudy.

Ummulkulthoum and Jianhua (2017) in their study titled "The Challenges Facing Small and Medium Enterprises (SMEs) Participating in Trade Fair: A Case of Dar es Salaam International Trade Fair (DITF) in Tanzania" have found that SMEs face serious challenges too and could not participate in the fairs. They cited mainly due to a lack of proper information and poor funding by sponsoring agencies.

Das and Guha (2019) conducted a study titled "Measuring Women's Self-Help Group Sustainability: A Study of Rural Assam" The self-help group-bank linkage program is now a major global microfinance program in India. These financial institutions help income-generating activities in rural Assam.

Moghaddam and Fatemi (2019) have demonstrated in their study titled "The Comparative Analysis of Marketing Activities Among Rural Womenpreneurs in Farms Province, Iran" that entrepreneurship has grown to be a crucial topic in social and economic development and that, on the other hand, marketing is also the main factor of entrepreneurial business. The study aimed to identify and examine the marketing practices used by rural women business owners. They concluded they sought to draw attention to the marketing mix's constituent parts by implementing the marketing strategies. They discovered that most business owners employed face-to-face promotion, cold calling, and trade shows.

3. Research gap:

Several studies have been carried out in the area of trade fairs. No research has been found by the authors which is based on *Sabala Mela* which takes place in Kolkata where initiatives are taken by Government of West Bengal for the development of womenpreneurs, who belong to different districts of West Bengal like North 24 Parganas, Bankura, West Midnapore, East Midnapore, Howrah etc. with specific and special products of each representative districts.

4.Objectives of the Study:

i. To study the role of Sabala Mela in empowering the womenpreneurs of West Bengal.
ii. To study and comprehend the reasons regarding why the womenpreneurs started and chose their respective business.

5. Methodology

Research methodology of the present study is the systematic, theoretical analysis of the methods applied to a field of study. It comprises of the theoretical analysis of the body of methods and principles associated with a branch of knowledge.

Research Methods: This is an exploratory study, which is purely qualitative in nature.The methodology used is the case study research method, where the data, which is primary in nature, has been collected from the womenpreneurs.

Sample: The data for this study were collected at the Sabala mela held at Kolkata in February 2022, in depth interviews of some participating womenpreneurs using an interview guide.

Sample size: Five womenpreneurs participating from different districts of West Bengal like North 24 Parganas, Bankura, West Midnapore, East Midnapore, Howrah etc. with specific and special products of each representative districts.

Data collection: The data for this study was collected first throughin depth interviews. In this case, the researchers themselves visited the fair venue, thus ensuring observation in the natural setting. The observation of the participating womenpreneurs conducted was unsystematic in nature. Moreover, for the purpose of this study the contact details of the participating womenpreneurs were collected from the office of the fair organisers, and thereafter the data were collected directly from selected respondents through telephonic interviews. For this purpose, an interview guide was used.

Data collection instrument: In order to facilitate smooth discussion with the participants, in-depth interviews were conducted using an interview guide.

Data analysis: Finally, the study applied qualitative data analysis techniques in giving meaning to the information collected. This was done by taking the information organized from the case stories which were built from the interviews conducted with the artisans of **Sabala Mela.** After conducted the interviews thematic analysis qualitative data analysis tool was used for analysing this data.

Validity: Reliability and validity are tested by the use of Data-Source Triangulation method. Conducting interviews with the womenpreneurs, conducting interviews with the fair authority

officials and non-participant observation by the researchers are the three data sources which gave uniform results.

Table.1 Sampled womenpreneurs (respondents):

Respondents	**Native**	**Business**
Respondent 1	North 24 Parganas	Fast food items
Respondent 2	Bankura	Jute products
Respondent 3	East Midnapore	Woolen and cotton items
Respondent 4	West Midnapore	Pattachitra artwork products
Respondent 5	Howrah	Jewellery

6. Analysis and Findings:

The data has been transcribed and the transcribed data has been put in **MAXQDA** software which was then coded. The code revealed the themes which were then reported as findings through the use of **MAXQDA** tools.

After the coding process, these are the following reasons/themes surfaced up which portrays the role of Sabala Mela in empowering the womenpreneurs:

Travelling Allowance& Meal Allowance – According to the words of the womenpreneurs Rs 200/- is provided to them as travelling & meal allowance by the fair authority on a daily basis.

Safety & Security – As per the views provided by the participant womenpreneurs, it has been learnt that the fair authority of Sabala Mela is very concerned about their safety and security. Because of this, the family members of the womenpreneurs are also feel relieved.

Harmonious Bonding – According to the opinions of the womenpreneurs, it has been comprehended that the fair authority of Sabala Mela takes good care of each and every womenpreneurs and each of the womenpreneurs share a good bonding with each other which helps them to live and work at the fair like a single unified family.

Infrastructural Support – The womenpreneurs are of the opinion that they faces no infrastructural problems at the fair because the fair authority makes proper arrangements for them such as – separate accommodation, separate bathroom and separate cooking space. In addition, the fair authority is also helpful in times of rain and other emergencies as well.

Training – The womenpreneurs have disclosed that sometimes training is provided to them by the fair authority regarding product marketing.

6.1. Coding Map showing the roles played by Sabala Mela in empowering the womenpreneurs:

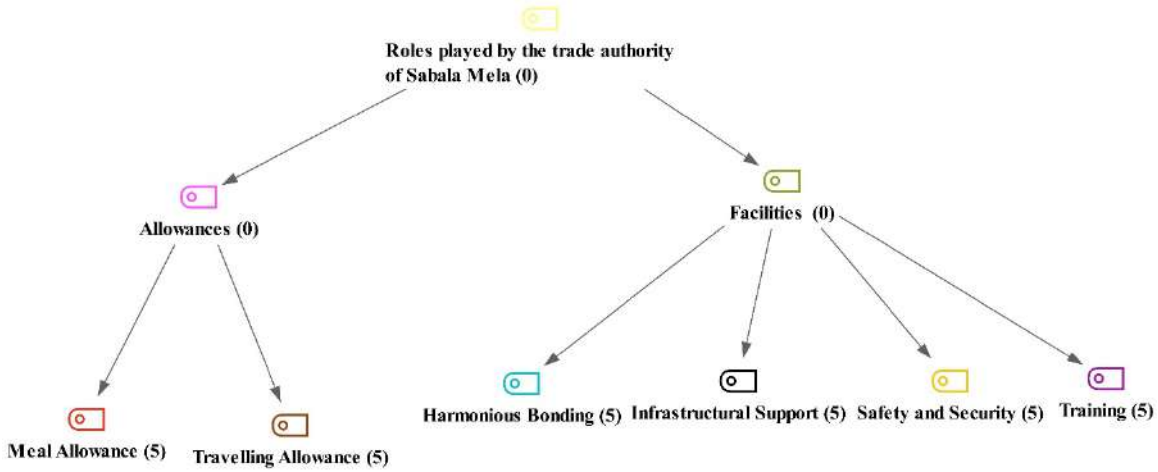

Figure: 1

From the above coding map (Fig.1) , it is evident that there are two major themes namely – *'Allowances'* and *'Facilities'*, which are then bifurcated into six distinct sub-themes – '*Meal allowance', 'travelling allowance', 'harmonious bonding', 'infrastructural support', 'safety and security'* and *training* which in turn illuminates the role of Sabala Mela in empowering the women artisans. The numeric value (known as code frequencies) after every code/theme indicates how many respondents out of the total number of five respondents have spoken about the above themes. *'Roles reprised by the trade authority of Sabala Mela', 'Allowances'*and *'Facilities'* are showing zero frequency because they are the broad themes and there are sub-themes under these major themes which are showing the frequencies.

6.2. Word Cloud depicting the roles played by Sabala Mela in empowering the womenpreneurs:

The figure below (Fig.2) is a word cloud representation which depicts the frequencies of the words articulated by the respondent womenpreneurs while they were being interviewed. Infrastructure tops the chart (frequency = 55; percentage = 25.35%) followed by care (frequency = 47; percentage = 21.66%), authority (frequency = 42; percentage = 19.35%), government (frequency = 20; percentage = 9.22%), incentives (frequency = 18; percentage = 8.29%), opportunity (frequency = 14; percentage = 6.45%), training (frequency = 12; percentage = 5.53%) and independent (frequency = 9; percentage = 4.15%). Potentially unwanted words were filtered out and some of the words were clubbed into a single word (accommodation and arrangements were both clubbed under the word infrastructure); thus, finally reaching to eight meaningful words.

Figure: 2

Table:2 shows the frequency and percentage of the words generated by Word Cloud on MAXQDA:

Words	Frequency	Percentage %
infrastructure	55	25.35
care	47	21.66
authority	42	19.35
government	20	9.22
incentives	18	8.29
opportunity	14	6.45
training	12	5.53
independent	9	4.15

After the coding process, these are the following reasons/themes surfaced up which portrays the reasons behind choosing/initiating the business by the womenpreneurs:

Family – The following reasons are the family aspects which influenced the womenpreneurs to initiate and choose their business:

Business Expansion – One of the womenpreneurs is of the view that her father-in-law owned a fast food shop which she is trying to enrich & expand.

Support from Family – One of the womenpreneurs opined that her husband is supportive and he always extend a helping hand towards her. Hence, it can be inferred that support from the family members is an important parameter for commencing the business by the womenpreneurs.

Financial Support to Family – The womenpreneurs revealed that because of their family's poor & distressed financial condition, they kickstarted the business. Poor economic condition of the family, ailing husband, sole earner of the family are some of the reasons why the womenpreneurs (respondents) have initiated their business.

Family Legacy – Some of the respondent womenpreneurs are of the view that they are carrying forward their family business and are also expanding the existing family business which implies that they are taking the legacy of their family forward.

Influence of Place – It has been opined by the women respondents (entrepreneurs) that the products they make are popular in their respective native places (jute products in the district of

East Bankura & 'Pattachitra' in the district of West Bengal. Therefore, place/location/region has an influence over the choice of business by the respondent womenpreneurs.

Training –Following are the trainings provided to the womenpreneurs:

One of the womenpreneurs expressed that to make better products out of jute, she took training from an expert, which made her acquire the prowess & skills of making jute products.

Another respondent expounded that training has been imparted to her by ECO – RCT, Howrah, which provides training for the development of womenpreneurs who are a part of SHG (Self Help Groups).

One of the womenpreneurs revealed that she got to learn the artwork from a local club named ***'Amar Sangha'***. The said club organizes workshop on woolen handmade products and trains the womenpreneurs.

Creation of Identity–A womenpreneurs was of the view that she wanted to create her own self-identity and for that purpose she started the business. It has been articulated by her that she will put her efficiency to best use through which she will be able to create her own self-identity and also increase her family income.

6.3. Coding Map showing the reasons for initiating and choosing the business by the womenpreneurs:

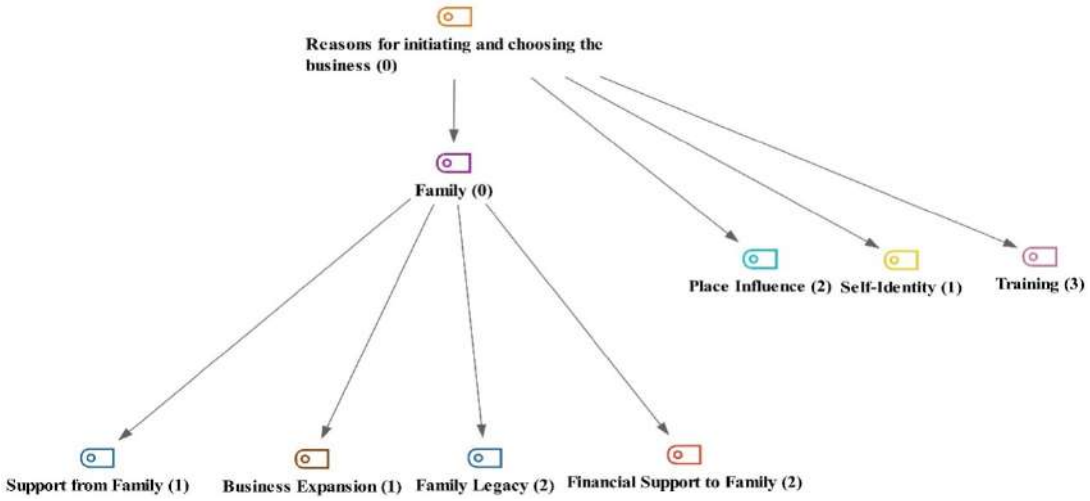

Figure: 3

From the above coding map (Fig.3), it is evident that there are four broad reasons/themes for the womenpreneurs to initiate and choose their respective business – *'Family', 'Place Influence', 'Self-Identity' and 'Training'* and four sub-themes under the theme "Family", namely – *'Support from Family', 'Business Expansion', 'Family Legacy' and 'Financial Support to Family'*. The numeric value after every code/theme indicates how many respondents out of the five respondents have spoken about the above themes. *'Reasons for initiating and choosing the business'* and *'Family'* are showing zero value because they are the broad themes and the sub-themes under them are showing values.

6.4. Word Cloud depicting the reasons for initiating and choosing the business by the womenpreneurs:

The figure below (Fig.4) is a word cloud representation which depicts the frequencies of the words articulated by the respondent womenpreneurs while they were being interviewed. Family tops the chart (frequency = 16; percentage = 51.61%) followed by training (frequency = 6; percentage = 19.35%), crisis (frequency = 4; percentage = 12.90%), desire (frequency = 3; percentage = 9.68%), paschim-medinipur (frequency = 1; percentage = 3.23%) and purba-bankura (frequency = 1; percentage = 3.23%). Potentially unwanted words were filtered out and some of the words were clubbed into a single word (identity and self-identity were both clubbed under the word desire); thus, finally reaching to six meaningful words.

Figure: 4

Table: 3 shows the frequency and percentage of the words generated by Word Cloud on MAXQDA:

Word	Frequency	Percentage %
family	16	51.61
training	6	19.35
crisis	4	12.90
desire	3	9.68
paschim-medinipur	1	3.23
Bankura	1	3.23

7.Conclusion:

Trade authority of Sabala Mela has laid an exclusive platform through which the womenpreneurs can exhibit their skills and prowess. The benefits provided by Sabala Mela such as – '*Travelling Allowance', 'Meal Allowance', 'Safety and Security', 'Hamonious Bonding', 'Infrastructural Support'* and *'Training'* as well as the initiatives taken by the State Government and DRDC has proved to be a contented proposition for them. Furthermore, *'Family', 'Place Influence', 'Self-Identity' and 'Training'* are some of the reasons which made the womenpreneurs kickstart their business. Moreover, it has been found that "infrastructural support" provided by the fair authority has a major role to play in the lives of the womenpreneurs as it has been revealed in the word cloud that 'infrastructure' holds the major portion of the pie (frequency = 55; percentage = 25.35%). Whereas, *'family related aspects'* has triggered the womenpreneurs strongly to initiate and choose their business as it has been revealed in the word cloud that 'family' holds the major portion of the pie (frequency = 16; percentage = 51.61%). Although, there are areas where more help can be provided from the part of fair authority of Sabala Mela and the State Government which can lead to more profusive growth of the womenpreneurs.

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Role of MGNREGA in Rural Development: A Study of Hooghly District of West Bengal

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Abstract

Poverty and unemployment are serious problems of developing countries like India. Even seven decades after India's independence, the country still fails to tackle the creeping poverty, illiteracy, hunger, social inequality and other characteristics of a developing country. The only factor responsible for this is unemployment, especially in rural India. MGNREGS, a legally binding, rights-based and guaranteed programme, if implemented perfectly, is expected to bring about a transformation in the rural economy. By eliminating all the above social threats, MGNREGA can improve sustainable rural livelihoods and empower the rural poor to successfully manage their risks and opportunities. The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is an Indian employment programme passed by Parliament on August 25, 2005, whose main objective is to improve the livelihood security of people in rural areas by providing a statutory guarantee of at least one hundred days of work per financial year to every household whose adult members are willing to perform unskilled physical labour. In this study, an attempt has been made to evaluate the performance of MGNREGS based on secondary data collected in Hooghly district during 2013-14 to 2017-18 in terms of employment generation and women empowerment by providing employment opportunities to women.

Keywords: Poverty, Unemployment, MGNREGA, Employment Generation, Women Empowerment.

Introduction

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is an Indian employment programme passed by Parliament on August 25, 2005, whose main objective is to ensure the livelihood of people in rural areas by providing every household whose adult members are willing to perform unskilled manual labour with a statutory guarantee of at least one hundred days of employment per fiscal year, failing which an unemployment benefit will be paid. MGNREGS began its journey on February 2, 2006, in India's 200 most backward districts. The following year, i.e., 2007-08, the Act was extended to another 130 districts and finally to the entire country in 2008-09. The programme is in place with the aim of providing a powerful safety net for the rural poor due to lack of alternative employment opportunities. The most important aspect of the law is the empowerment of the rural poor through a rights-based law. MGNREGA leads to this type of programme, which was not developed on its own initiative, but as a legally binding response by the state to a legally guaranteed right to work.

Key Features of MGNREGS

i) It is a right-based employment programme.
ii) It is a legally binding guaranteed employment programme for rural adults.
iii) It emphasizes on labour-intensive works.
iv) Time bound guarantee of employment programme.
v) Decentralisation of authority.

MGNREGS in Hooghly District

In West Bengal, MGNREGS came into effect in February 2006` and was implemented in three phases in different districts of that state. In the second phase, which began on April 1, 2007, MGNREGS was implemented in Hooghly district to address the problem of unemployment and poverty among the rural poor.

Review of Literature

In his study, **Venkatesh (2009)** considered the impact of the economic crisis on the rural economy as a significant loss of employment opportunities. He considered that MGNREGA played an important role in mitigating the economic crisis of the rural population by creating productive jobs on a large scale in rural areas. He discussed some of the main problems in the

implementation of MGNREGS. He also reported that where the MGNREGS has been effectively implemented, the outflow of labour has decreased significantly and the living conditions of the poor have improved. The author also suggested that the law should be implemented in its true spirit, without a cap of 100 working days, as it has become a lifeline for millions of Indians who have been sidelined by high economic growth.

In his study focusing on poverty and unemployment, **Sivamurugan (2012)** looked in detail at job creation programmes implemented in the past as well as MGNREGA. Based on his observations, he concluded that poverty and unemployment are the two main problems faced by both developing and developed countries in the world due to the recent economic crisis. The author reported that the situation of most developing countries is too bad compared to developed countries. The author also reported that MGNREGA was introduced with the aim of improving the purchasing power of rural people by providing 100 days of guaranteed employment in each financial year to adult members of each rural household who are willing to do public unskilled work.

Das (2013) conducted a study titled "Performance of Mahatma Gandhi National Rural Employment Guarantee Scheme with Special Reference to Hooghly District of West Bengal" in which the author tried to draw some conclusions about the measures of performance of MGNREGS in Hooghly District of West Bengal. The author found harmonised variations in some important indicators such as the average employment days created per household, the ratio of work completed to work taken up, and the proportion of local funds spent

Salian, Prasanna V. and D.S Leelavathi (2014) studied the implementation of MGNREGS in Karnataka: problems and challenges. The objectives of their study were: i) to examine the status of rural poverty and unemployment in Karnataka; ii) to assess the performance of MGNREGS in Karnataka since its inception; and iii) to identify the problems and challenges in the implementation of MGNREGS in Karnataka and their resolution. In their study, they assessed the programme against the prerequisites for an inclusive growth model that ensures reduction in unemployment and alleviation of poverty in the villages of Karnataka. They concluded that the performance of MGNREGS in Karnataka was not adequate given the poverty and unemployment rates in the state compared to other states with better performance.

Objective of the study

The primary aim of the study is to assess the role of MGNREGS in rural development in Hooghly district of West Bengal and the specific objectives are as follows:

i) To find out the extent of creation of employment through this scheme in Hooghly district.
ii) To examine the role of MGNREGS in women empowerment in Hooghly district.
iii) To provide some suggestions that can improve the functioning of the scheme in this district.

Methodology and Data Base

This research draws upon secondary data, which has been sourced from a variety of published materials including books, handbooks, research articles, magazine publications, Government reports, the MGNREGS website, as well as records at both the block and district levels. The collected data have been analysed by using various statistical tools like tables ,averages, percentages, bar diagram etc. to arrive at precise results relating to the objectives of the study.

Employment Generation through MGNREGS in Hooghly District

Let us now consider employment generation in the Hooghly district of West Bengal during 2013-14 to 2017-18.

Table I Employment Generation under MGNREGS in the Hooghly District during 2013-14 to 2017-18

Year	No.of HHs applying for job cards	No. of HHs to whom job cards were issued	% of HHs who are issued job cards among HHs applying for the same	No.of HHs demanding work	No. of HHs provided with Work	HHs provided with work as % of HHs demanding work

2013-14	684104	676746	98.92	499692	484028	96.87
2014-15	704016	699646	99.38	429336	389449	90.71
2015-16	719612	714039	99.23	503044	481729	95.76
2016-17	739416	732050	99	504493	472697	93.7
2017-18	727896	717146	98.52	514563	485827	94.42
Average for the period	715009	707925	99	490226	462746	94

Reference: www.nrega.nic.in

Table I depicts the employment generation data, illustrating the issuance of job cards and the employment opportunities extended to households seeking work within the Hooghly district of West Bengal.The district level data show that the Hooghly district of West Bengal is able to issue job cards on an average for 99 percent of households applying for the same for the year 2013-14 to 2017-18. When examining the proportion of households that requested employment and subsequently received work at the district level, it stood at 96.87 percent during the 2013-14 period, which subsequently decreased to 94.42 percent in the 2017-18 timeframe.It indicates that though government (Implementing agencies) was able to issue job cards to households applying for the same, it was unable to provide employment opportunities to all those households who demanded employment.

Let us now consider the block-wise employment generation in the Hooghly district of West Bengal during 2013-14 to 2017-18.

Table II shows block-wise performance of MGNREGA in the Hooghly district of West Bengal in terms of employment generation. During 2013-14, the average of employment provided as percentage of employment demanded for the district was 96 per cent and it is observed that 11 blocks out of 18 blocks performed above the district average, the top three performing blocks being Dhaniakhali (98.77 per cent), Jangipara (98.54 per cent) and Srirampore-Uttarpara (97.91 per cent).In this year, according to district average, the block at

the bottom of the district was Singur (92.36 per cent). In 2014-15, the district average was 90 per cent. Out of 18 blocks 11 performed above the district average and 7 blocks performed below the district average value. In order of performance first three blocks were Dhaniakhali (97.09 per cent), Srirampore-Uttarpara (92.96 per cent) and Chanditala-I(92.89 per cent) ,while Singur (83.9 per cent) took the lowest position in the district. Similarly, focusing on the year 2015-16, we observed that 8 blocks of the district performed above the district level value (95per cent). Dhaniakhali (99.05 per cent),Pandua (98.02 per cent) and Goghat-II (96.91 per cent) were the first three position holder blocks and the last one was Singur (90.54 per cent). In the year 2016-17, the average of employment provided as percentage of employment demanded for the district was found to be 93 per cent. Among the 18 blocks 8 were recorded as performing below the district level average having lowest value of 86.06 per cent in Tarakeswar. Among the rest 10 better performing blocks the top three were Dhaniakali (98.26 per cent), Balagarh (96.21 per cent) and Pandua (95.48 per cent.

Table II: Block-wise Employment Generation under MGNREGA in the Hooghly District during 2013-14 to 2017-18

BLOCK	2013-14			2014-15			2015-16			2016-17			2017-18		
	HHDE	HHPE	%	HHDE	HHPE	%	HHDE	HHPE	%	HHDE	HHPE	%	HHDE	HHPE	%
ARAMBAGH	43766	41781	95.46	43341	39212	90.47	46739	43749	93.6	48396	44448	91.84	49822	46981	94.3
BALAGARH	28538	27339	95.8	22215	19328	87	26400	25106	95.1	29602	28480	96.21	30595	29697	97.06
CHANDITALA-I	12980	12378	95.36	11341	10535	92.89	12326	11679	94.75	14005	12889	92.03	15100	14067	93.16
CHANDITALA-II	4584	4377	95.48	4645	4297	92.51	5652	5365	94.92	6354	5958	93.77	5511	5106	92.65
CHINSURAH-MOGRA	11299	10744	95.09	9145	8261	90.33	10651	9865	92.62	10242	9637	94.09	9590	9103	94.92
DHANIAKHALI	67186	66357	98.77	60395	58640	97.09	67524	66884	99.05	69846	68630	98.26	71949	70762	98.35
GOGHAT-I	18908	17964	95.01	17289	14723	85.16	19282	18162	94.19	18668	17027	91.21	19941	18296	91.75
GOGHAT-II	23477	22877	97.44	21107	18815	89.14	24960	24189	96.91	26132	24669	94.4	25857	24068	93.08
HARIPAL	35580	34348	96.54	34676	32190	92.83	33614	31492	93.69	34170	31593	92.46	32235	29368	91.11
JANGIPARA	30275	29833	98.54	26551	23077	86.92	31731	30399	95.8	34198	31791	92.96	34512	32377	93.81
KHANAKUL-I	36637	35802	97.72	33477	30813	92.04	37077	35166	94.85	32550	29030	89.19	33840	30221	89.31
KHANAKUL-II	20580	19870	96.55	17067	15735	92.2	21671	20969	96.76	22080	20794	94.18	22573	21151	93.7
PANDUA	48353	46865	96.92	36155	31531	87.21	51992	50963	98.02	54901	52418	95.48	54232	51754	95.43
POLBA-DADPUR	43960	42984	97.78	35629	32783	92.01	46208	44534	96.38	42718	40662	95.19	49950	47955	96.01
PURSURAH	25149	24181	96.15	19961	18498	92.67	23864	22959	96.21	22770	21304	93.56	22028	20582	93.44
SINGUR	16502	15241	92.36	13489	11317	83.9	13917	12601	90.54	13207	11877	89.93	10774	10086	93.61
SRIRAMPORE-	3819	3739	97.91	3721	3459	92.96	3867	3612	93.41	3769	3517	93.31	3818	3530	92.46

BLOCK	2013-14			2014-15			2015-16			2016-17			2017-18		
	HHDE	HHPE	%	HHDE	HHPE	%	HHDE	HHPE	%	HHDE	HHPE	%	HHDE	HHPE	%
UTTARPARA															
TARAKESWAR	28099	27348	97.33	19132	16235	84.86	25569	24035	94	20885	17973	86.06	22236	20723	93.2
Average for the District	27761	26890	96	23852	21636	90	27947	26763	95	28027	26261	93	28587	26990	94

Source:www.nrega.nic.in

HHDE represents the number of households requesting employment, while HHPE indicates the count of households that received employment opportunities. The symbol %= denotes the proportion of employment provided in relation to the employment demanded.

Repeating the same analysis, it is observed that only 6 blocks out of 18 blocks performed above the district level value (94 per cent) in terms of employment provided as a percentage of employment demanded and the top three performing blocks were Dhaniakhali (98.35 per cent), Balagarh (97.06 per cent) and Polba-Dadpur (96.01 per cent).Khanakul-I (89.31 per cent) occupied the lowest position. As a whole, it is seen that the percentage of employment provided against employment demanded had come down to 94 per cent in the year 2017-18 from 96 per cent in 2013-14 and Dhaniakhali is the most performing block of the Hooghly district.

Now, we will examine the involvement of vulnerable groups, namely Scheduled Castes (SCs), Scheduled Tribes (STs), and women, in employment within the Hooghly district of West Bengal from the years 2013-14 to 2017-18.

In the Hooghly district of West Bengal, the total population of Scheduled Castes and Scheduled Tribes was recorded as 1,344,021 and 229,243, respectively, according to the 2011 census, representing 24.35 percent and 4.15 percent of the total population. As indicated in Table III, the involvement of Scheduled Castes in employment generation decreased from 48.51 percent in 2013-14 to 46.31 percent in 2017-18, with an average of 47 percent over the period from 2013-14 to 2017-18. Conversely, the participation of Scheduled Tribes in employment increased from 9.1 percent in 2013-14 to 9.6 percent in 2017-18, with an average of 9 percent during the same time frame. Notably, both Scheduled Castes and Scheduled Tribes exhibit a higher participation in employment than their proportional representation in the total population of the Hooghly district. This demonstrates the effectiveness of MGNREGA schemes in reaching out to these communities for employment opportunities.

The scenario regarding women's participation in employment generation is distinct. There was a noticeable upward trend in women's participation, rising from 37.03 percent in 2013-14 to 42.94 percent in 2017-18. The Act mandates a minimum requirement that at least one-third of total workers must be women, a target consistently met by MGNREGS in the Hooghly district throughout the years 2013-14 to 2017-18.

Table III: Employment Generations to SCs, STs and Women in Hooghly District during 2013-14 to 2017-18

Year	Percentage of SC person-days in relation to total person-days	Percentage of ST person-days in relation to total person-days	Percentage of women person-days in relation to total person-days
2013-14	48.51	9.1	37.03
2014-15	46.43	7.91	40.76
2015-16	47.01	9.44	40.48
2016-17	45.47	9.84	41.59
2017-18	46.31	9.6	42.94
Average for the period	47	9	41

Source:Author's calculation from data obtained from official website of MGNREGS

Women Empowerment

Let us consider the role of MGNREGA scheme towards women empowerment through providing employment opportunities for women in Hooghly district of West Bengal during 2013-14 to 2017-18.

Within the Hooghly district of West Bengal, the census of 2011 recorded a total women population of 2,704,492, constituting 49 percent of the overall population. Table-IV provides a comprehensive breakdown of women's person-days, expressed as a percentage of the total person-days generated, both on a block-wise basis and for the entire Hooghly district, over the period spanning from 2013-14 to 2017-18.

For the 2013-14 fiscal year, the proportion of women's person-days in relation to the total person-days generated for the entire district was 37.03 percent.

Table-IV: Block wise Participation of women under MGNREGA in the Hooghly district during 2013-14 to 2017-18

Block	Percentage of women person-days in relation to total person-days				
	2013-14	2014-15	2015-16	2016-17	2017-18
Arambagh	39.64	42.5	41.9	44.62	42.45
Balagarh	36.47	43.77	41.85	42.33	44.85
Chanditala-I	38.74	39.62	39.11	38.05	40.18
Chanditala-II	49.03	50.29	53.98	54.74	53.45
Chinsurah-Mogra	50.33	58.84	55.66	53.22	52.14
Dhaniakhali	33.82	37.14	37.45	37.78	39.69
Goghat-I	39	39.37	41.18	37.87	40.93
Goghat-II	33.41	39.31	35.85	34.14	39.49
Haripal	35.35	39.87	38.53	40.74	42.61
Jangipara	33.89	36.91	38.38	40.1	42.06
Khanakul-I	31.56	36.34	34.86	36.92	35.76
Khanakul-II	41.94	44.75	42.14	40.49	45.57
Pandua	45.08	46.61	45.81	46.24	46.43
Polba-Dadpur	35.12	37.65	40.27	42.41	43.45
Pursurah	34.63	41.86	39.79	47.42	48.5
Singur	31.81	40.9	37.1	36.52	47.54
Srirampore-Uttarpara	53.79	63.87	63.4	63.55	59.2
Tarakeswar	38.35	41.76	42.82	40.68	43.45
Total	37.03	40.76	40.48	41.59	42.94

Source: Author's calculation from data obtained from official website of MGNREGS

Using this as a reference point, it becomes evident that within the Hooghly district of West Bengal, there are significant variations in the participation of women in the workforce across different blocks during the years 2013-14 to 2017-18.

In the initial year, 2013-14, the top three performing blocks out of the 18 in the district were Srirampore-Uttarpara (53.79 percent), Chinsura-Mogra (50.33 percent), and Chanditala-II (46.22 percent) in terms of women's person-days as a percentage of the total person-days generated. Conversely, Khanakul-I exhibited the lowest performance (31.56 percent).

Progressing to the subsequent years, the standard for comparison shifted. In 2014-15, the leading blocks were Srirampore-Uttarpara (63.87 percent), Chinsura-Mogra (58.84 percent), and Chanditala-II (50.29 percent). The weakest performance remained with Khanakul-I (36.34 percent).Similarly, in 2015-16, the top performers were Srirampore-Uttarpara (63.4 percent), Chinsura-Mogra (55.66 percent), and Chanditala-II (53.98 percent), while Khanakul-I still struggled at 34.86 percent. Moving forward to 2016-17, the standout blocks included Srirampore-Uttarpara (63.55 percent), Chanditala-II (54.74 percent), and Chinsura-Mogra (53.22 percent), with Goghat-II at the bottom (34.14 percent).By 2017-18, the leading blocks were Srirampore-Uttarpara (59.2 percent), Chanditala-II (53.45 percent), and Chinsura-Mogra (52.14 percent), and Khanakul-I continued to lag behind (35.76 percent).

Based on this analysis, it is clear that Srirampore-Uttarpara consistently emerges as the top-performing block in terms of women's participation under the MGNREGA scheme. Additionally, the overall trend highlights an increase in women's participation from 37.03 percent in 2013-14 to 42.94 percent in 2017-18, meeting the statutory minimum requirement of one-third women beneficiaries for each year between 2013-14 and 2017-18. This data analysis underscores the positive impact of women's involvement in the MGNREGA scheme, contributing to improved employment opportunities and enhanced social status for women in the rural areas of Hooghly district.

Summary and conclusion

Performance in employment generation has been judged in terms of several criteria such as households issued job cards as percentage of household applying for the same, and work provided to households as percentage of households demanding work. At the same time participation of SC, ST in total person days has also been taken account of. Regarding issue of job cards and providing work, it is observed that MGNREGA authority of Hooghly district was able to issue job cards to households applying for the same but it was unable to provide employment opportunities to all those households who demanded employment. It is also seen that the percentage of employment provided against employment demanded has gradually decreased and the Dhaniakhali block is the most performing block of the Hooghly district in terms of employment provided as a percentage of employment demanded.However in the matter of providing jobs to SC and ST persons, Hooghly district is able to reach the SCs and STs to a great extent in respect of employment generation through MGNREGA schemes.

Suggestions and Recommendations

1. The effectiveness of any program primarily hinges on its meticulous execution. To address the challenges associated with MGNREGS, it is imperative to ensure the diligent application of rules and regulations. Enhancing the program's efficacy necessitates the ongoing organization of awareness initiatives concerning the Act's provisions within rural communities. This approach serves a dual purpose: motivating individuals to engage in the scheme and fostering their active involvement in both planning and executing MGNREGS.

2. Both the Government officials and the civil society should actively participate in developing awareness on MGNREGA among the beneficiaries.

3. As per the Act it is mandatory for the job card holders to make an application for individual demand for work and the respective panchayat is responsible to issue acknowledged receipts to them, but it is not always practicable for the workers who are living far away from the panchayat office. An alternative facility may be established in this regard like introduction of the practice of sending demand applications through mobile SMS. For this purpose a toll free number may be set up for each gram panchayat, to which the workers may send their SMS regarding application of demand for work along with their names and job card numbers. This message should be treated as an application for work and be transmitted to the block and district level authorities. It will reduce both time and cost of processing the implementation of the scheme.

4. Democratic leadership style should be established in all affairs of MGNREGS.It will enhance greater community participation, sharing of information, expression of opinion by the rural people, and development of social networks.

5. The wage rate should be periodically updated, considering the prevailing local wage rates and the overall cost of living.

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Women Leadership: A Reflection of Transformational Dimensions in the Organizations

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Women Leadership: A Reflection of Transformational Dimensions in the Organizations

Abstract

Over the centuries civil society across the globe has undergone immense transformation. Gradually over some time, women along with men have started joining the workforce. In the present era, women have broken the shackles of gender stereotypes and have emerged as significant contributors to their respective fields. The present study makes an effort to understand the perspectives of diversity and inclusivity regarding gender representation in organizations. More specifically, the study makes an effort to have an insight into the regime of women in the lead in the modern-day organizational context. The current paper is based on a systematic review of selected articles on women's leadership published in academic journals. The findings of the aforesaid study appear to suggest that gender diversity and inclusivity do contribute to enhancing organizational prosperity. Additionally, it was also observed that women leaders are making a significant impact in fostering organizational growth. Henceforth, it may be said that the emergence of women in diverse fields is paving the way for further societal progress in the years to come.

Keywords: Leadership, Women Leaders, Gender Diversity, Inclusivity, Organizational Growth

Introduction

The emergence of the new millennium has witnessed the steady progress of women in many social and economic spheres. The stepping stone towards the spectacular shift was laid in the last millennium. Traditionally, both genders confirmed their respective gender roles set by societal norms. Men were supposed to go out and earn for the welfare of their respective families. Women on the hand were expected to nurture and look after their families. Over the decades societal changes have redefined the notion of gender stereotype roles. The sweeping changes in the social dynamics have allowed women to explore career opportunities. Of late, it is seen women are assuming leadership positions and are doing exceedingly well. This in a way has helped industries to understand the advantages of having a more diverse workforce across the organizational hierarchy. As an outcome organizations too are coming forward with more flexible policies to have a more gender-diverse and inclusive workforce. Throughout the past decades, women have shattered the so-called societal glass ceiling. Still, women remain underrepresented in the senior ranks of management. At the same time, it must also be noted that the present era is witnessing a wave of positive development when it comes to women's leadership in organizations. Thus, a comprehensive understanding of gender diversity, inclusivity, and women leadership at large will delve deeper to unearth the prospects of the same in the organizational context.

Review of Literature

Gender-Based Stereotypes

Gender stereotypes are generalizations of characteristics assigned to each gender at the societal level. Generally, warmth, care, compassion, and sensitivity have been associated with women. On the other hand ambition, assertiveness, aggression, and independence are often correlated with men. The commonly held societal belief suggests women folk take care of while their male counterparts take the financial charge of the family. Since the last century, there has been a gradual evolution in the status of women in society around the globe. From being considered to be inferior to males; women are now making their presence felt across the sectors. Alongside they are expected to carry out their family responsibilities along with their professional commitments. However, women are still found to be underrepresented in

positions of power. They also face pay discrepancies at the workplace. For example, Georgeac and Rattan (2019) stated inequalities in the domain of pay continue to be an ongoing issue in the realm of gender equality. Although women still face a lot of hindrances in making career advancement yet the time has come to embrace and cultivate gender diversity in business firms.

Social Progress of Women

Ever since the onset of the new millennium gender stereotypes in every field of work is seen to be slowly disappearing. The seeds of the present era change concerning the status of the women folk were been planted in the last century. One of the predominant factors that appear to have played a decisive part in shaping the present-day status of women is their access to education. It took generations to ease the barriers of gender prejudice in every society spread around the world. As put forward by Valerio (2022) the United States witnessed rapid progress and inclusion of women in the workforce. This transformation was attributed to the rise of educational achievement amongst female folk that paced up since the late 1960s. In the American context, it is found that women have steadily climbed up the corporate ladder. In today's world, female representation in the apex level of management acts as the torchbearer of gender equality in business firms. Thus, it may be said that in the coming decades, women will make further remarkable progress in diverse arenas of work.

Gender and Leadership

In simple words, leadership is described to be the ability of an individual to lead and motivate the followers to accomplish predefined goals. Leaders craft the way to achieve the pre-set objectives with their abilities. With the gradual influx of women in the organizations researchers were tempted to address the common question of whether gender has to do anything with leadership. The answer to the said question appears to be a bit dicey as some studies state that there exists gender difference when it comes to leadership while some other claims vice versa. For example, it appears to emerge from past studies such as those conducted by Eagly& Johnson (1990) and Eagly Johannesen-Schmidt, & van Engen (2003) that women leaders tend to display a participative or democratic style of leadership while their male counterparts are attributed to be exhibiting directive or autocratic leadership behavior. Interestingly, Groves (2005) asserted that women are found to exhibit transformational leadership behavior. On the other hand, some further studies concluded that

gender difference in terms of leadership is a myth. Other research studies attempted to explore gender qualities with leadership. One such study is that of Eagly and Karau (1991), who in their study that male leaders found male leaders performed in the arenas of short-term, task-oriented groups that did not involve social interactions. At the same time, women were prone to score high on social leadership behavior than their male counterparts. Hence, it appears to emerge from the prior research literature that women can take the lead from the front and emerge as notable contributors to facilitate organizational progress.

Objective

The present study attempts to evaluate the prospects of gender diversity and inclusivity in organizations. Additionally, the current study makes an effort to assess the regime of women leaders in their respective establishments. The type of organization primarily considered for the current paper is services business firms. The study predominantly takes into consideration of selected academic articles published between the 2014 and 2022.

Methodology

The current study follows a systematic review (Ridley, 2012) of selected academic articles on gender diversity and inclusivity in organizations and women leadership published in EBSCO-listed and PROQUEST-listed journals.

Findings & Discussion

Gender Diversity and Inclusivity

The present era is broadly described as an era of globalization. Diversity can be defined in many ways such as gender, race, ethnicity, religion, and so forth. A diverse workforce brings into the organization divergent perspectives on emerging issues. According to Donnelly (2017), 3% of Fortune 500 companies have come up with their workforce demographics on the organizations' websites to throw light on each organization's racial and ethnic demographics. Since the advent of globalization, there has been a steady rise in the rate of female labor participation. It is observed that certain jobs need a higher degree of social skills (Deming, 2017) this in fact may fit into the women workforce's employability on the ground. A significant number of studies suggest that gender diversity in the workforce is indeed beneficial for organizational growth in the long run. There are several advantages of having

diverse manpower in the organizations such as quality decision-making, higher profits, better crisis management, and so on. As stated by Catalyst Workplace (2014) business firms with a diverse workforce may lead to positive business outcomes such as better financial performance, lower rate of corporate fraud, higher levels of employee satisfaction, and engaging in a higher rate of innovation. Further, it is noted that at the board level, the presence of gender diversity is correlated with quality acquisition decisions, the lesser negative impact of the crisis on the units' performance, and better financial gains in the respective sectors of operation (Chen, Leung, Song, and Goergen, 2019). Additionally, it is asserted that securing gender equality in the top brass enhances the decision-making process and thereby contributes to shaping an efficient brand image of the respective business firms (Obert, Devi, Zororo, and Desderio, 2015). It is further observed gender diversity at the apex level of management is associated with a positive impact on financial performance and industries' competitive advantage (Belasen, Belasen, Belasen, &Belasen, 2021). Henceforth, it may be said that the growing number of literature on gender diversity and inclusivity is indeed a profound indicator that the workforce dynamics in organizations are gradually making a shift from the age-old 'men only' personnel to a fluid diverse human resource.

Women in the Lead

With the passage of time society across the globe has witnessed a change in the perceptions towards women. The higher rate of educational access and better healthcare facilities for women are some of the markers of the swift shift from age-old gender stereotypes. According to United Nations (2015), there has been a rise in women's representation in both educational and professional fields around the globe. Women who tend to exhibit masculine traits were more likely to gain access to occupations held by both genders than those with feminine personality traits (Drydakis, Sidiropoulou, Patnaik, Selmanovic, and Bozani, 2017). In the past few decades, women have set foot in professional territories which is an outcome of availing better educational opportunities. Bit by bit through the years women have made their own space in the male-dominated organizational spheres.

In simple words, leadership is described as the ability of an individual to lead, motivate and accomplish goals. Leadership and followership are reciprocal relationships. Leadership is an ongoing process that evolves with the passage of time and leaders gradually adopt their styles of working. Having a clear vision of the future, crisis responsiveness, ability to encourage

and motivate followers are some of the well-accepted leadership qualities. When women attain leadership positions they in a way get the opportunity to dispel the negative gender competency stereotypes in the organizations. Their presence in a productive way is helping erode the traditional thought process when it comes to gender stereotypes. Women's experiences and evaluations in positions of leadership differ from their male counterparts due to the mere fact that they are combating stereotypical social roles (Eagly and Carli, 2003). According to Vial and Napier (2018), women mostly prefer leaders who tend to display more communal leadership styles relative to men.

It is a commonly held view when it comes to women's leadership that women assuming positions of leadership tend to manifest their uniquely feminine qualities in their exhibited leadership behavior. Women's leadership style is often ascribed to an orientation toward care & help (Bryant-Anderson and Roby, 2022). Factors such as an environment cultivating trust, support at the societal level, new era organizational proficiencies, and rewiring of women's attitudes contribute to shaping the emergent women's leadership development and success (Lämsä and Savela, 2019). The presence of women leaders in organizations indeed brings forth a fresh school of thought. Remarkably, it is noticed that women managers carry out their tasks in more detail, and are more efficient in monitoring and encouraging development strategies (Brieger, Fancoeur, Welzel and Ben-Amar, 2019) on the organizational front. They are found to inculcate human and social qualities in their management style (Huse and Solberg, 2006). Alongside, they tend to focus on day to today interests with an objective and integrated approach. According to Eagly (2007), women tend to be democratic and participatory decision-makers.

There is a plethora of advantages to having women leaders in organizational settings. As pointed out by Arfken, Bellar, & Helms (2004) higher number of women represented on board and management teams may offer business units out of the box and innovative ideas and encourage better consumer behavior in the marketplace. Nevertheless, it is indeed noteworthy to observe how women leaders have steadily made their visibility in the diverse sectors of operations. For example: according to the Catalyst (2015), there was a time in the United States when there was no women top brass on board and slowly it progressed to having token representation of women in Fortune 500 board rooms. At the same time, it is observed that a higher number of women representations in the top chambers of management are noted to be associated with higher profits in terms of organizational growth (Noland,

Moran, & Kotschwar, 2016). It follows from the previous research studies that women through the pace of time have waded through the organizational barriers to bring forth an array of advantages that significantly contributes to shaping the pathway to organizational growth.

Hindrances to Career Advancement

Undoubtedly over the last few decades, there has been a steady inflow of women in the mainstream workforce but still, they remain underrepresented in senior ranks of the management pyramid. They still belong to the exception by rule in case of occupying leadership positions. They are entrusted with the job of shouldering family responsibilities along with making career progress. Nevertheless, women are faced with many obstacles in their pathway to career growth. For example, Barkhuizen, Masakane, and Sluis (2022) in their study analyzed the factors that act as roadblocks for women from climbing the leadership ladder in a variety of South African sectors. The study concluded that six factors act as the bottleneck for women to advance in executive leadership positions. They are societal perceptions towards women and gender-based stereotypes, inadequate guidance, masculine work outcomes, distorted leadership roles, insufficient training materials and development programs, and lastly improper work-life integration. Gender stereotype is the most common bottleneck that women face in their career graph. In the South African context, it is noted by Rogier and Padgett (2004) that has been a significant increase in women workforce participation in South Africa but they continue to face challenges when attempting to secure leadership positions in their organizations (Ronnie and Glaister, 2020). They further emphasized that women who showcase high commitment towards their career may be considered to be compromising with the commitment level of theyopt for flexible work arrangements and balanced work-life integrated policies. Through the decades women have significantly contributed to the process of organization building and the time has come for establishments and society at large to embrace the much-needed change and make way for the holistic development of the womenfolk and society at large.

Women Leaders and Organizational Growth

There are ample numbers of literature that evaluated the presence of women leaders across organization/s. The present paper also attempts to extend the ambit of studies exploring women's leadership. To do so, a few selected studies are illustrated to substantiate the

aforementioned finding that women leaders appear to have a significant impact in organizational settings. De Paola, Gioia & Scoppa (2022) conducted a field experiment to get an insight into how an individual's performance in teamwork is influenced by the gender of the leader or not. The sample for the prior mentioned study comprised students hailing from a university in Italy. The said samples undertook an exam that was partly assessed on team activity. The team members showcased higher performance outcomes in female-led teams. Consequently, it was found that male members held a pessimist view while evaluating the effectiveness of female leaders. On the other side, female members tended to preside over more favorable judgments. The finding of the study henceforth suggested that female leaders are found to be effective in work situations where cooperation is a pivotal element for working. Another study carried out by Peus, Braun & Knipfer (2015) examined how women in both Asia and the U.S. assume leadership positions and consequently how they exhibit their leadership style. They found contributory factors such as orientation towards achievement, inclination towards learning, and inspiring idols emerged as deciders that shaped the leadership advancement of women in the continents. Interestingly, Kirsch (2018) asserted that women leaders are found to be ethical thereby their presence leads to the minimization of risk when it comes to organizational fraud. The higher number of representations of women on the board of directors leadsto elevated expectations of the business firms to secure impressive ranking in the list of most admired organizations (Landry, Bernardi, and Bosco, 2016). Women folks have expanded their frontiers across the different spheres of organizations. One such area is that of representation of trade union leadership by women. Prowse, Prowse & Perrett (2022) investigated the leadership styles that are preferred by the representatives in the Public and Commercial Services Union (PCS) and thereafter singled out the implications based on gendered narrative leading toward the rise of women's representation in leadership roles in trade unions. The PCS happens to be one of the noteworthy unions in the UK with a large number of memberships (Certification Office, 2018). The findings of the study concluded that PCS lay representatives including both women and men preferred post-heroic (communal) leadership. The characteristics of post-heroic leadership are being helpful and empathetic which is usually practiced by women. More specifically, it emerged from the study that the principal five characteristics linked with post-heroic leadership are: being an ardent crusader of people skills, understanding listeners, being believers in the cause, being empathetic, and encouraging followers' empowerment. It was also observed that male leaders are aligned with heroic leadership that is characterized by

self-confidence and decisiveness. There have also been studies exploring the ethnicity of women leaders and what shaped their emergent leadership styles. Na and Kawahara (2022) conducted a study on women leaders of Asian lineage who navigated to the U.S. and thereafter occupied top positions in their esteemed organizations. It emerged from the aforesaid study that some key themes happened to have shaped their prospects of growth. They are the gradual progression of personal value systems into displayed leadership behavior, garnering guidance, mentorship, and effective support at the community level to accomplish remarkable outcomes via strategy-based communication and effective shift of context. Thus, it appears to emerge from the above-mentioned selected research studies that women are making their presence felt across the organizational spectrum thereby opening the gateway to further workforce inclusivity.

New Era of Women Leadership

Women occupying leadership posts inculcate feminine traits in their manifested leadership style. A recent study concluded that both genders of Generation Z prefer transformational and feminine leadership styles (Bornman, 2019). The steady progress of women in the workforce was slowed down during the outbreak of the Covid-19 virus pandemic. The gradual unfolding of the Covid-19 pandemic disrupted the normal course of life. Imparting education for children through online modes became the new normal. Organizations were perceived to be on the verge of losing women in leadership positions because they were found to be managing homeschooling with children and fulfilling domestic responsibilities (Valerio, 2022). Additionally, Valerio (2022) observed per the records of new enterprises, social media platforms, and business reports suggest that working women have faced direct and indirect effects of the pandemic aftermath. During the ongoing phase of the pandemic, researchers tried to figure out how leaders were responding to the pandemic. A 360-degree leadership assessment conducted between March and June 2020, comprising a large number of leaders found women scored higher as productive leaders than men on major skill sets and also secured impressive scores on engagement parameters (Zenger and Folkman, 2020). The aforesaid finding seems to corroborate Furst and Reeves's (2008) observation that women rise to positions of leadership during turbulent times they are open to embracing brand new talent pool and innovation and valorous ideas. More specifically, women are perceived to exhibit leadership behavior that encourages openness and inclusion and facilitates change. Therefore, it may be said that pandemic or no pandemic women leaders are appearing to thrive across

the situational contingencies, and at the same time their presence in organizations is making the way for the emergence of the next generation of leaders.

Limitations & Future Directions

The current study follows a systematic review of selected academic journal articles based on diversity, inclusivity, and women's leadership. Future studies following systematic review may be attempted to understand the rise of women in power in specific industrial sectors. Additionally, further research studies may incorporate empirical research on cultural pluralism and cross countries' perspectives to develop an integrated understanding of women leaders through the global lens.

Conclusion

In the past few decades gender diversity and more specifically women leadership in the workplace settings has been the core subject of many research studies. With the rapid advancement of globalization, the rate of women participation in labor force is on the rise. Women continue to make impressive gains by climbing up the management ladder in their esteemed organization. The stereotypical feminine traits such as nurturing, mentoring, and coordination are rapidly finding their place in contemporary organizations in the form of pro-social behavior. This in a way offers a lucid avenue for the academic scholars and practitioners to identify the suitable organizational systems and resources needed to make significant positive impact on their career advancement.In conclusion, it may be said that the visibility of women leaders in key positions will act as a pivotal tool to nurture and encourage the next generation of leaders in the years to come.

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Qualitative Case Studies On CSR Activities of Five Indian Companies During Covid-19 Pandemic

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Abstract

To investigate into the extent of CSR done during the COVID-19 pandemic, which affected the entire world and is an ideal scenario to visualize CSR activities, 5 case studies were conducted during this period selecting 5 companies among the top 10 CSR spenders in 2020-21 in India. It was found that livelihood and infrastructure for treatment were the primary foci of the companies and all the selected companies contributed to these categories. In vaccination and masks/sanitization, the two immediate necessities to restrict the disease spread, all the companies but ITC contributed. This study showed that during the COVID-19 pandemic, the companies came forward and donated appreciably for welfare of the society.

***Keywords*–** CSR, Case Study, Covid 19, Pandemic, Mask, Vaccination

1. Introduction

In December 2019, outbreak of a highly infectious viral disease called coronavirus or COVID-19, which was first identified in Wuhan, China, changed the entire scenario of the world drastically. The World Health Organization (WHO) declared this outbreak as pandemic on 11 March, 2020. Thousands of people died across all the continents, organizations were shut down, people lost their jobs, and the entire world faced major health and economic crisis during the period of this COVID-19 pandemic. Businesses suffered a great loss during this time because of maintaining social distancing, work from home, reduced production and sale, and company shut down. The demand of various products in the market decreased and several firms had to close down their business operations. Governments, NGOs, and corporate giants in every country worked day and night to provide sanitation and relief continuously to the citizens to fight against this pandemic situation. Companies came forward to support the community and society with various COVID 19-related activities as a part of their CSR program to save the people and country.

In India, the Ministry of Corporate Affairs introduced the Companies Act in 2013, whose Section 135 and Schedule VII state the CSR related policies. The Act came into effect on April 1st , 2014, making India the first country in the world to mandate both CSR and its reporting practices. The most important aspect of this Act is that a company having net profit of Rs 5 crore or a net worth of Rs 500 crore or a turnover of Rs 1000 crore is required to spend at least 2% of its average net profit of the preceding three financial years on corporate social responsibility activities. Moreover, Section 135 (2) of the Act also enforces that all Indian companies must disclose their CSR activities in their audited annual reports in a prescribed format. In this regard, some CSR activities were made mandatory for disclosing and some voluntary.

In the currentarticle, 5 case studies have been described which involve a qualitative analysis of CSR activities only related to COVID-19 undertaken by 5 selected Indian companies during the pandemic period.

2. Objective of the Study: The primary objective of this case study was to evaluate up to what extent the top 5 CSR spending companies in the FY 2020-21 were engaged specifically in COVID-related CSR programs.

3. Company Selection

Among all the NSE listed companies in India, the top 5 CSR spenders were considered. The selected companies are Infosys Ltd, Tata Chemicals, ITC Ltd, Grasim Industries Ltd, and Tata Power Ltd. All data were taken from the company's own websites, annual reports, sustainability reports and business news.

4. Period of Study

The period of this case study was restricted to the pandemic period, i. e. 2020-21. This period actually comprises the financial year immediately after WHO declared COVID-19 as pandemic in March, 2020.

5. Financial Backgroundof the Selected Companies

The financial background of the selected companies is outlined here. Table 1 shows a glimpse of the company profile, where company wise data, such as market capitalization, total assets, PAT, and CSR expenditure, as on 31-03-2021, are presented.

Table 1.A glimpse of the company profile

Company	Established	Market Capitalization* (Cr.)	Total Assets (Cr.)	Profit After Tax (Cr.)	CSR Expenditure (Cr.)
Infosys Ltd	1981	580728.16	108386	19423	325.32
Tata Chemicals	1939	18966.93	28337.20	410.60	20.92
ITC	1910	267282.34	73819.30	13389.80	365.43
Grasim	1947	94665.91	267056.31	6797.48	84.66
Tata Power	1919	32228.23	98851.23	565.26	3.45

**Market Capitalization Value as on 31.03.2021*

6. CSRExpenditure of the Selected Companies in the FY 2019-20and 2020-21

The CSR expenditure patterns of the selected companies in the FY 2019-20 and 2020-21 have been shown in Tables 2 and 3. The prescribed and actual amount of CSR spending along with a comparisonbetween the two, in percentage,are presented. The prescribed CSR

refers to the CSR spending amount prescribed by the Companies Act, i. e. 2% of the past 3 years' average net profit. Moreover, the trusts and foundations which the companies set up to execute CSR are also listed in Table 3.

Table 2.CSR expenditure of the companies in 2019-20

Company	**Prescribed CSR (Cr.)**	**Actual CSR (Cr.)**	**Actual: Prescribed CSR (%)**
Infosys	359.56	359.94	100
Tata Chemicals	21.39	37.81	177
ITC	306.55	306.95	100
Grasim	48.43	58.98	122
Tata Power	3.04	3.8	125

It can be observed that in both tables that the actual CSR expenditure exceeded the prescribed value by the Act. This shows that the top 5 companies spent much higher than the minimum requirement. Even during the COVID-19 pandemic when there was acute financial crisis, they came forward actively and donated handsomely to help the country fight this COVID disaster.

Table 3.CSR expenditure of the companies in 2020-21

Company	**Prescribed CSR (Cr.)**	**Actual CSR (Cr.)**	**Actual: Prescribed CSR (%)**	**Foundation & Trusts for CSR**
Infosys	372.39	325.32	87	Infosys Foundation
Tata Chemicals	18.51	20.92	113	Tata Chemicals Society for Rural Development (TCSRD), the Tata Trusts, Uday Foundation, Tata Chemicals Golden Jubilee Foundation, Ncourage Social Enterprise Foundation.
ITC	352.84	365.43	104	ITC Education and Healthcare Trust, ITC Rural Development Trust
Grasim	45.06	84.67	188	Grasim Jana Seva Trust
Tata Power	3.45	3.45	100	Tata Power Community Development Trust

7. The Selected Companies and their Covid-19 Related CSR

7.1 Infosys Ltd

Company Profile. Infosys Ltd, initially called Infosys Technologies Ltd, was first incorporated by N.R. Narayana Murthy and a team of six engineers from Pune in 1981 with investment of USD 250. The company became a public limited one in 1992, and was the first Indian company to be listed in NASDAQ in 1999 as American Depository Receipts. It is one of the global technology service firms which provides financial and insurance services to enterprises related to banking, manufacturing, utilities, energy sector, consumer packaged goods and logistics. Infosys mainly offers IT services, engineering services, consulting services, BPO services, and products and platforms. Finacle, one of its popular products is a universal banking solution with various modules for retail and corporate banking. As on 31st March, 2020, Infosys is present in 220 locations across 46 countries, and is an ever-growing multinational company with more than 1,60,000+ employees worldwide, 73 offices and 93 development centers in the United States, India, China, Australia, Japan, middle East and Europe. With respect to revenue earning in 2020, Infosys became the second largest IT company after TATA Consultancy Services (TCS) in India.

Company's CSR Policy. Infosys has been an early adopter of CSR initiatives. The company believes that its social responsibilities extend beyond its business, and based on this motto, Infosys Foundation was established in 1996 whose primary activities are protection of national heritage, restoration of historical sites, promotion of art and culture, destitute care and rehabilitation, promoting education, enhancing vocational skills, promoting health care, alleviating hunger, poverty and malnutrition, protect environment and rural development. In a word, the company's CSR activities are not only limited to philanthropy, but also encompass holistic community development, institution-building and sustainability-related initiatives. The main objective of the members of CSR committee is to contribute to the economic development of the country which made a positive impact on the society at large with minimal resource footprint. The committee also holds the entire CSR responsibility of the company to support all its stakeholders.

Company's Covid-19 CSR Programs. A week prior to the national lockdown, Infosys started the COVID-19 relief work by contributing to various COVID-19 related programs in India and the US. The company initiated a campaign asking its employees to donate a part of their salary to the COVID-19 fund. The Infosys Foundation contributed around INR 100 crore to encounter the COVID crisis in the financial year 2020-21. Out of this fund, 50% was donated toward the PM CARE Fund and the other50% was used in three broad areas, namely expanding hospital capacity for treatment, providing ventilators, test kit and personal protective equipment for healthcare workers, and to ensure access to food and nutrition for migrant workers. Later, the company increased its COVID-19 contribution to INR 200 crore.

To accommodate a larger number of COVID patients, the company expanded the hospital capacity, such as the Foundation set up a 100-bed and another 182-bed quarantine facilities for patients both in Bengaluru in collaboration with Narayana Health City and in Bowring and Lady Curzon Medical College, respectively. New equipment was installed, entire infrastructure, including furniture and fittings were supplied, and 2 ambulances were provided by the company. The company also arranged for regular doctors and nurse visits along with free medication.

Other than Bengaluru, medical equipment and infrastructure, such as ventilators, patient monitoring systems, viral transport media, N95 and other masks, non-contact infrared thermometers, medical gas pipelines and gas manifolds systems and PPE kits were provided to various hospitals in India.

The Foundation also arranged and distributed provisions, supplies and hygiene kits through various government and non-government organizations to the poor and underprivileged, daily wage-workers, whose livelihoods were affected.

Additionally, the company used its technological expertise to develop mobile applications, such as 'Crush Covid RI' and 'Apthamitra', to help the local governments fight against COVID-19. The company also established COVID -19 vaccination centers in its campus and collaborated with 130+ hospitals in India.

7.2 Tata Chemicals Ltd.

Company Profile. Tata Chemicals was incorporated on January 23, 1939 as a subsidiary of Tata group conglomerate. Tata Chemicals produces basic chemical products, including soda

ash, sodium bicarbonate and other key ingredients of glass, and detergents. Tata Chemicals is the pioneer and market leader in India's branded iodized salt segment and leading manufacturer of urea and phosphate fertilizers. It is currently the world's third largest producer of soda ash and sixth largest producer of sodium bicarbonate, which is used in different products range from food to pharmaceuticals to air pollution control. Other than India, the company expanded its business in Europe, North America and Africa. The company also established world class R &D facilities with a devoted group of researchers working in fully equipped laboratories in Pune and Bengaluru in the areas of material sciences, nutritional sciences, nanotechnology, biotechnology and agriculture sciences.

Company's CSR Policy. The CSR policy of the company is mainly directed to improving the quality of the society, and conserving environment and biodiversity in a sustainable manner following the guidelines of the Companies Act, 2013 (Section 135, Schedule VII). The CSR committee of the company monitors whether the company implements its CSR projects in line with the company's CSR policy. In this regard, the company formulated some need-based CSR activities, such as poverty alleviation, food safety, good health and wellbeing, education, clean water and sanitation, gender equality, reduction of inequality, sustainable energy, climate change, resource and bio-diversity conservation, which were implemented through Tata Chemicals Society for Rural Development (TCSRD), the Tata Trusts, Uday Foundation, Tata Chemicals Golden Jubilee Foundation and with various government and non-government institutions. Furthermore, to establish a sustainable livelihood, the company launched Ncourage Social Enterprise Foundation in 2018 to provide certain human needs, such as clean drinking water, nutrition, and clean energy.

Company's Covid-19 CSR Programs. Tata Chemicals took several pro-active steps to deal with the COVID-19 pandemic situation. The Mithapur hospital, run by Tata Chemicals, set up a separate flu screening center for 24 hours on March 18, 2020. Arrangements were done for free doctor consultation and free medicines. A school was also converted into a quarantine facility center by the company to withstand emergency medical situation. Also, to maintain the social distancing norms among the visiting OPD patients, the company provided tents, the hospitals built a temporary waiting area near the entry gate in the hospital premises. The company adonated INR 50 lakhs to the Gujarat Chief Minister Relief Fund.

The company supplied sodium hypochlorite for spraying (over 1.1 million liters in Gujarat and 4,20,000 liters to BMC, Mumbai) to sanitize and disinfect 43 villages around Mithapur. The company also provided 60,000 liters of hand sanitizers to Gujarat, Maharastra, Karnataka, Andhra Pradesh and Telangana. Along with this, regular sanitization programs in Mithapur and nearby areas like OkhaNagarpalika, Dwaraka Nagarpalika, Dwaraka Temple, Surajkaradi panchayat, Mithapur Township, District offices and Police stations of khambhaliya were also conducted. Moreover, the companies supplied over 44,000 face masks, 87,000 masks under Okai initiative, and another 2,00,000 masks were ready to use. To encourage the local community about the COVID-19 and related precaution and safety measures, Tata Chemicals conducted several awareness sessions from second week of March 2020 through posters and video campaign in 43 villages.

The company also provided food packets to support over 29,000 people belonging to the under-privileged community of the society across Gujarat, Tamil Nadu, Andhra Pradesh and Telangana. To ensure food security in near future, the company distributed 10,000 seed kits across 42 villages of Gujarat for kitchen gardening. Lastly, as one of the CSR initiatives, through TCSRD in association with Tata Community Initiative Trust (TCIT), the company commissioned the state-of-the-art Pressure Swing Absorption (PSA) Oxygen Plant at Mithapur hospital.

7.3 ITC Ltd

Company Profile. ITC Ltd is one of the India's leading private sector companies having a diversified business in various manufacturing fields, such as cigarettes, hotels, information technology, agri-business and confectionary, packaged foods, paperboards, branded apparel, personal care, safety matches, and stationery. The company was incorporated on August 24, 1910 and was initially named as Imperial Tobacco Company of India Ltd which made only cigarettes and tobacco. However, as the ownership of the company became Indianized, the name was first changed to Indian Tobacco Company Ltd in 1970 and then I.T.C. Ltd in 1974. It was the first company in India to voluntarily seek a corporate governance rating. Moreover, ITC was rated among the world's best big companies, Asia's 'Fab 50' and world's most reputable companies by Forbes magazine. The company was also recognized as India's most respected companies by Business World and India's most valuable companies by Business

Today. The newspaper Economic Times published that ITC was included among the 10 most valuable (company) brands in a study conducted by Brand Finance.

Company's CSR Policy. The role of the CSR committee is to guide the company in integrating its social and environmental objectives with its business policies and strategies. The committee formulates the annual CSR plan of the company, recommends the Board to implement those, monitors and reviews the company's business responsibility report with a view to fulfilling its Triple Bottom Line objectives. On the other hand, the board adopted certain codes of conduct of the company, which covered the company's CSR commitment and sustainability development to improve occupational health, address safety, security and environmental issues, maintain gender equality, transparency and auditability, and legal compliance in the workplace. However, the main focus areas of the company's CSR programs were based on comprehensive need assessment of its stakeholders, which are– create sustainable livelihoods and alleviate poverty, build better capabilities for future through education, training, sanitation, hygiene and waste management, promote healthcare facilities, protect national heritage, art and culture, and provide relief/ assistance to the victims of natural disasters. Moreover, the company aims to formulate its CSR program in the ways mentioned below so that it can make a long-term sustainable impact on the society– i) providing equal opportunities to the beneficiaries of the CSR programs, ii) establishing public-private-people partnerships to multiply the impact of the CSR programs, iii) carrying out CSR programs relevant to the local areas to fulfil the commitments arising out of requests of the government/ regulatory authorities, iv) developing the required capability and self-reliance of beneficiaries at the grass roots, especially for women, in the belief that these are pre-requisites for social and economic development, v) promoting sustainability in partnership with industry associations, like the Confederation of Indian Industry (CII) through the CII-ITC Centre of Excellence for Sustainable Development

In its policy, the company decided to implement such programs through the company personnel, external implementing agencies and various ITC trusts, such as ITC Education and Healthcare Trust and ITC Rural Development Trust.

Company's Covid-19 CSR Programs. Besides regular CSR activities provided by the ITC trusts, the company also undertook several social initiatives to support the affected class of community during the COVID period. As COVID-19 initiative, the company raised a

separate COVID contingency fund of INR 215 crores to provide relief to the deceased people of the society. This fund was utilized for the people whose livelihoods were severely affected during this pandemic situation. The company's relief activities included providing food and personal hygiene products to District Authorities and other governments whose initiatives targeted the weakest section of the society, supplying dry or cooked foods to the migrant labors, supplying PPEs to the district hospitals and frontline staff of the health department, and contributing to the PM CARES Fund. Additionally, the ITC Education and Health Care Trust provided financial assistance to Chief Minister's Relief Funds of the states. The ITC Rural Development Trust provided funds to supply food products, personal hygiene products, medical assistance to control the spread of the pandemic, and economic assistance to the poor people. During the second wave of the pandemic, ITC undertook several initiatives to fight against the disease. To ease the bottlenecks in transporting oxygen, the company imported 24 cryogenic containers, 20 tons each, in collaboration with Linde India Limited. The company also supplied oxygen to the hospitals in Telangana. To enhance the availability of COVID healthcare facility, the company made a provision of 600 beds with all medical facilities. The company also imported oxygen concentrators and generators to ease the burden on the country's healthcare system. Beside this, ITC also supplied PPEs and other essential healthcare infrastructure to hospitals in several states. ITC also helped Medica Super Speciality Hospital, Kolkata to set up a 200-bed medical facility for the treatment of COVID-19 positive patients and for administering vaccines.

7.4 Grasim Industries Ltd

Company Profile. Grasim Industries is one of the top-ranking private sector companies in India. This company was incorporated on August 25, 1947. Though it was started as a textile manufacturer in 1948, today Grasim's business involves viscose staple fibre (VSF), cement, chemicals and textiles. However, its core businesses are VSF and cement, which contribute to over 90 per cent of its revenues and operating profits. It is the largest exporter of Viscos rayon fibre in the country exporting to over 50 countries. This company is a part of Aditya Birla group. It was ranked 205 in the list of "Global 2000- Growth Champions 2018" by Forbes Magazine, USA. The company also won Dun & Bradstreet Corporate award in 2018 for stellar performance in the textile sector.

Company's CSR Policy. All CSR actions of Grasim's complied with Section 135 of the Companies act, 2013 and the rules made thereafter. All projects were formulated with an intention to fulfill the requirements of the community members in a participative way. The main focus areas of the company were education, health care, sustainable livelihood, infrastructure development and other social activities. To bring about social change, the company proposed and also supported dowry-less marriage, widow remarriage, awareness programs on anti-social issues, de-addiction campaigns and programs, and gender equality. Prior to starting any project, the company carries out a baseline survey of the villagers based on certain parameters, such as health indicators, literacy levels, sustainable livelihood processes, and population data. All projects are assessed and monitored every quarter. To measure the impact of the work done, a social audit is carried out by a third party of the company at a regular interval. The company set up a separate CSR center and started their social activities in collaboration with the Government, the District Authorities and different NGOs. All such CSR activities are disclosed in the company's website, annual reports and through the media. In the interest of societal and economic development of backward communities, the company donated a huge amount during COVID-19 in the financial year 2020-21, which exceeded the prescribed statutory limit by the Act, 2013 for CSR expenditure.

Company's Covid-19 CSR Programs. Grasim Industries adopted multifarious initiatives to support the underprivileged class of people during COVID-19. To support the weaker section and to help the nation fight against the pandemic, Grasim Industries Ltd extended its relief activities across 15 blocks and 298 Indian villages very efficiently. At the very beginning of the activities, the company started to build up various awareness programs through distribution of handbills, installing banners at public places, and regular public service announcements through mobile vans, covering over 3,70,800 beneficiaries. To enhance the healthcare services during the pandemic, Aditya Birla Hospital cooperated with the doctors and health professionals who were at the forefront of the fight against the disease. Moreover, the hospital activated its tele-consultancy services for COVID-19 patients. To provide sufficient care to the coronavirus patients, the Aditya Birla Hospitals at Nagda, Jagdishpur, Kharach and Ganjam built a separate isolation unit to treat patients. The isolation wards were equipped with ventilators and were prepared for swab tests for pre-screen patients. Grasim also provided beds and all COVID related medical facilities to Seven Hills Hospital in

collaboration with BMC, Mumbai. Swab test facilities were also provided to the truck drivers, who were actually on move at Ganjam.

As a precautionary measure, 7,000 Vitamin C tablets were distributed to the emergency staff, laborers and local people of the villages at Vilayat. The company also donated 2,00,000 face masks and 67,500 PPEs to Central Government approved healthcare agencies for the frontline fighters of the pandemic. The company also distributed masks to 1,06,000 villagers near the unit.

To disinfect and sanitize public places, Grasim's Veraval, Nagda and Ganjam units donated sodium hypochlorite, which benefitted over 3,05,000 community members. The units also conducted cleaning activities of public places in Veraval, Nagda, Ganjam, Vilayat, Kawar, Renukoot, Rishra and Halol, which benefitted 2,75,000 villagers. At Birlagram Police Station in Nagda, Grasim installed a disinfection tunnel to sanitize people entering and exiting the police station. Sprinkler sanitization provided by Grasim also aided 4,58,745 people of the local villages. Beside this, to give livelihood support to the community members; Grasim distributed 31,034 food packets to the needy section. A family ration kit which included wheat, rice, edible oil, spices and pulses was also distributed to 7,547destitute families. In addition, Grasim arranged a 1,000 litres water tank, mosquito nets, towels, water purifiers and LED bulbs to the Government Quarantine Centre.

7.5 Tata Power Ltd

Company Profile. Tata Power, previously known as Tata Electric, started generating electricity in India nine decades ago. Initially, the company started its operation as Tata Hydroelectric Power Supply Company in 1911. After five years, it was amalgamated with Andhra Valley Power Supply Company in 1916 and became the country's largest private power utility company. The company was incorporated on 18th September, 1919 at Mumbai. At present, Tata Power Group operates in 35 locations in India. Apart from Mumbai and Delhi, the company has generation capacities in Jojobera, Jharkhand and Karnataka. In addition, the company has expanded its wings to Singapore, Indonesia, South Africa and Bhutan also. Tata Power exists in all segments of power generation, such as thermal, hydro, solar, wind and liquid fuel, transmission, and distribution. Very recently, from 1st January, 2021 onwards, Tata Power took over power distribution in western and southern Odisha.

Moreover, it partnered with SIDBI to launch affordable and collateral-free financing for rooftop solar panels for MSMEs consumers.

Company's CSR Policy. Tata Power's CSR commitment actually followed the ethical values of the entire Tata Group. The main vision of Tata Power is to enable education and livelihoods in such a manner so that it fulfils the requirements of the target customers and aids to attain a sustainable development where the company actually works. The primary thematic focus areas of operation of the company are education, which includes both financial and digital literacy, employability for skill development for livelihoods, and entrepreneurship. Moreover, the company also engaged in women empowerment, community development and other developments of livelihood. In addition, Tata Power supports ecological programs, disaster reliefs and rehabilitation on need basis in selected areas. Mainly, the company's CSR committee outlines, reviews and monitors all the CSR activities of the company with respect to its CSR action plans. The company maintains all CSR expenditures through a separate unit, named Tata Power Community Development Trust and other non-profit organizations. Typically, the CSR programs of the company are implemented and monitored through a three-tier structure. The local volunteer team initiated the CSR activities in collaboration with the local NGOs and governments. The cluster and corporate teams supported in integrating the program design, budgeting, review and communications. Finally, the board members of the CSR committee provides strategic direction for its implementation and conducts quarterly monitoring of this.

Company's Covid-19 CSR Programs. Tata Power continuously worked and supported the nation during the period of COVID-19 crisis. During this pandemic, the company developed 'Plan', 'Protect', 'Enhance' strategy to safeguard its stakeholders and the community as a whole. To help the people during this crisis, the employees of the company contributed their 1-day salary to Tata Community Initiative Trust for COVID-19 response. The company started its COVID relief work by conducting COVID-19 general awareness programs through banners, leaflets, and an initiative called 'COVID Rath'. The company separately formed a Corona Village Disaster Management committee to ensure the health and safety of the villagers. To support the health care issues, the company shifted 1,000 beds to COVID -19 hospitals at Bandra Kurla Comlex ground. Beside this, the company provided medicines to local primary health care centers in Gujarat, which benefitted around 300 households. The company also provided disparate facilities, such as cashless mediclaim and medical advance

to most of the COVID-19 positive cases at various corporate hospitals. Moreover, helpline facilities were initiated to provide COVID-19 relief packages to help around 45,000 people. The company also provided tele-medical facility for maternal and child health services to 5,000 people collaborating with Integrated Child Development Services. Beside the above=mentioned health care aids, the company also distributed 7 lakh reusable masks and over 50,000 grocery kits, foods, fruits and sanitizers to over 2.4 lakh workers across 10 states. In collaboration with Taj Hotels, Tata Power provided more than 4,000 meals per day to doctors, nurses, medical staffs and COVID-19 patients in government hospitals of Delhi. For sufficient availability pf drinking water, the company ensured continuous portable water supplies to over 1 lakh people every day and operated and maintained RO plants at 22 locations. The company provided 500 home isolation kits, 10,000 rapid antigen test (RAT) kit, disposable masks, and thermal scanners. The company also distributed over 6,100 PPE kits, 15,250 immunity booster herbal support items, 7,625 hand sanitizers, 30,500 filter-based masks and 12,200 tablets across different regions of the country. Tata Power also donated over 2,000 oxygen concentrators to Odisha and Delhi through Tata COVID-19 task force. Along with this, the company also provided 5,000 oximeters, 5 generators and 250 cylinders to Delhi. To expedite the vaccination programs, the company supported government hospitals at Shiroli, established vaccination center in Patnus by providing one nursing assistant, one computer system, 3 beds, PPE kits for staff and bus facilities for villagers to get vaccinated at Patnus gram panchayat.

8. Discussion and Final Conclusions

From the analysis of the 5 case studies, the COVID-related CSR activities of the selected companies can be divided into 7 categories, namely test kit, mask and sanitation, vaccination, livelihood, awareness and consultation, and PM Care fund.

Table 4. The companies' COVID 19- related CSR in 2020-21

	Infosys	**Tata Chemicals**	**ITC**	**Grasim**	**Tata Power**
Test Kit	✓		✓	✓	✓
Mask & Sanitization		✓		✓	
Infrastructure for Treatment	✓	✓	✓	✓	✓
Vaccination	✓				✓

Livelihood	✓	✓	✓	✓	✓
Awareness & Consultation		✓		✓	
PM care Fund	✓	✓	✓		

The contributions of the 5 companies spanned over all the 7 categories, as shown in Table 4. Livelihood and infrastructure for treatment were the primary foci of the companies and all the selected companies contributed to these categories. In vaccination and masks/sanitization, the two immediate necessities to restrict the disease spread, all the companies but ITC contributed. Infosys, Tata Chemicals, and Grasim were found to contribute to maximum number of categories (5 out of 7 categories).

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Relationship between Cost of Equity Capital and Environmental-Social-Governance Disclosure level: An empirical study on select Indian Companies.

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Abstract

This experimental study is carried out from the curiosity how the Environmental-Social-Governance related disclosure level influence the equity cost from the standpoint of Indian companies. For this purpose a number of 50 companies which are enlisted in the NSE, one of the leading stock exchanges in India, are selected as the sample of analytical companies. We also prepare the ESG disclosure index by examining the annual reports of the earlier mentioned companies by adopting the content analysis technique for the period 2019-2020. This empirical study have analyzed from the following standpoints and run according regression models. Firstly we view from the point of overall ESG disclosure level, secondly from the component wise and lastly from the overall ESG level and component wise after eliminating the influence of other factors which are commonly known in the name of control variables like firms' size, profitability, market-to-book ratio and beta (unlevered). Here CAPM is used to computing the COE. The outcomes of this study statistically reveal that the overall ESG disclosure level with its each component is negatively influenced on the equity cost.

Keywords: Volume of ESG related information, Disclosure index regarding ESG information, COE and CAPM.

Introduction:

Over the last few years there has been a growing trend among the academician to examine the extent or volume of disclosing the information which are not measurable in monetary term, which are not highlighted in financial statements and which are not in the nature of financial information, in one word in non-financial categorical information and its effects on a business unit (Jones et al.,2005 & 2007).Publication of this kind of information has a great important towards management to highlight towards the stakeholders about the ability and sustainability of business organization. A good amount of disclosure regarding such type of information will enhance trust and confidence of investors by minimizing the information barrier between the management and investors that will help to improve the efficiency in finance allocation and to shorten the financial cost also (Vitolla & Raimo,2018).

On the other hand, Nirino et al.,2019 reveals that now a day's business organization operates their business organization with a motive to maximize their wealth instead of maximizing profit with more ethically and sustainably in order to fulfill the demand of investors, also known as market participants. Moreover, in such growing condition of awareness about the environmental disaster, protection of environment and its impact on the existence of business organization or its sustainability, they have to revise their traditional business models that are used in past and have to develop new strategy that will have an ability of sustainable development and grow with ethical manner (Kim et al.,2018; Lazarides & Goula,2018). Disastrous, reductive and polluted environment will ultimately not only create an obstacle in the way of growth or development but also destroy the ability of sustainable development in long run. Hence it is significant to reconsider various business consequences for future that will be benefited for their own existence like human. Garriga & Mele (2004) express that it will be possible for a corporation to maintain and development the possibility or scope of its existence through a continuous interaction among society, economy, environment, governance efficiency. And it is this understanding that has concreted the way of introducing a new concept of disclosure, namely Environmental-Social-Governance (ESG) disclosure.

And in this connection to fulfill the additional requirement of information according to this new concept at present the annual reports of a corporation include large volume of supplementary

information in the nature of non-financial disclosure specially ESG disclosure in addition to the traditional financial information with a motive to fill up the shortcomings of financial statement. There is no scope of doubt about the importance of financial statement. As still now the financial statement is very crucial in measuring a corporation's performance in commonly acceptable monetary term. Alternatively, we can say that it is the only and primary source from where all most all type of financial information can be obtained. From this financial information, derived from the financial statement we can only understand about the financial position, financial strength and other financial activities. But a business organization can only operate with the help of financial activity, it is not possible. There are some other important activities that are essential not only to operate the business but also to manage financial activity efficiently and plays a vital role in enhancing firm's value. But these are not measurable in monetary terms, so these are not published through the financial statement and these are commonly known as non-financial activities. The information relating to these non-financial activities is termed as non-financial information. In one word we can say that financial statements include only those activities that have already been completed and measurable in monetary terms. Hence financial statements represent historical information. For this reason, there has arisen a need of decision oriented non-financial information to enhance the usefulness of financial reporting (Kolk,2004).

Moreover, non-financial information specifically ESG related information permits firms to fulfill increasing curiosity of recent investors regarding to the practice on greenhouse gas emission, pollution control initiatives, waste management, gender equilibrium, retention & empowerment of human capital, customer satisfaction, brand loyalty, social reputation and governance policies, structure, efficiency that are directly concern with its sustainability in long run. Due to these characteristics of ESG related information, it covers a variety and multiplicity of stakeholders-government, money lenders, suppliers, employees, customers, and investors (Raimo et.al.,2019).Hence higher level of non-financial disclosures has an ability to minimize the probable information asymmetry between the business organization and investors that leads to higher transparency, higher confidence level, higher marketability, higher financial benefits and lower the equity cost (Vitolla & Raimo,2018).

Due to inadequacy of attention on the information regarding to environmental issues, social issues and governance issues the present study tries to highlight this unlighted portion by investigating the influence of Environmetal-Social-Governance related information on the finance cost specifically on the cost of equity capital from the perspective of Indian companies. As previous academician Tamimi & Sebastianelli (2017) argues that now a day ESG related information obtain a considerable importance in enhancing corporation's potential reputation, brand value and getting competitive advantageous and making fruitful investment decision. By staying with Eccles et.al.(2011) and Albarrak et.al.(2019) reveals that this kind of ESG related information is also considerably used by a variety of investors as a proxy measure of management's performance, quality and future scope. Therefore, the present empirical analysis explores the influence of ESG related disclosure level on the firm's cost of equity capital from points of view – one is overall ESG disclosure wise; second is component wise and last is jointly overall as well as component wise form the perspective of Indian companies.

For this empirical research we create a sample company by incorporating 50 Indian companies which are incorporated in India's one of the leading stock markets, namely, National Stock Exchange (NSE) based on their highest market capitalization value. ESG disclosure level is measured through the ESG disclosure index, by adopting a scoring process of ESG checklist using a value range 0-3. In this context all the secondary data are picked up from the annual reports of the under considered companies for the year 2019-20 using content analysis technique. On the other hand, the cost of equity capital is computed by considering the Capital Asset Pricing Model. In this empirical work the risk-free rate is calculated on the basis of 10 years government bonds' interest rate. Moreover, we also considered firm's size, profitability, market-to-book ratio and beta as control variable. Mentionable here we use unlevered beta instead of levered beta to eliminate the influence of financial risk as here we only considered cost of equity capital as overall cost of capital and ignore the cost of debts.

We design this study by placing the introduction portion in section-1. Section-2 is viewed with the other associated work, done by previous researchers and development of hypothesis. Section-3 and Section-4 are connected with methodology part and empirical finding's part respectively.

Finally, the present study is rolled up by discussing the empirical findings and by making a conclusion in Section-5.

Literature Review and Hypothesis Development:

Through this section we mainly report about the previous related research work, relating to our study. After careful reviewing previous studies, we also develop our hypothesis keeping in mind about the objective of the present study.

Several researchers look into the relationship between the volume of disclosure and the cost of equity capital from several angles- some of them analyze using the voluntary disclosure, some of them apply CSR disclosure, some of them devote financial disclosure, some them carry out with the help of intellectual capital disclosure. Botosan (1997) reveals that the cost of equity capital of a firm and its' the voluntary disclosure level are inversely affected with each other specifically for those corporations, having low analyst. Through an empirical work based on 73 companies which are registered in the Swiss Stock Exchange Hail (2002) supports the arguments of Botosan (1997). On the other hand, Espinosa & Trombetta (2007) expand the present knowledge in the field of relationship between the disclosure level and the cost of equity capital by emphasizing a negative association having an aggressive accounting policy by inspecting the annual reports of Spanish companies.

Apart from the voluntary disclosure Dhaliwal et al. (2011) highlight that companies having higher CSR related information can enjoy a competitive advantage of lesser cost of finance. In connection with CSR analysis Plumlee et al. (2015) pointed out that amount of ESG related information is inversely related with the COE.By going with Plumlee et al. (2015) in the same way Albarrak et.al. (2019) highlight the opposite findings of Clarkson et.al. (2013) report that the availability of information about the carbon emission has a significance influence in minimizing the equity cost. Where Clarkson et al. (2013) report an insignificant influence of environmental related information of a business unit on its' equity cost.

In respect of the association between the intellectual capital related information and the cost of equity capital Kristandl & Bontis (2007) express their opinion from two different aspects- in case of historical nature of intellectual capital information there exist a negative impact and in case of

forward moving information there exist an affirmative impact on the cost of capital. By supporting the argument of Orens et.al. (2009), Mangena et al. (2010) express thatthe expanded amount of intellectual capital related information minimizes the COE by lower the information gap, maximizing transparency level and confident level through analyzing 126 British corporations. Agreeing with Boujelbene &Affes (2013), Mondal & Ghosh (2020) express their opinion that overall intellectual capital disclosure has note worthy a inverse effect on the COE but in respect of its' three elements, human and structural capital both have the same influence as like overall intellectual capital on the COE but relational capital has no such influence on the COE. Alternatively, a group of researchers (Zhou et.al.,2017; Raimo et.al.,2020; Vitolla et.al.,2020) uncover that the COE of a business unit is negatively affected by the publication of integrated reporting, prepared on the prescribed pattern and format of IIRC (International Integrated Reporting Council) with a motive of minimizing estimation errors.

Summarizing what has been discussed so far, it stands that previous literatures have examined how the COE is affected by the several dimension of disclosure of non-financial category except the ESG related information. Therefore, it is the time to explore what is the nexus between the ESG categorical information and the COE and/or how ESG related information affect the COE of a business unit. ESG categorical information is also considered as an additional dimension of non-financial related information. As it is manifest (Albarrak et.al.,2019; Vitolla et.al.,2019 & Raimo et.al.,2020) that there has been a growing trend of using the ESG related information among the investors and other market participants in order to measure firm's capability for future value generation in the long term. A quality of governance practice, environment friendly and good social reputation are considered as the primary factors of strengthening the competitive power, enhancing earning capabilities, expanding opportunities, minimizing prediction or estimation errors or risk all are leads to higher firm's value. The inability of financial reporting of depicting this kind of non-financial information arise an information gap between the corporations and market participants. The disclosure mechanism about the ESG related information help to make a bridge between this gap which influences to minimize the COE through minimizing information gap, enhancing transparency level, achieving higher confident level, enhancing numbers of long-term investors, increasing market liquidity. Based on the above discussion we conduct this empirical work with a main motive of examining the effect disclosure

regarding to ESG categorical information on the COE from the perspective of Indian corporations.

Keeping in mind about the objectives of our present study we develop the below mentioned hypothesizes:

H_1: The overall ESG disclosure level has a negative impact on the COE.

H_2: The disclosure level relating to each component of ESG have also an adverse effect on the COE.

H_{2a}: Environmental disclosure (ED) is negatively correlated with COE.

H_{2b}: Social disclosure (SD) is negatively correlated with COE.

H_{2c}: Governance disclosure (GD) is negatively correlated with COE.

Research Methodology:

We conduct this empirical research from the following standpoints and run according regression models. Firstly, we view from the point of overall ESG disclosure level, secondly from the component wise and lastly from the joint influence of overall ESG level and component wise. With the pertinent the aim of this present study we use following mentioned methods and procedures.

Selection of Samples and Sources of Data:

The prime objective of this empirical research work is to test the nexus between the COE and the availability of ESG related information from the perspective of Indian companies. For that purpose, we select top 50 companies which are listed in India's one of the leading stock markets, namely, National Stock Exchange (popularly known as NSE) based on their market capitalization value for the year 2019-20. NSE is considered as a well-diversified stock exchange and covers almost all the economy sectors of India. In order to cover up a vast economic sector in our analysis and enhance the acceptability of our results we create a sample company with these 50 companies form the NSE. Wealso calculated the COE based on CAPM and measure the volume of ESG related disclosure using this sample companies for a period of 2019-20.Here content analysis skill is applied for the scoring purpose of ESG disclosure checklist and for the

collecting other required data. For the analytical purpose mainly, we use the secondary data which are directly collected from the annual reports of the under considered companies for the present study.

Dependent Variable:

For this empirical study the cost of equity capital (COE) is considered as the dependent variable. The COE may be defined as the rate of return which is used by the investors to discount the future earnings to equate present stock price. Alternatively, it can be said that it is the minimum rate that claimed by the financiers in respect of compensating their amount (Eston,2004; Botosan et al.,2011). Hence it is very crucial to both parties – to the investors as well to the corporation. But there have been no uniform methods of computing this cost of equity capital. Different academician have applied different models in computing this variable in their research work like – dividend rate model, dividend growth model, average realized return rate model, price-earnings model, price-earnings growth model, capital assets pricing model.

Though Elton (1999) have gone with the average realized return rate by providing the fact that it has been a lowering rate of return than the risk-free rate in the long run, but these results have been criticized by the Fama & French (2000) and Gebhardt et al. (2001) with an explanation that there is no link up between the return which is realized and market beta. Alternatively, dividend models are completely depended on dividend. So, this model is not suitable for those companies who are not paid dividend. More it is very difficult to determine growth rate. Raimo et al. (2020) have applied the price-earnings growth (PEG) model with an explanation that this model eventually correlates risk-return, but there exists an unrealistic assumption in this PEG model that the earnings will grow at a constant rate in every year. But in real it is hardly possible to grow in a constant rate in each year. That is why in this research work we use the CAPM to obtain the COE. The CAPM is over perform than other models in terms of proper interaction with market sensitivity and free from unrealistic assumption. Under this model cost of equity capital is computed with a combination of risk-free return and risk premium, using the following mention formula:

$$COE = R_f + \beta (R_m - R_f)$$

Here R_f indicates the risk-free rate; β represents the variability of an individual security's return in respect of overall market return; (R_m-R_f) reveals the market risk premium – excess of market return over the risk-free rate. Here 10 years government bond's interest rate is considered as the risk-free rate.

Independent Variable:

In the present study ESG disclosure level is taken as the independent variable. And this ESG disclosure level is measured by calculating ESG related disclosure index by scoring the self-generated disclosure checklist based on the previous literatures (Clarkson et.al.,2008; Plumlee et.al.,2008; Zahller et.al.,2015). This ESG disclosure levels represent the transparency level of a business corporation in reporting ESG related information and is also used as a measuring stick of its sustainability by the investors. This ESG related information is collected from the annual reports, sustainability reports and any other additional reports, respective company's website. This ESG related disclosure checklist is scored based on the presence or absence of the predetermined ESG disclosure representative items form the three segments of ESG – Environmental segment, social segment and Governance segment by assigning a value from 0 to 3 according to their representing pattern. Environmental segment includes greenhouse gas emission, air pollution, social pollution, water preservation, preservation of non-renewable energy, use of renewable energy; social segment expanse social reputation, employee's relation, customer satisfaction, impact on society and community and governance segment cover up board structure, board efficiency, board policies (Ioannou & Serafeim,2014). A value of '0' is given if the representative items are not disclosure any more in the any reports or other way; a value of '1' is given if the items are published in descriptive way; a value of '2' is put if the items are disclosed in numeric form and '3' is given if the items are presented in descriptive and numerically. Finally, ESG disclosure index is computed by dividing the actual score by the maximum score.

Control Variable:

As we know the COE is depend on multiple factors like market sensitivity, earning capability etc. To get an unblemished association between the earlier mentioned independent and

dependent variables that means between the ESG disclosure level and the COE we have considered a group of relevant and recent used control variables- firm's size, profitability, market-to-book ratio and beta (unlevered) in the below mentioned econometric model (Botosan et.al.,2011; Salvi et.al.,2018).

Firm's size (SIZE) is considered as the representative of market position or holding of market share and it is enumerated by simple logarithm of market capitalization value. Cavaliere & Costa (1999) and Botosan et al. (2011) underline that firm's size and cost of equity capital are inversely connected with each other with an explanation that larger firm's posse higher capability of bearing extra cost of expansive disclosure, that leads to less risky as comparative smaller one. Profitability (PRFTY) is taken as the proxy measure of satisfactory earning capability and it is computed by dividing the amount of profit after tax by the equity share capital. Here we assume that an inverse relation exists between the profitability and cost of equity capital (Surroca& Tribo,2008). Similarly, Mazzotta & Veltri (2014) reveals that the cost of equity capital is negatively related with the market-to-book ratio (MBR) with an explanation that a corporation having higher market-to-book ratio has more future growth opportunity and higher earnings. And this variable is obtained by dividing the market value by the book value of equity share at the end of a financial year. And lastly beta is computed by comparing the volatility between the market and a firm's specific stock and here we also assume that beta is positively associated with the cost of equity capital because beta has a direct influence on the finance cost. In this empirical study we use unlevered beta instead of levered beta as levered beta includes market risk and financial leverage risk (Hamada,1972). In order to eliminate the financial leverage risk, we obtain unlevered beta (BETAu) by levered beta by the one plus debt-equity ratio (Botosan& Plumlee,2011).

Research Model:

To examine the nexus of the ESG disclosure level with the COE we construct the following research models based on the 50 NSE listed companies for the time frame 2019-20.

$$COE_{it} = \beta_0 + \beta_1 ESG_{it} + \beta_2 SIZE_{it} + \beta_3 PRFTY_{it} + \beta_4 MBR_{it} + \beta_5 BETAu_{it} + \varepsilon_{it} \quad \ldots\ldots\ldots (1)$$

$$COE_{it} = \beta_0 + \beta_1 ED_{it} + \beta_2 SD_{it} + \beta_3 GD_{it} + \beta_4 SIZE_{it} + \beta_5 PRFTY_{it} + \beta_6 MBR_{it}$$

$$+ \beta_7 BETAu_{it} + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots (2)$$

$$COE_{it} = \beta_0 + \beta_1 ESG_{it} + \beta_2 ED_{it} + \beta_3 SD_{it} + \beta_4 GD_{it} + \beta_5 SIZE_{it} + \beta_6 PRFTY_{it} + \beta_7 MBR_{it} + \beta_8 BETAu_{it} + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots (3)$$

Here COE indicates the Cost of Equity Capital; ESG suggest the environmental-social-governance disclosure the Environmental Social and Governance Disclosure Level; ED, SD & GD intimate about the Environmental Disclosure, Social Disclosure and Governance Disclosure respectively; *SIZE* relates to Firm Size; *PRFTY* relates to Profitability; *MBR &BETAu* report about the Market-to-Book ratio and Unlevered Beta respectively.

The first model represents what is the relation between the overall ESG disclosure and COE. But the second model underlines the component wise relation with the COE and the third model reports about the joint influence of overall ESG disclosure level and component wise disclosure level with the COE. And the results which are obtained from these three regression equations are displayed and discuss in the following sections.

Result Section:

This portion of my study reports about the various statistical results - start with descriptive and correlation results and thereafter with the regression results.

Descriptive and Correlation Analysis:

The Table-1 demonstrations the descriptive statistics of all the variables considered in the above-mentioned research models and Table-2 represents the Pearson's correlation coefficients of all the variables considered in the above-mentioned research models.

Table -1: Descriptive Statistics

	Mean	Std. Deviation	Maximum	Minimum	N
COE	11.8018	2.88977	18.11	5.50	50
ESG	.4203	.05141	.52	.31	50
ED	.4763	.09606	.67	.27	50
SD	.3820	.04902	.50	.29	50
GD	.3663	.04572	.44	.27	50
SIZE	11.4219	.75774	13.07	9.77	50
PRFTY	.1787	.15414	.51	-.16	50
MBR	6.6931	9.31040	27.00	-13.62	50
BETAu	.6739	.42509	1.60	-.25	50

The results of the descriptive statistics confirmation that the mean value of overall ESG disclosure level is 0.4203 and the mean values of ED, SD and GD are 0.4763, 0.3820 and 0.3663respectively. From the mean value of overall ESG disclosure (0.4203) it can be said that the ESG disclosure level is still moderate in case of Indian companies as compared to the same disclosure level of other countries (Habib,2017). From the mean value of three components of ESG it is cleared that environmental disclosure major contribution towards overall ESG than the social and governance disclosure. The mean value of SIZE is 11.4219, connotes that big companies are included in sample companies. Alternatively, the mean value of profitability highlights better earning capabilities of under taken companies. It is also reflected that the sample companies possess better market capitalization value from the mean value of MBR (6.6931). The standard deviation values reports that there exist deviations among the variables.

Table – 2: Pearson's Correlation Coefficients

	COE	ESG	ED	SD	GD	SIZE	PRFTY	MBR	BETAu
COE	1.000								
ESG	-.122* (0.066)	1.000							
ED	-.195** (0.037)	.807	1.000						
SD	-.114* (0.071)	.467	.116	1.000					
GD	-.033	.616	.330	.472	1.000				
SIZE	-.249	-.036	-.017	-.121	-.116	1.000			
PRFTY	-.287*** (0.009)	.151	.130	.029	.170	.223	1.000		
MBR	-.011** (0.017)	-.030	-.001	-.131	-.026	.217	.593	1.000	
BETAu	. 769*** (0.000)	-.141	-.169	-.100	-.021	-.081	.017	.016	1.000

Here, '***' indicate at 1% and '**' indicate at 5% and '*' indicate 10% significance level respectively.

The primary motive of this empirical work is to inspect the nexus amid the ESG disclosure level and COE. Therefore, in order to know the relation between these two predictor and outcome variable and other control variables we go through the Pearson Correlation coefficients. The results of correlation table show that the COE is negatively and statistically significantly correlated (-0.122, p value = 0.066) with the overall ESG disclosure level for the year 2019-2020. Moreover, from the view point of component wise all the three components are negatively associated (-0.195, -0.114 & -0.033) with the COE but the relation of environmental and social disclosure with the COE are statistically significant (p value = 0.037 & 0.071 respectively) at a 5% and 10% level but the relation of governance disclosure with the COE is not statistically significant. Hence the overall ESG disclosure level and each segment of ESG are negatively connected or correlated with the COE.

The table-2 also exhibits that the highest correlation value is 0.769 between the COE and BETAu. It can be said that all the under considered variables are free from the multi-collinearity issues as the highest correlation value lies within 0.80 (Habib 2017). In this case we ignore the correlation between the variables of overall ESG disclosure and its one of the leading

components namely environmental disclosure. As this environmental disclosure much contribute towards overall ESG disclosure level. Further, we also test the multi-collinearity issues using variance inflation factor (VIF) in respect of the earlier mentioned regression models as represented in tables 3(i), table 3(ii) and 3(iii). From table-3(i) the maximum VIF value is 1.869, from the table-3(ii) is 2.043 and from the table-3(iii) is 2.694 which are below 10 that indicate all the under taken variables are free from collinearity problem and eventually the regression models are free from multi-collinearity problem. As a VIF value of 10 is considered as a thumb rule for measuring the collinearity issues relating to a variable (Hail & Leuz,2006).

Multiple Regression Analysis:

The below mentioned Table-3(i) confirmations the regression results for model-1 that examine the impact of overall ESG disclosure on the COE; the regression results of model 2 which is employed to test the component wise relationship with the COE are reported in Table-3(ii) and the Table-3(iii) recounts the regression results of model 3 which is analyzed the joint effect of overall and components wise disclosure level of ESG related information on the COE. The Adj.R^2 values for the models are 0.564, 0.536 and 0.582 respectively that implies the models can explain or describe approximately 50% - 60% variance in the dependent variable i.e. COE for the predictor variable i.e. ESG disclosure. The F-stat values are 23.451, 21.926and 39.008 respectively at 1% significance level which indicate all the models are good fitted models. But the third model is to be considered much better fitted model than the other two models as third model possess highest Adj.R^2 value with a higher explanatory power of predictor and outcome relationship.

Table – 3(i) Regression Coefficients for Model no.-1			
	Beta	t	VIF
(Constant)		38.118*** (0.000)	
ESG	-.010	-.078** (0.042)	1.065
SIZE	.069	0.659	1.047
PRFTY	-.287	-2.767*** (0.002)	1.763
MBR	-.004	-0.036* (0.086)	1.869
BETAu	.768	9.030*** (0.001)	1.190
Adj.R^2	0.564		
F-Stat	23.451*** (p = 0.000)		
Durbin-Watson	2.107		

Here, '***' indicate at 1% and '**' indicate at 5% and '*' indicate 10% significance level respectively.

The regression outcomes of model-1, placed in table-3(i) reveals that overall ESG disclosure level has a negative (coefficient is -0.010 with a p value 0.042) influence on the COE with statistically proved at 5% level. Alternatively, we can say that higher the overall ESG disclosure levels lower the COE. This finding confirms our first hypothesis. All the control variables statistically follow their hypothetical sign except firm's size. Higher the profitability higher chance of providing higher dividend rate or bonus share, higher growth opportunities, that leads to inverse effect on COE (Surroca & Tribo,2008). Higher market-to-book ratio informs to higher the market value or firm value. And higher the firm value dominant on finance cost. Hence it also negatively associated with the COE (Burgwal & Vieira,2014). As we know that systematic risk has a direct influence on the COE. And this systematic risk is represented by beta-higher beta higher systematic risk and higher COE. Therefore, beta is positively connected with the COE (Ghoul et al.,2011).

Table – 3(ii) Regression Coefficients for Model no.-2			
	Beta	t	VIF
(Constant)		35.084*** (0.000)	
ED	-.055	-.766** (0.023)	1.174
SD	-.070	-.920** (0.041)	1.337
GD	-.089	-1.110	1.488
SIZE	-.051	-.852	1.137
PRFTY	-.328	-4.094*** (0.003)	2.043
MBR	-.310	-4.005* (0.067)	1.911
BETAu	1.039	15.277*** (0.000)	1.475
Adj.R^2	0.536		
F-Stat.	21.926*** (p = 0.000)		
Durbin - Watson	2.096		

Here, '***' indicate at 1% and '**' indicate at 5% and '*' indicate 10% significance level.

On staying on the same rope, the regression results of model-2, reported in table 3(ii) suggest that the COE is adversely linked (coefficient are -0.055, -0.070, -0.089 respectively) with each component of ESG disclosure level. This inverse relation of environmental disclosure level and social disclosure level with the COE are statistically proved (p value = 0.023 & 0.041) at 5% level. The governance disclosure level is negatively related with the COE, but not statistically significant. Hence each component of ESG has an influence in reducing the COE. Here also all the control variables are negatively related with COE. Profitability and unlevered beta are statistically significance at 1% level but MBR is significance at 10% level.

Table – 3(iii) Regression Coefficients for Model no.-3			
	Beta	t	VIF
(Constant)		87.288*** (0.000)	
ESG	-.025	-.181** (0.045)	2.694
ED	-.151	-.650** (0.031)	2.360
SD	-.104	-.951* (0.071)	1.945
GD	.059	.560	1.859
SIZE	-.043	-0.541	1.202
PRFTY	-.267	-2.104*** (0.003)	1.445
MBR	-.114	-1.351* (0.091)	1.625
BETAu	.738	10.785*** (0.000)	1.212
Adj.R^2	0.582		
F-Stat	39.008*** (p = 0.000)		
Durbin - Watson	2.207		

Here, '***' indicate at 1% and '**' indicate at 5% and '*' indicate 10% significance level respectively.

When we considered overall ESG disclosure level with its three components in a single regression, we get slide different result. This regression results are placed in table-3(iii) which shows that overall ESG disclosure level with its environmental and social components are negatively connected with the COE with a coefficient value -0.025, -0.151 & -0.104 respectively and these are also statistically successful (p value = 0.045, 0.031 & 0.071 respectively) at a 5% and 10% level. Only governance related disclosure is connected with the COE with an opposite sign and statistically insignificant.

Discussion & Conclusion:

The findings of this empirical study underline that a corporation can be benefited through the reduction in its cost of equity capital by disclosing ESG related information in a wide angle. This empirical study also enhances the area of existing studies by incorporating a supplementary dimension of non-financial categorical information in respect of ESG related information in minimizing a firm's finance cost, here equity cost. Earlier researchers have already been shown that voluntary disclosure (Espinosa &Trombetta,2007), disclosure of financial related information (Richardson & Welker,2001), disclosure of CSR related information (Harjoto & Jo, 2015), disclosure of environmental related information (Dobler et al.,2014), disclosure of carbon emission (Hahn et al.,2015), disclosure of intellectual capital related information (Mondal& Ghosh,2020;Boujelbene & Affes,2013) have a negative impression on the cost of equity capital. Moreover, this study contributes that the disclosure of ESG related information has also a negative control over the cost of equity capital. Hence the outcomes of this study also reveal that the adverse influence of ESG related information on COE is not exception in India also.

ESG related information permits firms to fulfill increasing curiosity of recent investors regarding to the practice on greenhouse gas emission, pollution control initiatives, waste management, gender equilibrium, retention & empowerment of human capital, customer satisfaction, brand loyalty, social reputation and governance policies, board structure, efficiency of managers that are directly concern with its sustainability. That is why at present market participants specifically in India provide much attention towards this ESG related information in order to measure firm's ability for value creation in the long term. A quality of governance practice, environment friendly and good social reputation are the primary factors of strengthening the competitive power, enhancing earning capabilities, expanding opportunities, all are leads to higher firm's value. The inability of financial reporting of depicting this kind of non-financial information arise an information gap between the corporations and market participants. The disclosure mechanism help to make a bridge between this gap which influences to minimize the COE through minimizing information gap, enhancing transparency level, achieving higher confident level, increasing market liquidity.

This empirical study tries to observe the influence of ESG related disclosure on the cost of equity capital from the perspective of Indian corporations. This empirical research also expands the existing knowledge by incorporating ESG disclosure as an additional dimension of non-financial categorical information, effecting on the COE by the findings of this study that there exist an opposite directional relationship between the ESG related disclosure and cost of equity capital.

In order to obtain higher level of competitive advantages, earnings capabilities and growth opportunity the management of Indian companies are showing much attention on disclosure of ESG related information to mitigate information asymmetry, to maintain transparency level, to attract long-term investors and to get financial benefits. Alternatively, managers are conscious of presenting environmental protection information, information about water reservation, reservation of non-renewable resources, usage of renewable resources, social reputation, information about social well fair, employees' relation, customer satisfaction, information about governance policies, structures, board efficiency in order to provide a signal to the investors and other stakeholders about their sustainability in long run. As this kind of information can't obtain from the financial statement.

Nevertheless, this study is also not free from limitation like others. The first drawback of this study is connected with the sample size. Here we only considered top 50 companies which are listed in NSE. Findings may vary with a higher sample size or with companies, listed in other stock exchange. Moreover, finding may vary with the selection of other model of computing cost of equity capital. Hence future work may be directed toanalyze this relation with a higher sample size by adopting different methods of computing COE for higher periods.

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